11

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11. *Display lights* (top) were designed for executive meeting room, disappear into ceiling when not in use. They turn one end of meeting room into effective stage.

12. *Invisible light sources* (center row above) were used throughout building. Here they spill a wash of light over conference-room walls, and make a pool of light on conference table. Lighting Consultant Richard Kelly, in collaboration with Lighting Designer Edison Price, used concealed light sources to illuminate marble-faced elevator stack in lobby, and to light paintings and tapestries in Seagram offices. Result: one of the best-illuminated buildings ever constructed.

13. *Luminous ceiling* forms a continuous 11½-foot-wide band around the perimeter of the building. Office (above) was designed by Ketchum & Sharp for O. E. McIntyre, Inc., shows modular ceiling grid in outside offices and corridor, plus a low-brightness system for interior office spaces. This system provides excellent light at desk surfaces. Each night, the luminous ceiling band is lit up on every floor, provides a dramatic spectacle on Manhattan's sky line (right).

Architectural Forum / July 1958

GEORGE CSERNA

ALEXANDRE GEORGES

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Ludwig Mies van der Rohe.
Seagram Building,
New York, 1954–1958.
From *Architectural Forum*
109 (July 1958).
Photos: George Cserna,
Alexandre Georges,
Ezra Stoller © Esto.

Stimmung at Seagram: Philip Johnson Counters Mies van der Rohe

PHYLLIS LAMBERT

By his own account, Philip Johnson's eyes filled with tears when Mies van der Rohe offered him a partnership as coarchitect of the Seagram Building: "Shall we make it Van der Rohe and Johnson?"[1] But ironically, although he had been an acolyte of Mies, Johnson was just beginning to break away, to develop his own approach to architecture. Addressing the modalities of Johnson's evolution, this essay draws on new research for a forthcoming book on the building of the Seagram headquarters in New York. The material belongs to a chapter on the design of Seagram as "Ur-building," in which I go beyond my own long-held assumptions in denying Johnson a significant role in the building's design to reveal some little-discussed aspects of his remarkable contribution to the project. As the book is based on my own involvement with Seagram from 1954 to the present as Director of Planning and "client," it is of course a highly personal account. My method has been to use brainstorming techniques to set aside familiar assumptions and tap into my own enormous bank of memories and to consider these in light of the historical documents—my files and papers, letters and texts written at the time, documents in the Seagram archives, an extensive bibliographical database of articles on the building—as well as the writings of Mies, Philip, and others. The process has led to a number of insights that have in turn opened up fresh lines of investigation that might well not have been undertaken otherwise.

Gesamtkunstwerk

From the outset, Philip Johnson was interested in the Seagram Building as *Gesamtkunstwerk,* a synthesis of elements that results in a work of "total design." Alfred Barr, director of the Museum of Modern Art (MoMA) in New York, had oriented him in this direction in 1932 when he suggested putting on an industrial design exhibition. The next year, while Johnson was the first director of the department of architecture and the industrial arts, Barr asserted that his program "would be of equal importance to anything [that] we do in painting or sculpture,"[2] and, indeed, with the exhibition "Machine Art" that opened in 1934, the

museum gained a reputation for establishing standards in design. Before I selected Mies as architect for the Seagram Building, Philip took me to Philadelphia to visit Howe and Lescaze's Philadelphia Saving Fund Society building (1929–1932). There Philip commented on the attention paid to the interior in relation to the exterior of the building. While I recall that his appreciation of the interior was greater than his interest in the exterior, Philip considered this Depression-era work to be the epitome of "total design."

Philip, who knew that Mies's primary concern was the articulation of structure, form, and material, quickly grasped the fact that Seagram presented an unusual opportunity to improve on many of the standard industrial design elements used in office buildings: doors, elevator cabs, hardware, lighting and plumbing fixtures, and room partitions, as well as lettering and signage. Johnson reserved this role for himself, but his contribution to Seagram would prove to be even more far-reaching than he could have foreseen, eventually expanding to include the design of entire office floors, lighting strategies for the whole building, the display of artwork, the fountains on the plaza, and the design of the great rooms that merged with the public space at the plaza level. Philip used powerful theatrical effects to interiorize the dramatic exterior substance of Mies's building.

Six months after Seagram opened in January 1958, the July issue of *Architectural Forum* carried a first glimpse of the completed building. Surprisingly, the article focused on Philip's intentions. "Seagram's Custom Look: 13 New Ideas for Better Skyscraper Design," was an unsigned, nuts-and-bolts piece written for a trade magazine. The *Forum* critic called Seagram "a half-million square foot laboratory in which new and special office designs are being tested in actual use," crediting the architects with refusing "to accept a standard material or standard method if they could see ways of improving it."[3] The numerous pragmatically captioned illustrations stressed those elements destined to become part of commercial product lines, "a whole catalogue of innovations that may soon affect office building design throughout the U.S." The *Forum* critic captured Philip's intentions and inadvertently pointed up the state of the building art in the late 1950s.

Two of the thirteen "new ideas" were rooted in Mies's fundamental architectural conception and language: the bronze and glass curtain wall and Seagram's air-conditioning system, which "made floor-to-ceiling glass walls practical for the first time." However, one could easily imagine that Philip was the *Forum* critic's amanuensis, because the other eleven "new ideas" were Philip's: controlled Venetian blinds, "specially designed to stop in only three positions," producing "façade patterns that always look neat"; "floor-to-ceiling doors" that "added nothing to the cost," and

were made to "look like integral parts of [the] paneling," giving the "interiors greater unity"; movable floor-to-ceiling partitions, stock items redesigned and "greatly simplified in detail" for Seagram; floor-to-ceiling elevator doors revealing the custom-designed panels of an interwoven stainless steel and bronze mesh lining the elevator cabs; signage in a serifed Egyptian Bold font designed by Elaine Lustig for use throughout the building; custom faucets and other washroom fittings; and door handles and signal hardware fabricated in brushed aluminum and stainless steel at a "very, very, minimal" cost over top-quality hardware, according to the manufacturer.

