

This article was downloaded by: [Ams/Girona*barri Lib]

On: 10 October 2014, At: 01:59

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office:
Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



The Journal of Architecture

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rjar20>

Frank Gehry: roofing, wrapping, and wrapping the roof

Gevork Hartoonian

Published online: 08 Dec 2010.

To cite this article: Gevork Hartoonian (2002) Frank Gehry: roofing, wrapping, and wrapping the roof, The Journal of Architecture, 7:1, 1-31, DOI: [10.1080/13602360110114759](https://doi.org/10.1080/13602360110114759)

To link to this article: <http://dx.doi.org/10.1080/13602360110114759>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

Frank Gehry: roofing, wrapping, and wrapping the roof

Gevork Hartoonian

*Faculty of Architecture, University of Sydney,
NSW 2006, Australia*

Frank Gehry's work has taken the architectural stage worldwide. Without theorising his work, Gehry has produced a sensible architecture that deserves serious examination. In many ways, his work speaks for the present problematic state of architecture; the long-standing relation of architecture to sculpture and other forms of artistic creativity; architecture's relation to its own history; the impact of telecommunication technologies on architecture; and the aesthetic implications of the commodity fetishism for architecture. Reflecting on these issues, the main intention of this essay is to demonstrate the permeation of the 'culture of building' in Gehry's architecture, in particular the Semperian discussion of the tectonic relationship between the elements of roof and enclosure. The paper also invokes Gottfried Semper's discourse on theatricality to demonstrate the way Gehry's architecture appropriates the present culture of spectacle. This much is clear from Gehry's shift from regionalism for the montage of fragmentary forms, and the theatricalisation of architecture where the element of wrapping defies the tectonic but also reminds us of the essentiality of the rapport between a constructed form and the clothing.

Introduction¹

Among participants in the MoMA's 1988 'Deconstructivist Architecture' show, Frank Gehry has come a long way in securing both institutional and public support. He is one of the few contemporary architects with little interest in theorising his work, and yet, he shares the neo-avant-garde's tendency to renew architecture by borrowing from conceptual art.² He is not, according to Francesco Dal Co, a passive recipient of ideas generated by contemporary artists, rather, he 'understands that it is possible to "occupy" with architecture, the spaces that art is no longer able to dominate, assigning to architectural design the task of taking the experiments of the historical avant-gardes

to their extreme consequence.'³ Throughout long years of practice Gehry has pursued a self-imposed challenge, to avoid leaving any kind of personal signature on his work. He has taken every commission as an opportunity to generate something different. With the Disney Concert Hall and most recently with the Guggenheim Museum in Bilbao, however, he has introduced a major note into the noisy debates on architectural theories and practice. But what will be the next turn in his architecture after Bilbao?

I ask this question because the language of the Guggenheim Museum in Bilbao evolved out of a paradox in Gehry's own work; that is an 'obsession' with the biomorphics of fish⁴ – as an emblem

of formal autonomy – and an aspiration for regionalism, especially the element of roof and workaday look of materials that were prolific in his early projects. Second, knowing the role of computer programming for the Bilbao project, one wonders if there is some formal limitation to computer-aided design beyond which a return to the orthogonal and the striated space of modern architecture seems still a viable alternative.⁵ This technical limitation has a theoretical corollary: how far can one stretch the formal implications of the 'fold', another favourite Deleuzian term in the neo-avant-

garde index, beyond what Gehry and others have already done? These limitations are evident in the 'repetition' that is haunting Gehry in his recent projects: both the addition to the Corcoran Museum and the Concert Hall for the Bard College present a mini-replica of Guggenheim in Bilbao, let alone his recent proposal for the Guggenheim in lower Manhattan (Fig. 1).

There is no intention to discuss Gehry's complete work in this essay.⁶ Instead, it is intended to focus on buildings and projects which are pivotal for an argument of theatricalisation permeating his

Figure 1. New York Guggenheim, Photograph, Wit Preston, Courtesy of Gehry Partners, LLP.



present architectural practice. The metaphor of fish, with its twisting and bouncing body, is suggestive of an architectural image whose space could be wrapped beyond the dictate of the 'regulating lines' envisioned by Le Corbusier. To go beyond the horizontal and vertical datum of the tectonic, architecture might enter into the world of plastic arts where the tension between the art-form and the core-form, discussed by the nineteenth century architect Carl Botticher, evaporates.⁷ In Gehry's recent buildings the 'against architecture' of neo-avant-garde takes a critical turn: his work is informed neither by popular images of the main

stream of pop culture, nor by the agonies of metaphysics that are haunting deconstructivist architects. From a certain angle, the Bilbao building stands as a phantom-like image comparable to visual effects seen in the best Hollywood films (Fig. 2). It is a three-dimensional space modelled by the exuberant look of a commodity. Here architecture is not a stage set, around and within which an event could take place, but the event itself. Again, I am searching for a distinction between Gottfried Semper's discourse on the architecture of theatricality and the theatricalisation of architecture: one representing tradition materialistically, the other



Figure 2.
Guggenheim Bilbao,
entry plaza, from
Francesco Dal Co &
Kurt Forster (eds),
*Frank O. Gehry:
Complete Works*,
New York, The
Monacelli Press,
1998.

shifting tradition into the phantasmagoria of a commodity world.⁸

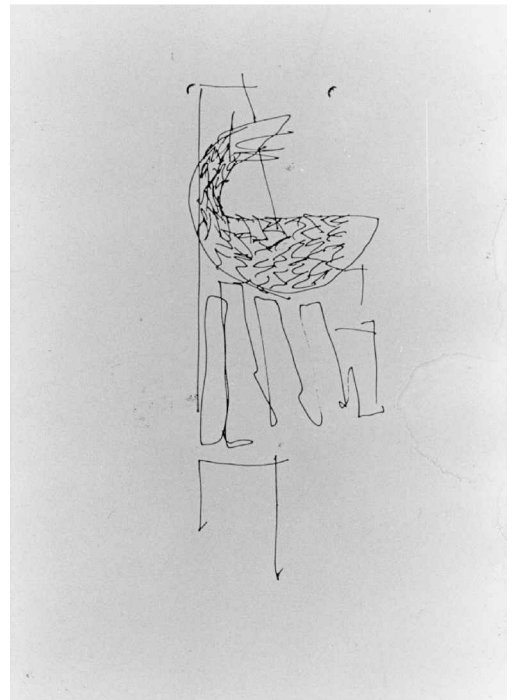
I wish to propose that the surreal quality of the Guggenheim Museum in Bilbao, a found-object with discrete charm, evolved out of Gehry's move from regionalism towards a montage of fragmented masses and volumes. In this mutation the year 1981 is important: in a housing project for Kalamazoo in Michigan, the entire landscape is marked and dominated by a free standing hotel envisioned in the shape of a standing-up fish

(Fig. 3). Here one witnesses the return of childhood memories of a fish as the emblem of both formal perfection and the 'other' that is charged with therapeutic function. 'The fish evolved further,' Gehry recalls in an interview, 'I kept drawing it and sketching it and it started to become for me like a symbol for a certain kind of perfection that I couldn't achieve with my buildings. Eventually whenever I'd draw something and I couldn't finish the design, I'd draw the fish as a notation' (Fig. 4).⁹ I would like to suggest that Gehry's

Figure 3. Central Business District project, Kalamazoo, Michigan, 1981, Courtesy of Gehry Partners, LLP.



Figure 4. Fishdance Restaurant, Kobe, Japan, Drawing, Courtesy of Gehry Partners, LLP.



architecture evolved out of a dialogue, at times confrontational, between a montage of fragmented forms and the plastic quality of folding surfaces that is analogous to the bouncing body of a fish.

Roofing

Consider the Steeves House and the Ronald Davis Residence built almost ten years apart from each other. In both buildings the roof stands out as an architectural element responding to the landscape and the region's vernacular tradition. The cruciform

plan of the Steeves House (Fig. 5) recalls the planimetric organisation entertained by Frank Lloyd Wright with the difference that the hearth (where two perpendicular arms of the plan come together) was for Wright the existential nucleus of dwelling whose architectonic presence is stressed either by the vertical expression of the chimney in the facade (the Robie House) (Fig. 6), or by a hovering roof that shelters the house like an umbrella (Ward Willitts House). Gehry, instead, approaches the crossing point of the Steeves House pragmatically. Here the crossing point makes room for the main

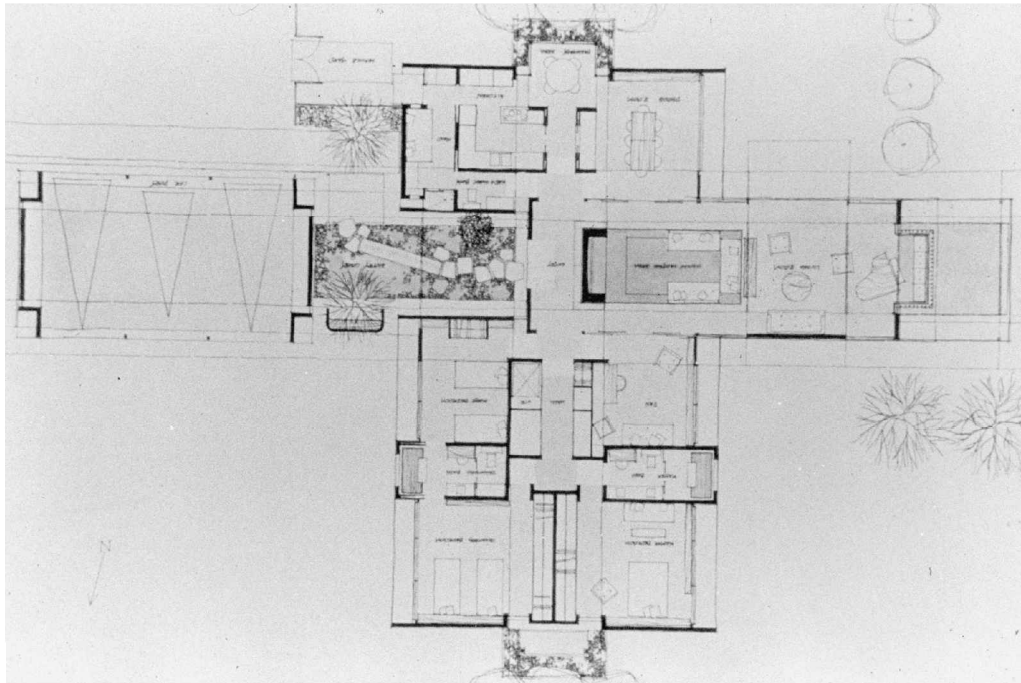


Figure 5. Steeves Residence, Brentwood, California, plan, Courtesy of Gehry Partners, LLP.

