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A Note on the Display Initials
The display font in this issue, drawn by Adrien Vasquez from the John Morgan studio and featured in the essay by Sam Jacob, is an adaptation of a letter face created by the sixteenth-century French humanist and engraver Geoffroy Tory. Perhaps most famous for his 1525 version of *The Book of Hours*, which championed the use of typography as distinct from handwritten print, Tory's faith in the French language and in a rational system of setting words on a page in many ways established the model of publishing as a discipline of meticulous editorship and design. Two of the by-products of his influence were his introduction into French of the apostrophe, the accent and the cedilla, and his mentoring of Claude Garamond, who later succeeded him as Printer to the King. Our own Tory display letters derive from his book *Champ Fleury* (1529), the subtitle of which gives an indication of its focus – *The Art and Science of the Proportion of the Attic or Ancient Roman Letters, According to the Human Body and Face* – although the specific face and body featured in our letters is not Tory's but Sam Jacob's; a body whose proportions changed as Sam trained for the London marathon.

Johnson's Grid

The List Art Centre at Brown University

Dietrich Neumann & Juergen Schulz

Philip Johnson in his office in the Seagram Building, 1957
© Arnold Newman Collection, Getty Images

In the mid-1960s Philip Johnson found himself in a deep, existential crisis. His firm had recently completed three major projects – the New York State Theatre at the Lincoln Centre (1964), the New York State Pavilion at the World's Fair (1964) and the extension of the Museum of Modern Art (1964) – all to mixed reviews. No other projects were forthcoming. Johnson's lead architect and business manager, Richard Foster, had left when these projects neared completion to start a practice of his own. Several potential commissions – an American headquarters for Mercedes-Benz in Manhattan, a shopping centre in Brooklyn ('Broadway Junction') and a high-rise apartment building, 'Chelsea Walk', in Manhattan – had come to nothing.[1] The office had suddenly gone 'from being very busy to not busy at all'.[2] Johnson reduced his staff to five architects and considered moving out of the Seagram Building into cheaper accommodation.[3]

During this time Johnson was still seen mostly as an acolyte of Mies van der Rohe. He had gained the reputation of an apt interpreter of Miesian ideas, thanks to his Glass House in New Canaan, Connecticut and his design for the Four Seasons Restaurant inside the Seagram Building.[4] But his attempts to move beyond the shadow of his mentor to a mellower kind of modernism, characterised by softly curved structural frames in concrete or clad in marble, met with little critical acclaim.[5] Johnson would one day describe these buildings – which included the Amon Carter Museum in Fort Worth, Texas (1961), the Sheldon Art Gallery in Lincoln, Nebraska (1963) and the Beck House in Dallas (1964) – as his 'television-windows period' and the 'low point' of his career. For the critic Robin Middleton, Johnson's post-Miesian offerings were 'style-mongering … imbued with the dull complacency of wealth'.[6] Already in 1960 Johnson had confessed to being 'ashamed of the terribly scattered work that I do, and its lack of direction'.[7] By the mid-1960s, according to Robert A M Stern, 'students at Yale were increasingly disenchanted with Johnson's work and with the man himself', and he was 'out of favour with critics and younger architects and experiencing considerable self-doubt'.[8] His former head designer, John Manley, confirmed that Johnson was indeed 'at a bit of a loss' in those years.[9] He had to prove his relevance and fight for the survival of his office. It is from this particular phase, a time of introspection and reorientation, that a remarkable and almost entirely forgotten building in Philip Johnson's oeuvre emerged.[10]

In the summer of 1963 President Barnaby Keeney of Brown University asked Johnson for a meeting. To the struggling architect Keeney must have appeared like a *deus ex machina*, holding out

the possibility of a commission and a new departure. Johnson knew and got along well with the energetic and witty Keeney, who had risen swiftly through the ranks at Brown, joining the history department in 1946 as an assistant professor with a Harvard PhD and becoming a – very young – dean of the graduate school three years later, full professor in 1951, dean of the college in 1953 and president in 1955. He would greatly increase the university endowment, substantially raise the number of undergraduates, double the number of the faculty and triple the number of graduate students. Keeney had previously commissioned Johnson to design the university's first computer centre – a handsome structure in red-coloured concrete, with an exoskeleton of thin piers connected at the top via cross braces – a device that emerged simultaneously in sketches for the Lincoln Centre.[11] Johnson was so fond of the building that he placed a model of it prominently on his desk when the photographer Arnold Newman came to take a series of portraits for *Life Magazine* in 1957.