The floor-to-ceiling travertine slabs for an executive washroom allowed the *Forum* critic to discuss the ceiling grid and custom-designed fixtures. However, there was no mention of the fact that this was clearly *not* a stock item but instead derived from a sumptuous Johnsonian concept for a travertine room. In fact, it introduced a new Philip Johnson, one who had begun to lavish rich and sensuous materials on bathrooms. Already in the late 1940s he had used leather "tiles" to line the walls of the circular bathroom of his own Glass House, forming a warm, tactile skin that exuded a musk-like scent. Ten years later another critic described the men's and women's washrooms Philip designed for the Four Seasons restaurant as "palaces," "the former in Bardiglio Fiorioto marble and Macassar ebony, the latter in Rose Portas, rosewood, and gold Fortuny [cloth] with theatrical vanities surrounded by [low-wattage] bulbs . . . [with] marble shelves containing ashtrays adjoining each stool."[4]

The last page of the *Architectural Forum* article was devoted to three "new ideas" in lighting. A grouping of small images pointed to certain specific lighting effects employed in the Seagram Company offices as well as in other spaces in the building: display lights that disappear into the ceiling when not being used; and "invisible" or "concealed light sources" that "spill a wash of light over conference-room walls, and make a pool of light on [a] conference table." One passage commented on the role of lighting designers—a profession, I may add, that was undeveloped as an art form at the time: "Lighting Consultant Richard Kelly, in collaboration with Lighting Designer Edison Price, used concealed light sources to illuminate [the] marble-faced elevator stack in [the] lobby, and to light paintings and tapestries in [the] Seagram offices. Result: one of the best-illuminated buildings ever constructed." To illustrate this last of "13 New Ideas for Better Skyscraper Design," a half page was devoted to what must at the time have been an astounding image of the Seagram Building. The *Forum* critic concluded with an evocative description that took in the urban context: "Each night, the luminous ceiling band is lit up on every floor, [and] provides a dramatic

spectacle on Manhattan's sky line." Philip's involvement with all aspects of the lighting for Seagram, though unacknowledged by the *Forum* critic, is a pivotal part of my story.

Lewis Mumford, whose "Lessons of the Master" appeared in his "Sky Line" column in *The New Yorker* on 13 September 1958, summed up his critical assessment of the effect of the Seagram Building shaft, the plaza, and the lighting:

> It needs no ornamental fixtures other than those it has in order to increase this human quality [serenity]; all it needs—and it already has these, both by day and by night—is people capable of enjoying the primal aesthetic pleasures: ordered space, air, the spray of fountains on one's face, and sunlight or the regal mixture of black and gold that greets one from the lighted building at night.[5]

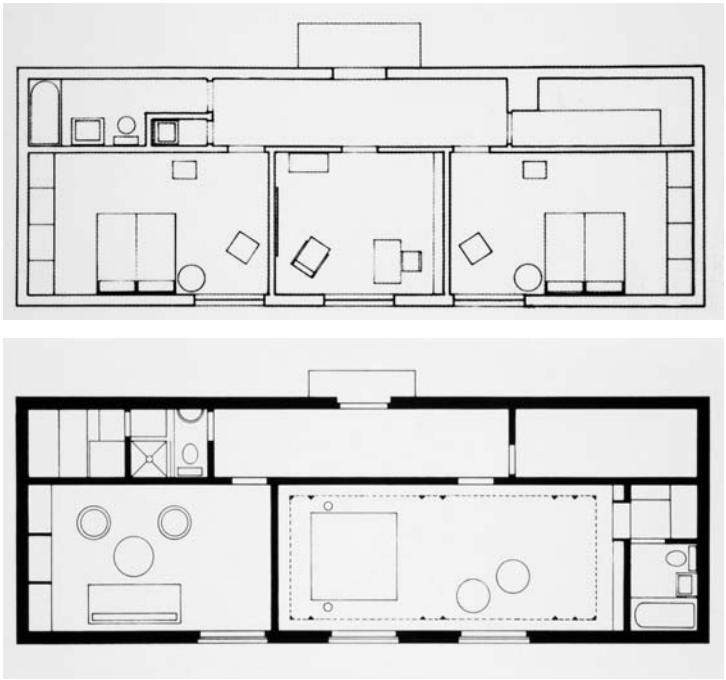
Mumford alluded to the different hands in the design:

> In accounting for the qualities that distinguish this edifice, one is safe in assuming that they derive, directly or indirectly, from the Master himself. To acknowledge this is not to diminish the contribution made by his associate, Philip Johnson, an avowed if by now an independent disciple.[6]

Within ten days of the publication of Mumford's piece, I wrote to him:

> You might be interested in knowing who did what. . . . Philip played a very minor role until Mies suggested that the building would be nice lit up at night. Then came the ridiculous business about Mies's license and Mies went back to Chicago. At that point Philip's office took over.[7]

From the end of December 1955 until early February 1957, Philip Johnson was legally the sole principal architect of the Seagram Building. Mies felt himself to be driven from New York at the end of 1955 when his application for professional membership in the New York State chapter of the American Institute of Architects (AIA) was refused on the grounds that he had not provided evidence of an acceptable high school diploma. The AIA refusal demonstrated a lack of architectural culture, at least in the bureaucratic levels of the AIA, and also showed the resistance that émigrés from Europe encountered in professional organizations in New York State during the 1940s and 1950s. For Philip, who had only recently left MoMA to open his own office, Mies's physical absence gave him a newfound authority that enhanced his growing sense of assuredness as an architect. Although he sought Mies's approval on all major design decisions, Philip was now in charge of the office,



Philip Johnson.
Brick Guest House,
New Canaan, Connecticut.
Top: Plan of 1949.
Bottom: Plan of 1953.

and he remained so even after Mies's license application was accepted by July 1956. From then on Mies "visited" the office rather than headed it.

Left in charge early in 1956 Philip began work on the lighting and two autonomous interior spaces in the Seagram Building: executive offices for the Seagram Company and the restaurant Mies asked him to design—or, as Philip put it, "gave up" to him.[8] The Four Seasons was installed in the ground floor of the low east wing, within the free-span volumes Mies had created at each end. With the exception of the lighting, the "good design" elements Philip contributed to Seagram (those lauded by the *Forum* critic) constitute a body of two-dimensional elements applied to the surface planes of the building. They affect perception of the building rather than its essence. However, the restaurant Johnson designed, still unseen in 1958, would come to have an importance that exceeded what anyone could have imagined.

With the Four Seasons Philip achieved the ultimate *Gesamtkunstwerk* in which theatrical interior effects are locked into reciprocity with Mies's structural language. Furthermore, the offices for the Seagram Company and the lighting design for the building, although treated matter-of-factly in the pages of *Architectural Forum* and also by myself in the above-mentioned letter to Mumford, were highly distinctive. It is ironic that Philip made his most significant contributions to the Seagram Building just as he was moving away from Mies and beginning to find his own voice.

