

FOG MAGUS

THE MOST COMPLICATED BUILDING EVER BUILT

Irving Lavin  
Institute for Advanced Study  
Princeton, NJ  
August 11, 2015

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## PREFACE

The Louis Vuitton Foundation Museum is a combination and synthesis of two fundamental architectural metaphors that had preoccupied Frank O. Gehry through much of his career, the fish and the sailing ship ([Fig. 1](#), [Fig. 2](#), [Fig. 3](#)). They both move and they both take an infinite variety of shapes, but in working with them Gehry discovered that they have in common much more than meets the eye. In what follows here I will sketch Gehry's trajectory in this pursuit, citing where pertinent to my argument his own always trenchant responses to interviewers' questions.<sup>1</sup> The basic principle is encrypted in the extraordinary account he gave of the genesis of the Vuitton building:

“Well, it was pretty clear. Because it was to be in the Jardin d'Acclimatation in the Bois de Boulogne, the building had to be ephemeral, from day one. We realized that it couldn't be just a solid thing. It needed to have a relationship with nature and the trees, with the garden. And then in my early discussions with Bernard Arnault, we talked about that issue, and we realized that if you made it in glass you could make it higher. In other words, if it were more solid, it would be one level lower. And it felt squashed when it was one level lower. It didn't feel like it would have an appropriate presence for a museum of this kind. So from the beginning, I was playing with glass sails, but I didn't know how I was going to build them. We knew we were going to have a solid piece inside, and then the glass exterior. And this is the exciting thing to me: you're in a children's park, in the Bois de Boulogne; you have a museum with a collection..... the ensemble makes it 'child-centric'. No other museum I know has done that. And the reason to do it here is because it's in the Bois de Boulogne.”<sup>2</sup>

## THE MAGUS

The Magus is an alchemist who transforms base materials into gold. Gehry first publicly proclaimed this magic touch when he clothed his own house (1978, 1991) with an array of the lowliest of building materials, lumber-yard wood framing, sheets of corrugated steel, chain link fencing — transforming the solid walls of a quintessentially ordinary Los Angeles bungalow into a fragile, toy-like deconstructed house of architectural fragments (**Fig. 4**).

I first met Frank Gehry in Venice in 1980 at the first Biennale of contemporary architecture, with the theme *The Presence of the Past*. The site of the featured exhibition, the *Strada Novissima*, was the Corderia, a vast three-aisled construction with columns supporting wooden truss roofs, where from the middle ages on rope for the Venitian navy was fabricated. Each bay of the arcade was assigned to one of the seventy-five leading architects of the day to design a facade after his own personal idiom, so that the arcade became a veritable runway of the latest architectural fashions (**Fig. 5**). I remember being stunned by Frank Gehry's submission, which stood out in glaring contrast to the others by its near invisibility — a simple wooden structure that might be thought of as the initial scaffolding framework for a building in course of construction, *in statu nascendi* (**Fig. 6**). Instead of a more or less proper architectural facade the very process of architectural creation took a reverse, metaphorical turn, as temporary as the Biennale itself, and as might appear in any street at any time. The quasi-facade is suspended in a moment of time as it moves toward completion. This quality of timeliness, of immediacy, evident from the outset in Gehry's notoriously swift and spontaneous sketches, became a constant theme in his work (**Fig. 7**).

The *Strada Nuovissima* exhibition was the clarion call of a radical, not to say revolutionary shift in architectural philosophy and style, known as Postmodernism, which sought to return to the classical tradition of European architecture. For the most part this shift entailed resurrecting more or less salient features of the classical heritage, symmetry, perspective, elements of the ancient orders, Vitruvian proportions, columns with bases and capitals, often in fragmentary and ironic ways, to indicate that they were deliberate references assimilated in a new and different, contemporary context — hence the sobriquet deconstructivism for this vein of postmodern modernity.

Not so Gehry. At the following architectural Biennale in 1985 Gehry voiced his dissent from this kind of historicism. Together with Claes Oldenburg and Coosie Van Bruggen, he staged a quasi-cubist performance piece called *Il Corso del Coltello*. He played the role of the Canadian gangster Frankie P. Toronto costumed with body parts of classical architecture, columns, capitals, and volutes, which he amputated with a gigantic knife and with graffiti in his own drawing style, from major monuments of Venetian architecture (**Fig. 8, Fig. 9**). Gehry's references are not to classical antiquity, or to any historical style, but to an ephemeral, passing phase in the creative process. Gehry's concept riveted me — here was a true think-piece. At the same time it moved me, both in time and in space, as if I was passing along a multifarious city street where it happened that one of the structures was but a soupçon of its future self.

In the course of time this early mode of what I would call temporal intimation became truly metaphorical, a form of extra-architectural reference in flat contradiction to both the purist, abstract, form-follows-function, tenets of Bauhaus modernism, and to the quasi archeological disquisitions of Postmodernism. Gehry's two metaphorical ur-themes became particularly relevant to the Vuitton project.

## THE FISH

The fish, along with the snake, had a long history in Gehry's career.<sup>3</sup> Reflecting perhaps the famous white paper Akari lamps of Usamo Noguchi from the 1950's (**Fig. 10**), in the 1980's Gehry took the fish scales and serpent skin as translucent and made an infinite variety of swimming squirming and leaping fish lamps, in which the structural exo-skeleton is illuminated (**Fig. 11**). The animals become magic lanterns, like the multicolored illuminated paper fish and snake-dragon lanterns the Chinese carry bouncing and wriggling through the streets in celebration of the New Year (**Fig. 12**).

Gehry designed structures in the form of grandiose and monumental fish in two cases where the image was consonant with the location and purpose, seaport restaurants, Kobe 1986-7 (appropriately called the Fishdance Restaurant); and Barcelona 1992 (**Fig. 13, Fig. 14**). They evoke the character of beachside follies like the famous inhabitable Elephant on the beach at Margate, New Jersey (**Fig. 15**), and recall the Colossus that guarded the harbor at Rhodes, one of the seven wonders of the ancient world (**Fig. 16**). Gehry's fish, however, while unmistakably

figurative, are also unmistakably buildings, which, like fish, leap, or even fly in the air (**Fig. 17**). Here the transubstantiation involved the fusion of luminescent fish scales with transparent glass, in the twenty-two foot *Standing* (rather, rearing) *Glass Fish* at the Walker Art Center at Minneapolis 1986 (pieced together scale by scale, by hand), while the internal structure defining the shape evoked the animal's skeleton (**Fig. 18**). The whimsical animal-architecture pun suggests a kind of narrative, a fishy story, as it were — unheard of in the history of architecture — on a heroic scale, the scale of the sea itself. The fact is that Gehry's fish actually do belong in that “revival of historicism” espoused by the Postmodernist movement, but in a deeper, more archaic and non-conformist way than the relics of classical tradition, as Gehry himself declared:

It was by accident that I got into the fish image. My colleagues were starting to replay Greek temples. Y'know in the post-modern thing, I don't know, when was that... the 80s. That was hot, everybody was re-doing the past. I said, y'know, Greek temples are anthropomorphic. And three hundred million years before man was fish. If you wanna, if you gotta go back, if you're insecure about going forward, dammit, go back three hundred million years. Why are you stopping at the Greeks? So I started drawing fish in my sketchbook. And then I started to realize that there was something in it.<sup>4</sup>

In Paris the “something” appears as a gigantic glistening light-creature rising up from the sea, on the edge of the Bois de Boulogne.

## THE SAILING SHIP

The ship theme that inhabits the Vuitton building is actualized by the fountain, frequently a distinctive feature of museum designs, whether indoors or outdoors. In Gehry's version, however, it is not a separate entity. Instead, the water spills down a broad stairway from the front perimeter of the site and flows under the building itself where it forms a pool on which the building-fish-sailboat seems to ride (**Fig. 19**, **Fig. 20**, **Fig. 21**).

There was a Renaissance tradition of ship fountains, but rarely with the implication that the vessel is actually navigating the water basin. A fully dressed gallion firing the peacemaking water of baptism from its cannons, seems to float on a basin in the garden of the Vatican palace, the Fontana della Galera, suggesting the papacy as the guardian Ship of State (**Fig. 22**). At the opposite end of the marine metaphor is Bernini's famous fountain at the foot of the Spanish Steps in Rome, a foundering *barcaccia* (a common workboat) rescued from sinking into the shallow pool by its four cannons gently firing sweet, refreshing water (**Fig. 23**).