Like many other institutions of higher learning during the 1960s and 1970s, Brown University embarked on a major building campaign. Given an extra boost by the institution's 200th anniversary, ambitions ran particularly high: 'We have a wonderful opportunity at Brown University to create a museum of the works of the most important mid-twentieth century architects', Samuel Lerner, engineering professor and director of construction planning, wrote to president Keeney in the spring of 1964. His shortlist of potential architects included, apart from Johnson, Alvar Aalto, Le Corbusier, Louis Kahn, I M Pei, Mies and others.[12] The eventual products of the building campaign were considerably more modest. Two new libraries by Warner, Burns, Toan & Lunde – the John D Rockefeller Jr Library and the Sciences Library – were completed in 1964 and 1971, the new Graduate Centre and Biomedical Centre, both by Shepley, Bulfinch, Richardson & Abbott, were finished in 1969 and 1971, and a new dormitory complex by Donlyn Lyndon was added in 1976. Projects with I M Pei (for an earth sciences and mathematics building) and Felix Candela (athletics complex) matured as far as the design stage in 1965 and 1966, but then died for want of funds. Against such diminished competition, Johnson's new building for theart department ended up being the most prominent result of the university's engagement with contemporary architecture.

A proposal for a new art centre was considered by the university's building committee in early 1963. Its chairman, John Nicholas Brown II, brought up Johnson's name early on.[13] The scion of the family that had liberally endowed the university during the nineteenth century, Brown had known Johnson when the two were undergraduates at Harvard. Brown had developed an

From top: Brown University Computer Centre, 1961 © Hassan Bagheri; Amon Carter Museum of Western Art, 1961; Sheldon Art Gallery, 1963; Kreeger House, 1967; Art Museum of South Texas, 1972 © Ezra Stoller / Esto

interest in modern architecture, which led Johnson, then curator of architecture at the Museum of Modern Art, to invite him to join the museum's Junior Advisory Committee. In all likelihood it was Brown who was responsible for hiring Johnson for the university's computer centre. Financial support for a new art building was found that summer, in the form of a lead gift from the art collectors and philanthropists Albert and Vera List, and smaller gifts from Mrs John D Rockefeller, Jr, the Ford Foundation and the estate of Edith Knight. According to Keeney, the exploratory meeting with Johnson in the summer of 1963 went exceedingly well: Johnson, he reported to John Nicholas Brown, 'knows and likes [the] Lists', and was 'anxious to do art building'. Brown immediately informed his committee members, adding 'the President and I recommend Philip Johnson as architect' and soliciting their approval of this recommendation, which was promptly given.[14]

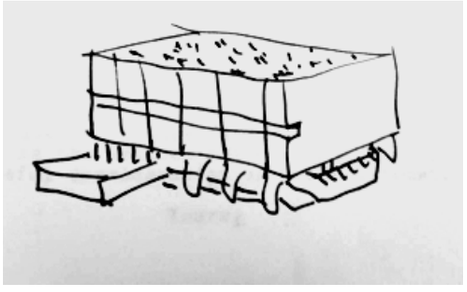
The faculty of the art department now began development of a programme for the building's design in consultation with Samuel Lerner. Johnson started to draw proposals and the department chair, William H Jordy, a specialist in modern architecture, closely followed his progress. Johnson clearly struggled. In March 1964 Jordy went to New York to examine Johnson's second design for the project. He liked it less than the first, which he described as 'a windowed block on stilts with solidly enclosed free forms organised in a kind of architectonic sculpture of spaces, plazas and ramps among the stilts'. The second design, instead, seemed to him but 'a fortress-like variant of your geology building at Yale'. In addition, Johnson had introduced the 'communal idea' of an arcade in the centre of the building. Urging Johnson to return to the first version with a colonnade in the front, Jordy submitted his own sketch of a building with greater depth and a vertical pattern in the facade reminiscent of that earlier colonnade.[15] The effect of Jordy's criticism is unrecorded, in any event, Johnson's next attempt was rejected by the building committee, which observed that 'the plans submitted by Mr Johnson were on too grand a scale to meet the budget'. At the same meeting the budget was fixed at $1.5 million.[16] In August, Jordy returned to Johnson's office accompanied by Lerner and the three men agreed to reduce the building's area by 25 per cent and to give offices and studios more 'realistic' proportions.[17] Johnson kept working on the design, writing good humouredly to John Nicholas Brown in October 1964: 'Dear John, I am making some studies, as you can see by the enclosed, and at least at first blush it looks pretty bad. I shall bring the model up with me on the 23rd with some red paper so we can play.'[18] Unfortunately, none of these early models or drawings (except that by William H Jordy) seem to have survived.[19] The designer in