Figure 6. Frank L. Wright, Robie House, Chicago, 1909, courtesy of the author.



entrance, keeping the bedroom wing apart from the other three wings. The horizontal roof of this house (Fig. 7) is another element that could be associated with Wright's design in the Goetsch-Winkler House built in Okemos, Michigan. Again, absent in Gehry's approach is the importance Wright would assign to the roof not only at a tectonic, but also at a metaphysical level. In the Goetsch-Winkler House, the roof attains its particular form by being anchored to the entrance. Should the absence of narrative of the kind Wright would weave in tectonic forms be considered as a weakness in Gehry's architecture? Even a positive

response to this question can't deny the attention Gehry gives to the client's needs and the landscape of California, thus endowing the architecture with regional qualities. In the Steeves House the roof stretches out to make openings for a patio and a pergola above the living room. The split body of this roof generates a draft cooling the patio and lets the light penetrate indirectly to the living room and the garage.

Gehry's vernacular sensibilities attain a different level in the Davis Studio and Residence (Fig. 8). A two-bedroom house with a painting studio, this house is conceived almost like an overturned box,

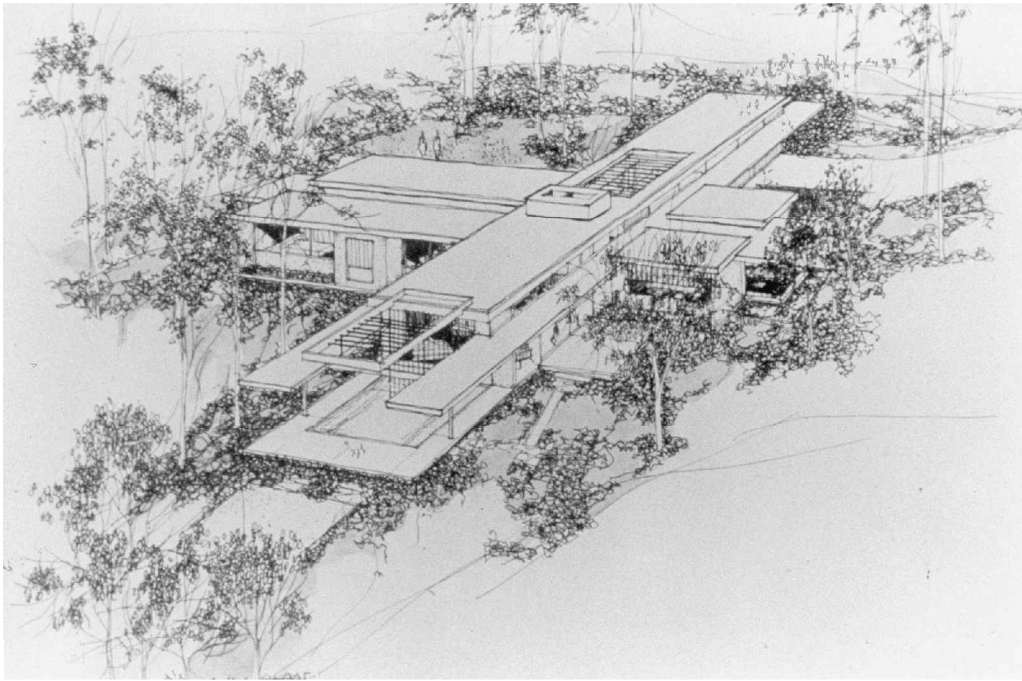


Figure 7. Steeves Residence, Brentwood, California, drawing, Courtesy of Gehry Partners, LLP.

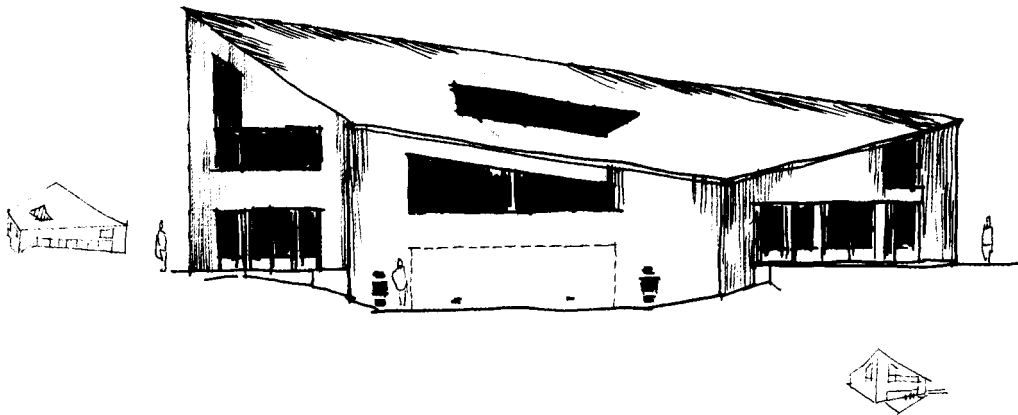


Figure 8. Davis Studio and Residence, Malibu, California, 1972, sketch, Courtesy of Gehry Partners, LLP.

several volumes that are connected to each other by wooden stairs (Fig. 9). The space between the shell and the interior volume acts as a passage overriding the conventional distinction between inside/outside spaces. The posts connecting the wood joists to the partition walls below stress the detachment of the roof from other parts of the house. The exposed wooden structure of the roof floats over interior volumes while its sloping form echoes the mountains of Malibu. Here Gehry intermingles the image of the American ranch-house, a single free standing object in the midst of land-

scape,¹⁰ with spatial sensibilities derived from modern architecture. The expressive quality of the roof in the Davis Studio is in part a regional element utilised previously in non-residential buildings such as the Public Safety Building and Merriweather-Post Pavilion, both built in Columbia, Maryland. In Davis's Studio, however, Gehry uses corrugated galvanised steel and exposed plywood, charging the building with an industrial/vernacular look. The tactile sensibilities experienced in this building, are indeed well situated in the tradition of modern architecture. One is reminded of R.M.Schindler's

Figure 9. Davis Studio and Residence, Malibu, California, 1972, interior view, Courtesy of Gehry Partners, LLP.



DeKeyser House in Hollywood where the living room volume is entirely sheathed in green rolled roofing which projects over the lower floor (Fig. 10). More compelling is Schindler's Armon House in Mt. Washington California, where an expressive roof and exposed wooden structure shelter an otherwise disjunctive plan where three volumes penetrate each other. This work anticipates Gehry's own house. According to Margaret Crawford:

Like Schindler, Gehry tended to develop interior spaces independently from exterior fa ades. Directly antithetical to the modernist insistence on the legibility of the interior on the exterior, this produced interesting slippages that Schindler exploited to create complex spaces and Gehry to produce complex exterior forms. Paradoxically, the influences between Schindler and Gehry are reciprocal; if Schindler made Gehry possible, Gehry's work illuminates Schindler's in new ways. For example, Gehry's far more dramatic use of exposed studs (as in his own house) to reveal the nature of wood frame construction makes it possible to see Schindler's less explicit and more integrated use of exposed studs (as in the living room of the DeKeyser house) in a new light.¹¹

Using inexpensive and ordinary materials such as chain link, corrugated metal, and unfinished plywood, Gehry's own house brings together two design themes essential for his departure from regionalism (Fig. 11).¹² In several interviews Gehry has expressed his fascination with the unfinished quality of a painting, sculpture, and even buildings under construction: 'I was interested in the unfinished – or the quality that you find in paintings by

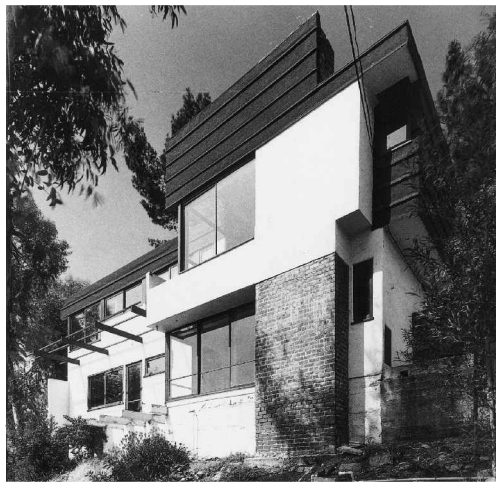
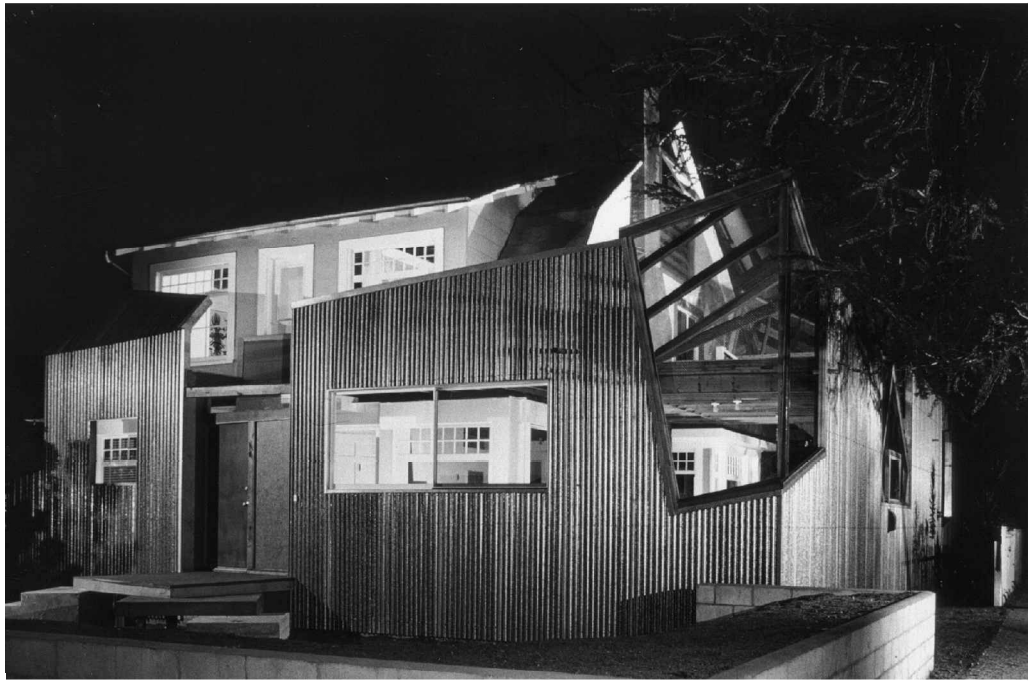


Figure 10. R. M. Schindler, DeKeyser House, Los Angeles, California, from *International Architecture Review*, 2G, 1997.