Gehry acknowledged specifically the maritime figurative reference in the Neuer Zollhof buildings on the bank of the Rhine in Düsseldorf (1998), where the original design was geometric and then turned into curved shapes, of which Gehry said (**Fig. 24**),

They're sails; I am a sailor. I have a boat, you know? I love sailing and I like those Dutch sailing paintings, 16th century Dutch paintings; do you know them? When you sail, and you are changing course, the sail is full and then you turn it slowly to the other direction. There is a moment when you are directly facing the wind, the wind is coming equally on both sides of the sail. The split second before catching the wind in the other direction, you get a little bit of ripple in the sail called luff, and the sail folds. It's very beautiful; you get the sense of movement of the ship in this ripple; I can't explain it, even if I had taken a picture of it. ... It is a magical moment because there is a movement that is interesting. I like those images.<sup>5</sup>

The association with the river was essential to the conceit.

Transferred to Paris the playful wit and charm of these ingenious aquatic drolleries perfectly suited the playground for children that is now the prime function of the Jardin d'Acclimatation (**Fig. 25, Fig. 26**). And like Noah's Ark, this nautical time capsule carries within and preserves for the future a vast, comprehensive collection of contemporary works of art. There is certainly a concordance between this aspect of Gehry's life experience and the decades-long commitment of Vuitton to the international yacht races that bear the company's name, Vuitton Cup Races (**Fig. 27**).

There was a long tradition for using glass in buildings intended to exhibit works of commerce and art, most notably the Crystal Palace in England (1850), and in Paris in the Grand Palais (inaugurated 1900), and the Palmarium (for exotic plants) that once stood nearby in the Jardin d'Acclimatation 1895(**Fig. 28**). The glass in all these buildings served to provide illumination for the exhibits without expensive artificial lighting. The space was entirely closed and in the case of the Palmarium there were no solid walls. Our glass building was largely indebted to the French tradition of glass making initiated at Saint-Gobain under Louis XIV (and crowned, appropriately, by I. M. Pei's pyramidal entrance to the Louvre). The crucial differences were that the Vuitton museum needed closed spaces for exhibitions, security, heating, lighting, climate control. The challenge was to combine these functions in the body of a fish (equally, the hull of a boat), with the sails of a schooner — the building incorporates elements of both.

The structure consists essentially of four towers (two containing back-of house programs, two containing stairs) and three huge "icebergs" (each containing gallery spaces)(**Fig. 29**). Sheathed with panels of white Ductal(a super-hard ceramic material), these massive bastions rest directly on the foundation and support the superstructure, that is, the sails, which are cantilevered out from them or, in one case, from a "boom" anchored underneath (**Fig. 30**). The nomenclature adopted in the Gehry office for the salient features of the project — icebergs, sails — also declares the underlying metaphorical concept, while the gigantic white body inevitably brings to mind the great mythical white whale of Melville's *Moby Dick* (**Fig. 31**). Moby Dick was an awesome beast, and there is, withal, something intimidating about the Vuitton building that adds to its particular titillation, for grown-ups as well as children. A recollection of the biblical Leviathon would not be remiss (**Fig. 32**).

Perhaps the primary image of the interior structure of the building is of a vast ambience crisscrossed by a kaleidoscopic system of interconnecting straight and curving stairways, straight struts of steel, and curving arches of compressed wood (**Fig. 33, Fig. 34**). You never know whether you are inside or out; the spaces are in a constant state of interpenetration. The outside is always present: overhead, the sails become umbrellas. The only closed spaces are the exhibition rooms contained inside the icebergs, which have no windows but are partially lit by tall skywells in the

ceilings. A similarly labyrinthine articulation of space was projected by Piranesi in his series of etchings which he evocatively and provocatively titled *Capricci di Carceri (Caprices of Prisons)*, as if to epitomize the expressive range of fantastic visionary architecture, both a dark and heavy melancholy incubus and a light and airy caprice (**Fig. 35**).

Except for the rectangular dimensions of the ever-curving walls of the Ductal cladding units that suggest masonry and panes of sail-glass, no two structural elements are alike (**Fig. 36, Fig. 37**). Needless to say, such a construction is unthinkable without the computer, on which were created programs that made it possible to manufacture the individual units at much lower costs than by traditional methods. It is notorious that Gehry does not himself use the computer in his work as a designing tool, and even derides it as inherently cold and dehumanizing. But he readily recognizes that otherwise he could not have conceived a real building in which the exposed structure is constantly changing and never repeated, so that the viewer moves, indoors-outdoors and vice-versa, through a constantly shifting architecture-scape of billowing, wind-blown sails.<sup>6</sup> This effect of interconnectivity is reinforced by the composition of the material used for the sails: sandwiched between two panes of transparent glass a coating of white ceramic frit that suggests the color and texture of sail cloth, and a coating of reflective film, Ipasol, which augments the natural reflectivity of the surface so that one also sees reflections and refractions of the environment at every turn (**Fig. 38**). The consequence of these technologies is a work that is physically, as it appears to be visually, one hundred percent idiosyncratic. Paradoxically, thanks to the computer, it is unique, handmade. The translucent white reflective sails and the glistening white body sublimate any sense of weight or mass and effectively dematerialize the building, to create an ephemeral vision that recaptures the open luminosity and exuberant spontaneity of the original sketch.

Finally, unlike any of Gehry's sailboat-inspired buildings, here the sails are not mounted vertically, schooner style, but extended in many directions. Reminiscent of the panoply of sails displayed by a classic fully rigged clipper ship, the winds propel the building forward powerfully and inexorably, and so express the very current of high fashion that Vuitton represents (**Fig. 39**).

## CHIMAERA

These two great themes of Gehry's lifework, the fish and the sailing boat (not a sailboat), converge

in a single creature, the Louis Vuitton museum. The fusion is a mythic creature, a luminous Flying Dutchman—Gehry said he liked sixteenth-century Dutch sailing paintings—that supersedes (rises above) architecture itself. The visitor is transported into a delirious domain of endless wonderment, where every step is a new, dizzying environment (Fig. 40), as mystifying and intriguing (metaphorically speaking) as the Möbius-strip illusions of impossibilities by M.C. Escher (Fig. 41). The Vuitton building is thus a kind of metaphysical *summa* of what might be called the mystical streak in Gehry's architecture, which leaves the viewer speechless before and within this never-ending, gleeful, display of wit and ingenuity. Herein, I think, also lies the ultimate metaphor of the project, to which Gehry himself alluded when he was asked to respond to the very perceptive question why there tended to be perimeter-like elements surrounding his buildings. Gehry replied that the enclosure of space and manipulation of the enveloping surface is the principal characteristic of architecture. He was interested in the "oneness" to give unity to the various elements of the design.<sup>7</sup> His use of that word is astonishing: related to the biblical Atonement, it echoes (perhaps coincidentally, perhaps not) Barnett Newman's conundrum name of the very first of his famous series of single-stripe paintings, *Onement*, 1948 (Fig. 42). Gehry's glowing, ectoplasmic apparition riding on water, perhaps the most complicated building ever built, no less a miracle of engineering and fabrication than a miracle of design, has precisely this ineffable quality of oneness.

## ILLUSTRATIONS



Fig. 1 Frank O. Gehry, front, night view, Fondation Louis Vuitton, Paris

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Fig. 2 Frank O. Gehry, front, day view, Fondation Louis Vuitton, Paris

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Fig. 3 Frank O. Gehry, left side view, presentation model, Fondation Louis Vuitton

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Fig. 4 Frank O. Gehry, Gehry House, Santa Monica, 1978, Los Angeles, CA

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Fig. 5 View of Strada Novissima including Gehry's façade (second on the left), Biennale di Venezia, 1980

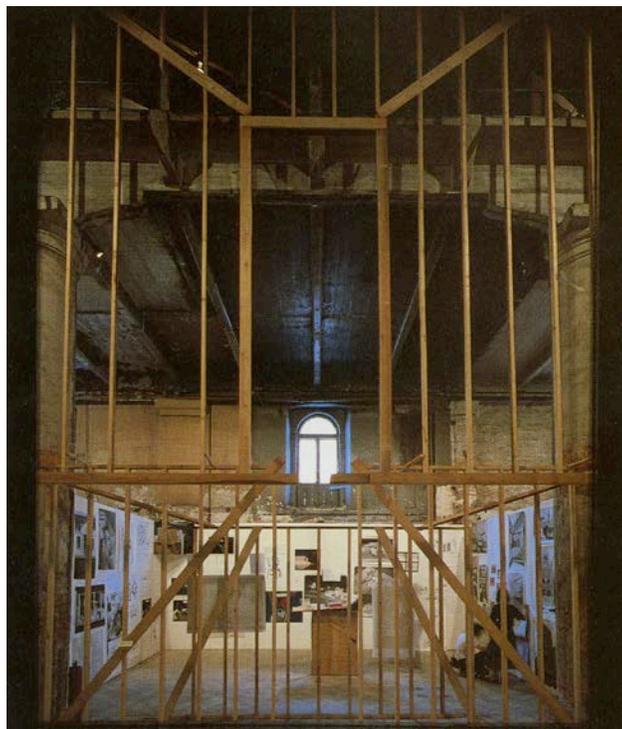


Fig. 6 Frank O. Gehry, façade and interior view, Strada di Novissima, Biennale di Venezia, 1980