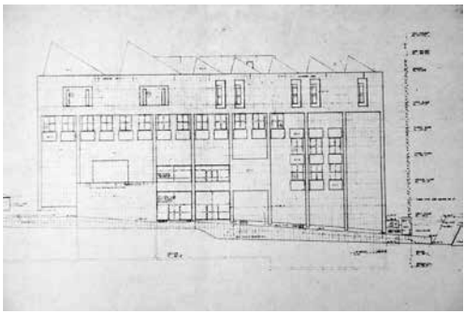
charge of the project in Johnson's office was John Manley, who had worked there since 1955. He described the design process as a close collaboration with Johnson, who, since 'he was not a very good draughtsman' would explain verbally what he had in mind (in a remarkable shift of allegiances, apparently 'he wanted something Corbusian'), and Manley would then proceed to produce sketches and eventually working drawings.[20] (Johnson considered Manley his *amanuensis*, 'the only man who can design with me ... the key man in the office'.)[21]

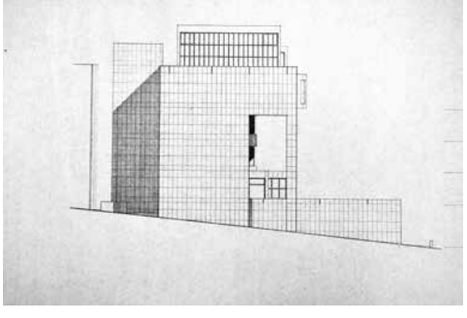
Two long years passed before the intended site for the new building became available, in January 1966: a narrow strip of ground running north–south between Waterman and College Streets, and between the John Hay Library (built in 1910 by the Boston firm of Shepley, Rutan & Coolidge) on the east and a former private residence on the west.[22] Johnson's planning now progressed from hypotheses to reality, and he delivered final drawings in 1967. The letters from Johnson's office to the university in this final design phase were mostly signed by John H Burgee, who had just joined the office as a partner and took over the correspondence. It was put out to bid in September 1967.[23]

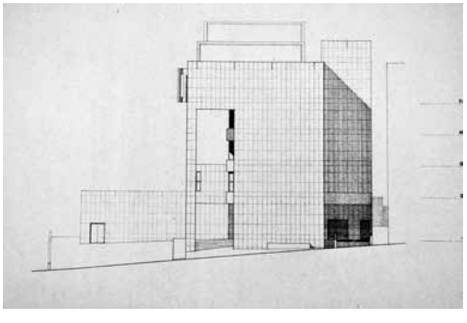
Nothing in the building's final form reveals the complicated and drawn-out design process; nor is there any trace of Johnson's recent bout of stylistic insecurity and self-doubt. It is as self-assured, courageous and hard-edged as anything in Johnson's oeuvre. And its siting – one of Johnson's most sensible urban gestures – changed the face that the hill-top university presents to the city below. Since 1910 the Hay Library, facing west towards the centre of campus, had turned its back on downtown Providence, showing its unadorned rear side with narrow, vertical book-stack windows. Next to it, a small utilitarian library annexe of the 1930s and a clapboard house completed the motley collection of rather unremarkable building backs. Johnson erased this impression. He made the new building the same height as the Hay Library and aligned its facade with the carefully articulated back of the then newly completed Rockefeller Library across College Street, so combining the two into one continuous, monumental front towards the city. And he gave the List building a facade that is an exercise in welcoming openness and readability.