Jackson Pollock, for instance, or de Kooning, or Cezanne, that look like the paint was just applied . . . We all like buildings in construction better than we do finished – I think most of us agree on that.'¹³ The fact that contemporary painting can mediate with the outside world through use of paint and even sometimes by use of plain metal and wood evokes primitive tactility rooted in vernacular arts. In Gehry's house, the juxtaposition of the unfinished wood studs with highly articulated white clad surfaces, however, could be associated with the aesthetic sensibilities of the idea of both/and discussed by Robert Venturi.¹⁴ Nevertheless, in Gehry's hands, the thematic dualities such as inside/outside or old/new do not end in either/or resolutions. His own house marks a departure from what I would like to call architecture's interiority¹⁵ for a way of thinking in which

Figure 11. Gehry's Residence, Santa Monica, California, 1994, exterior view, Courtesy of Gehry Partners, LLP.



architecture is perceived as 'modelling.' I owe this last word to Giovanni Leoni who, comparing Aldo Rossi with Gehry, suggests that Rossi perceived architecture as analogous to stage construction, and concludes that 'the anti-architectural force of Gehry's architecture, which is perhaps what makes it appeal so much to the general public, can on the contrary be called modelling.' According to him, Gehry's buildings 'seem to be architectures which live in complete serenity within world of the form, and with their procession of dancing objects, ...'16 I will problematise Leoni's view shortly, but

first I want to introduce the idea of formal playfulness as another theme important for Gehry's departure from regionalism.

By guiding design with few programmatic and perhaps site specific considerations, Gehry's design enters into an open-ended formal inquiry similar to that of scientific research. 'I guess,' Gehry says, 'I approach architecture somewhat scientifically – there are going to be breakthroughs, and they're going to create new information. It's adding information to the pot – not necessarily regurgitating other, older ideas.'¹⁷ Gehry's interest in

spontaneity of design process distils his architecture from metaphysical considerations as well as those themes indulged with the pleasure of the body in space pursued by Peter Eisenman and Bernard Tschumi. Also undetected in Gehry's architecture is the duality between construction and appearance, a crucial theme for the tectonic. Considering his interest in the 'unfinished,' however, I would like to suggest that Gehry's design paradigm is rather similar to that of an artist; no one except the painter, for instance, knows why his/her painting is called finished at a particular moment.

The formal implications of a design informed by the aesthetic of unfinished and spontaneous playfulness is best demonstrated in the Winton Guest House built in Wayzata, Minnesota 1982–1987 (Fig. 12). This house embodies some architectonic elements from both the past and what would become formative for Gehry's future architecture. The Winton House employs the idea of montage and theatricalisation of architecture simultaneously: each room is perceived and shaped based on programmatic needs and is clad with different materials without addressing

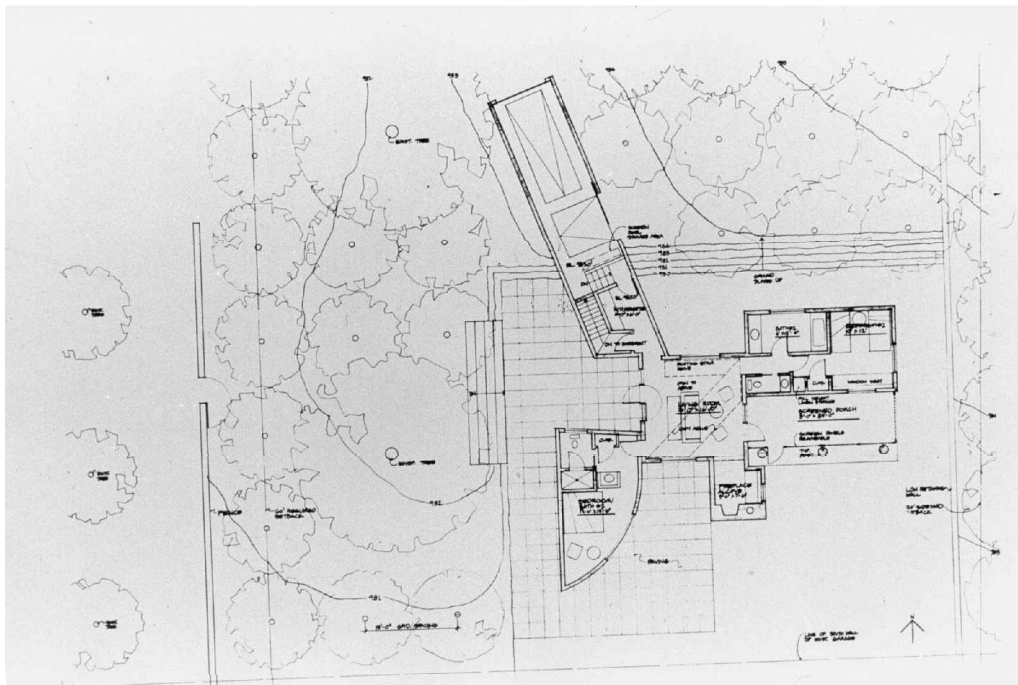
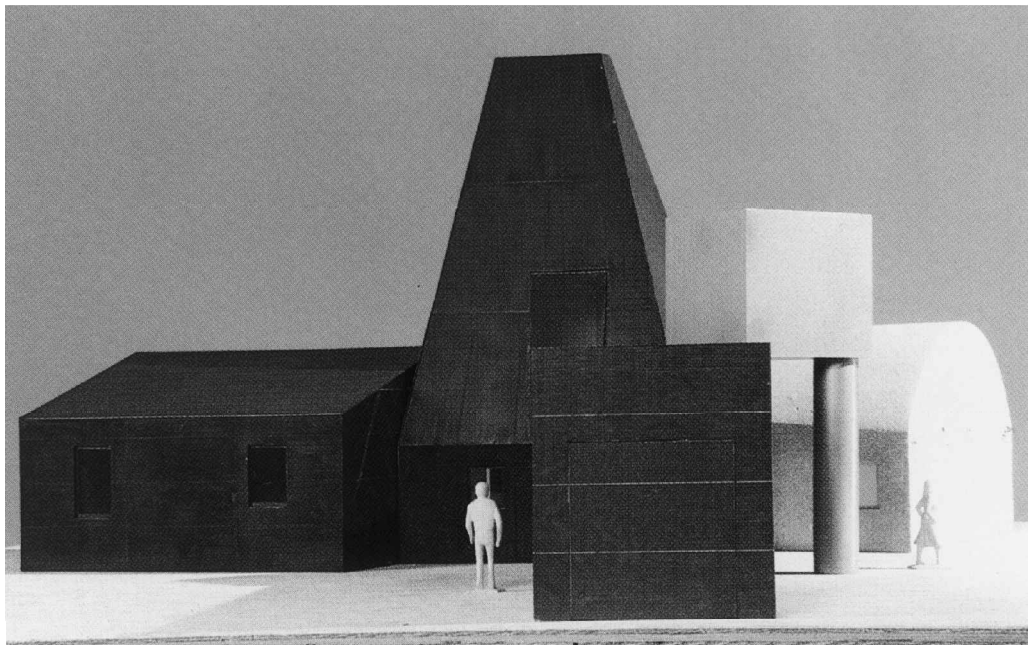


Figure 12. Winton Guest House, Wayzata, Minnesota, 1987, plan, Courtesy of Gehry Partners, LLP.

any particular narrative (Fig. 13). One bedroom is clad with local kasota stone while the other is sheathed in painted metal panels. These boxed volumes are playfully arranged around a core (the living room) built next to a house designed by Philip Johnson in 1952. Such a theatrical composition, however, dismisses the serenity of regional sensibilities, in particular the roof. The design also lacks the kind of animation permeating his recent projects. The Winton House is, indeed, an extension of ideas already at work in the California Aerospace Museum where dream-like images collide with each other to express their formal

autonomy (Fig. 14). Also noticeable in these two buildings is the central void whose presence is stressed by a vertical volume rising above other elements. The living room (the void) of the Winton House, is shaped by surrounding volumes and a truncated cone at the top. With metallic flesh and the void within, the truncated cone of the Winton House can be associated with the stand-up figure of a fish. If my last point seems peppered by subjectivism, the fact remains that the architectonic of a truncated cone compromises the line separating the roof from the wall.

Figure 13. Winton Guest House, Wayzata, Minnesota, 1987, model, Courtesy of Gehry Partners, LLP.



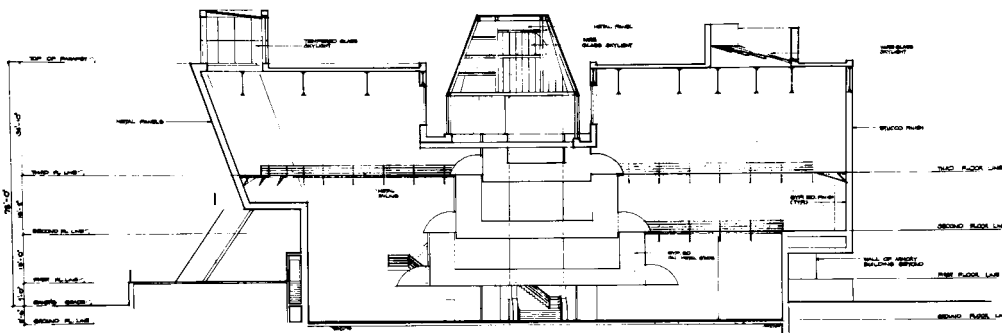


Figure 14. California Aerospace Museum, Los Angeles, California, 1984, section drawing, Courtesy of Gehry Partners, LLP.

