An Avant-garde Academy

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Teaching Radicalism in European and North American Architecture

Modernism is a contradictory idea because the word "modern" implies something that is bang up to date and still in formation, but the suffix "ism" implies the opposite, a doctrine, a method that is now comfortably codified. The conundrum is more than a semantic quirk. It is sometimes perceptible in Modernist designs, and it became institutionalized, notably in the schools of architecture in Western Europe and the USA.

It is possible to trace a story of how Modernism became an orthodoxy and how it became internally challenged again by those determined to perpetuate the Modernist revolution. In this chapter, the story is broken into three historical periods. The first covers the years between the two world wars, when Modernism's status shifted from avant-garde provocation to taught methodology; the second is the period from the end of World War II to the resurgence of radicalism in the 1960s, an era in which Modernism was accepted as the architectural mainstream taught in architectural schools and practiced in architectural offices. And, as such, it became an establishment target for a *new* avant-garde or "neo-avant-garde." The final section, surveying the period since the 1960s, considers whether the neo-avant-garde has started the cycle again, its own "revolution" settling into another methodology for the ever-new.

Modernist, postmodernist, and various other avant-garde procedures have frequently been played out *within* the architectural schools (and more institutionally the "academy"), although the special attention paid to the

role of the academy in this chapter is slightly unusual. Modernism and the avant-garde are conventionally explained against a background of social, economic, technological, and artistic changes, and these must be duly acknowledged. Yet the academy provided a position of relative autonomy to social, economic, and technological factors, creating a space in which architects could creatively reflect upon their practice, undistracted by the immediate pressures of clients and work on site. The academy requires all its disciplines to do the same – to produce better science, more incisive understanding of the humanities, and so on. Perhaps, then, there has been a natural symbiosis between "Modern-ism" and the academy. Both claim to subject their procedures to continual revision.

The Rise of a "Modernist Academy"

Modernism actually became "academic" very early in its life. While its roots stretched back as far as the eighteenth-century Enlightenment, it is conventional to date the emergence of a self-conscious "avant-garde" to the late nineteenth and early twentieth centuries. Cubism, Futurism, Expressionism, Constructivism, and De Stijl were fired by the belief that the creative techniques of the past had to be overturned. Often encouraged by Marxism and anarchism to expect that their radical art was the harbinger of a new way of life, the avant-garde believed that they were preparing for another world, dynamic and made by all, not just by the bourgeoisie with its hands on the reins of production.

By the 1920s, such diverse modernizing tendencies were coagulating into an assertive architectural "Modern Movement" in art and architecture. And with that title, "Modern Movement," we already have something smacking of a "call to order." The Modern Movement took the revolutionary, firebrand mission of the avant-garde and packaged it as reasoned, methodical, and authoritative. Its program can be summarized as one of breaking down barriers between aesthetics, technology, and society so that appropriate design of the highest visual and practical quality would be produced for the *mass* of the population. Its vision was of the *universal* – universal design solutions, universal standards of living, and universal aesthetic principles (prioritizing volume and transparency over mass and ornament, the regularity of the grid over symmetry, and an aura of technical refinement).

In the wake of World War I, the Modern Movement hoped to turn swords into plowshares, redressing the brutalization of the modern world through a sort of socialism by design. In effect, the Modern Movement believed it could transform mass consciousness by improving productive and environmental conditions. The stress now was not on independent and diverse activity, but on a *consensus* and, quietly, working with capitalism in the hope of reforming it. It was a regulating tendency that had been pioneered by the Deutscher Werkbund, founded in Munich in 1907 to promote the integration of art and industry, and providing a definitive group ensemble of the new architecture at its live show of housing, the Weissenhof Siedlung in Stuttgart, in 1927. Many of the architects working at the Weissenhof were to be linked with the two institutions which came to epitomize the Modern Movement in architecture: the Bauhaus (1919–33)³ and the Congrès Internationaux d'Architecture Moderne (International Congresses of Modern Architecture, or CIAM, 1928–59).

To enact their velvet revolution, the Bauhaus and CIAM had to supplant the influence of the French École des Beaux-Arts, an architectural education system which had been the paradigm of the nineteenth century. On the one hand, the Modern Movement was indebted to the way in which the Beaux-Arts had helped professionalize architecture and promote its supremacy as the umbrella of all the arts. Moreover, the principles of Beaux-Arts education were a lot like those of the Modern Movement, since they stressed the importance of function, context, and structural rationality. Having said that, the Modern Movement interpreted these principles rather differently. It insisted upon the austerity of the "machine aesthetic" as the twentieth-century corrective to nineteenth-century classicism, ornament, and historical precedent. Anticipating a classless society, it preferred a universal, technological solution to all building types over the hierarchical categorization of buildings that the Beaux-Arts found appropriate to a hierarchical, class-bound society. The stiff formality of Beaux-Arts training earned it the derogatory epithet "academic" for Modernists, who preferred a more dynamic, intuitive, scientific, creative training of the sort pioneered at the Bauhaus. The rivalry between the insurgent Bauhaus system and the remnants of the Beaux-Arts system would linger until the 1960s, some critics of the Bauhaus/CIAM legacy arguing that Modernism was subject to the same "academic" orthodoxies that had beset its Beaux-Arts predecessor. By the 1970s and 1980s, the influence of the Beaux-Arts was widely resurfacing in postmodern architecture.

The Modern Movement was embodied, aesthetically and pedagogically, when the Bauhaus moved to its new building and syllabus at Dessau in 1926. Within its irregular plan, glass curtain walls and steel and reinforced concrete frame beat an interdisciplinary heart so that all the departments – furniture, theater, architecture, textiles, and so on – collaborated. Its *Vorkurs* educational technique encapsulated the contradiction between methodology and innovation that made Modernism, instructing the student to "intuitively" handle the established "science" of form. This ability would then be allied to manual, industrial, and building competencies. It was a message transmitted internationally by CIAM, which numbered amongst its first guiding lights Bauhaus architect and director Walter Gropius, his successor Mies van der Rohe, French renegade Le Corbusier and the historian Sigfried Giedion, who had first met Gropius and other members of the Bauhaus in 1923.