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Fig. 7 Frank O Gehry, sketch for Fondation Louis Vuitton, Paris

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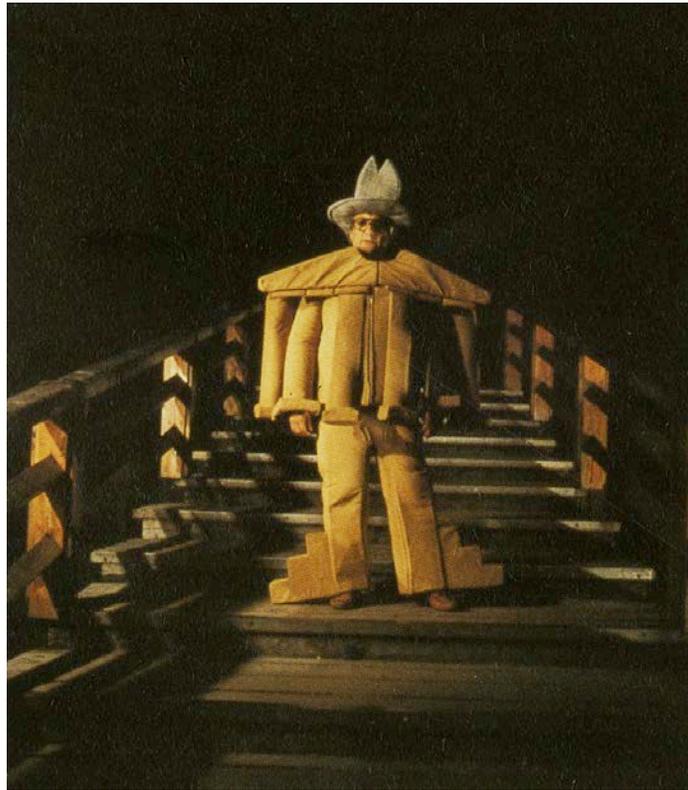


Fig. 8 Frank O. Gehry playing Frankie P. Toronto in a performance of *Il Corso del Coltello*, 1985

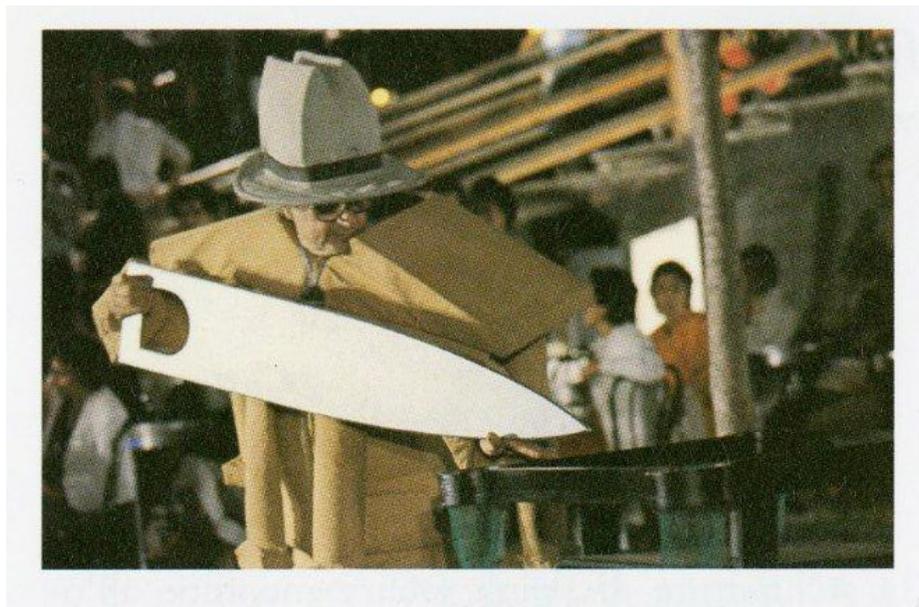


Fig. 9 Frank O. Gehry playing Frankie P. Toronto in a performance of *Il Corso del Coltello*, 1985

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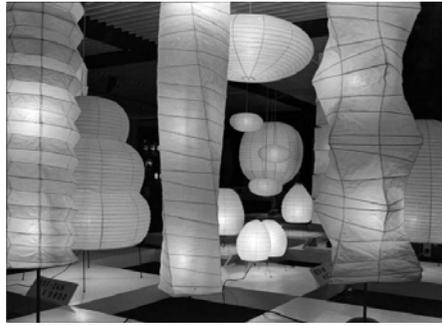


Fig. 10 Isamu Noguchi, Akari Lamp display, Japan 1970. Photo: Michio Noguchi, *Domus* September 2011

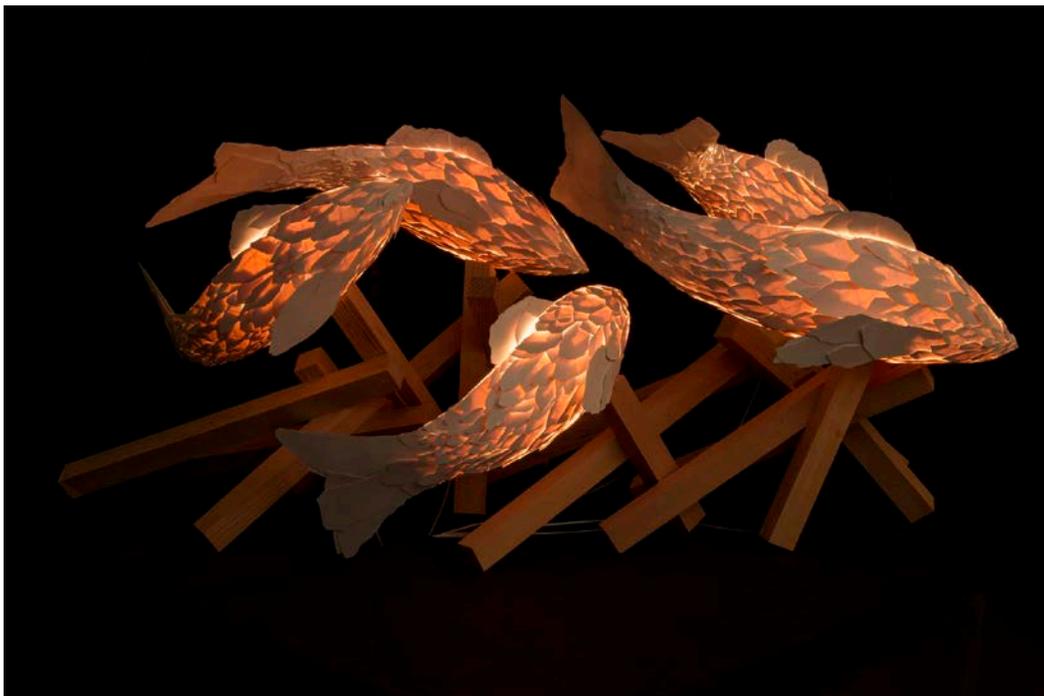


Fig. 11 Frank O. Gehry, Untitled (Hong Kong V), 2013, metal wire, ColorCore formica and silicone, 42 x 126 x 54 inches



Fig. 12 Chinese lantern

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Fig. 13 Frank O Gehry, Fishdance Restaurant, 1986-7, Kobe, Japan

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Fig. 14 Frank O. Gehry, *Peix*, stainless steel plates on a metallic frame, 35 x 54 m, 1992, Barcelona, Olympic Marina

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Fig. 15 Elephant Lucy, Margate, NJ

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Fig. 16 Maerten van Heemskerck, *The Colossus of Rhodes*, 16<sup>th</sup> century engraving, private collection

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Fig. 17 Flying fish at night

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Fig. 18 Frank O. Gehry, *Standing Glass Fish*, wood, glass, steel, silicone, Plexiglas and rubber, 22 x 14 x 8 feet, 1986, Collection Walker Art Center, Minneapolis, MN

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Fig. 19 Frank O. Gehry, water cascading down stepped fountain forecourt, Fondation Louis Vuitton, Paris