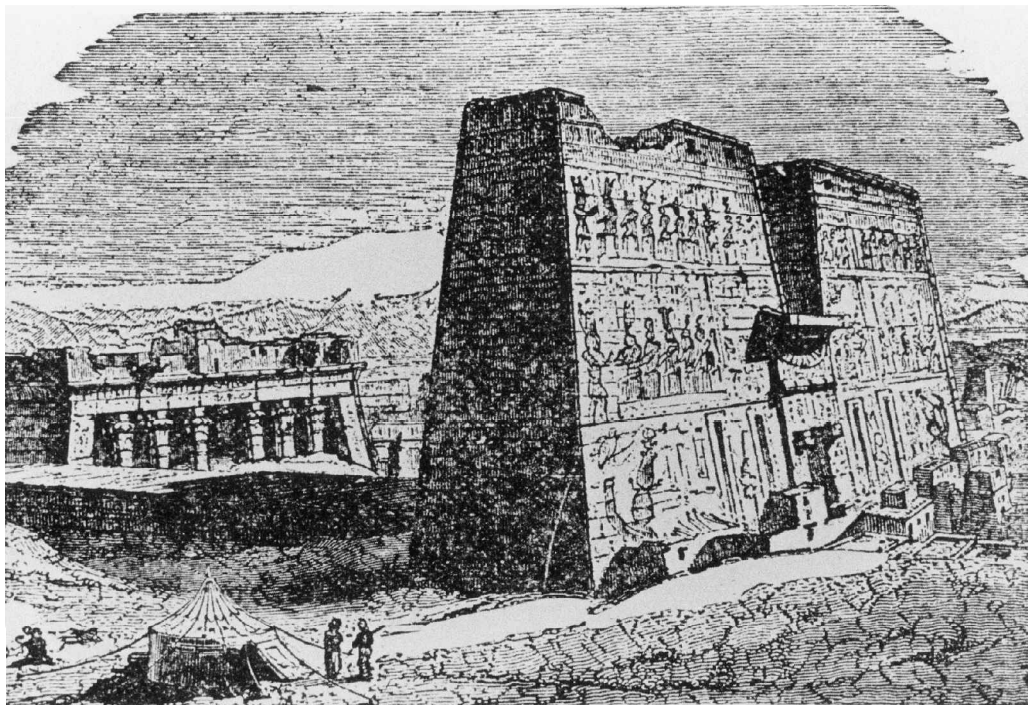
The implied pyramidal form of the living room at the Winton House is a reminder of the ancient Egyptian temples which according to Gottfried Semper 'rose chiefly from that element we have called the enclosure, . . . The other element, the roof, manifests itself in a twofold way: at times symbolically in the sekos as a pyramidal headpiece . . . , and second, as the flat cover over the courtyard. There it ceased to appear from the outside, but inside, as an unfurled sail, it fell into the province of the wall filter, the motive to which it originally belonged.'¹⁸ For Semper the element of roof and its support evolve out of a conscious tectonic response to the essential act of walling (Fig. 15). My reference to Semper and the tectonic rapport between the roof and the enclosure does not put limitations on formal creativity. I want, rather, to underline the importance of the image of fish in Gehry's work and the way such an image induces a world of pure figurative forms that problematise the tectonic rapport between the enclosure and the roof. Obviously, a certain kind of 'image' occupies a particular place in the architect's

mind, to the point that, like a craftsman, he/she attempts to correspond to the final form of design with that particular image. What is important, however, is the way one recodes an image to probe issues internal to architecture as well as those forces framing architecture within a material and aesthetic network of a given production and consumption system.¹⁹ My discussion here is not concerned with the atectonic architecture of Gehry, but his resilience to think of an architecture that in some ways would sustain a critical position palpable to the drive of commodification and its aesthetic connotation for architecture.²⁰ In raising this point, however, I am aware of the difficult interpretation I am ascribing to Gehry's work or that of any contemporary architect: How would one practice a critical architecture in a situation when production and consumption of images have become essential for the culture?

Technique of Spectacle

Giovanni Leoni is right to remind us of the anguish caused by combining 'aura and market'.

Figure 15. Egyptian Temple, from Harry F. Malgrave, Gottfried Semper, Yale University Press, 1996.



Nevertheless, he is wrong to conclude that architecture survives in Gehry's work through 'new expressionism.'²¹ Architecture has been thriving under the pressure of commercialisation of landscape since the 1960s, at least in ways more tangible in America. The anguish was first theorised by Robert Venturi and Denise Scott Brown in the language of 'complexity and contradiction' and then domesticised in their lessons drawn from Las Vegas.²² Should one see architecture's survival in the expressive language of telecommunication

technology, as does Leoni, then one stops short of learning the lessons from the experiences of the 1960s, as well as being unable to differentiate the theatricalisation that is taking over current architecture from the expressionism of the 1920s.²³ In search of the lost spirit of the war years, expressionism envisioned fantastic forms that 'would suspend the forces of gravity and overcome the obstinate solidity of matter . . .'.²⁴ If the utopia of glass architecture was the representational mode proper to a class of disenchanted modernists, then

one could say that irony and rhetoric are tools by which post modernists disguise the entering of architecture into the realm of the 'culture industry.' Is it history's irony that one can today witness how expressionism (a familiar language, though of a high-culture origin) smoothes the passage of architecture towards the aesthetic of commodity fetishism? Francesco Dal Co makes a similar assessment by suggesting that, by updating techniques used by the historical avant-gardes, Gehry makes 'significant innovations in professional and design practice, because this programme can be realised only when the constructed work is assigned the task of establishing a relationship not to a public of users, but with an audience of spectators. In this way architecture tends to mutate, to change its nature, eschewing usage and becoming entertainment.'²⁵ This ironic turn in design practice, indeed, speaks for the popularity of Gehry's architecture. It also discloses the fact that the dancing body of his architecture reconciles the biomorphics implied in the image of fish with animation internal to electronic technologies.

The impact of technology on architecture is not new and there is no intention of examining the issues in this paper.²⁶ What I want to stress briefly, though, is the way technification of architecture (to use a term coined by Theodor Adorno) empties the tectonic of any import for architecture. Using techniques developed outside of architecture's interiority reduces architecture to an appendage of technique.²⁷ Discussing the technification of music, Adorno casts light upon Gehry and other architects who use computer techniques not just as a means but as a force to shape the end itself. According

to Adorno, 'extra musical technique is no longer present to act as a corrective but becomes instead the exclusive authority. The whole official music culture is moving in the direction of fetishising of means, and it is even celebrating a triumph among its enemies in the avant-garde.'²⁸

There are two reasons for introducing the subject of technification of architecture here. First, there is the short span of the subject's history, that is, the unpalpability of the classical notion of *techne* for any discussion of architecture since the introduction of industrial techniques and its impact on architecture, and the position maintained by historians and architects since then. Briefly and at the risk of dismissing many significant details, I would like to suggest that major contemporary architectural discourses, in one way or another, are framed by the multiple consequences that modernisation has forced on architecture.²⁹

More interesting, is the issue of architecture's interiority and its resistance to commodification, a process that uproots architectural production and reception from its craft-based domain, subjecting the building to the laws of the capitalist market economy. The second reason for examining the technification of architecture here has to do with the changing sociopolitical nature of the technification of architecture for contemporary avant-gardes. If the historical avant-gardes embraced technology in order to construct an utopian enclave whose cultural matrix remained 'high art' and inaccessible to the masses, the fusion of electronic technologies within everyday cultural production and consumption has adorned reification – induced by the project of modernity – with a mysticism shared by everybody.

To the embarrassment of Peter Eisenman, you do not have to know the philosophical implications of the 'weak form' in order to appropriate his or Gehry's architecture anymore. It is enough to watch pop culture in MTV or Hollywood's latest films and get tuned with the morphic temperament of deconstructivist architecture. 'Hey,' an excited Venturi exclaims, 'what's for now is a generic architecture whose technology is electronic and whose aesthetic is iconographic – and it all works together to create decorated shelter – or the electronic shed.'³⁰ This populist view suggests that the

distance once felt facing the abstract aesthetic of early modern art and architecture is neutralised in part by computer-generated images which have been infused into every aspect of the life-world. Again it should be stressed that Semper's idea of dressing and his concept of theatricality differ from the phantasmagoria of the post-modern world. For Semper, the dressing of the core-form, even when negating the material basis of building, comes to life out of a rapport between the roof and the enclosure, or the earth-work and the frame-work. In this line of thinking, I am also reminded of

Figure 16. Walt Disney Concert Hall, Los Angeles, California, project model, photograph, Joshua White, Courtesy of Gehry Partners, LLP.



Semper's emphasis on theatricality, on the afterlife of an event. According to him, 'The monuments were scaffolding intended to bring together,' not only various cultural artifacts, but 'the crowds of people, the priest, and the processions.'³¹ The challenge to maintaining such a position today has to do with the fact that spectacle, discussed by Guy Debord, has overtaken the collective space.

Wrapping

In the context of the above theoretical considerations and with some exceptions taken into account, one can suggest that, since the Winton House, Gehry's architecture has moved further away from the form-giving potentialities of construction to the point where the element of clothing has emerged as the formative means for his most recent work. This development is forcefully expressed in Gehry's

Walt Disney Concert Hall project where icons of mass culture and music are brought together to orchestrate the theatricalisation of architecture (Fig. 16). The Disney Concert Hall, in evolution since 1989, is an important work that needs to be experienced in order to complete the evolutionary chain leading to the Bilbao building, if not for any other particular reason. The project marks a definitive departure in Gehry's design: it resolves the conflict between the montage of fragmented forms and an expressive clothing whose many layers come together to emphasise the vertical void in the middle. In the Vitra Museum, completed in 1989 (Fig. 17), one already witnessed the presence of undulating surfaces intermingled with fragmented volumes, anticipating the formativeness of the element of wrapping in the Disney project. At Vitra, the element of roof, mostly covered by titanzink,

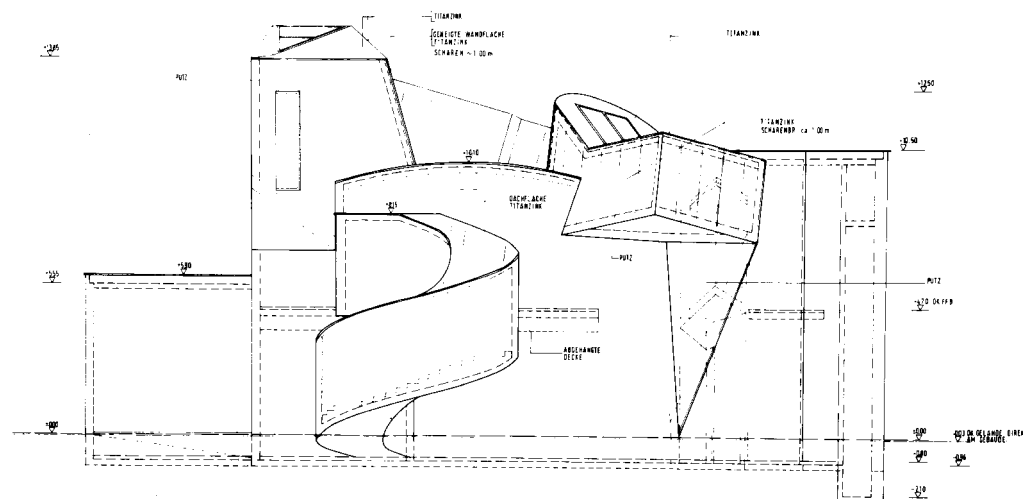
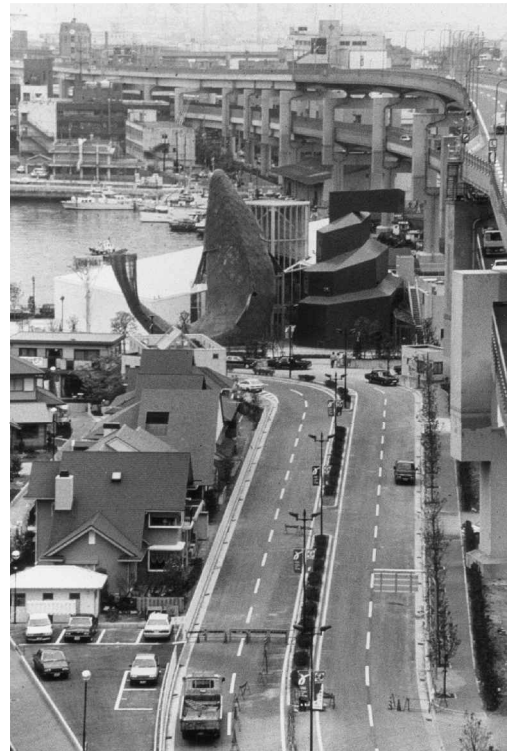


Figure 17. Vitra International Design Museum, Weil am Rhein, Germany, 1989, south elevation drawing, Courtesy of Gehry Partners, LLP.