Not only did CIAM and the Bauhaus bring together practitioners to agree on some aims and methods, they also began to organize the discourse of Modernism through academic and quasi-academic texts. Like those other movements of the era (such as communism and the emergent fascism, though of course without the violence) the Bauhaus and CIAM were devoted to the wholesale reorganization of the world and its culture, operating as if the world was to be changed through a vanguard party with a clear line that lapsed, when needs be, into dogma and propaganda. Figures such as Le Corbusier and Giedion were masters of polemic. Giedion, for example, argued that the Modern Movement's unification into a single field of all techniques, materials, buildings, and space was the summation of a creative process stretching back to the Renaissance. Giedion went further, suggesting that Modernism was one of the great themes of history itself, since the designers of the Modern Movement were like receptacles for something bigger - "men in whom the spirit of an age crystallizes."4 The Bauhaus likewise presented itself as though it were an inevitable outcome of history and the progress toward rationality.⁵

The "united front" of the Modern Movement was itself something of an historical construct, maintained by freezing out practitioners who favored "subjective" intuition over "objective" analysis. From about 1923 Gropius stealthily aligned the Bauhaus school with the Modern Movement, as with the publication of *The New Architecture and the Bauhaus* (1935), which marginalized any trace of the more outlandish avant-garde inputs into the Bauhaus such as Futurism (1909) and Expressionism (*c*.1918). Nikolaus Pevsner's powerfully titled 1936 book *Pioneers of the Modern Movement*

(republished in 1949 by the Museum of Modern Art in New York, an influential apologist for Modernism) conveniently avoided explaining the riotous early avant-gardes by suspending narrative from around 1910.⁷ Only when Pevsner's pupil, the historian Reyner Banham, published *Theory and Design in the First Machine Age* in 1960 were these livelier elements of early Modernist history decisively edited back into the account, calling into question the claim that Modernism was historically predestined through the *Zeitgeist*, the "spirit of the age." In truth, Banham argued, it was the *thrills* of modernity, the embrace of the expressive aesthetics of modern life, whether of machinery or popular culture, that motivated Modern architects quite as much as rationality. It was an allegation that the neo-avant-garde would find compelling in their own work, as we shall see later in the chapter.

CIAM's agenda had been fleshed out during its first few meetings and it provided the keynote for mainstream Modernist architecture and planning until the 1960s. In 1929 CIAM held its conference in Frankfurt in recognition of the mass housing achievements there. A year later, 1930, in Brussels, we can find CIAM boldly extending its remit still further, to the problems of land usage and town planning in their entirety. CIAM even devised a system by which the various national branches of the organization could overcome language barriers, and thereby spatial separations, exchanging information through sign systems and grid displays. And vet CIAM became strangely remote from reality. CIAM's fourth meeting in 1933 took place on a cruise ship, blissfully distant from the critical political situation in Europe. The ship was headed for Athens, and the conference findings became known as the Athens Charter. Under the influence of Le Corbusier, this was the most important document to come out of CIAM. The main clauses demanded the rigid functional zoning of cities and high-rise, high-density apartment blocks surrounded by green space.

CIAM's Athens Charter was the unfortunate source code of many of the worst features of town planning after World War II. Indeed, a "new generation" of Modernists after the war would complain that the Modern Movement had become so enamored with its belief in universal design solutions that its understanding of *actual* technology and the *variety* of modernity had ground to a halt. Modernism appeared more concerned with *representing* rational order than with producing real "machines for living in" or dynamic urban spaces. These objections would sow the seeds of CIAM's own undoing after World War II, when younger architects felt that CIAM itself represented an attempt to make Modernism into a new

"academic discipline." Moreover, it seemed that the increasing number of Modernist architectural schools had truly made Modernism into an academic discipline, replacing Beaux-Arts-derived syllabuses with Bauhaus-derived ones; and that their graduates in municipal offices had homogenized city centers from Eastern Europe to the USA. Thereby the avant-garde, open-ended creativity that had launched Modernism had also been defeated by Modernism.

Soon after the so-called International Style emerged in the midtwentieth century as the "new tradition" of architecture, it was challenged by an internal architectural vanguard determined that the only tradition of the Modern should be that of the ever-new.

"Academic" and "Anti-academic" Modernism after World War II

If before World War II the "Modernist Academy" was somewhat notional, after the war it was a reality, stylistically, institutionally, and through construction. The architects of the Modern Movement found themselves commissioned to build both corporate America and state socialist Europe, endowing Modernism with tremendous authority and responsibility for accommodating the very institutions of society – schools, universities, hospitals, government headquarters, and banks as well as housing.⁹

North American Modernist tastes were initially formed by the homegrown frontier spirit of Frank Lloyd Wright rather than the dictates of European rationalism. Yet, with the appointment of Gropius to the faculty at Harvard in 1937 and Mies van der Rohe to the Illinois Institute of Technology (IIT) the following year (with Laszlo Moholy-Nagy endeavoring to found a New Bauhaus in Chicago at the same time), "academic" Bauhaus Modernism arrived in the USA to thrive with a technical competence that had been unimaginable to the European vanguard of the 1920s.¹⁰ What once had been the fantasy of the glass skyscraper was to be engineered with brilliant effectiveness in the 1950s by the big Modernist practice of Skidmore, Owings, and Merrill (SOM, founded 1936). The story of mainstream Modernism's historical destiny was perfected at the same time, with the 1941 publication of Space, Time and Architecture, based upon a series of lectures given by Giedion at Harvard University at the behest of Gropius. Discussion at the time about a "New Monumentality" mirrored Modernism's growing sense of civic responsibility, even reinstating an

architectural hierarchy for public architecture that was reminiscent of Beaux-Arts attitudes. It was a far cry from Futurist and Expressionist rebellion.

Across Europe after World War II, the politically radical ancestry of Modernism was forgiven for the sake of national Reconstruction. 11 This was demonstrated, for example, at the Festival of Britain in 1951, which CIAM visited. The nascent British welfare state championed Modern architecture as an economical mode of building that visually represented a forward-looking nation, perfecting the science of building in order to house people, school their children, and care for their health to standards never before attained. For the ambitious British architect in the late 1950s and early 1960s, there were ever-fewer alternatives to "academic" Modernism. The architect would be trained at a university or equivalent institute of higher education (rather than through pupillage) and in 1958 the Royal Institute of British Architects (RIBA) confirmed the ascendancy of what has been dubbed the "Official System" in the Schools. 12 This energetically asserted the role of the architect as being not so much a creative designer as a policy-making "expert," project-managing new buildings and towns.