Light

Philip's first constructed move away from Mies occurred during the remodeling of a bedroom of his Brick Guest House, conceived as a foil to his Glass House at New Canaan, Connecticut. In 1966 Henry-Russell Hitchcock remarked on this shift,[9] and thirty years later Philip himself confirmed it, calling the insertion of a vaulted ceiling in the brick building "my first break from the International Style."[10] In 1953, four years after it was finished, Philip remodeled two of the three rooms of the Guest House, forming one long, narrow space in which he hung a series of canopied plaster vaults from the ceiling, carrying them to the ground on thin "pilasters."

> The insertion of the vaults came out of discussions with Dick Kelly, my lighting man. Lighting from around a concealed roof [*sic*] gives a wonderful light in the room. Having got that idea straight, then I thought at once of John Soane's breakfast room at his house in London. . . . This is the first time I used that vault. . . . It's a copy of Sir John Soane. It's the first time I used anything as definitely historical as that.[11]

Philip later admitted that the solution had more to do with Robert Adam's remodeling of the long narrow space of the Library at Syon House.[12]

Philip Johnson. Bedroom of Brick Guest House, 1953. Photo: Ezra Stoller © Esto.

Much has been made of Johnson's use of historical sources, beginning with his now famous *Architectural Review* article of 1950, in which he cited the sources for the design, composition, and siting of the houses at New Canaan.[13] In addition to claiming Mies as his generative model, Johnson referred to Mies's contemporaries Van Doesberg, Le Corbusier, and Malevich on the relationship of forms, and to Mies's "mentor" Karl Friedrich Schinkel for the "pure neo-classical Romantic—more specifically Schinkelesque" way of siting buildings. He attributed to Claude Nicholas Ledoux the idea of separating the functions of Glass House and Guest House into two absolute cubic forms,[14] pointed to the influence of nineteenth-century historian Auguste Choisy's analysis of movement at the Acropolis at Athens, and quixotically, always wanting to surprise, Philip linked his own interest in bucolic settings and eighteenth-century British models to the obscure estate of Count Pückler in Silesia.[15]

Johnson had begun to learn about architecture based on a curriculum laid out for him by Alfred Barr at the end of the 1920s, when Johnson made a close, firsthand study of both historical and contemporary architecture in Europe. However, on his own in 1930, Johnson focused on Mies, and then in 1930 and 1931 with his recent acquaintance, Henry-Russell Hitchcock, he visited and studied work by Schinkel. Hitchcock was influential in orienting Philip toward the aesthetic and perceptual aspects of architecture, and even encouraged him to pursue a doctorate (a short-lived project) on Schinkel's most brilliant and eclectic follower, Ludwig Persius. The work of both Persius and Schinkel surely legitimized Johnson's own departure from Miesian modernism.

Karl Friedrich Schinkel. Bedroom designed for Queen Luise, Charlottenburg, Berlin, 1809–1810. Stiftung Preussischer Schlösser und Gärten Berlin-Brandenburg. Photograph 1920–1930.

But referring to models did not constitute a "break" with Mies. Mies himself discussed historical examples: the structure of medieval barns and Gothic cathedrals; Schinkel's Altes Museum in Berlin (from which he said "you could learn everything in architecture");[16] and after seeing the "careful construction, absolutely honest" work of Hendrik Petrus Berlage, he recalled: "After I returned from Holland [1910] I fought with myself to get away from the Schinkel-classicism."[17] It was the difference of intention that would constitute the break. Mies's models were tectonic; Johnson's were sensually evocative.

The drama of the décor at New Canaan struck me on first visiting Johnson's domain in the summer of 1954. The brick and glass houses and their setting had a palpable presence and were highly sensual. An ecstatic aura pervaded the guest room. One was not aware of entering a tall, narrow, windowless, tomblike space but rather was captivated by the glow of light washing the sandlike expanse of pink, silver, and gold Fortuny cloth covering the enclosing walls. Turning the knob of a substantial dimmer box at the head of the bed—an early use of this new technology—one had the sense of nightfall in the desert, under the vaulted canopy—a sheltering firmament—as the light gradually faded.

I realize now that another model was lodged deep in Philip's psyche. Even though Philip seems never to have referred to any but British sources for this room, he must have known another room with the same sense of enclosure, curtained walls, and magical lighting: the bed chamber Karl Friedrich Schinkel designed between 1809 and 1810 for Queen Luise at Schloss Charlottenburg in Berlin, which was open to the public from 1918 through at least 1937.[18] Barry Bergdoll's description of this remarkable chamber intensifies the comparison with the bedroom of Johnson's Guest House:

> By the simple means of white muslin stretched over rose-papered walls, light was reflected and filtered through the material to create the glowing effect of [the] sunrise, breaking down the boundaries

between nature and architecture, and testing in concrete terms . . . the capacity of visual art to evoke specific moods, emotions, and states of mind.[19]

Top: Philip Johnson. Glass House, New Canaan, Connecticut, 1949. Night view, c. 1960. Photo: Alexandre Georges.

Bottom, left: Philip Johnson. Glass House, New Canaan, Connecticut, 1949. Interior view at night, c. 1952. From *Zodiac* 8 (1961). Photo: Ezra Stoller © Esto.

Bottom, right: Nicolas Poussin. *Landscape with the Body of Phocion Carried out of Athens*, c. 1648. Collection of Philip Johnson.

The same light-magic experienced inside the Guest House was conjured up in the glass pavilion every evening, as the induced light would slowly rise and fade among the surrounding trees. Philip called this landscape his continually changing wallpaper. Added to this luminous experience were effects manifested within the glass walls. Against the dark brick floor and large brick cylinder connecting floor and ceiling, uplights reflecting off the ceiling cast a glow over Poussin's *Landscape with the Body of Phocion Carried Out of Athens* resting on its easel. And by 1954, from a Johnson-designed floor lamp (placed next to a Mies-designed couch) emanated a soft pool of light.[20] The glow of the fireplace added atmosphere in cold weather.

The striking image of the steel-framed structure poised on a plateau at the edge of a precipice, the view framed by the structure of the Glass House, and the trees and valley beyond are reminiscent of Karl Friedrich Schinkel's evocative early paintings such as *Landscape with Gothic Arcades* of 1812, which Philip, who found Schinkel to be "almost as good a painter as Casper David Friedrich,"[21] must have known. Likewise,

Top: Philip Johnson. Glass House, New Canaan, Connecticut, 1949. Interior view during the day, c. 1960. From *Zodiac* 8 (1961). Photo: Alexandre Georges.