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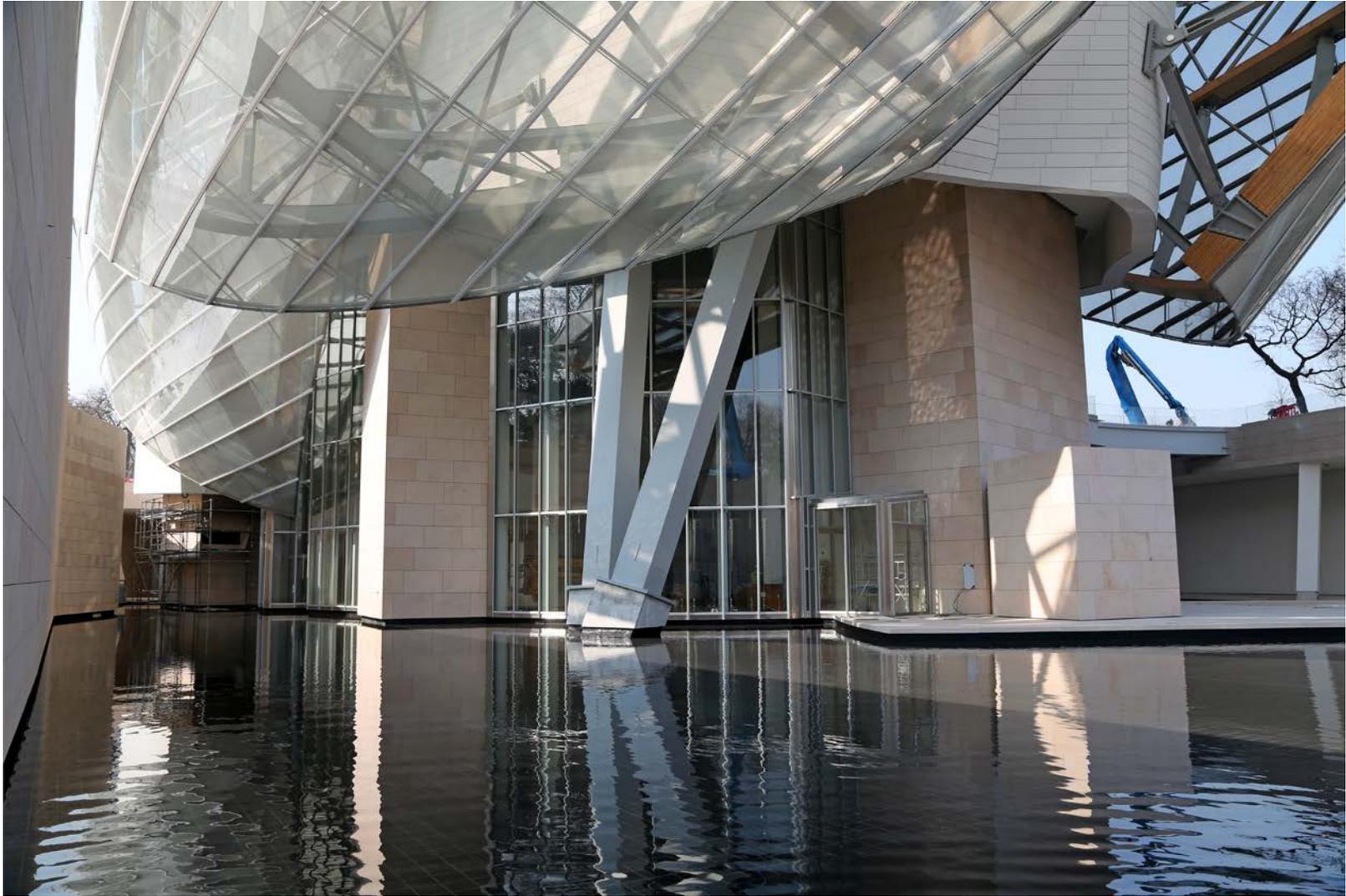


Fig. 20 Frank O. Gehry, quiet water under building, Fondation Louis Vuitton, Paris

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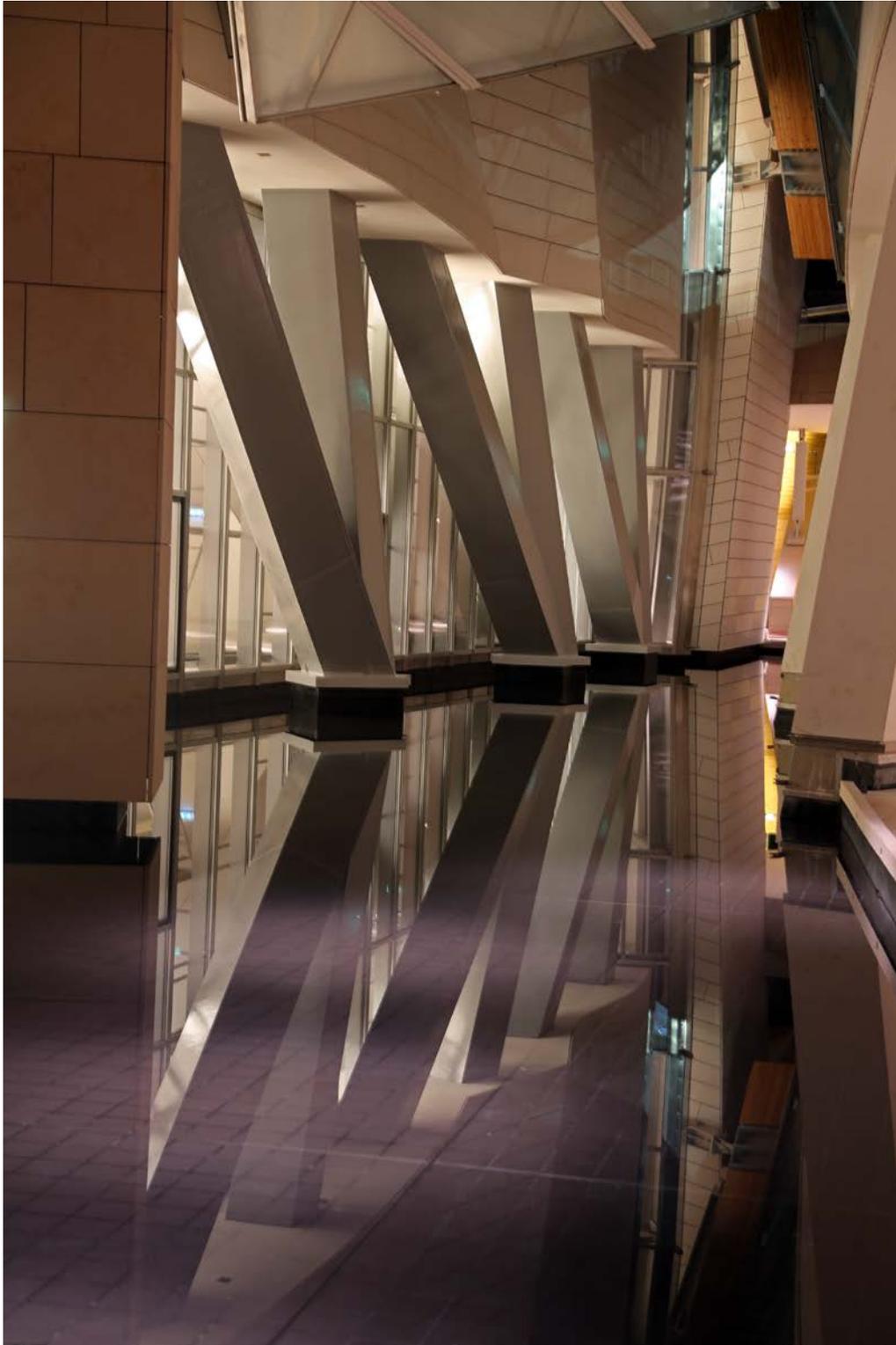


Fig. 21 Frank O. Gehry, water basin, Fondation Louis Vuitton, Paris

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Fig. 22 Fontana della Galera, Vatican, Rome

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Fig. 23 Gian Lorenzo Bernini, Barcaccia Fountain, Piazza di Spagna, Rome

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Fig. 24 Frank O. Gehry, Neuer Zollhof, 1998, Düsseldorf

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**Fig. 25 Palmarium, bottom center**  
 Jardin d'Acclimatation, Bois de Boulogne, Paris. *La France de nos jours* (1853-1876), no. 349. Color lithograph by Charles Mercereau  
 Image courtesy: Service Archives-Dokumentation, Ville de Neuilly-sur-Seine

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Fig. 26 Jardin d'Acclimatation, Aerial Swing

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Fig. 27 Louis Vuitton Cup, 2013, San Francisco