Yet, for all the technocracy of international mainstream Modernist culture in the 1950s and 1960s, there obviously was an unofficial style to which the architect was expected to adhere. It was a little bland, perhaps because of the way in which team-working (as championed in private practice by Gropius's firm, The Architects' Collaborative (TAC), and in public practice by the big municipal offices) tended to bury individual expression. The severity of the Functionalist Modern architecture of the 1920s was being tempered by the example of Scandinavia, on the one hand (where since the 1930s architects such as the Finn, Alvar Aalto, had been "softening" and "humanizing" the machine aesthetic into something more organic and tender), and, on the other hand, by the "people's detailing" hailing from the Soviet bloc.

Reaction against this prosaic version of modernity came in the 1950s from young architects in touch with the tough new post-war culture of Beat literature, Angry Young Men and Abstract Expressionism. For them, Modernism sounded yet again as a clarion-call to creative innovation. They were increasingly suspicious that this ideal had been suppressed by the "Modern Movement" and that its pioneers were becoming greying establishment figures. To whom should they look? To Mart Stam, once the inventor of ruthlessly functional and forward-looking buildings, but now the architect of the neoclassical Shell Center (1942) in The Hague?

To Gropius, whose Harvard conservatism seemed to be surfacing in his American Embassy, Athens (1956–61)? Or to Mies van der Rohe, whose neo-Platonic repertoire of form was unlikely to yield any more surprises but *was* likely to prompt imitators looking for a design "formula"?

Only Le Corbusier remained truly inspirational to young architectural "rebels." He had no qualms about revising his principles until they were unrecognizable. He now offered what would become known as a "New Brutalism" of raw, shuttered concrete, exposed brickwork, and primitive, handcrafted-looking building techniques. Massiveness replaced the old Modern Movement impression of lightness. In buildings such as the monastery of La Tourette near Lyons (1956–9) sculptural elements protruded in "poetic" formations that, in their utter rebuke of the machine aesthetic of which Le Corbusier had once been the arch prophet, appeared to brood upon the "human condition" and a world recently torn apart by technological atrocity. Modernism's claims to being functional and rational had always been a bit far-fetched anyway. After the initial shock, architects such as Britain's rising star James Stirling read Le Corbusier's new direction as an invitation to artistic license and heterogeneity, much as Baroque architects had absorbed the Mannerist lesson of Michelangelo.

Some young architects began to confront the Modernist "establishment" itself. The turning point was CIAM's ninth meeting, which took place in 1954 near a building that no Modern architect in the world could ignore: Le Corbusier's Unité d'Habitation near Marseilles (1946-52). It was obvious that, with the Unité, Le Corbusier had himself abandoned the "radiant towers" of the Athens Charter in favor of an inward-looking, self-contained block. It was obvious too that this was no longer a machine aesthetic, but an "expressive," sculptural structure. CIAM 9 wound up with younger members having a party on its roof, and it was to such younger members that the organization of the next meeting, CIAM 10, was entrusted, in the hope that the Modern Movement would be forced to regenerate. So completely did it do so that, though CIAM met for an eleventh time in 1959, it in effect came to an end with the termination at CIAM 10 of a singular "Modern Movement" agenda. Under the youthful leadership of figures such as Alison and Peter Smithson from England and Aldo van Eyck from Holland, their discussion group Team 10 and practices like France's ATBAT, the supposed founding principles of Modernism were revisited in a "Brutalist" manner and new attention was paid to local rather than *universal* constraints. Put another way, it was possible to be in some way "avant-garde" again.

Team 10 associates wanted to deliver CIAM from what they regarded as its general "academic" impasse. No more impersonal rote-learnt architecture: they wanted an architecture sensitive to everyday human situations. No more schemes that treated a city in Brazil the same way as a city in Sweden: Team 10 wanted an overt appreciation of local factors, climate, and customs. Design solutions would be achieved by feeling rather than rationalizing. Enough mechanical tempo and machine-age metaphors: Team 10 wanted an architecture that created a sense of habitat. And habitat was the theme given to CIAM 10, which met in Dubrovnik in 1956. Alison and Peter Smithson had taken to CIAM 9 a "study Grille," a visual presentation of their ideas for the benefit of other delegates. It fitted the grid format that had been suggested by Le Corbusier and the French contingent of CIAM back in 1949, but its contents were of a different spirit, celebrating not the "ideal universal" but the nitty gritty reality of everyday life in the street. The Smithsons called their method "urban reidentification," which concentrated not on zoning and circulation in the manner of the Athens Charter, but on community. And although the Smithsons adored Le Corbusier and his Brutalist manner, they were uncertain whether even the Unité d'Habitation was really the way to go, seeing it as isolating rather than connecting communities.

Attention would instead be paid to anthropology and the details of everyday life – "the doorstep between man and men" as Aldo van Eyck put it. In his designs he was attempting to recover something of the close-knit intimacy he felt had been part of old Dutch village life or the Dogon villages in Africa. Van Eyck studied poetry, philosophy, Structuralist anthropology, and children's play in the effort to understand ever more deeply, and ever less rationally and crudely, what it is that people really seek in their habitat – security, community, playfulness, the unexpected, emotional involvement. His Amsterdam Children's Orphanage of 1961 intermeshed spaces and functions so that functional circulation (a prime consideration of both Beaux-Arts and Modern Movement designs) was of strictly secondary importance; what mattered was the psychological quality of the space.

The Team 10 avant-garde had, then, split with mainstream Modernism by emphasizing the micro over the macro, the real over the ideal, the spontaneous over the planned. In other words, "New Brutalism" harbored ambitions to be more than a change in Modernist aesthetics; it suggested an inversion in the *ethos* of Modern architecture. Whereas the Modern Movement had aimed to bring architecture and society to a level of universal rational perfection, the New Brutalists would address the world

as it is. For instance, Alison and Peter Smithson wrote in 1957 that "Brutalism tries to face up to a mass-production society, and drag a rough poetry out of the confused and powerful forces which are at work."¹³

It is this aspiration to be poets of a modernity pieced together from the detritus of art, science, and society that we find inherited by the vanguard of architects during succeeding decades – be it the Archigram group in the 1960s or Rem Koolhaas in the 1990s. A certain graphic panache accompanied it, suitably collage-like – from the Smithsons' CIAM Grille (1954) and Parallel of Life and Art show (1953) to the little magazine Archigram (1961–70) and Koolhaas's book S,M,L,XL (1995). Graphics were used as a cheap, high-impact formula that prepared the public for the cost and commitment of actual building by first seducing and dazzling with visions of heightened modernity. The new wave of architectural graphics echoed those of mass media (which were enjoying exponential expansion during the same period) in order to broadcast the message of vanguard modernity beyond narrow professional architectural audiences. Graphics portrayed the experience of modernity as fractured, simultaneous, and transitory, a reversal of the "call to order" in the 1920s which had turned avant-gardism into a Modern Movement. Modernity was returned to the "raw" condition in which it had been met by the turn-of-the-century avant-gardes.