Figure 18. Fishdance Restaurant, Kobe, Japan, Courtesy of Gehry Partners, LLP.

is presented as another enclosure wrapping a cluster of fragmented volumes. Only by experiencing inside space can one experience the presence of the roof; a situation comparable to Semper's observation about ancient Egyptian temples. Meanwhile, during the years separating the Winton House from the Disney project, the metaphor of fish kept occupying a visible place in Gehry's oeuvre. Besides being the subject of several artistic installations erected between 1983 and 1986, the metaphor of fish departs from the two-dimensional realm of Gehry's drawing board and attains major architectonic form first in the Fishdance Restaurant built in 1987 (Fig. 18), and more forcefully later in the Vila Olimpia built in Spain (1992). In this last project, a 160 feet long and 100 feet tall fish obtains its visibility and landmark position by hovering above a complex of commercial buildings (Fig. 19).

Gehry's design for the Disney Concert Hall skews the post-modern fascination with historical images and the architecture of spectacle. By doing so, he strikes a parasitical note in tectonic thinking. The Concert Hall project is fashionably dressed up to designate a volumetric mass that denies any coherent and hierarchical order, and yet relates the building to its site heterogeneously. Seen from Hope Street, the main body of the central hall sits on a horizontal volume that houses the servant spaces. This *parti*, if you wish, was also used in the Jung Institute for Los Angeles in 1976. The sketches of this unbuilt project depict an L-shaped rectangular box whose roof is invaded by a number of playful and independent volumes (Fig. 20). According to Kurt Forster, Gehry was 'obviously



discovering something important at this stage, when he relaxed, and even severed, the links that had hitherto locked the various parts of a building into a single whole.³² This observation is in tandem with Gehry's approach in the Familian Residence and his own house. In the Jung Institute and the Disney Concert Hall, instead, one witnesses a disintegrated whole that is not achieved through fragmentation but by a compositional distinction between what is necessity and what is excessive.

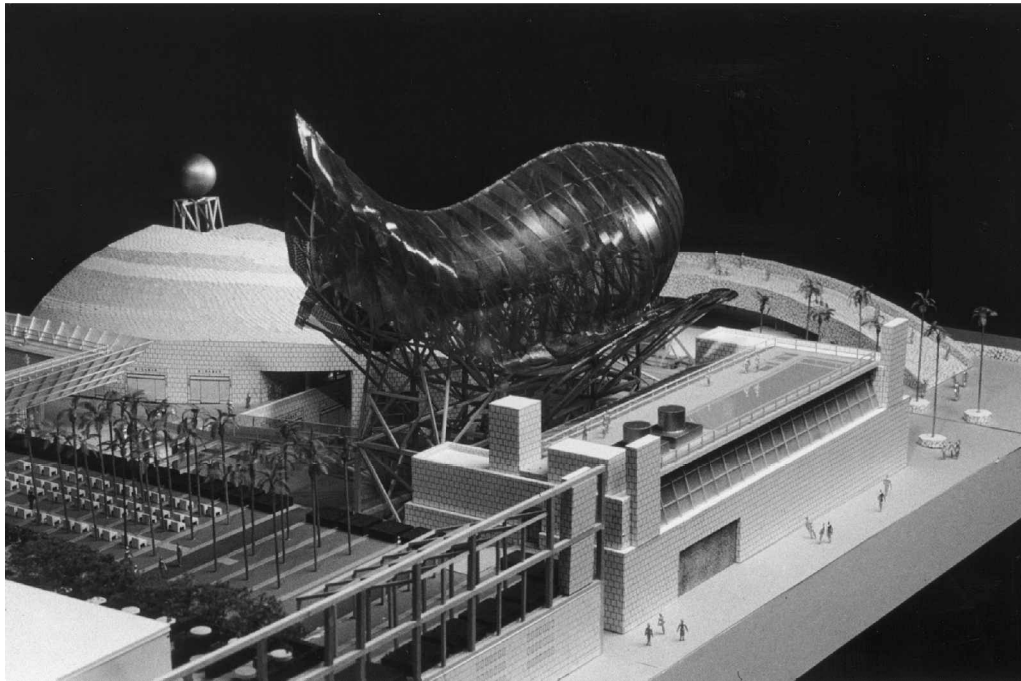
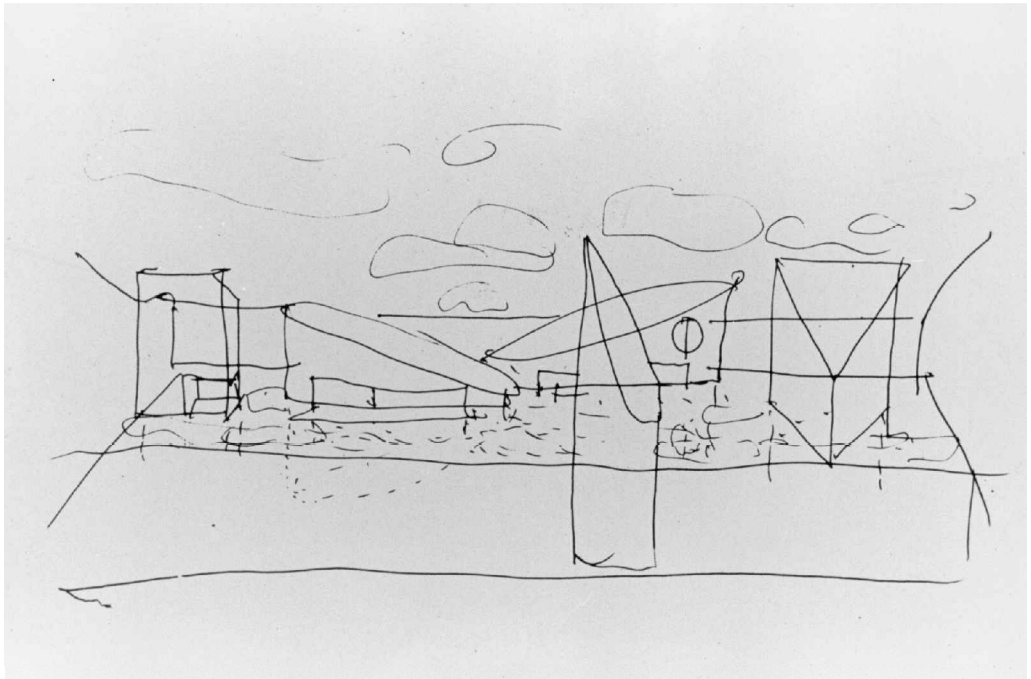


Figure 19. Vila Olímpica, Barcelona, Spain, 1992, Courtesy of Gehry Partners, LLP.

In the Disney project, the rational articulation of the base stands in contrast to the vertical and dynamic configuration of the central volume. The podium in these two projects holds up a vibrant form evoking the relationship of a dancer to the stage. The seam connecting the building to the ground in the main facade, on the other hand, is treated more in line with the dressing of the concert hall. Here, the fragmented and twisted surfaces are dramatised by cuts that mark the main entrance. This gestural figuration is stressed by rotating the plan of the amphitheatre against the

main axis of the site (Fig. 21). Such an inflection projects the figure of the main volume forward and up, as floors stack on each other. Seen from the angle of the main entrance (Fig. 16), the vertical cut through the enclosure makes room for a glazed volume to jut out disclosing the central void. Through the same opening one can see the structural columns whose form indicates a distinction between what is dressing and what is constructional. Each column has a short tree-trunk base from which structural, vertical elements are stretched out to support the enclosure. The cuts

Figure 20. Jung
Institute, project,
Los Angeles, 1976,
Courtesy of Gehry
Partners, LLP.



on the body of the amphitheatre emulate the idea of 'ruin in future,' a visual sensibility fashionable in the 'grungy' clothes of the urban youths around the 1980s. However, it is Gehry who utilises the space between the metal wrapping and the 'shoebox' amphitheatre with terraces, gardens, and other programmatic requirements; an arrangement that saves the project from being a mere post modernist 'decorated shed.'

The metaphoric analogy between dress and the vertical configuration of the central volume in the Disney Concert Hall recalls the posture of a dancer.

There is an intriguing dialogue between the disintegrated seam in the front part of this building and the soaring volume of the concert hall. Somewhat similar to a ballet dancer, the vertical volume appears to defy the forces of gravity. This 'theatrical posture' does not, however, simulate total weightlessness. The building's figure evokes the posture of a dancer who after soaring up and twisting around eventually stands firm and maintains minimum contact with the ground. The fragmented and torn surfaces of the amphitheatre could also be associated with fabrics used to cover scaffolds

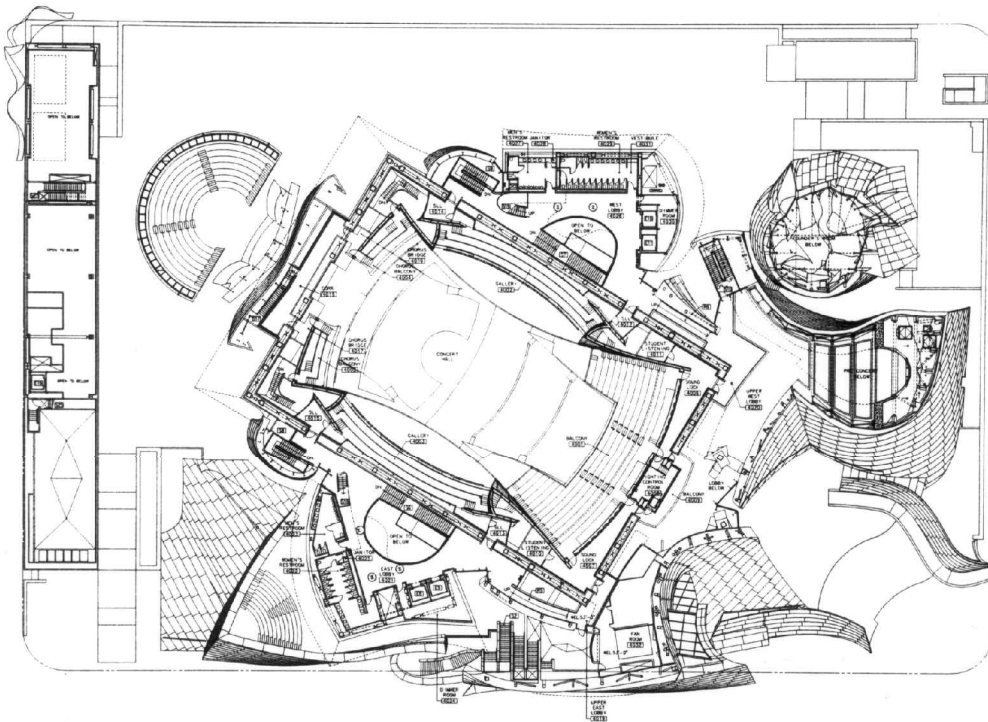


Figure 21. Walt Disney Concert Hall, Los Angeles, California, plan, Courtesy of Gehry Partners, LLP.