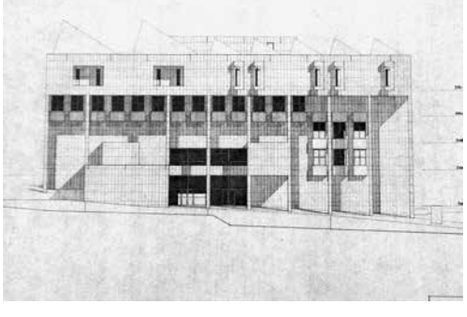
Johnson envisioned an entire building of reinforced concrete cast on site – a shocking contrast to Brown's largely neo-colonial campus, and a first and singular occurrence in Johnson's career. According to John Nicholas Brown, 'late one night, the brilliant idea of an upside-down building suddenly came to him'.[24] Indeed, the building has a truly unusual section. It varies greatly in depth, with the greatest expanse reserved for the top floor, which houses a large studio space for instruction as well as









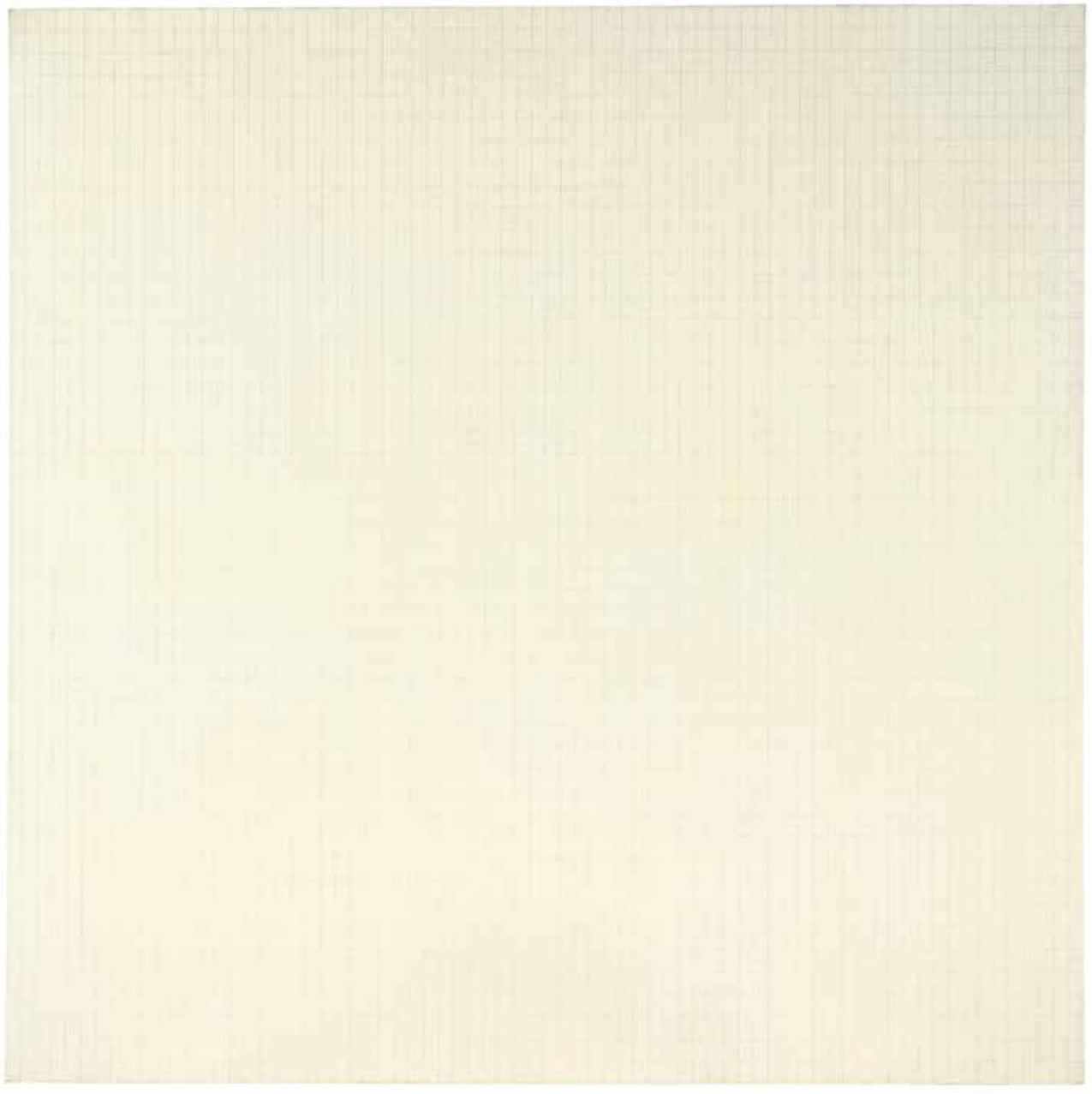


Sketch by William H Jordy of the List Art Centre (*top*); followed by an elevation signed by Johnson, and then elevations of the initial design as adapted by Glaser & Partners
© Brown University Archive