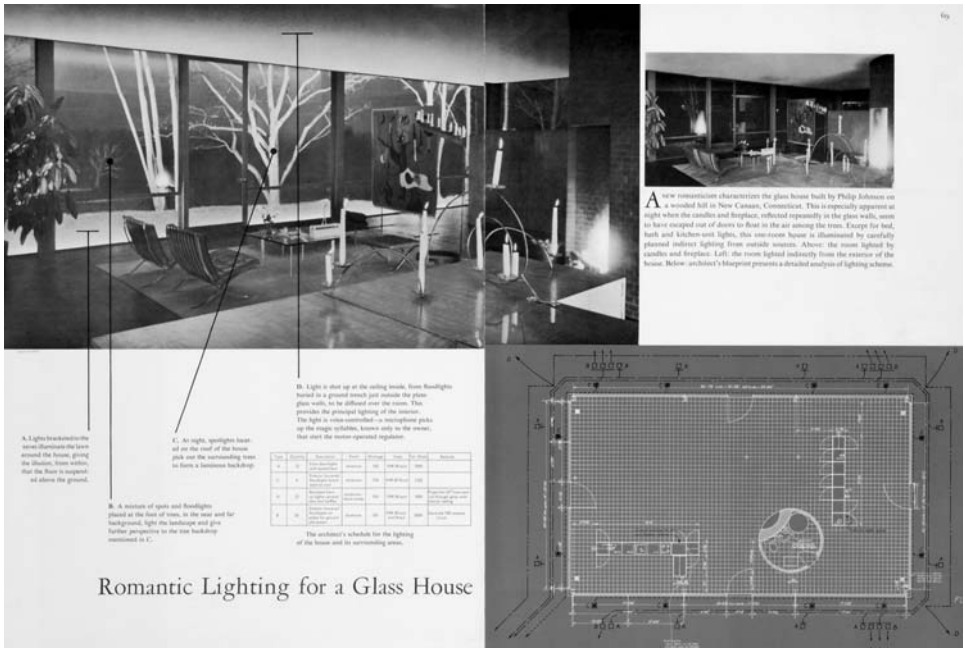
Bottom: Karl Friedrich Schinkel. *Landscape with Gothic Arcades*, 1812. Stiftung Preussischer Schlösser und Gärten Berlin-Brandenburg.

Poussin's *Phocion,* installed at the spiritual center of the house, resonates with the peopled landscape and architectural elements of Schinkel's *Antique City on a Mountain* (1805): both situate a story and embed a particular view in the topography of the earth.[22] Poussin's landscape, evoking Schinkel's view, can be seen as the ideal for the site of the Glass House, which Philip strove over the years to distance from the actual topography of the Connecticut woods. It reveals the extent to which Schinkel was on Philip's mind.

Clearly, Philip's break from Mies was fed by the Schinkel connection they shared but understood very differently. This break was instrumentalized through lighting design, not only because Mies's architectonic approach was out of reach for him, but also because it lay outside his own concerns, which were only beginning to surface. These concerns were nurtured by his haunting memory of the Hofgärtnerei in Potsdam in 1930: "the creation of emotional space by such casual and eclectic means."[23] Through the control of artificial illumination, Philip could bring together the pictorialism and atmospheric romanticism that he found in Schinkel *within* the tectonics Mies so admired in Schinkel, the "wonderful constructions, excellent proportions and good detailing."[24] Schinkel became for Mies "the greatest building master of classicism [representing] the end of an old and the beginning of a new time."[25] For Philip, the Altes Museum "is Schinkel's most restrained and classical building. The Hofgärtnerei in Potsdam is romantic. Schinkel the classicist—Schinkel the romantic—both appeal to us."[26]

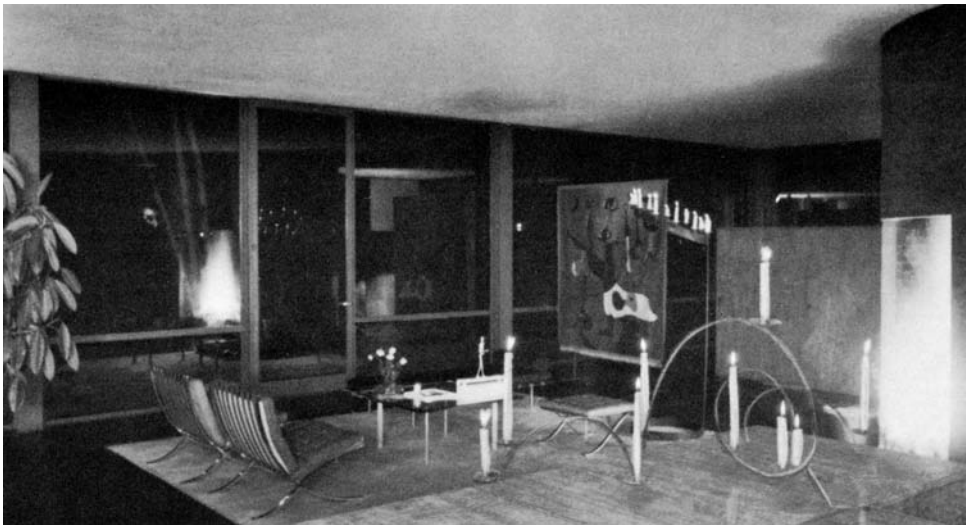
IIIII

The introduction in North America after World War II of buildings enclosed by glass walls created new lighting problems for architects and lighting designers: solid enclosing walls that acted as reflecting surfaces were replaced by large sheets of glass that appeared black at night. This troubled Philip Johnson when he first moved into his Glass House: "There was no light—other than the sun. You can imagine the problem of reflections [at night]. If you had one bulb you saw six."[27] Richard Kelly, the architectural lighting designer and illumination engineer for the Seagram Building, developed the solution. Philip said Kelly "founded the art of residential lighting the day he designed lighting for the glass



house."[28] He might have said that Kelly developed *a new art of lighting for a new architectural language.*