Unhampered by the cultivation of "good taste," and of all its associated hierarchies, inspiration could now be sourced from areas officially out of bounds to architects, particularly popular culture. The Smithsons and James Stirling were amongst the participants in the highly successful art exhibition "This is Tomorrow" held in London in 1956, which introduced the possibility of a Pop aesthetic, an "aesthetics of plenty." Pop acknowledged the role played by consumer taste, science fiction, cinema, and advertising in the shaping of mass culture. It admitted that the Modernist pioneers of the 1910s and 1920s could have had no inkling of the technologies that were shaping the world of the 1940s, 1950s, and 1960s, like the atomic bomb, electronic computers, television, and manned space flight. While the European Modernist avant-garde had admired the USA in the 1920s, the homage paid to the American Way by the European Pop avant-garde in the 1950s and 1960s was markedly different. Critical attention shifted from the grand industrial abstraction of concrete silos and Chicago steel frames to the chromium-plated details of automobiles and refrigerators. To some extent, the Pop mentality would be imported back into the USA itself, so that practitioners like Venturi and Scott Brown in the 1960s could celebrate the European legacy and American Pop simultaneously.

Moreover, the post-war avant-garde was starting to relax the old European-Modernist ideological stricture that said that while American technology was impressive, the consumer capitalism that sponsored it was beyond the pale. The mass consumer lifestyle of the USA was now *in itself* the subject of some reverence, for the way in which it had seemingly achieved the worker utopia that decades of European socialism and communism had yet to deliver. Concurrently, increasing awareness of Stalinism deprived the Soviet Union of a great deal of its countervailing moral authority. This marked a shift from Marxist/socialist "commitment" to economic liberalism amongst progressive architects that we will return to in the next section.

The full impact of Pop was felt in the 1960s when the Archigram group surfaced in London, just as the revisionist impulses of Brutalism and Team 10 were on the wane. Archigram tried to show that "automobilestyled" houses were not an experimental proposition for twenty-five years hence, as the Smithsons had been at pains to explain with regard to their sensational House of the Future (1956), 14 but for the here-and-now. Archigram thereby foregrounded the Pop impetus behind Brutalism which had been overshadowed by the rough concrete austerity of actual Brutalist buildings. Archigram renewed the avant-garde as wild and posturing in a Futurist way that Team 10, which more eagerly sought credibility, did not. In fact, Archigram cultivated a laissez-faire approach to the organization of ideas and allegiances that distanced them from those Modernist maxims to which Team 10 and the Brutalists still subscribed. Team 10 had stormed the palace of Modernism by taking control of CIAM, dissolving it, reopening debates about housing estates and the like, whereas Archigram largely ignored the Modernist "establishment" and the debates with which it had been preoccupied. Pop was the casual, expendable style of a leisured consumer society, and Team 10's nostalgia for traditional, close-knit social structures and mass housing seemed less and less relevant to Archigram and fellow-travelers such as the Japanese Metabolists (founded 1958).

Avant-garde and Neo-avant-garde

This chapter has tried to draw distinctions between the avant-garde (those pushing for radical sociocultural transformation) and the Modern Movement (which was the product of avant-gardes become increasingly

respectable, academic, and paradigmatic). A further nuance is apparent. Since the late 1960s, the status and purpose of the avant-garde has come under closer scrutiny, prompting commentators to distinguish between "avant-garde" and "neo-avant-garde." In fact, critics started to agree that the "true" avant-garde, the one that thrived from the 1910s to the 1930s, driven ideologically by the will to overthrow bourgeois society, had become practically extinct. The art and architecture presenting itself since World War II as "avant-garde" was actually an artistic institution, a "neo-avant-garde" which traded radical *forms* as an artistic rather than social challenge. Far from overthrowing the institutions of capitalism, neo-avant-garde production had become a valued commodity sponsored by the bourgeoisie as evidence of its educated taste and commitment to innovation.

This final section of the chapter accepts that the neo-avant-garde label is as useful in architecture as it is in other art forms, and then argues that an architectural neo-avant-garde expanded from the 1960s in order to reassert the importance of dissent from worldwide Modernist "orthodoxy" - returning Modern architecture to something closer to its dynamic, heterogeneous roots. A neo-avant-garde circuit stretched from Japan to Western Europe and the USA, facilitated by the decreasing costs of international travel and the expansion of architectural publishing. While accepting that the neo-avant-garde was operating in a different context from the pioneer avant-gardes, however, this section of the chapter questions whether the dream of changing society and the economy entirely disappeared from architecture. Marxism, for example, periodically resurfaced amongst architects. Just as significantly, architects have looked at ways of tapping into capitalism so as to alter society at a micro level, and while this represents a reining-in of ambition to something close to liberalism, it nonetheless indicates the persistence of the belief that architecture is a social instrument as well as a utility and an art form.

Nowhere has the neo-avant-garde intrigue been more powerful than in the schools of architecture. For instance, when passing through London virtually every foreign architect of note, especially those of radical inclination, visited the Architectural Association (AA), the prestigious and proudly independent teaching institution with which Archigram was as intimately involved as had been the Brutalists before them. ¹⁶ A neo-avant-garde network would be sustained from the 1970s onwards by ambassadorial figures such as AA alumni Zaha Hadid, Rem Koolhaas, and Bernard Tschumi as they shuttled between high-profile European and American schools of architecture (including Harvard, IIT, and Columbia).

The emergence after 1961 of the Archigram magazine and its affiliates provided initial confirmation of the desire for a new (or neo-) avantgarde. The Archigram group demanded a circuit of thinking and teaching that looked skeptically at the "architecture-as-service" mode that had been espoused, variously, by the Bauhaus's successor, the Hochschule für Gestaltung in Ulm (1955–68), through the syllabuses of the governing professional bodies of architecture (like the RIBA in Britain and the AIA in the USA), through the massive expansion of public offices, and through the slick "finishing schools" of commercial offices like Skidmore, Owings, and Merrill in the USA. Archigram hoped to link up and radicalize architectural students in the UK and abroad, and was distributed by architectural students as if in emulation of the illegal samizdat literature circulating behind the Iron Curtain. Archigram spawned further studentoriented architectural little magazines and vigilante groups in the mid-1960s, prompting the historian Revner Banham, himself a supporter of Archigram, to talk of "the Movement," 18 as though it were a shadow of the 1960s' counterculture at large, the student an agent of long-lasting change in architecture as well as society.