in carnivals, and of course, tent architecture. This analogy is important not because of the twist one might give to the debate on the origins of architecture, but because of the importance of textiles for architecture (whether implied in Semper's idea of dressing or derived from the architecture of the tent) and the concept of fabrication as a way of seeing and making that is implied in the word fabric. The art-form of the Disney Concert Hall suggests that the perceived spatial envelope is

literally a fabrication; the etymology of which signifies both the style or plan of construction and woven material. Reminding us of that ambiguous moment of intersection between gravity and the unconscious, particular to the animated world of cartoons, Michael Sorkin observes that, 'the Disney project is also a distortion, a cartoon that inflates the unseen ideal form: those shapes in the Disney hall are both dancing flowers or hippos but also dancing not-cubes and not-rectangles, distorted

away from the familiar but not so far as to cease affinity.³³ The implied defamiliarisation in Sorkin's statement discloses a formalistic approach to architecture. To free the enclosure from any constraint, including the geometry induced by structural logic, which results in the absolute autonomy of form.

Although the discrepancy between the art-form and the structural logic is endemic to the tectonic,³⁴ nevertheless, Gehry does not address this gap in an attempt to articulate the rift between the formal (sculptural) and the structural beyond an either/or resolution. One might speculate that Gehry utilises the analogy between fabric and dressing beyond the nineteenth century architectural discourse. One might also suggest that his architecture folds the tectonic thinking back to a state of primitivism when architecture, according to Adolf Loos, was realised by putting up four carpets, and the structural elements were seen as auxiliary; they just supported the carpets.³⁵ Was not the idea of the Dom-ino frame (and its consequences for the free facade and the free plan) in part motivated by tent architecture whose regulating lines still refer to the importance of cubes and rectangles, even seen through the distorted lens of post modernity? By investing in 'fabrication' and demystifying the classical discourse on construction, Gehry's design entertains an early modernist vision in which a primitive sense of freedom was sought as a scapegoat against the constraints modernisation had forced on architecture. 'Actualisation' of past through the present (what Walter Benjamin coined as allegory) reaches a critical dimension in Gehry's appropriation of the aesthetic of fabrication. The

aesthetic appeal of the wrapping surfaces of the Disney project is a reminder of the 'mystical' character of commodities whose fetishism speaks of the dissociation of the commodity from its use-value.³⁶

The theatrical character of Gehry's design, its allusions to the posture of the dancer and the expressive falseness of its dressing, is suggestive of an architecture of spectacle. As a metaphor, 'spectacle,' in this particular case, stands for the programmatic and iconic connotation of the Disney Concert Hall. In Kahn's words, Gehry's building wants to be the architecture of event that has no referral and yet by bringing together the spectacle (the stage) and the spectator, the building itself becomes part of the culture of spectacle. The idea is given a new pitch in the Bilbao Guggenheim Museum in Spain (Fig. 22). This building is, indeed, Gehry's ultimate statement in defying Semper's theory of dressing, i.e., *Bekleidung*, and favouring the aesthetic of dressed-up.³⁷ While the former is achieved by the embellishment of a constructed form and its poetic expression in the surface, the dressed-up, instead, suggests a vision of wrapping that is implied in the formal and aesthetic freedom embedded in the frame-structure at work since the inception of the Dom-ino frame. The Bilbao building also recollects two themes important for Gehry's work; first the image of fish, which in this particular project attains a contextual quality, partly due to its watery site, and second, the sculptor's vision of his/her object at hand.

Rosemarie Haag Bletter reminded us, as early as 1986, of the importance of the idea of constant change invested in Kurt Schwitters's *Merzbau* (built

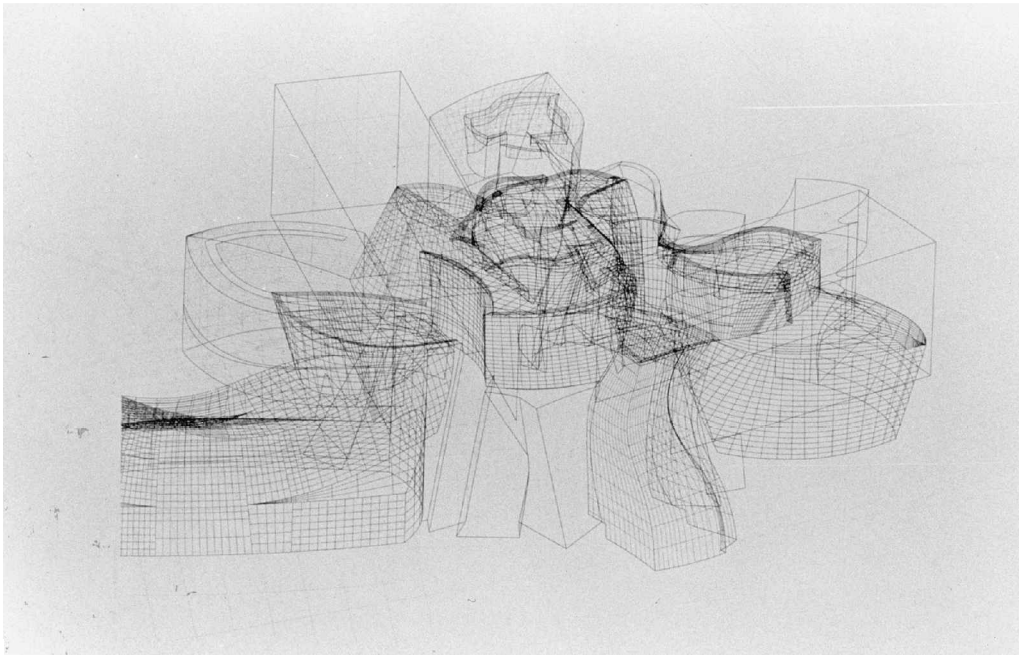


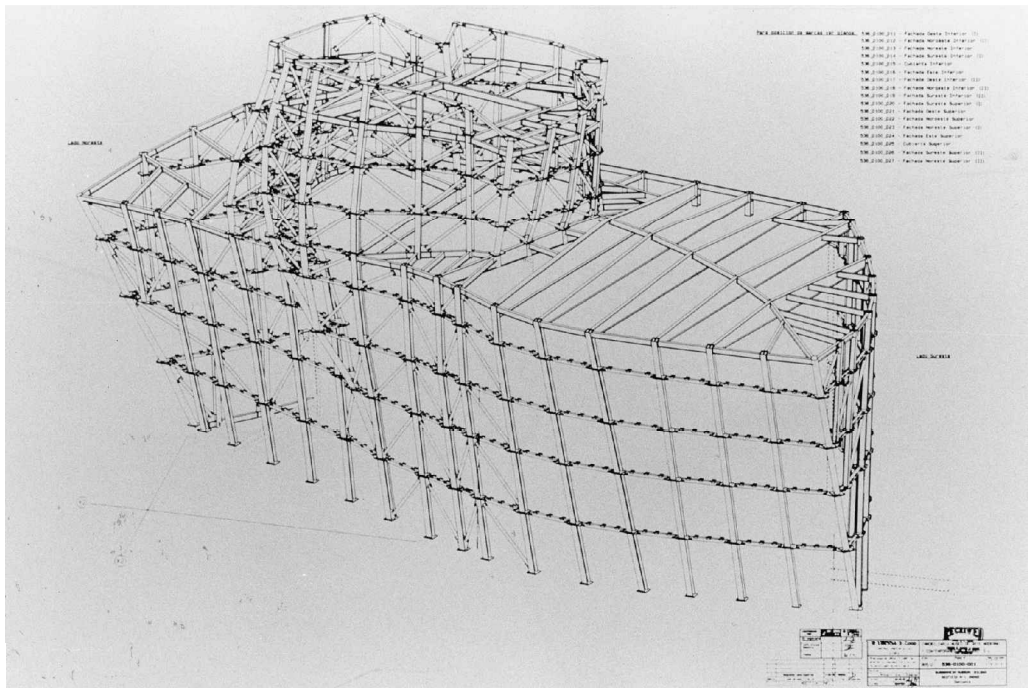
Figure 22.
Guggenheim Bilbao,
three-dimensional
rendering of steel
structure, Courtesy
of Gehry Partners,
LLP.

in 1933) and Gehry's house in Santa Monica: 'Schwitters's sculpture gradually grew from inside out to absorb the old house,' Bletter observes, whereas Gehry, 'works from the outside in by entrapping the original bungalow of his Santa Monica house within a new shell.'³⁸ More recently, Dal Co has picked up the Merzbau to discuss the Bilbao building.³⁹ What is intriguing in the Merzbau, however, is the endless transformation of the project to the point that the work denies any possible representational dialogue between material, construction and representation. According to Dal Co, the 'operative' tech-

nique utilised by Schwitters 'makes its constituent elements imperceptible: the only presence it permits is the continuously evoked presence of its artifice.'⁴⁰ This artistic technique is used in the Guggenheim's titanium dressing whose overall enclosure reveals no trace of the steel frame beneath (Fig. 23).