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Fig. 28 Palmarium, interior view, 1895, Jardin d'Acclimatation, Paris

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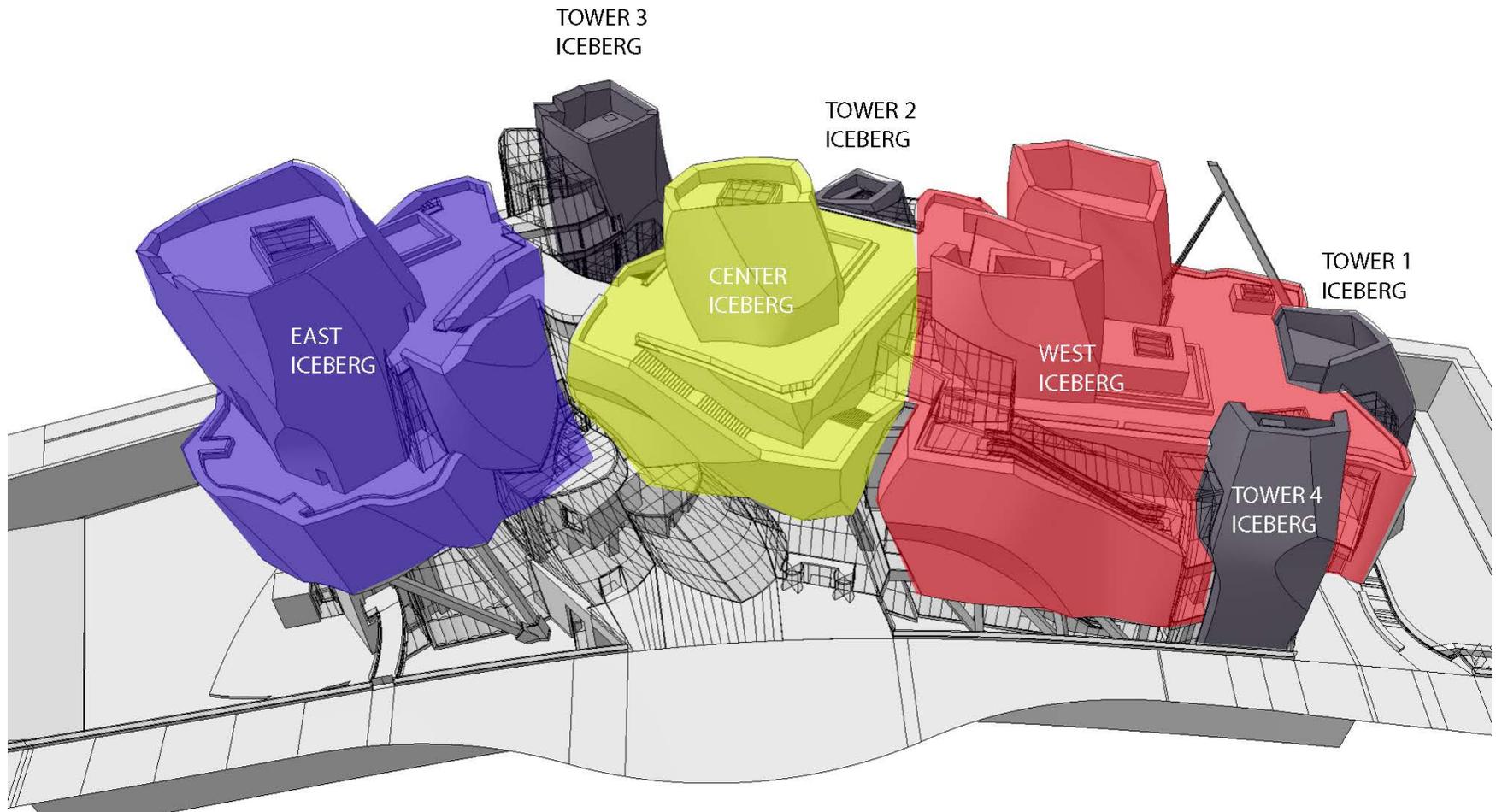


Fig. 29 Icebergs diagrams

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Fig. 30 Frank O. Gehry, wood arch, Fondation Louis Vuitton, Paris

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Fig. 31 Moby Dick

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Fig. 32 Attributed to Gustave Doré, *The Destruction of Leviathan*, engraving 1865, private collection

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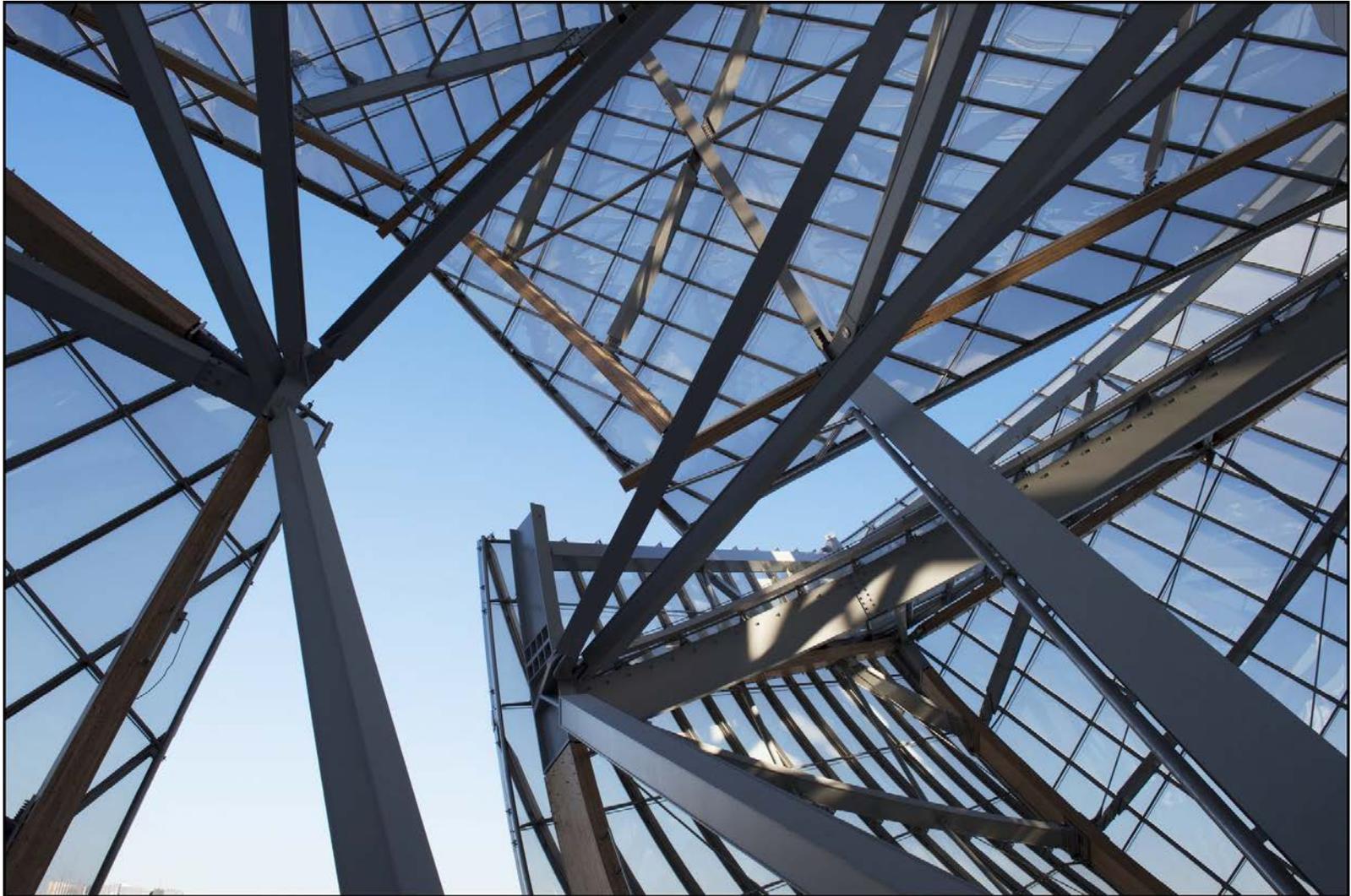


Fig. 33 Frank O. Gehry, view of umbrella and sails, Fondation Louis Vuitton, Paris