It was appropriate then that the factious rejection of Archigram's increasingly institutionalized neo-avant-gardism in the late 1960s and early 1970s would be led by still more radicalized students. The faultline emerged between those who believed in a Pop consumer revolution, and those demanding a more politically grounded response. Radicalized students turned to alternative sources of inspiration, notably French Marxist revisionism and the Paris-based Situationist group (1957-72), which at the time epitomized the cultural resistance to capitalism. The Situationists, though not architects in the conventional or professional sense, 19 were deeply interested in the potential of architecture and the city to instigate radical social change, as was apparent in the design of a "New Babylon" (c.1958–74) by the self-styled Situationist "architect" Constant. Whereas Archigram believed in liberation through consumerism, the Situationists demanded liberation from consumerism, and the overthrow of the rational instrumentality of design - thus questioning who designs and plans, and by what mandate.20

In this way the Situationists were like the Marxist- and anarchist-inspired avant-gardes of the 1910s and 1920s, and a new wave of avant-gardes emerged from French and Italian architecture schools in the late 1960s, wavering under the dual influence of liberals like Archigram, on the one hand, and ultra-leftists like the Situationists on the other. Radical

Italian groups showed particular flair for designing objects that confused accepted capitalist-rationalist meanings and functions. Superstudio, for example, parodied the ambition of the Modern Movement with its No-Stop City project (1970), an uninterrupted built environment for production and waste disposal. Italian radical architecture groups began to take part in direct political action, as when the UFO Group deployed its pun and riddle-daubed inflatables to block Florentine traffic and make way for protesters. This incident was in 1968, the year that widespread student and youth insurgency was kick-started from Paris; design students contributed to the disorder by occupying the European showcase for industrial design, the Milan Triennale.

Pure, direct creativity freed from industrial society was the lodestone of the 1968 cultural revolution. As Italian radical architecture group Archizoom's Andrea Branzi has put it:

it had been discovered that doing architecture did not just mean making houses, or constructing tasteful things in general, but signified expressing oneself, communicating, arguing and freely creating one's own cultural habitat, according to the instinctive right that every individual has to create his own environment, but from which the division of labour in society has totally alienated him.²¹

The most rapidly radicalized young architects were to be found close to the source of revolution in France. The Utopie group formed in protest at the syllabus of Paris's Beaux-Arts school in 1967, and by March 1968 had realized a provocative exhibition at the Musée d'Art Moderne of the sort of inflatable structures that Utopie believed could provide the basis for a revolutionary architecture - cheap, lightweight, an architectural medium for directly lived space. Utopie's increasingly abrasive pamphleteering, inspired by the Situationists and philosopher Henri Lefebvre, recognized that the chink in Archigram's armor was that of coherent theory and explicit social rationale.²² Reaction against capitalism was similarly marked amongst the eighty staff and 120 students who defied the French Ministry of Cultural Affairs' reorganization of the Beaux-Arts school after the May Events of 1968. Refusing to be co-opted into one of the five new teaching units ("Unités pédagogiques" or "UPs"), the most intransigent students and staff gathered as UP6, denouncing "the class segregation perpetuated and augmented by present bourgeois urbanism."23 Its strike in the winter of 1969-70 took teaching "to the streets" and into the decision-making institutions of building production, including the offices of the Ministry of Services and Housing.²⁴ UP6 students experimented with the education of the architect, accepting work as site laborers²⁵ in a social reordering of architectural production.

Some of this radical spirit was even exported from Paris into the syllabus of the more moderate Architectural Association in London.²⁶ Embarrassed by the liberalism bequeathed to the AA by his former employers, Archigram, Bernard Tschumi (who like Koolhaas had witnessed the Paris Events of May 1968)²⁷ endorsed squatting²⁸ and cultivated contacts with the Irish Republican Army (a project eventually dropped after bomb threats against the AA).²⁹ Apparent in all these revisions to the syllabus was a virulent disdain for the traditional role of the academy as an institution separated from the rest of urban space and society. Modern architecture, the new radicals argued, had caricatured its users as proletarians with just a few basic biomechanical needs, wage-slaves to the circulation of labor and commodities.

And yet most of the architectural radicals of c.1968 quickly returned to architecture as it was traditionally practiced; the call to build tended to be more enduring than the call for absolute resistance to bourgeois society. "I was . . . aware of the limitations of our position as intellectuals and architects who were unlikely to find ourselves loading guns and hiding explosives in underground networks," Tschumi confesses about the evolution of his own architectural radicalism.³⁰ After 1968, the neo-avant-garde fared well, as seen in the startling creation in Paris itself of the Centre Pompidou (Renzo Piano and Richard Rogers, 1971-7). Inspired by a heady combination of Archigram images and the direct democracy of '68, Lefebvrian and even Situationist thinking was being steadily incorporated into official French urban policy in the early 1970s.³¹ Even within UP6, the ambition of some of its members to graduate had to be policed with increasing violence, so that, as the course came close to awarding diplomas in 1971, radicals followed the example of the rioting students of Yale in 1968 and burnt down the school office.³² Utopie split at about the same time, three of its members lured back to practice.³³

Individual participants had their own reasons for abandoning the architectural revolution, but there seemed little alternative in any case as the wider revolutionary movement of 1968 dispersed. The revolutionary mood of '68 survived no longer than its forebear in the 1920s; it may be the case that the dalliances with radicalism have been *exceptional* phases for Modern architecture, and that liberalism has provided it with more fertile soil. Just

a decade later the way was clear for a return to neo-conservative social values and neo-liberal economic principles, espoused by such leaders as Margaret Thatcher and Ronald Reagan, with the further global expansion of capitalism seemingly unstoppable after the collapse of the Berlin Wall in 1989. Above all, the architectural profession had to adapt to the shrinkage in publicly funded building projects, like housing, that had indemnified a post-war generation of architects and had put them in close proximity to the mechanisms of the state.