To underline my concern for the rapport between a constructed form and its clothing, I would like to draw attention to Claes Oldenburg, an artist associated with Gehry's interests. In Oldenburg's entry for the Chicago Tribune Tower Competition of 1968, a skyscraper is envisioned in the form

Figure 23.
Guggenheim Bilbao,
Courtesy of Gehry
Partners, LLP.



of Lorado Taft's sculpture called 'Death.' Here, Oldenburg wraps the body of his work with fabric, stressing the flesh and evoking a sense of verticality and ruination. Oldenburg's skyscraper recalls Gustav Klimt's painting, 'Kiss,' where the physicality of the depicted body disappears behind a wrapping cloth. However, important to my concern for the tectonic is the way Jorn Utzon draws analogies from both the visual arts and the natural world in the Sydney Opera House. According to Fran oise Fromont, the repetitive coil in waving hair

depicted in Botticelli's *Birth of Venus*, or the fanned pleats falling from the shoulder over the protruding knees in the figure of Christ, found on the Tympanum of Vezelay, encouraged Utzon to make visible what is load bearing and what is cladding. In doing so, he avoided the temptation of expressionistic forms like cloud and, instead, favoured standardised elements that would shape the dialogue between cladding and 'the primary tectonic order of building.'⁴¹ This last observation does not suggest that Gehry's design world is

empty of imagination. I rather want to stress a problem inherent to the interiority of architecture: since the experience of the Dom-ino frame,⁴² the frame-structure provided the opportunity for the architect to avoid the tectonic dialogue between structure and the element of wrapping. The pictures taken during the construction of the Bilbao building suggest that the steel framework was entertained primarily as supportive mechanism to hold up a preconceived shell. The expressive freedom apparent in the clothing of Gehry's recent building recalls Gilles Deleuze's association between the idea of 'fold' and Baroque architecture.⁴³ And yet long before Deleuze's text became a textbook for deconstructivist architecture, Hans Sedlmayer had recognised the 'artistic structure' of Borromini's San Carlo in undulating walls repeating four times in the plan. Here, 'structure is found paradoxically in a surface element without structural function.'⁴⁴

I would like to suggest that, independent of structure the element of wrapping has become the form giving impulse in the Bilbao building. Gone in Gehry's vision is the Miesian tectonic that is revealed in the dialogical relationship between column and wall, and the earth-work and the frame-work. Gehry also dispenses with Kahn's attempt to reveal the way a space is conceived and constructed. Instead, Gehry says, 'I have been interested in expressing feelings in my work, that means you don't distil them with rationalisation. You solve the practical stuff but don't take the juice out while you are doing it.' The 'juice' perhaps refers to the protein of formal voyeurism rested in computer-generated images which Gehry appropriates so skilfully.

Notes and references

1. This article was written as part of a manuscript focusing on contemporary architecture. I would like to thank Allen Cunningham for his constructive editorial comments. My special thanks to Keith Mendenhall from Frank Gehry's office who provided the illustrations.
2. Frank Gehry has always worked with artists: 'I have been very involved with their work; I think a lot of my ideas have grown out of it, and that there's been some give and take.' From an interview with Peter Arnell in P. Arnell and Ted Bickford (eds), *Frank Gehry: Buildings and Projects*, (New York, Rizzoli Publications Inc., 1985). Gehry's collaboration with Richard Serra is special; Gehry noticed the expressive potentialities of the fish while designing with Serra a bridge for Manhattan. Germano Celant sees some similarities between Gehry's work and Claes Oldenburg. According to him, 'Gehry like Oldenburg takes advantage of the Surrealist idea of the ready-made. The position that Gehry and Oldenburg seem to share must be examined by studying the relation to the contextual determinations that the object-icon has as it interacts with its context in reality. . . . This is how the meaning of Oldenburg's Bat Column and Flashlight may be understood in their dialogue with, respectively, Chicago and Las Vegas; the meaning of Gehry's fish may be deduced from its functioning with respect to the aquatic element that surrounds Manhattan.' G. Celant, 'Reflections on Frank Gehry,' in P. Arnell and T. Bickford, *op.cit.*
3. Francesco Dal Co, 'The World Turned Upside-Down: The Tortoise Flies and Hares Threaten the Lion,' in Kurt W. Forester and Francesco Dal Co, (eds), *Frank O. Gehry*, (New York, Monacelli Press, 1998), p. 42.
4. According to Thomas Hines, Frank Gehry's obsession with fish was stimulated by his grandmother. Gehry recalls, 'Every Thursday through much of his

childhood he would go to the Jewish market, we'd buy a live carp, we'd take it home . . . we'd put it in the bathtub and I would play with this . . . fish for a day . . . until she killed it and made gefilte fish.' Recalling the anti-Semitism prevailing during Gehry's youth, the architect was given the ironic nickname of 'Fish' by 'his tormentors, presumably to suggest bad odour, and he would not realise until much later that "fish" was a Christian symbol. His ambivalent identity with the image, however, would last until exorcised in his fish sculptures of the 1980s.' Hines, 'Heavy Metal: The Education of F. O. G.,' in *The Architecture of Frank Gehry* (New York, Rizzoli International Publications Inc., 1986), pp. 11–24, and pp. 13–14.

5. Gilles Deleuze & Felix Guattari, 'The Smooth and the Striated,' *A Thousand Plateaus* (Minneapolis, University of Minnesota, 1987), pp. 474–500.
6. See Francesco Dal Co, Kurt W. Forster, *Frank O. Gehry: Complete Works* (New York, the Monacelli Press, 1998).
7. On the subject of theatricality see my 'Theatricality: Dancing Architecture,' in *Formulation Fabrication: The Architecture of History* (Wellington, NZ Print Ltd, 2000), pp. 31–38.
8. Here I am alluding to the term phantasmagoria as discussed by Walter Benjamin. Borrowing Karl Marx's articulation of the deceptive appearance of commodities (fetishism of commodities), Benjamin underlined the optical illusions stimulated by the spectacular look of Paris. According to Susan Buck-Morss, Benjamin's point of departure 'was a historical experience rather than an economic analysis of capital, the key to the new urban phantasmagoria was not so much the commodity-in-the-market as the commodity-on-display, where exchange value no less than use value lost practical meaning, and purely representational value came to the fore.' Buck-Morss, *The Dialectics*

of Seeing: Walter Benjamin and the Arcade Project (Cambridge, The MIT Press, 1989), pp. 81–82. After the Crystal Palace, it is reasonable to speculate that museums today have inherited the visual allure of the world exhibitions built around the 1850s. In the context of nineteenth century cities, the Crystal Palace enjoyed a level of phantasmagoria invested in the commodities displayed inside.

9. See footnote no. 2 above. At another occasion, Frank Gehry has this to say about the importance of the fish in his design: speaking of his participation in Tigerman's call for the Chicago Tribune Competition, Gehry recalls that 'since I was never able to finish the Tribune drawing, I started making the colonnade with the eagle. And then I decided – well I should have more columns. And that's when I drew the fish standing up . . .' Arnell in P. Arnell and Ted Bickfor (eds), *Frank Gehry: Buildings and Projects, op.cit.*
10. Germano Celant persuades his readers that 'the O'Neill Hay Barn and the Ron Davis House pay tribute to the architectural tradition of the Indian of the Northwest. . . . The architectural language of the Ron Davis House is linked to the craftsman tradition of tribes living from California to Alaska, who consider the shaping of their environment to be one of the highest artistic expressions.' Rosemarie Haag Bletter considers Gehry's sensibilities in part derived from 'toying with a conflation of the world of perception and conception . . .' See Celant, 'Reflections on Frank Gehry,' in P. Arnell and Ted Bickford (eds), *Frank Gehry: Buildings and Projects, op.cit.*, and Bletter, 'Frank Gehry's Spatial Reconsiderations,' in *The Architecture of Frank Gehry, op. cit.*, p. 26.
11. Margaret Crawford, 'Forgetting and Remembering Schindler: the Social History of an Architectural Reputation,' in 2G no. 7, (1998), pp. 129–142.
12. I will not exhaust Frank Gehry's well-discussed house here. Among others, Frederic Jameson has noticed

the spatial qualities of Gehry's house, suggesting that it marks a departure from modernist understanding of the dialectics between interior and exterior spaces. More interesting to me is Jameson's idea of 'wrapping' versus the modernist tendency for 'grounding': one stresses the figure/ground relation derived from the forces of gravity, the other envisions floating forms comparable to dancing figures in Surrealist art, if not similar to the floating nature of commodities in late capitalism. He describes the 'wrapping' intervention into the old house in the following words. Indeed, 'both the now sunken living room and the dining areas and kitchen opened up between loosely draped external wrapper and the "withering away" of the now seem to me the thing itself, the new postmodern space proper, which our bodies inhabit in malaise or delight, trying to shed the older habits of inside/outside categories and perceptions still longing for the bourgeois privacy of solid walls (enclosures like the old centred bourgeois ego), yet grateful for the novelty of the incorporation of yucca plants and what Barthes would have called Californianity into our newly reconstructed environment.' Jameson, *Postmodernism, or the Cultural Logic of Late Capitalism*, (Durham, Duke University Press, 1991), p. 115. For Jameson, the idea of wrapping is a formative theme for postmodern architecture. My following remarks on the importance of 'clothing' in Gehry's architecture intends to demonstrate both his departure from regionalism and the popularity of his most recent architecture.

13. B. Diamonstein, *American Architecture Now* (New York, Rizzoli Publishing Inc., 1986), p. 36.
14. Robert Venturi, *Complexity and Contradiction in Architecture*, (New York, The Museum of Modern Art, 1966). Criticising what he calls the 'tradition of either-or,' in orthodox modern architecture, Venturi emphasises contradiction and hierarchy that 'yields several levels of meanings among elements with varying values. It can include elements that are both good and awkward, big and little, closed and open, continuous and articulated, round and square, structural and spatial.' P. 31.
15. By architecture's interiority I mean tropes accumulated through the history of architectural theories and practice. I am thinking of ideas concerning inside/outside relations, the dialogical rapport between column and wall, the tectonic achieved by symbolic embellishment of a constructed form, or that of the earth-work and the frame-work as discussed by the nineteenth century German architect Gottfried Semper. My discussion of architecture's interiority differs from Peter Eisenman's recent reflection on 'interiority of architecture' arguing for a formalistic understanding of architecture. See Eisenman, *Diagram Diaries* (New York, Universe Publishing, 1999), pp. 27-43.
16. Giovanni Leoni, 'Modeling Versus Building,' in *Area*, no. 41, (1998), pp. 4-5. Interestingly enough the author is well aware of the absence of the tectonic in Frank Gehry's work: 'It is not necessary to quote either Semper or Mies to assert that modeling denies architecture as technique, while construction as assembly denies architecture the possibility to be an individual creative act.'
17. See B. Diamonstein, *American Architecture Now*, *op.cit.*, p. 37.
18. Gottfried Semper, 'The Four Elements of Architecture,' in *The Four Elements of Architecture and Other Writings*, trans. Harry F. Mallgrave and Wolfgang Herrmann (Cambridge, Cambridge Univ. Press, 1989), p. 115.
19. It is important to recall the place of the image of silos or liners for Le Corbusier and that of the hut for Mies van der Rohe. It is equally important to remember how each of them re-articulated