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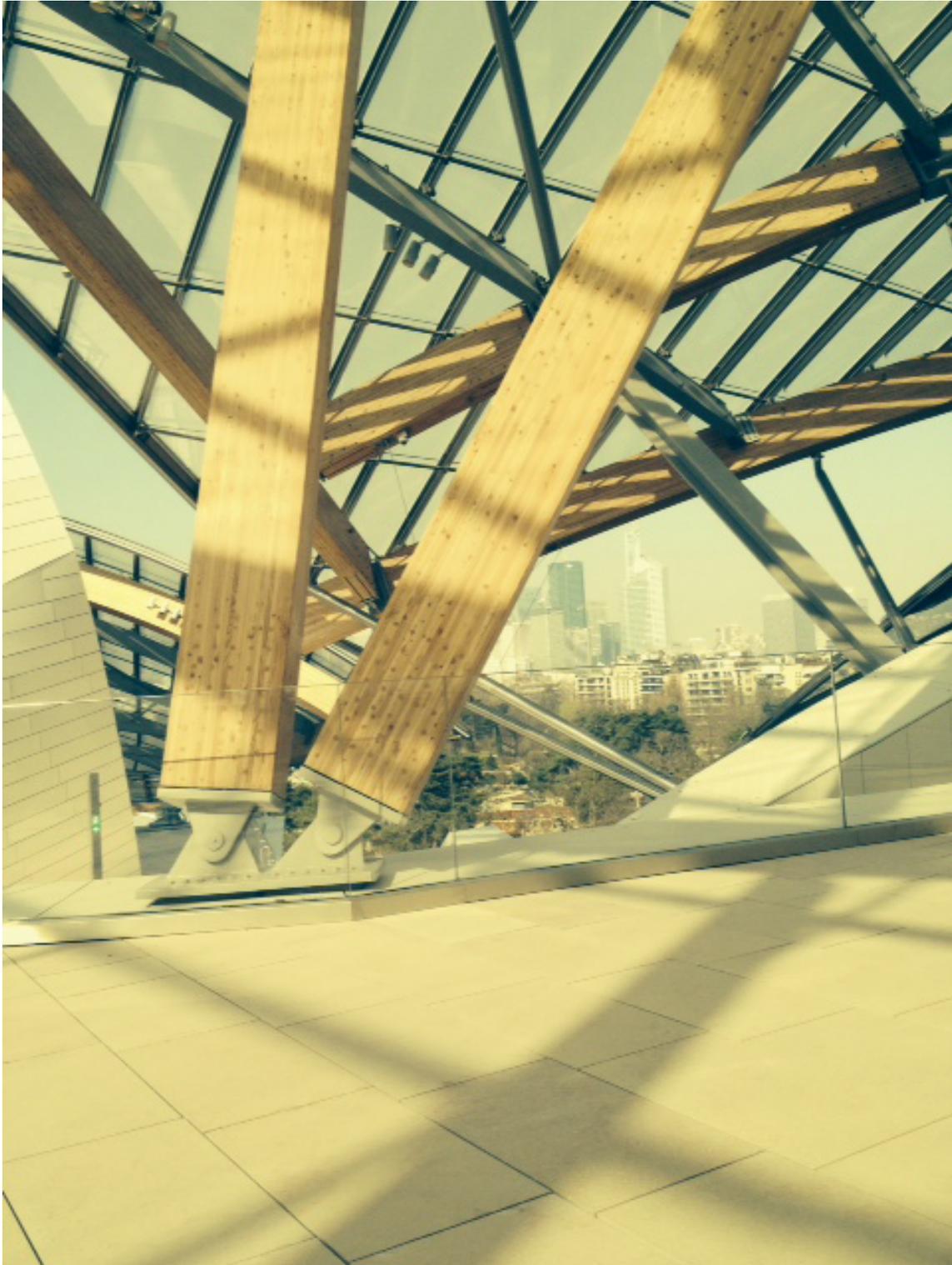


Fig. 34 Frank O. Gehry, wood struts and joints, Fondation Louis Vuitton, Paris

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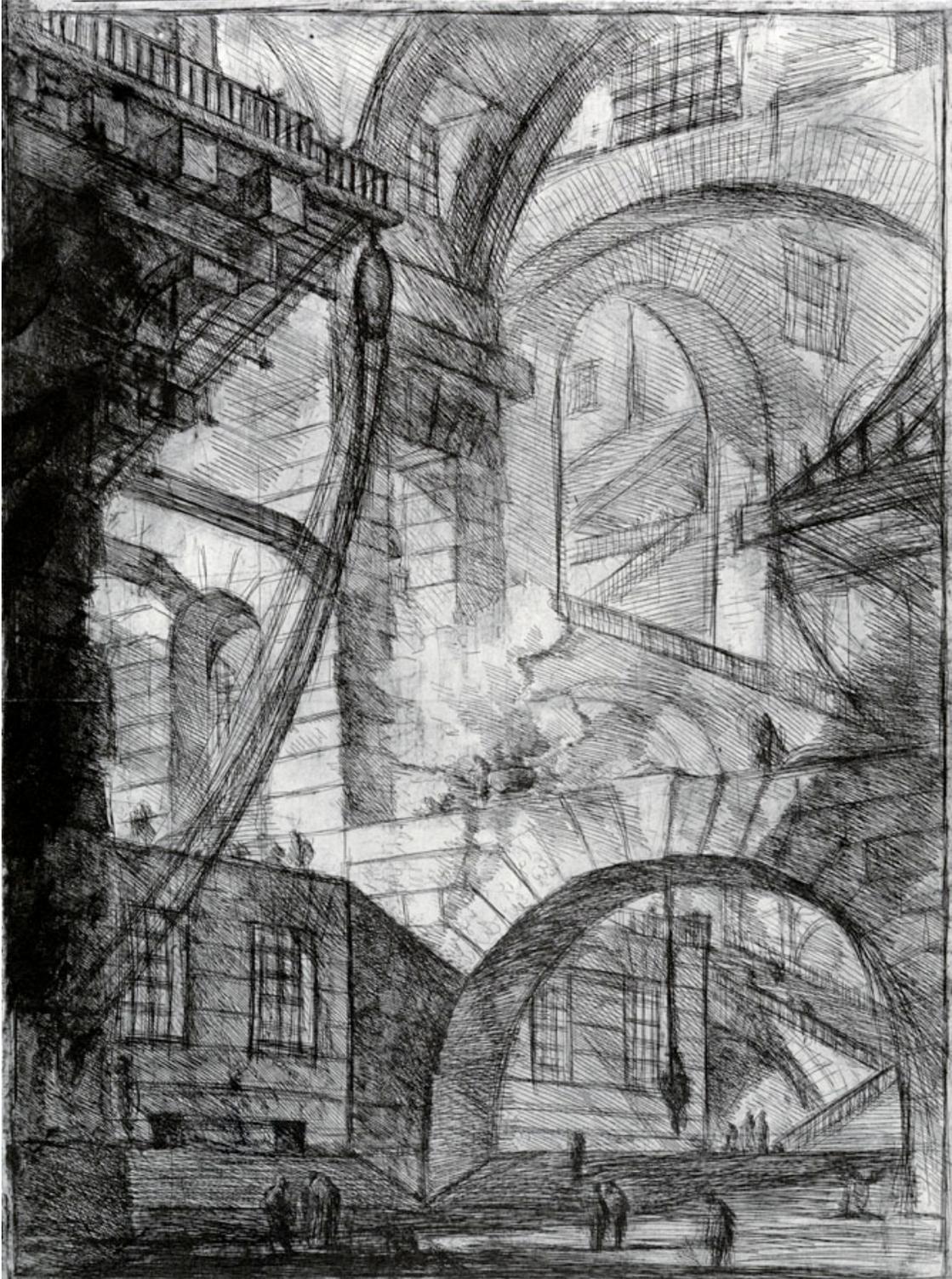


Fig. 35 Giambattista Piranesi, "The Drawbridge", etching from the *Carceri* series, 1749-60, Bibliothèque nationale de France, Prints and Photographs department, Plate 7, II, F. 30, Paris