The switch from unbridled optimism about radical architecture to a suspicion of it was one of the signal qualities of so-called postmodernism. The American postmodernists Robert Venturi and Denise Scott Brown, recognizing the delusion that architecture can or should change the world through ruthless modernization, were already disavowing the pretensions of the avant-garde in their teaching seminars at Yale in 1968 (which would lead to publication of their seminal *Learning from Las Vegas* in 1972). For them, a relevant architecture now meant not the perpetual change of super-technological consumerism, nor a dissembled architecture of revolution, but a "homecoming," a "retrenchment," a new interest in meaning and legibility, a new *vernacular*, a true expression of "everyday people."³⁴

Venturi and Scott Brown reinstated the historical devices of architecture and the authorial role of the architect. A renewed air of professionalism was noticeable about the architectural vanguard as it gravitated toward the USA. No more "little magazines," lucky dips of zany ideas chaotically produced and distributed in the manner of Archigram; Robert Venturi's Complexity and Contradiction in Architecture was sleekly produced and distributed by MOMA in 1966. Oppositions, launched in 1974 and edited by Peter Eisenman from the Institute of Architecture and Urban Studies in New York, was as formidably produced as it was titled.³⁵ The cost of this professionalism and critical rigor was, it could be argued, the carnival spirit in which the neo-avant-garde had thus far reveled. This coincided with a nay-saying amongst architecture's most incisive critics, the most outspoken of whom in the early 1970s was the Italian Marxist historian Manfredo Tafuri, who argued that architecture was only ever a superstructural phenomenon of bourgeois society, and could thus be nothing more than a bourgeois implement of repression in all its guises, avantgarde or mainstream, Modern or postmodern. Much of the neo-avantgarde in the 1970s seemed to agree with Tafuri's sentiment, and began jettisoning claims to its architecture being able to change the world. Peter

Eisenman and his colleagues in the so-called New York Five (Michael Graves, Charles Gwathmey, John Hejduk, and Richard Meier) declared themselves free to concentrate on what they knew architecture to still be capable of – form – reworking the 1920s' Modernist achievements of Le Corbusier and Guiseppe Terragni under the mandate of "autonomy" from overt social and political motivations.

Paradoxically, an avant-garde critique of form at this time reinvigorated Modernist form. Eisenman was particularly interested in deconstruction, a philosophy spearheaded by French philosopher Jacques Derrida to pick apart the construction of meaning. Two built projects of the early 1980s exemplified "deconstructivist" architectural (anti-) form – Eisenman's Wexner Center, Columbus, Ohio, in 1983-9, and Tschumi's Parc de la Villette, Paris, in 1984–9, the latter like a "trace" of the presumed purposes of a public park, the former a "deconstruction" of such norms as the grid. Yet deconstructivism sat comfortably in the canon of Modern architecture because it foregrounded - in an inventive, graphic, almost parodic manner – such long-standing preoccupations of Modern architecture as the difference between inside and outside, and drew inspiration from the Constructivist and Cubist styles of the 1920s. In a show of 1987, deconstructivism acquired recognition by the same institution and under the same curatorship (Museum of Modern Art, New York, Philip Johnson) as the International Style had enjoyed back in 1932. The challenges posed in designs such as Daniel Libeskind's Jewish Museum (2001) and Frank Gehry's Bilbao Guggenheim Museum (1997) were easily smoothed out as magazine images and tourist destinations.

Neo-avant-garde ideology retained an enigmatic, non-committal, and even ironic aura, as if the architect with the least commitment was the best prepared to survive and respond socially and aesthetically to a world undergoing the rapid transformations wrought by free-market capitalism, scientific change, and accelerated communications. Critic Ellen Dunham-Jones aptly described figures like Koolhaas and Tschumi as "surfing" late capitalism rather than opposing it: "Koolhaas's research of Manhattan, Atlanta, and Asia, has since been in pursuit of the perfect wave." The neo-avant-garde stance became very problematic, though caution should be exercised before dismissing it as ethically rootless: it sought less to endorse capitalism as to recognize it as a potentially *renewing* force in the world. Perhaps, it was mooted (for instance by the postmodern philosopher Jean Baudrillard, formerly of Utopie), the ascendancy of the masses was likely to come about not by the utopian dreams of the avant-garde

and the left but by consumption. The neo-avant-garde was receptive to a poststructuralist intellectual climate that questioned the ethics and efficacy of retaining old "certainties" like the prospect of class war, while dissenting feminist, ethnic, and sexual perspectives, previously subsumed by the rhetorics of class, also began to be heard. "Despite all earlier warnings to the contrary," wrote architect Nigel Coates about the cultural background of his design in the late 1970s and early 1980s, "social fragmentation added a new vitality to things."37 Such willingness to look at the contemporary world without prejudice reminds us of an observation made in the previous section of this chapter – that a pivotal change in the post-war avantgarde was to recognize the world as it is rather than project upon it the abstraction of what it is not-yet. It is easy to create the impression that the post-war neo-avant-garde was less politically effective than the pre-war avant-garde. But could it, or should it, have better resisted the developments in economics, technology, and culture that made a singular agenda for architecture – of the sort maintained by the Modern Movement – less and less credible?

Le Corbusier's slogan, "architecture or revolution," was an early indicator that what Modern architecture really wished to provide was a built order or image appropriate to a changing world. Perhaps the avant-garde architects that faired best were those who provided the most convincing representations of often frightening or invisible forces of modernization, "making them safe" (just as the opposite strategy of historicism sought to deny them). In an age when technology threatened global destruction through the A-bomb, for example, Archigram reassured its audience that technology might yet be the savior of civilization (as had been believed by some of the first avant-gardes). Two decades later, in a world menaced by the decline of industrial production and governance through barely perceptible networks of capital and information, architects like Tschumi, Koolhaas, and Gehry created a powerful, somewhat macho post-industrial aesthetic that rejoiced in immateriality, disjunction, and flow.