- architecture with reference to earth, sky, and the impact of metropolis on architecture.
20. Kenneth Frampton for one has presented the tectonic essential for a 'critical practice' in postmodern conditions when the 'novum' has lost its validity. 'While the crisis of the neo-avant-garde derives directly from the spontaneous dissolution of the new, critical culture attempts to sustain itself through a dialectical play across a historically determined reality in every sense of the term.' K. Frampton, John Cava (ed.), *Studies in Tectonic Culture* (Cambridge, the MIT Press, 1995), p. 25.
 21. Giovanni Leoni, 'Modeling Versus Building,' *op.cit.*, p. 2.
 22. For a critical reflection on Robert Venturi, Denise Scott Brown see, Kenneth Frampton, 'America 1960–1970: Notes on Urban Images and Theory,' *Casabella*, no. 359–360, XXV, (1971), pp. 24–38. For Denise Scott Brown's response to Frampton's charges see, *ibid.*, pp. 39–46. More recently, Neil Leach has this to say about the architectonic implications of *Learning from Las Vegas*: 'once one enters an argument of "form for form's sake" where form is abstracted from other concerns, it is not easy to "resynthesise" these concerns into the form in the final design. It is this principle of aestheticisation, then, that allows Venturi, Scott Brown, and Izenhour to remain so oblivious to the socio-political questions at the heart of Las Vegas, to anaesthetise it, and to adopt an approach that is epitomised by their celebration of the advertising hoarding.' Leach, *The Anaesthetics of Architecture* (Cambridge, the MIT press, 1999), p. 63.
 23. The same could be said about Kurt W. Forster who makes analogies between the playfulness of Gehry's architecture and that of Francesco Borromini. See Forster 'Architectural Choreography,' in *Frank O. Gehry*, ed. Kurt W. Forster and Francesco Dal Co, *op.cit.*, pp. 9–38. I will discuss the analogy between current esteem for 'expressionism' and that of Baroque at the end of this essay. What is needed to add here is that analogies made between the theatricalisation of current architecture and either the Baroque or the Expressionism of the 1920s surpass modernist historicism, but also stop short of stressing the historicity of current architecture. According to Alan Colquhoun, historical analysis would have to reconcile 'the uniqueness of our culture, which is the product of historical development, . . . with the palpable fact that it operates within a historical context and contains within itself its own historical memory.' Colquhaoun, 'Three Kinds of Historicism,' *Modernity and the Classical Tradition* (Cambridge, the MIT Press, 1989), p. 16.
 24. Fritz Neumeier, 'Nexus of the Modern: The New Architecture in Berlin,' in *Berlin 1900–1933: Architecture and Design* (Washington, The Smithsonian Museum, 1987), p. 52.
 25. Francesco Dal Co, *op.cit.*, p. 42. I would like to recall Fredric Jameson's periodisation of art to three modes of 'realism,' 'abstraction,' and the fetishism of commodity production, each marking an aesthetic appropriation of art and architecture proper to a particular stage of modernisation. Also important is Fredric J. Schwartz's discussion of the Bauhaus: following George Simmel's 'Philosophy of Money,' published in 1920, Schwartz underlines the presence of 'spectacle,' articulated by Guy Debord, as an important element smoothing an artifact's way to the realm of consumption. See Schwartz, *The Werkbund: Design Theory and Mass Culture before the First World War* (New Haven, Yale University Press, 1996).
 26. See the first chapter of my *Ontology of Construction*, 1994, where I discuss the historical transformation from *techne* to the tectonic, and the montage of construction in contemporary architecture. Also see the last chapter of *Modernity and its Other*, 1997,

where my reflections on technology and architecture are motivated by Theodor Adorno's discourse on the subject as presented in his *Aesthetic Theory* (London, Routledge & Kegan Paul, 1984).

- 27 The subject has been around since the nineteenth century rationalist approach to architecture and was sterilised later by those who would underestimate the creative and symbolic dimension of architecture. At a theoretical level, Reyner Banham's *Theory and Design in the First machine Age*, published in 1960, and the author's emphasis on Richard Buckminster Fuller, formulate an idea which can be traced back to Hannes Meyer's 'antipathy to composition in architecture,' to use Kenneth Frampton's words, as well as Walter Gropius's prefabricated Torton Housing of 1926, where the final layout and forms were dictated by the technologies of the assembly line. As I will discuss below in the main text, contemporary architecture's inflection by technology has touched the historical vision of authors like Sigfried Giedion and Banham. For collected essays looking at this subject though from a different angle, see Peter Galison and Emily Thompson, (eds), *The Architecture of Science* (Cambridge, The MIT Press, 1999). Frampton's quotation above is cited on page 354. Also see Alan Colquhoun's review of Banham's *Theory and Design* in *Essays in Architectural Criticism: Modern Architecture and Historical Change* (Cambridge, MIT Press, 1981), pp. 21–25. The original text was published in *British Journal of Aesthetics*, January 1962, pp. 59–65.
28. Theodor Adorno, 'Music and Technique,' in *Sound Figures* (Stanford California, Stanford University Press, 1999), p. 202.
29. I am reminded of Demetri Porphyrios' insistence on the tectonic of stone architecture inherited from the classical tradition, as the sole language to be practised today. Without pushing the envelope to this extreme, Manfredo Tafuri has persuasively launched a relentless critique of Modernity and its implications for architecture, in a way that makes contemporary architecture seem like a by-product of a schizophrenic mind, one that has no choice but to enter the dead-end alley of modernisation as the only escape from modernity itself. Alberto Perez-Gomez projects the crisis of architecture back to the time when the poetic rapport between *logos* and *mythos* disappeared. His position can be characterised as a vision of Modernity whose objective and subjective forces have never attained hegemony. See Perez-Gomez, *Architecture and the Crisis of the Modern Science* (Cambridge, The MIT Press, 1983).
30. Robert Venturi, *Iconography and Electronics upon a Generic Architecture: A View From the Drafting Room* (Cambridge, The MIT Press, 1996), p. 11.
31. Gottfried Semper, *The Four Elements*, 1989, *op. cit.*, p. 65. This conception of theatricality is implied in Jean-Jacques Rousseau's description of a non-theatrical public spectatordom: 'But what then will be the objects of these spectacles? What will be shown in them? Nothing if you like. With liberty, wherever abundance reigns, well-being reigns as well. Plant in the middle of a square a pole crowned with flowers, bring the people together there, and you will have a festival. Do better still, make the beholders the spectacle, make them actors themselves; make each of them see himself and love himself in the others so that they will all be more closely united.' Quoted in Michael Fried, *Absorption and Theatricality* (Berkeley, University of California, 1980), p. 221.
32. Kurt W. Forster, 'Architectural Choreography,' in Francesco Dal Co, Kurt Forster (eds), *Frank O. Gehry, op.cit.*, p. 24.
33. Michael Sorkin, 'Frozen Light,' in Mildred Friedman (ed.), *Gehry Talks: Architecture + Process*, (New York, Rizzoli International Publications Inc., 1999), p. 31.

- Sorkin's observation also brings to light a particular aspect of film making that is important to Frank Gehry's work. According to Sorkin, 'both cartoons and films evolved out of a process of bringing single frozen cuts or images together by animation'. In this process, however, there is no limit to such distortion so far as familiar objects and images are not totally washed out. 'While Mickey resembles a mouse but looks like no mouse we've ever seen, nevertheless, the cartoon holds its familiarity to our eye as long as Mickey plummets to earth when being conscious of walking in air.' *Ibid.*
34. This subject is convincingly discussed in Hubert Damisch's structuralist reading of Viollet le Duc. See Damisch 'The Space Between: A Structuralist Approach to the Dictionary,' *Architectural Design Profile*, no. 3-4 (1980), pp. 84-89. Discussing Jorn Utzon's Sydney Opera House, Kenneth Frampton also reminds us of two historical occasions when the gap between structural logic and architectonic form comes to closure. 'The first of these occurs during the high Gothic period, while the second arises in the second half of the nineteenth century with the perfection of ferro-vitreous construction.' Frampton, *Studies in Tectonic Culture* (Cambridge, MIT Press, 1995), p. 273.
 35. Of course Adolf Loos was aware that this was not the case with architecture. He used the idea of carpet as a means of stressing his idea of cladding and the architect's intelligent choice of particular material and cladding to generate specific spatial effects. Loos, 'The Principle of Cladding,' *Spoken into the Void* (Cambridge, The MIT Press, 1982), pp. 66-69.
 36. I am alluding to the idea of commodity fetishism and the possibility of relating the architecture of the spectacular to fetish, that is 'an object endowed with a special force or independent life.' See Hall Foster, 'The Art of Fetishism: Notes on Dutch Still Life,' in *Fetish*, The Princeton Architectural Journal, vol. 4 (1992).
 37. I have discussed Gottfried Semper's theory of *Bekleidung* and Adolf Loos's idea of dressing in my *Ontology of Construction* (Cambridge, Cambridge University Press, 1994), pp. 20-25, and the chapter on Loos. Also see my *Modernity and its Other* (College Station, Texas A & M University Press, 1997), p. 178.
 38. Rosemarie Haag Bletter, 'Frank Gehry's Spatial Reconstruction', in *The Architecture of Frank Gehry*, *op.cit.*, pp. 25-63, p. 47.
 39. Francesco Dal Co, 'The World Turned Upside-Down: The Tortoise Flies and the Hare Threatens the Lion,' in Dal Co, K. Forster (eds) *Frank O. Gehry*, *op. cit.*, pp. 39-61.
 40. *Ibid.*, p. 40.
 41. Fran oise Fromonot, *Jon Utzon: The Sydney Opera House* (California, Gingko Press, 1998), p. 167. According to the author, to articulate the fan-shape glass walls, Utzon drew analogies from the wings of a seagull in flight.
 42. On this subject see Gevork Hartoonian, 'The Limelight of the House-Machine,' *The Journal of Architecture*, vol. 6 (Spring 2001), pp. 53-79.
 43. Gilles Deleuze, *The Fold: Leibniz and the Baroque* (Minnesota, University of Minnesota, 1993). According to Deleuze 'Baroque architecture can be defined by this severing of the facade from the inside, of the interior from the exterior, and the autonomy of the exterior, but in such a condition that each of the two terms thrusts the other forward.' (P. 28). The severing of the facade from the interior in Baroque architecture speaks for the independence of the element of wrapping from structure. This of course marked a departure from classical language of architecture where there is one-to-one correspondence between the facade and the plan and organisation of the interior space. On this last subject see Gevork Hartoonian, *Ontology of Construction* (Cambridge, Cambridge University Press, 1994), p. 12.

44. Christopher S. Wood, *The Vienna School Reader* (New York, Zone Books, 2000), p. 32. According to Wood, 'the deliberate, paradoxical reversal of the structure-surface hierarchy characteristic of baroque or rococo architecture became in effect the fundamental manoeuvre of *Struktur-analyse*.' p. 33. One

could follow Hans Sedlmayer's '*Struktur-analyse*' to discuss the dialogical relationship between the roof and the enclosure as the 'structure'; a design principle informing not only Gehry's work but the recent neo-avant-garde's architecture as well.