Kelly's technique for lighting the Glass House, which might be taken for granted today, must have seemed revolutionary to the readers of journals in the mid-1940s. In the first sentence of one of his earliest articles from that time he states that "good lighting is a vital part of good living," proposing to eliminate glare that tires the eye "by diffusing bright sources, by shielding the sources of light, [and] by arranging for a proper relation between bright objects and their surroundings." He demonstrated how these effects could create drama, even in a living room (albeit Lily Daché's living room), where "noticeably free of glare and sharp contrasts, the general lighting is indirect—from sources subtly concealed," where certain objects like plants "are sharply silhouetted by baby spotlights, [and where] sculptures are made to reflect light . . . lighting can create drama."[29] By 1950, in an obscure periodical called *Flair,* Kelly was more polemical, claiming, under the headline "new techniques inspire exciting use in decor," lighting design to be an art. "[I]t is not nature, but the artificial control of selected natural elements. Light and seeing are inseparable conceptions. We in fact make what we see by making things visible, and we make them appear and disappear to suit nuances of our desires."[30] Among the effects illustrated were his use of a combination of indirect light and glittering highlight to enhance fine fabrics worn by the clients of the Stork Club in New York; color-lighting to achieve distance; and dimmers to control the intensity of light and thus the sense of scale.[31] The quintessence of the article is a two-page spread on Philip Johnson's Glass House titled "Romantic Lighting for a Glass House." It consists of a large and a small version of the same panoramic view photographed from the interior looking toward the exterior at dusk. These are also probably the earliest photographs of the house: candelabra and movable tapers provide incidental lighting in the sitting area, and a Miró (which would shortly be



Opposite: Philip Johnson. Glass House, New Canaan, Connecticut, 1949. Interior views at night, 1949. From *Flair* 1 (February 1950). Photos: Louis Faurer.

Above: Philip Johnson. Glass House, New Canaan, Connecticut, 1949. Interior view at night, 1949. Detail from *Flair* 1 (February 1950). Photo: Louis Faurer.

replaced by the Poussin) rests on an easel. The larger of the two images carries captions that use theatrical terms such as "bracketed," "spots," "floodlights," and "backdrop" to describe the lighting effects:

> Lights bracketed to the eaves illuminate the lawn around the house, giving the illusion, from within, that the floor is suspended above the ground.
>
> A mixture of spots and floodlights placed at the foot of trees, in the near and far background, light the landscape and give further perspective to the tree backdrop.
>
> At night, spotlights located on the roof of the house pick out the surrounding trees to form a luminous backdrop.
>
> Light is shot up at the ceiling inside from floodlights buried in a ground trench just outside the plate glass walls, to be diffused over the room. This provides the principal lighting of the interior.[32]

The smaller image captures the same view at night, but *without* outside illumination the glass wall is black, so that "the candles and fireplace, reflected repeatedly in the glass walls, seem to have escaped out of doors to float in the air among the trees."[33]

The key design invention is buried in the body of the article. After a general discussion of new technical developments in local lighting designed to meet exacting requirements for comfort in seeing under changing conditions, Kelly writes that, "to give such concentrated lighting a reasonable relation with our natural backgrounds, we require some general lighting. This need is exaggerated in the Johnson glass house by lighting the immediate surrounding landscape, in contrast to firelight and moveable tapers indoors."[34] In other words, lighting the landscape counterbalances the illumination of the interior. The continuity and flow between interior and exterior implied by this concept was a basic premise of the new architecture theorized in the 1920s. Frank Lloyd Wright had induced the interior flow tectonically in his Prairie houses, as had Mies with the Barcelona Pavilion and Tugendhat House. However, beyond the articles by Johnson and Kelly, I am not aware of discussions of the problem of lighting in relation to the glass wall—in particular, the appearance of interior spaces at night and the

pivotal role played by indirect lighting in the development of midcentury modern buildings.

The lighting scheme Kelly and Johnson created for the Glass House evoked Schinkel's aesthetic vision of a stage "essentially atmospheric in nature, employing lighting and painterly *Stimmung* as the main devices for the creation of theatrical effects."[35] The Glass House at night must have been somewhat garish initially: Mies would laugh and say that it made the house look like a hot-dog stand. Mies had proposed neon lighting to dramatize a drive-in restaurant for a commercial strip in Indianapolis and was still hoping to build it in 1950 when probably he first saw Johnson's Glass House. But Kelly and Johnson were not lighting the exterior. They had discovered how to make evident the reciprocity between exterior and interior through the use of lighting. And this was something neither Johnson nor Kelly could have achieved alone—a picturesque, Schinkelesque effect that could only have been achieved within the sublime frame of Miesian architecture. Subsequently, lighting at the Glass House was continually refined while Kelly and Johnson worked together on numerous projects before Johnson took charge of Seagram in 1955 and Kelly contracted to consult on the architectural lighting for the building. The sense of drama Johnson found in Schinkel's work must have drawn him to Kelly, who had studied theatrical design at Yale University. How they met is yet to be ascertained.[36]

Kelly had experimented with lighting during his high school days, and after completing courses at Columbia University in 1932, he experienced the new architecture as a lighting designer and consultant, which led him to enroll in architecture school. At Yale from 1942 to 1944 his most telling experience was surely at the University Theatre School, where he took courses with the peerless lighting designer Stanley McCandless, one of the earliest instructors in stage lighting and the author of the highly successful treatise *A Method of Lighting the Stage,* first published in 1932.[37] McCandless's close attention to the instruments of lighting—fixtures and their technical characteristics—converged with the interests of Kelly, who began to consult with the founder of Gotham Lighting in the late 1930s. After obtaining his degree in architecture from Yale in the mid-1940s, Kelly served as director for the newly formed lamp department of Knoll Associates.

Kelly followed McCandless's basic concepts of light as a design method: stage lighting, which "in its brightness and darkness, its color and pattern . . . creates an atmosphere that is inherently dramatic"; and the notion that the conquest and control of the medium of light "in a sense provides a new horizon for artistic expression."[38] Lighting, McCandless would remind his readers (and doubtless also his students), "is not really visible until it strikes some surface so that it can

Good lighting is part of good living

by Richard Kelly

Three elements of good lighting are illustrated in this interior

Page from Richard Kelly, "Good Lighting Is Part of Good Living," *House and Garden* 101 (March 1952). Photo: Scott Hyde/House and Garden © Conde Nast Publications, Inc.

be reflected to the eye."[39] Kelly emphasized this point by quoting Le Corbusier: "*L'architecture est le jeu savant, correct, et magnifique des formes sous la lumière*."[40] (Architecture is the masterly, correct, and magnificent play of forms under light.) Deriving from McCandless the notions of "motivating light"[41] (light that sets temporality and mood), Kelly was concerned with the effect on the occupants of space, and therefore would emphasize the psychological effects of his work: "To plan visual beauty by controlling light, it is important to know the psychological effect various light phenomena have on us."[42]

Kelly was a polemicist and as early as 1946 aimed to educate and convert through his writings in popular magazines. In 1952, first in *House & Garden* and then more formally and self-consciously in the *College Art Journal,* he formalized his principles as a "vocabulary" that expressed his theoretical position on lighting. In the *College Art Journal* article he first introduced the principles through the metaphor of painting a watercolor:

> A feeling for light and lighting starts with visual imagination, just as a painter's talent does. Think of the creation of a watercolor rendering—First, major highlights are imagined—then, graded washes of different luminosity are added and—then, the detail of minor lightplay makes the idea clear and entertains the eye.
>
> In front of the mind's eye are three elements in the perceptions of visual design—three elemental kinds of light effect which can be related to the art of painting for easier visualization: 1) Focal glow or highlight. 2) Ambient luminescence or graded washes. 3) Play of brilliants or sharp detail.[43]

With these three elements—"focal glow," "ambient luminescence," and "play of brilliants"—Kelly established the terminology and the principles that would form the foundation of his work. It is useful to consider how

he applied the three elements of his thesis in practical terms for the *House & Garden* article:

> 1) Floor lamp and hanging lamp provide pools of light for armchair and sofa reading. This is called focal glow. 2) Ceiling spotlights spread soft, general light over fireplace wall and rug, which in turn reflect light toward [the] ceiling. This is ambient luminescence. 3) Candlelight adds [the] facets of light and play of brilliants.[44]

As an architectural lighting designer and illumination engineer, Kelly was in essence applying techniques of stage design. His three principles of lighting became a point of reference in his own field. They were absorbed into Philip Johnson's design language, even as Johnson made the terminology more graphic, replacing the tongue-twister "ambient luminescence" with "washing the walls with light."[45] Philip was enamored of this new environment of controllable ambient light and focal glow and used it not only at the New Canaan Guest House but also in the modest apartment he designed for me in a New York brownstone in the mid-1950s. By 1958 Philip's application of Kelly's lighting ideas was demonstrated at Seagram: the luminous ceilings that gave an even, shadowless light, the indirect display lighting, and the strongly light-washed travertine core walls of the building lobby were all "new ideas" highlighted in the July 1958 *Forum* article, which concluded that Seagram was "one of the best illuminated buildings ever constructed."[46]

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The genius of Kelly and Johnson's collaboration in lighting the glass building was in creating at Seagram, as they had at the Glass House, continuity and reciprocity between interior and exterior spaces. These effects were epitomized in the Four Seasons restaurant, which opened in 1959. Kelly's thesis about lighting required an architectural aesthetic to soar, perhaps even to develop. Philip's strong Miesian discipline and language combined with his own romantic and intellectual sensibilities supplied such an aesthetic along a six-year trajectory that led from the tentative moves made in the Glass House in 1949 to the sophisticated levels achieved at Seagram. Behind the bronze and topaz glass skin of the east wing, set back behind the building shaft and visible from the street, the shimmer of light and people in the great rooms of the restaurant imbue the place with the intriguing promise of something about to happen. The form is Mies's, but the drama belongs to Philip.

The entrance to the Four Seasons from Park Avenue draws the public across the pink granite plaza, through the glass entry cage, and through the honey-colored travertine core walls. The welcoming presence of these

Ludwig Mies van der Rohe. Seagram Building, New York, 1958. Lobby Entrance to the Four Seasons Restaurant. Published in *Progressive Architecture* XXXIX (September 1958). Photo: Ezra Stoller © Esto. CCA Collection, Montréal.

walls is maintained day and night by a wash of light regulated by Kelly-devised astronomical and numerical clocks, which together constantly adjust the balance of brightness to the level of the intensity of the sun—midday, twilight, and the blackness of night. A *Progressive Architecture* critic noted that "it required courage to spend enough wattage to achieve the minimum intensity that could be expressive."[47] Kelly's dark-light troffers create uniform brightness, evenly washing the twenty-four-foot-high travertine walls—an achievement not realized before. Lewis Mumford wrote eloquently about the entrance to the building:

> The noble scale of the entrance is not just an outside pretense but an inside reality. . . . Even the black bands of the cove lighting in the lobby ceiling, which is of multi-toned gray mosaic, serve to point up, by their sharp contrast, the firm, undeviating integrity—and masculinity—of this design. Such purity and dignity are completely lacking in most contemporary metropolitan architecture, with its endeavor to humanize what is inhuman and to refine what remains so patently vulgar. One must almost go back to Palladio's San Giorgio Maggiore, in Venice, for anything like the same quality of mind and expression.[48]

Kelly had brought light-washed walls, his principle of "ambient luminescence," to a highly controlled level of expression. At the 52nd Street entrance to the Four Seasons the walls are similarly light washed, and Kelly's "dark-lights" in the ceiling create an ambient luminescence in the travertine floor. This tomblike space with travertine floors and walls is no longer Mies but Johnson. We are reminded of Queen Luise's bedroom as well as the mausoleum Schinkel designed for her at Schloss Charlottenburg (1810–1812) and the bedroom at Philip's New Canaan Guest House. Memory of the guest bedroom's fabric walls was at the

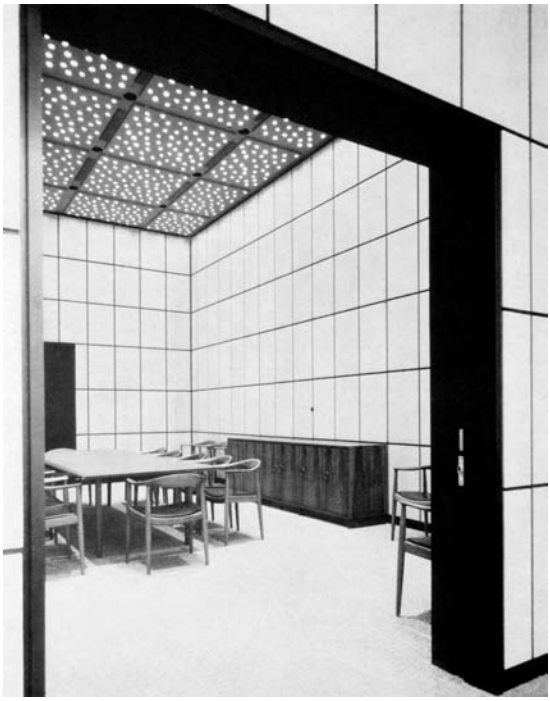
outset evoked by the pink and silver Fortuny cloth lining the walls of the Ladies Powder Room that opens off the travertine entrance to the Four Seasons.