While neo-avant-garde activity of deconstructivist and postmodern ilk tended to disavow the social earnestness of the late 1960s – and indeed of the Modern Movement – the spectral hope of liberation persisted. No longer, it was true, liberation from the capitalist economy as hoped for by the radicals of '68, but still some sense of liberation from the norms of architecture and the ways in which it is used. Deconstructing familial space and comfort in his series of Houses built in the early 1970s, Peter

Eisenman challenged the norms of domesticity. The desire to reshape social space was apparent in work carried out at the AA by the teaching units of Bernard Tschumi and Nigel Coates,³⁸ the fading inspirations of 1968 supplemented in the late 1970s by the anarchic culture of Punk and the rediscovery of the bestial disorder and transgression celebrated in the 1930s' writings of renegade Surrealist Georges Bataille. Rem Koolhaas's classic 1978 book, *Delirious New York*, turned conventional planning on its head by endorsing the pleasures of congestion. In the 1980s Koolhaas and Tschumi typically inserted into their designs gaps and ramps which tempted visitors into "transgressive" and "crossprogrammed" movements and activities. By the 1990s, the pursuit of functional and typological ambiguity had emerged as the nearest thing to a program for the neo-avant-garde – an exact inversion of Modern Movement urbanism, and offered with just the same sense of public-spiritedness.³⁹

Out of the conferences and publications of the architectural schools, meanwhile, emerged a sort of neo-avant-garde syllabus urging students to consider not so much how architecture is produced, but how architecture produces - how it produces meanings, behaviors, social distinctions, and subjective experiences. In this, "theory" (adapted from philosophy, literary criticism, Frankfurt School Marxism, phenomenology, and psychoanalysis) was often found to be more useful than that traditional staple of architectural humanities, history. 40 The academy continued to offer laboratory conditions for successive neo-avant-gardes. Zaha Hadid admitted in 1992 that "as actual professional practice becomes ever more circumscribed by codes, standards and stereotypes, architectural education – the arena of the experimentalist fringe - becomes ever more unrestrained in its self-indulgent 'radicalism.' "41 The prominence given to "radical" ideas in architectural training, it was often argued by critics, was completely disproportionate to the "two percent" return of "radical" architecture actually getting built.42

Indeed, the neo-avant-garde may have been in part a product of the academy, just as the Modern Movement before it. There was, it could be argued, an element in '68 and its aftermath which was an academic project, spilling over from the University of Nanterre into the Sorbonne and a host of other teaching institutions across Europe and the USA, inspired by a succession of sometime academic gurus: Barthes, Leary, Marcuse, Chomsky, Laing, Lefebvre, Foucault. Faculty members at Columbia in 1968 enjoyed the student rebellion, it has been alleged, vicariously reliving

the communist agitation of the 1950s.⁴³ "Destroy the University' was a popular slogan both during and after the May events," Martin Pawley and Bernard Tschumi reported in 1971. "But," they concluded in defence of the academy, "to close the school utterly and completely was to destroy any real possibility of systematic analysis and critique." Against a rising tide of conservatism, the 1970s–1980s was an era when the neo-avantgarde, such as it was, needed the institutional support of the academy more than ever. It is probably no coincidence, meanwhile, that so many key "avant-garde" buildings of the post-war decades have been sponsored by universities (for instance, Candilis/Josic/Woods' Free University, Berlin, [1964–79], James Stirling at Cambridge and Leicester [1963, 1968], Peter Eisenman's Wexner [1989], Frank Gehry at Loyola [1986], Tschumi at Columbia and Florida [2001, 2002]).

One could even venture that the academy itself has been a utopian model, an arena for free thought, by increments more socially inclusive through the expanding provision of higher education, endowed with massive resources of knowledge, a space that is relatively autonomous from the spectacular-commodity city at large.⁴⁵ In the 1960s it was wondered whether university culture anticipated the dwindling away of work into a life of leisure and learning, its refectories replacing the intellectual space of the cheap city cafés being driven out by escalating rents. The fact that the academy is, at the same time, an exclusive and conservative institution, marshaling thought, a prison of its own paradigms, may only add to its allure. Locked into a contradiction of its own making - the claim to authority, on the one hand, and intellectual regeneration on the other the academy has created a disjunctive space of its own, its laws providing, to paraphrase Tschumi (who became a Dean at Columbia), an erotic effect of bondage to be violently transgressed, usually only intellectually, but sometimes physically. 46 It is a characteristic that echoes the conundrum of "Modern-ism."

We need to be aware, too, of a special political dilemma that besets all architecture, and that is that building provides infrastructure to the world *that is*, rather than the world that is to come (in this way, a building is unlike, say, a piece of avant-garde music or poetry that may have a prophetic quality to it). The best place where architecture can talk of the things-to-come is the Schools, where so many of the architects mentioned in this chapter have waited for their opportunity to build, while implanting their ideas onto a student body, the "next generation" of architects through whom it is possible to live vicariously.

Notes

- 1 See Non-plan: Essays on Freedom, Participation and Change in Modern Architecture and Urbanism, ed. Jonathan Hughes and Simon Sadler (Oxford: Architectural Press, 2000).
- 2 Common usage of the term Modern Movement can be traced back amongst English practitioners at least as far as 1936: see Nikolaus Pevsner, *Pioneers of the Modern Movement* (London: Faber and Faber, 1936). However, the idea of a "movement" clearly developed earlier, between Le Corbusier's coining of "l'Esprit nouveau" ("the new spirit," the title of Le Corbusier's journal of 1920–5) and the Weissenhof Siedlung (1927) and CIAM (1928). The term Modern Movement as such, with its messianic associations, probably originates in the British literature after 1928 (for instance in the *Architectural Review*), and its stylistic principles acquired the label "International Style" in 1931–2, provided by the Americans Alfred Barr, Henry-Russell Hitchcock and Philip Johnson. The nearest equivalent to "Movement" in German is the word *Weg*, which occurs in art and architecture throughout the 1920s, though the word *mouvement* does not occur in French until much later. (Prof. Tim Benton has provided me with much of this clarification.)
- 3 Note, however, that while all the directors of the Bauhaus were eminent Modernist architects (Gropius, Meyer, Mies van der Rohe), a separate department of architecture was not established until 1927.
- 4 Sigfried Giedion, *Space, Time and Architecture: The Growth of a New Tradition*, 4th edn (Cambridge, MA: Harvard University Press, 1963), p. 27.
- 5 The Bauhaus chose not to teach history for the first three years of its existence (1919–21) for fear that it would pollute its project.
- 6 See, for instance, Eric Mumford, *The CIAM Discourse on Urbanism, 1928–1960* (Cambridge, MA: MIT Press, 2000) and Colin St John Wilson, *The Other Tradition of Modern Architecture: The Uncompleted Project* (London: Academy Editions, 1995). Examples of "excluded" figures include Johannes Itten from the Bauhaus and Hugo Häring from CIAM.
- 7 The title of Pevsner's book was toned down to *Pioneers of Modern Design* when it was reissued again in 1960, acquiring its subtitle: *From William Morris to Walter Gropius*.
- 8 See the subtitle of Giedion's book, *Space, Time and Architecture: The Growth of a New Tradition.*
- 9 Documentation for this period of history is to be found in *Architecture Culture 1943–1968: A Documentary Anthology*, ed. Joan Ockman and Edward Eigen (New York: Columbia Books of Architecture/Rizzoli, 1993).
- 10 For detailed discussions of the avant-garde in the US, see *Autonomy and Ideology: Positioning and Avant-garde in America*, ed. R. E. Somol (New York: Monacelli Press, 1997).