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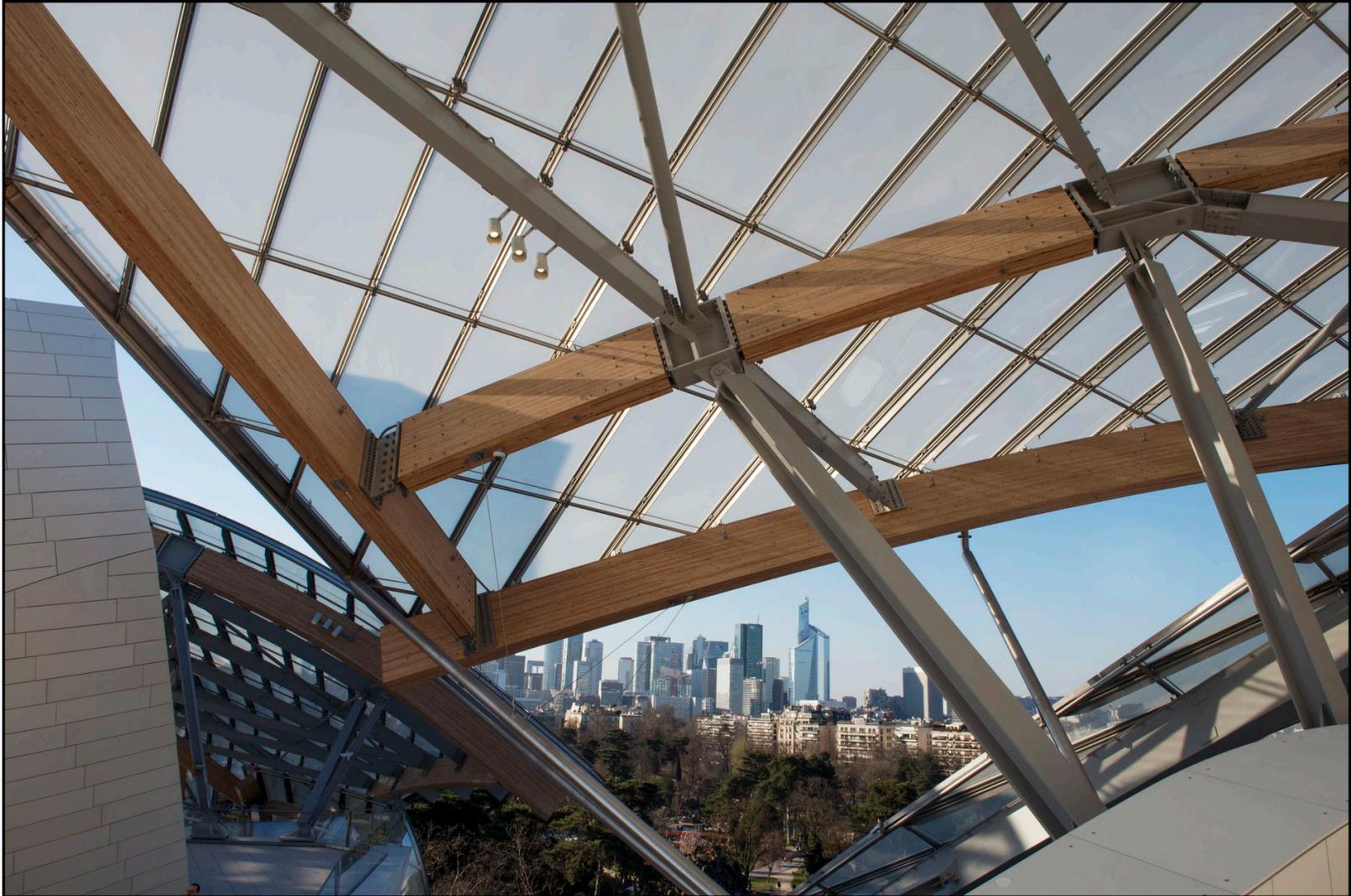


Fig. 36 Frank O. Gehry, view of sails from icebergs, Fondation Louis Vuitton, Paris

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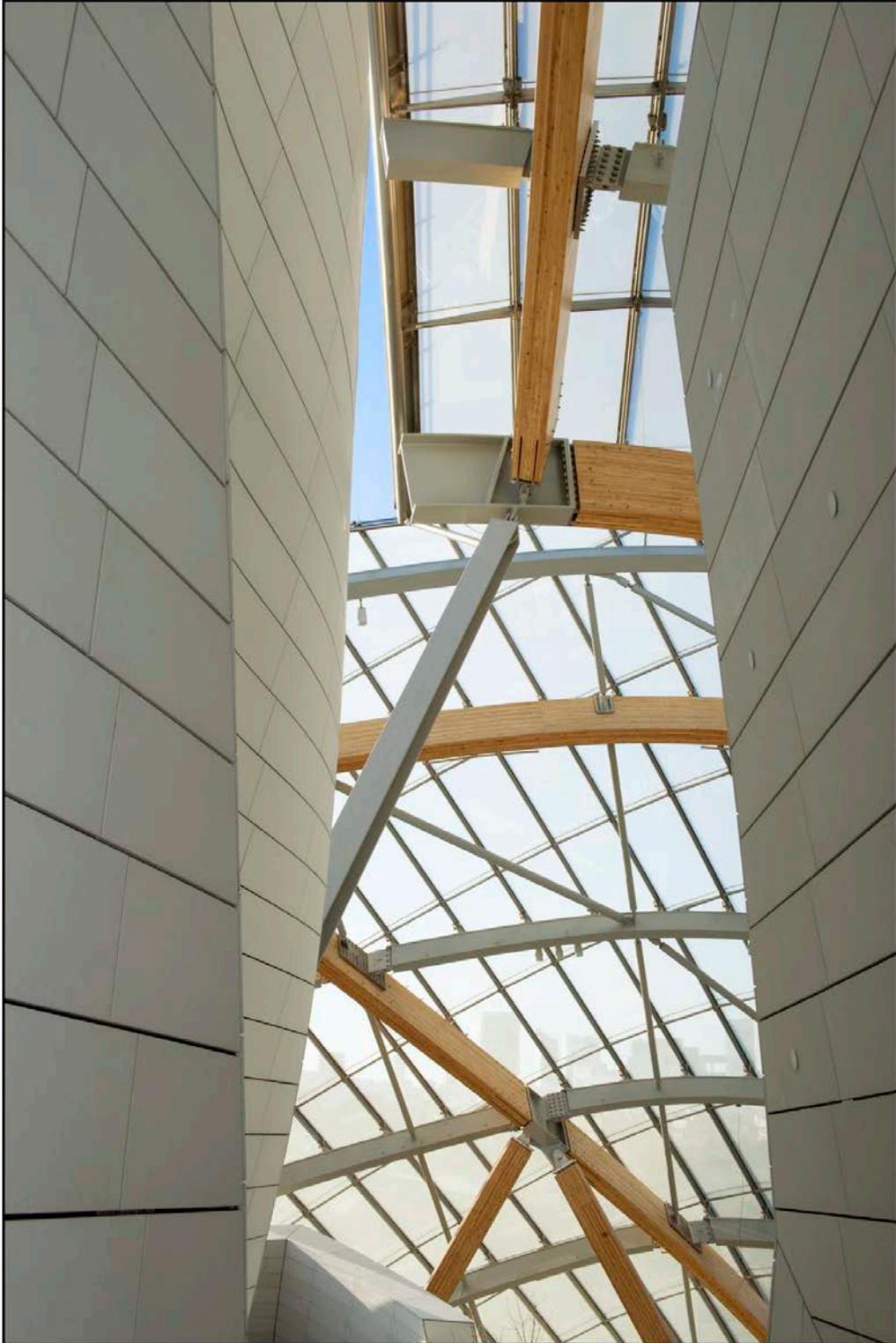


Fig. 37 Frank O. Gehry, view of sails through icebergs, Fondation Louis Vuitton Paris

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Fig. 38 Frank O. Gehry, glass reflections, Fondation Louis Vuitton, Paris

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Fig. 39 Skysails and stunsails