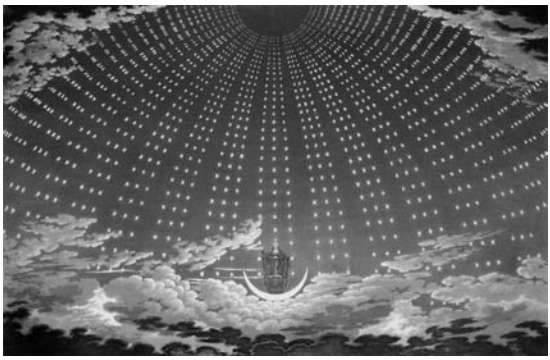
The swags of Queen Luise's drapery also reverberate in the most spectacular aspect of the two great Four Seasons dining rooms: the veil of the "Venetian" curtains made of fine-gauge aluminum chains falling in a catenary curve at the window walls. I was impressed by the genius of the idea when Philip and I visited the studio of Marie Nichols, the textile designer who developed these curtains. Yet only when they were hung did we understand the extraordinary effect of the motion induced by the heated or cooled air rising from the convectors at the window wall, causing the lightweight yellow, pink, and green-gold aluminum chains to move in a slow, wavelike motion. As in Queen Luise's bedroom, "light [is] reflected and filtered through the material."[49] At times during the day the curtains are almost transparent, but in the evening they gain varying degrees of opacity and reflectivity as the maître d'hôtel changes the mood in the room, by orchestrating the intensity of "ambient light," the "focal glow" of pools of soft light on the tables, and a "play of brilliants" among sculpture and plants—thus illustrating Kelly's three principles for the creation of a seductive environment with light.[50]

Richard Lippold's sculpture in the Four Seasons Bar and Grill Room was Philip's answer to the request of the restaurateur to create a more intimate space in the vast, high-ceilinged room. Lippold's sculpture, made of multiple quarter-inch-square bronze rods suspended from

Top: Richard Lippold. Sculpture suspended from the ceiling of the Four Seasons Bar and Grill Room, Seagram Building. From *Interiors* CXIX (December 1959). Photo: Louis Reens.

Bottom: Richard Lippold. Sculpture and curtains in the Four Seasons Bar and Grill Room. From *Progressive Architecture* XL (December 1959). Photo: Ezra Stoller © Esto.





Top: Ludwig Mies van der Rohe and Philip Johnson. Four Seasons Private Dining Room, New York, 1959. From *International Lighting Review* 12 (1961).

Bottom: Karl Friedrich Schinkel. "Decoration zu der oper: Die Zauberflöte Act 1 Scene VI," stage set for Mozart's *Magic Flute,* 1874. Plate 14 from *Sammlung von Theater-Dekorationen erfunden von Carl Friedrich Schinkel, Berlin, 1874.* Aquatint. CCA Collection, Montréal.

pairs of fine wires. Lippold also added a pendant to this work high on the mezzanine wall of the Bar Room. The multiple elements of these artworks, which sparkle when light is focused on them, allowed Kelly to introduce his third principle of lighting: a "play of brilliants." This "aesthetic ocular stimulus" plays in a private dining room just off the mezzanine. A sparkling ceiling composed of miniature incandescent lamps mounted in metal panels hovers over the room. Is this Kelly's idea or Philip's? A gossamer sparkle curtain designed by Kelly was described by him in the April 1959 issue of *The New Yorker* as being strung with countless electrical bulbs so infinitesimal as to be practically invisible by daylight.[51] However, the boldness of the starry field recalls the 1874 aquatint by Schinkel for his most famous stage set, for the "Palace of the Queen of the Night," which he designed for the first act of Mozart's *Magic Flute.* This image is one that anyone thinking of Schinkel's extraordinary range, and especially Philip Johnson, would know.

As suggested by the restaurant's name, plants form an integral part of the Four Seasons interior design. The concept of landscape architect Karl Linn was to have "permanent specimen planting, strong entities, and decorative 'exhibition' flower displays" at each season.[52] In contrast to the New Canaan Glass House, where the building structure frames the landscape, at the Four Seasons the play of the natural forms of leaves and branches heightens the expanse of the disciplined architecture as diners ascend the stairs. Around the bronze housing at the base of each plant, Kelly placed uplights that cast leafy shadows and project patterns of light onto the ceiling, while the leaves themselves sparkle and shimmer. This effect is especially dramatic in the Pool Room, where at the four corners of the square pool large tropical plants both dominate the space and create an intimate environment. Down-lights from the ceiling illuminate the upper leaves of the ornamental fig trees, *Ficus decora,* filtering subtle shadows onto the surface of the tables, while uplights cast dramatic shadows on the ceiling. The sparkle of the trees and the pool thus becomes the counterpart of the Lippold sculpture in the bar. Because of the geometry of the half-cubic rooms and the clarity and purity of the decorative treatment of the two solid and two transparent glass walls,

despite the strategic location of the plants, the Four Seasons is not an indoor garden. A fine balance exists between the architectural frame and the refined surfaces—the rippling chain curtains, the parchment paneling in one room, and the book-matched French walnut paneling in the other, all bathed in light—and the intricate scale of the "pointillist" light-dappled plants.

These rooms were orchestrated with a theatrical sensibility where lighting played a crucial role. The subtle effects used to light the trees and pool in the dining rooms of the Four Seasons connect the interior of the restaurant with the illuminated trees and fountains on the plaza and the glow of the Seagram Building day and night. Philip Johnson did not have to struggle with tectonics: he had only to invoke an interior environment within the space of Mies's structure. With the unleashing of his refined sensibility for light and materials, as well as his sense of history, Johnson came into his own. He brought to Mies's appreciation of Schinkel's "wonderful constructions, excellent proportions and good detailing" Schinkel's *other* genius for evoking *Stimmung.*

Ludwig Mies van der Rohe and Philip Johnson. Four Seasons Pool Dining Room, New York, 1959. From *Interiors* CXIX (December 1959). Photo: Louis Reens.

Dedicated to the memory of Philip Johnson, 1906–2005

Notes

This paper is an edited version of a talk given in February 2004 in the Collins/Kaufmann Forum for Modern Architecture at Columbia University at the invitation of Barry Bergdoll.

1. Philip Johnson, in conversation with the author, October 1954.

2. Quoted in Sybil Gordon Kantor, *Alfred H. Barr, Jr., and the Intellectual Origins of the Museum of Modern Art* (Cambridge: The MIT Press, 2002), 303.

3. For this and subsequent quotes drawn from this unsigned article, see "Seagram's Custom Look: 13 New Ideas for Better Skyscraper Design," *Architectural Forum* 109, no. 1 (July 1958): 72–75.