- 11 For detailed discussion, see John R. Gold, *The Experience of Modernism: Modern Architects and the Future City*, 1928–1953 (London: Spon, 1997).
- 12 See Mark Crinson and Jules Lubbock, *Architecture, Art or Profession? Three Hundred Years of Architectural Education in Britain* (Manchester: Manchester University Press, 1994).
- 13 Alison and Peter Smithson, "The New Brutalism," *Architectural Design* (April 1957): 113, quoted in Reyner Banham, *The New Brutalism* (London: Architectural Press, 1966), p. 66.
- 14 See Peter Smithson, interview with Graham Whitham, November 22, 1982, in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, ed. David Robbins (Cambridge, MA: MIT Press, 1990), p. 37.
- 15 See Peter Bürger, *Theorie der Avantgarde* (1974), trans. M. Shaw, *Theory of the Avant-garde* (Minneapolis, MN: University of Minnesota Press, 1984).
- 16 Peter Smithson, James Gowan, John Killick, and John Voelcker amongst others.
- 17 Both Koolhaas and Tschumi were at the AA by 1970 (Tschumi as a young teacher). See Ellen Dunham-Jones, "The Generation of '68 Today: Bernard Tschumi, Rem Koolhaas and the Institutionalization of Critique," *Proceedings of the 86th ACSA Annual Meeting and Technology Conference* (1998), pp. 527–33, p. 528.
- 18 Reyner Banham, "Zoom Wave Hits Architecture," *New Society*, March 3, 1966, reprinted in Reyner Banham, *Design by Choice*, ed. Penny Sparke (London: Academy Editions, 1981), pp. 64–5, p. 64.
- 19 Two architect members were in fact expelled in 1960.
- 20 See Simon Sadler, The Situationist City (Cambridge, MA: MIT Press, 1998).
- 21 Andrea Branzi, *The Hot House: Italian New Wave Design* (London: Thames and Hudson, 1984), p. 60.
- 22 Jean Aubert, in conversation with Tim Benton, Paris 1998.
- 23 Manifesto of the group Environnement Mai '68 (1969), in Martin Pawley and Bernard Tschumi [Tchumi], "The Beaux-Arts since '68," *Architectural Design* (September 1971): 553–66, p. 553.
- 24 Ibid., pp. 554-5.
- 25 Ibid., p. 566.
- 26 An AA delegation visited the École des Beaux-Arts in January 1971.
- 27 In 1968 Koolhaas and Tschumi were both twenty-four years old, living in Paris, Koolhaas as a journalist and Tschumi with the Candilis/Josic/Woods practice that was sympathetic to student protests at the École. See Dunham-Jones, "The Generation of '68 Today," p. 527.
- 28 See Bernard Tschumi, "The Environmental Trigger," in *A Continuing Experiment: Learning and Teaching at the Architectural Association*, ed. James Gowan (London: Architectural Press, 1975), pp. 89–99, p. 96.
- 29 See Bernard Tschumi, *Architecture and Disjunction* (Cambridge, MA: MIT Press, 1994), p. 7.

- 30 Ibid., p. 10.
- 31 See Eleonore Kofman and Elizabeth Lebas, "Introduction," in Henri Lefebvre, *Writings on Cities*, ed. and trans. Eleonore Kofman and Elizabeth Lebas (Oxford: Blackwell, 1996).
- 32 See George Baird, "1968 and its Aftermath: The Loss of Moral Confidence in Architectural Practice and Education," in *Reflections on Architectural Practices in the Nineties*, ed. William S. Sanders (New York: Princeton Architectural Press, 1996), p. 64.
- 33 See *The Inflatable Moment: Pneumatics and Protest in '68*, ed. Marc Dessauce (New York: Princeton Architectural Press, 1999), p. 8.
- 34 For an account of the wider urge for "homecoming" within the intelligentsia, see "The 1970s: Bringing it All Back Home," in Marshall Berman, *All that is Solid Melts into Air: The Experience of Modernity* (London: Verso, 1983).
- 35 For more on *Oppositions*, see *Oppositions Reader*, ed. K. Michael Hays (New York: Princeton Architectural Press, 1998), and Joan Ockman, "Resurrecting the Avant-garde: The History and Program of Oppositions," in *Architecture-production: Revisions no. 2*, ed. Beatriz Colomina and Joan Ockman (New York: Princeton Architectural Press, 1988), pp. 180–99.
- 36 Dunham-Jones, "The Generation of '68 Today," p. 531.
- 37 Nigel Coates, "Narrative Break-up," in *The Discourse of Events* (London: Architectural Association, 1983), pp. 12–17, p. 15.
- 38 See ibid.
- 39 See, for instance, the "snapshot" of ideas and projects provided in *The End of Architecture? Documents and Manifestos*, ed. Peter Noever (Munich: Prestel, 1993).
- 40 The production of theory was particularly intense around the schools on the East Coast of the USA, a fact reflected in compendiums of recent architectural theory: *Architecture Theory since 1968*, ed. K. Michael Hays (Cambridge, MA: MIT Press, 1998) and *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory, 1965–1995*, ed. Kate Nesbitt (New York: Princeton Architectural Press, 1996).
- 41 Zaha Hadid, "Another Beginning," statement to the Vienna Architecture Conference, June 1992, in *The End of Architecture?*, ed. Noever, pp. 25–8, p. 25.
- 42 An estimate from the Vienna Architecture Conference, June 1992. See "Roundtable," in *The End of Architecture?*, ed. Noever, pp. 99–127, passim.
- Dan Leab, paper to the Open University '60s seminar, April 1997. Leab was a Dean at Columbia at the time.
- 44 Pawley and Tschumi, "The Beaux-Arts since '68," pp. 564-5.
- 45 As Tschumi acknowledges in *Architecture and Disjunction*, p. 252, of the development of deconstructivism, "Much of this work benefited from the environment of the universities and the art scene its galleries and publications

- where the crossover among different fields allowed architects to blur the distinctions between different genres."
- 46 See Tschumi, *Architecture and Disjunction*, p. 88: "the game of architecture is an intricate play with rules that one may accept or reject. Indifferently called système des Beaux-Arts or modern movement precepts, this pervasive network of binding laws entangles architectural design . . . When manipulated, however, they have the erotic significance of bondage."