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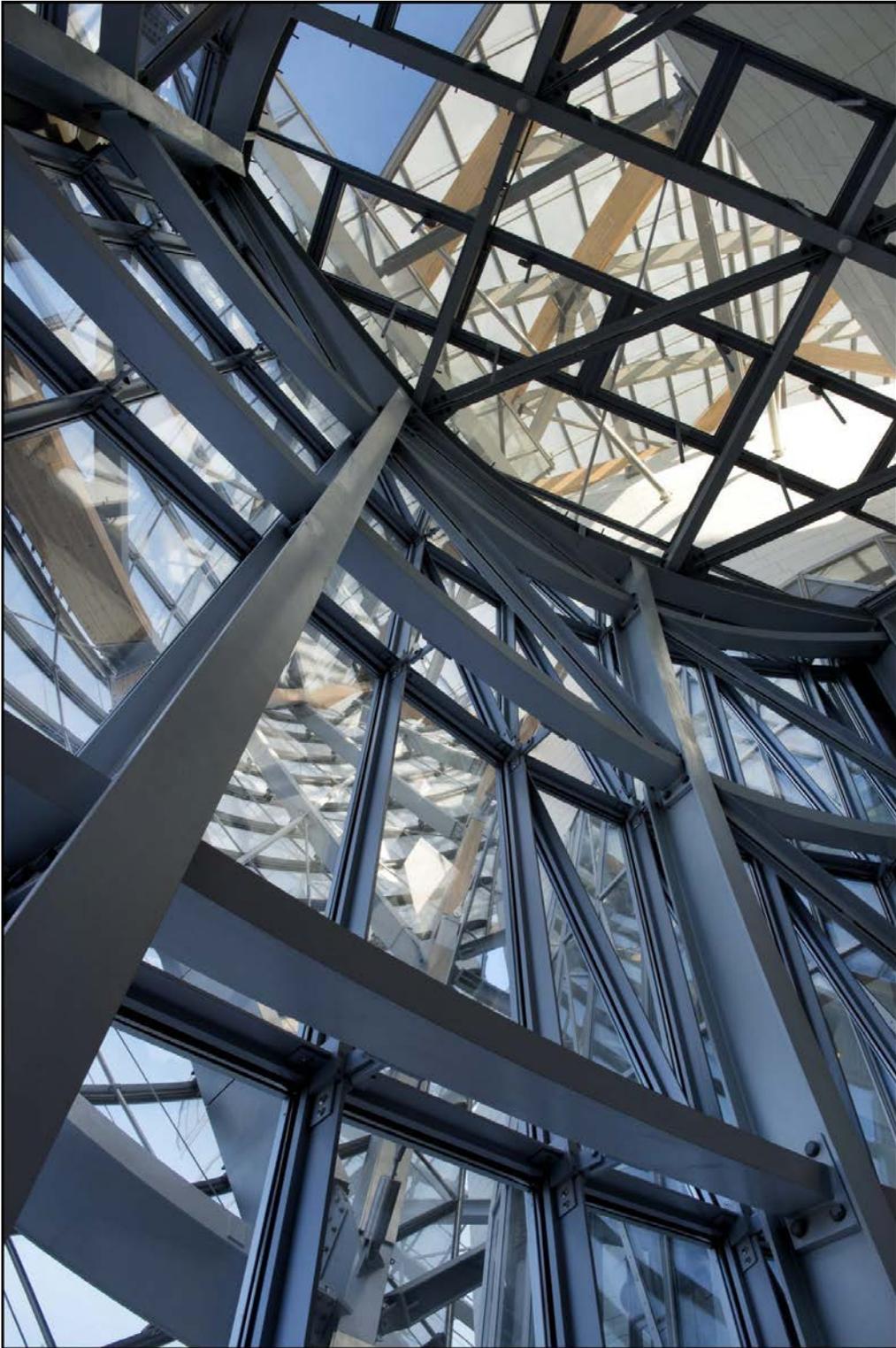


Fig. 40 Frank O. Gehry, upper framework, inside, Fondation Louis Vuitton, Paris

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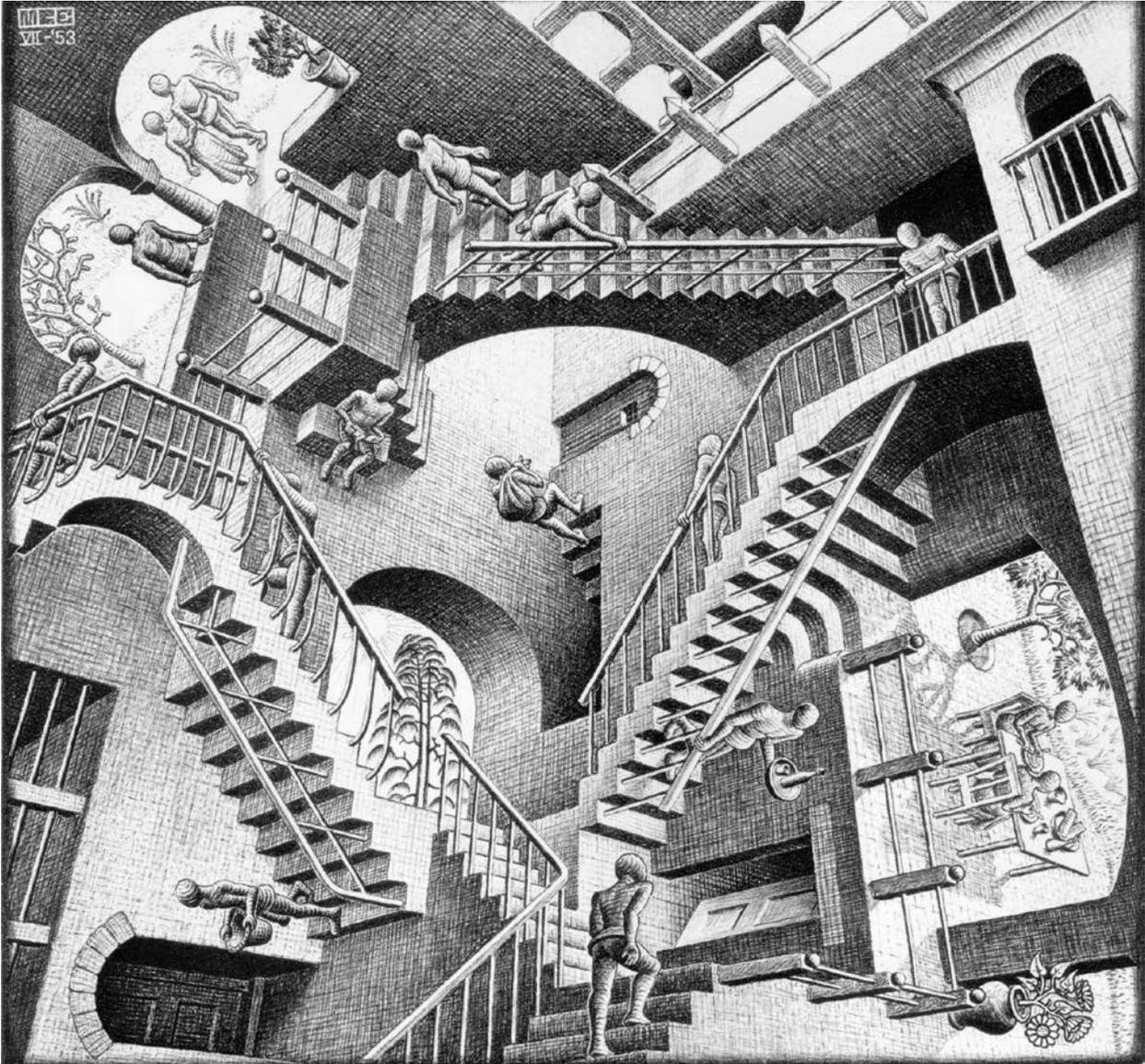


Fig. 41 M.C. Escher, *Relativity*, lithograph, 27 x 22 cm, 1953

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Fig. 42 Barnett Newman, *Onement I*, oil on canvas and oil on masking tape, 69,2 x 41,2 cm, 1948, Museum of Modern Art, New York, NY

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## ENDNOTES

Postscript. After this essay went to press I learned of a splendid paper by Marcello Fagiolo which treats similar themes of lightness, transparency and technical bravura in modern architecture: “Le Leggi della Leggerezza: idee e proposte del Movimento Moderno,” in *Materia*, June 2011, pp. 48-57.

<sup>1</sup> Alejandro Zaera Polo, “[with Frank O. Gehry] Conversations,” *El Croquis*, N. 74-75, 12-42; *Interview with Frank Gehry and Hans Ulrich Obrist*. Paris. February 11, 2009 (pages unnumbered).

<sup>2</sup> Obrist 15.

<sup>3</sup> The fish lamps were the subject of an international exhibition in 2013 at the Gagosian gallery, with a fine essay by Paul Goldberger.

<sup>4</sup> Cited in the *American Masters* film series, at:  
<http://www.pbs.org/wnet/americanmasters/episodes/frank-gehry/fish/608/>

<sup>5</sup> Polo 37-38.

<sup>6</sup> For more on movement in Gehry’s work see my essays “Going for Baroque: Observations on the Post-modern Fold” in Sebastian Schütze ed., *Estetica barocca. Atti del convegno internazionale tenutosi a Roma dal 6 al 9 marzo 2002*, Rome, 2004,  
[http://publications.ias.edu/sites/default/files/Lavin\\_GoingforBaroque\\_2004.pdf](http://publications.ias.edu/sites/default/files/Lavin_GoingforBaroque_2004.pdf); and “The Gehry Move,” Introduction to a speech, “Thinking Out Loud,” by Frank O. Gehry, Institute for Advanced Study, March 16, 2011: [http://publications.ias.edu/sites/default/files/Lavin\\_OP\\_GehryMove\\_2014.pdf](http://publications.ias.edu/sites/default/files/Lavin_OP_GehryMove_2014.pdf)

<sup>7</sup> Polo 30.