4. B.H. Friedman, "The Most Expensive Restaurant Ever Built," *The Evergreen Review* 3, no. 10 (November/December 1959): 112.

5. Lewis Mumford, "Lessons of the Master," *New Yorker,* 13 September 1958, 147.

6. Mumford, 142.

7. Phyllis Lambert to Lewis Mumford, 23 September 1958, in Annenberg Rare Book and Manuscript Library, University of Pennsylvania, Philadelphia.

8. Philip Johnson to Gene R. Summers, 17 January 1957, in Library of Congress, Washington, DC.

9. See Henry-Russell Hitchcock, "Introduction," in Philip Johnson, *Philip Johnson: Architecture, 1949–1965* (New York: Holt, Rinehart and Winston, 1966), 10.

10. Quoted in Hilary Lewis and John O'Connor, *Philip Johnson: The Architect in His Own Words* (New York: Rizzoli, 1994), 37.

11. Lewis and O'Connor, 37.

12. Lewis and O'Connor, 37.

13. See Philip Johnson, "House at New Canaan, Connecticut," *Architectural Review* 108, no. 645 (September 1950): 152–159.

14. Johnson, "House at New Canaan, Connecticut," 154.

15. Johnson, "House at New Canaan, Connecticut," 153.

16. Ludwig Mies van der Rohe, interview by Graeme Shankland, *The Listener* 62, no. 1594 (15 October 1959): 622.

17. "Mies in Berlin," transcript of 1966 interview with Mies for the RIAS, the American Radio University, Berlin, in Library of Congress, Manuscript Division, MvdR Papers, Container 62, 8.

18. The 1921 and 1927 Baedeker guides *Berlin und Umgebung* list Schloss Charlottenburg and refer to rooms including the bedroom of Queen Luise, which is also mentioned in a 1937 Guide to the Museum as having been renovated in the 1930s. Dr. Burkhardt Goeres, Direktion, Schlösser und Sammlungen, e-mail to Renata Guttman (CCA Library for author), 23 September 2004.

19. Barry Bergdoll, *Karl Friedrich Schinkel: An Architect for Prussia* (New York: Rizzoli, 1994), 31.

20. Designed in 1954 with Richard Kelly and Edison Price, this became known as the "Glass House floor lamp."

21. Philip Johnson, "Schinkel and Mies," in *Writings/Philip Johnson,* foreword by Vincent Scully, intro. by Peter Eisenman, commentary by Robert A.M. Stern, 164–181 (New York: Oxford University Press, 1979), 165.

22. See Kurt W. Forster, "'Only Things That Stir the Imagination': Schinkel as a Scenographer," in *Karl Friedrich Schinkel, 1781–1841: The Drama of Architecture,* ed.

John Zukowsky (Chicago: Art Institute of Chicago; Tübingen: Wasmuth, 1994), 18–35.

23. Philip Johnson, "Schinkel and Mies," in *Writings/Philip Johnson,* foreword by Vincent Scully, intro. by Peter Eisenman, commentary by Robert A.M. Stern, 164–181 (New York: Oxford University Press, 1979), 177. Johnson originally presented "Schinkel and Mies" as a speech at Congress Hall, Berlin, 13 March 1961.

24. Peter Blake, "A Conversation with Mies," in *Four Great Makers of Modern Architecture: Gropius, Le Corbusier, Mies van der Rohe, Wright: A Verbatim Record of a Symposium Held at the School of Architecture from March to May 1961* (New York: Columbia University, 1963), 94.

25. Ludwig Mies van der Rohe, "Miscellaneous Notes to Lectures (around 1950)," in Fritz Neumeyer, *The Artless Word: Mies van der Rohe on the Building Art,* trans. Mark Jarzombek (Cambridge: MIT Press, 1991), 328.

26. Philip Johnson, "Introduction," in *Karl Friedrich Schinkel, Collection of Architectural Designs,* repr. 1866 ed. (Chicago: Exedra Books, 1981), 1.

27. Philip Johnson, "Philip Johnson Remembers Richard Kelly," *Lighting Design and Application* 9 (June 1979): 49.

28. Johnson, "Johnson Remembers Kelly," 49.

29. Richard Kelly, "The Better to See . . . ," *House & Garden* 90, no. 6 (December 1946), 152.

30. Richard Kelly, "Focus on Light—New Techniques Inspire Exciting Use in Decor," *Flair* 1 (February 1950), 66.

31. Kelly, "Focus on Light," 67.

32. Kelly, "Focus on Light," 68.

33. Kelly, "Focus on Light," 69.

34. Kelly, "Focus on Light," 67.

35. Forster, 24.

36. Thanks to Margaret Maile of the Bard Graduate Center, we know that both Kelly and Johnson served on the "affordable lighting" jury in November 1945, which had been set up by Eliot Noyes, then director of the Department of Industrial Design at MoMA, to stimulate better design in objects for everyday use. Margaret Maile, e-mail to author, 18 October 2003.

37. Stanley McCandless, *A Method of Lighting the Stage* (New York: Theatre Arts Books, 1932). Later editions followed in 1939 and 1947, and an emended and revised edition appeared in 1958.

38. McCandless, 9.

39. McCandless, 16.

40. Richard Kelly, "Lighting as an Integral Part of Architecture," *College Art Journal* 12, no. 1 (Fall 1952): 26. The quotation is transcribed incorrectly as "L'Architecture est le Jeux, savant, correct, et magnifique des formes *sur* la lumiere" (emphasis added).

41. McCandless, 50.

42. Richard Kelly, "Good Lighting Is Part of Good Living," *House and Garden* 101, no. 3 (March 1952): 192.

43. Kelly, "Lighting as an Integral Part of Architecture," 24.

44. Kelly, "Good Lighting Is Part of Good Living," 138.

45. See "The Basic Scheme Was to Wash Walls with Light from Invisible Sources," in Olga Gueft, "Four Seasons Restaurant, by Philip Johnson," *Interiors* CXIX, no. 5 (December 1959): 168.

46. "Seagram's Custom Look," 75.

47. "Lighting Is Architecture: Definition of Structure," *Progressive Architecture* 39, no. 9 (September 1958): 140.

48. Mumford, 145.

49. Bergdoll, *Karl Friedrich Schinkel,* 31.

50. Kelly, "Lighting as an Integral part of Architecture," 24.

51. Richard Kelly, quoted in [S.H.], "On and Off the Avenue: About the House," *New Yorker,* 4 April 1959, 132.

52. Karl Linn, "The Four Seasons: Collaboration for Elegance," *Progressive Architecture* 40, no. 12 (December 1959): 142.

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