office-studios for the teachers. Jutting out from the western windows of this floor are Corbusian *brises-soleil,* crooked like an elbow to shade the rooms against the late afternoon sun. Above the roof rise north-facing skylights, triangular in section but of different heights (two tall ones for the painting studio, four small ones for a drawing studio and the studio-offices), creating a jagged skyline. This floor is carried by a grand colonnade of nine slender, rectangular piers, four storeys high, which draws visitors in perpendicularly from the sidewalk on College Street, providing protection from the elements and guiding them slightly uphill towards the main entrance at the centre of the structure. The third floor, set back behind the piers and shaded by the parapet of the studios, contains offices for the art historians – expressed externally by individual bay windows – and storage and work rooms. The second floor has fewer windows; it contains a printmaking studio at the north end, a photography studio and darkrooms in the centre and a general studio at the south end. The first floor houses the department's administrative offices at its centre, with the chairman's office projected outward to meet the great piers. At the south end lies another studio space; at the north end, two windowless seminar rooms. A large lobby offers views over the city through extensive fenestration and access to a vast terrace atop the ground-floor lecture hall. Another lobby on the ground floor leads to an exhibition gallery and two lecture rooms, the smaller one within the building's footprint, the larger one jutting out westward, breaking the rhythmic sequence of the arcade's thin piers. In the basement a large sculpture studio occupies the northern half, a storage space the southern half. The building is resolutely mono-directional: the slim north and south facades are entirely windowless, while the eastern side towards the Hay Library has only a few small windows on the third floor, the loading dock and emergency stair exits. The scheme is reminiscent of a chest of drawers, with different sections having been pulled forward.

At some point during the final design phase a new, unusual element emerged – a dense grid of vertical and horizontal grooves covering all sides of the building, achieved by fastening thin, triangular laths to the insides of the concrete's casting forms.[25] While the intervals between the vertical lines remain constant, the distance between the horizontal lines varies between 3ft and 4ft, indicating floor and window levels. Unlike more typical examples in contemporary brutalist concrete architecture, which show the seams between pieces of formwork and successive levels of casting, or between precast elements, the lines of the List Art Centre frame smooth surfaces and do not reveal any wood pattern. Their grid continues relentlessly over the horizontal ceiling surfaces

Plaster model of the
List Art Centre, 1967



Agnes Martin, *The City*, 1966

underneath overhangs – thus demonstrating its independence from the casting process. The tall, vertical piers on the west side of the building – the facade's most striking element – are fitted precisely into this overall pattern. Every field of the matrix contains two round holes – results of the casting process, in which both sides of the wooden formwork are connected and held in place by metal anchors. Entombed in the hardened concrete, their remaining ends can either be covered up by concrete or pressed into service as an ornamental system, with plastic stoppers protecting the metal from corrosion. Here, each of the matrix's fields contains two such holes.[26] The entire system of grooves and holes appears on all of the final drawings for the project signed by Johnson in the summer of 1967. Given that they were not explicitly visible in the site model, and the single existing presentation drawing shows instead a dense grid of vertical lines in the style of Paul Rudolph, we can assume that the decision to include the grid was made late in the design process in 1967. Its execution had to be planned with a special concrete consultant in Johnson's office and required a high degree of care and experience onsite in placing the formwork and settling the freshly poured concrete. The application of such a matrix covering the surface of an entire building is unique not only in Johnson's oeuvre, but in American architecture of its time.[27]

Where did this grid come from? One cannot help but think of Saul Steinberg's endearing reflection on the international style with his transformation of a sheet of graph paper into the elevation of a Park Avenue-style apartment block, published in Fleur Cowles's short-lived *Flair* magazine in 1950. No doubt more apposite for Johnson was the contemporary discussion about grids in abstract art, which had 'become important modes of organisation for recent art', John Elderfield wrote in 1972.[28] There were grid drawings by Agnes Martin alongside works by Thomas Downing, Sol LeWitt, Robert Ryman and Donald Judd in 'Systemic Painting', the Guggenheim Museum's 1966 exhibition on minimalist art as an alternative to abstract expressionism. In particular, Martin's large (181×183cm) painting *The City* displayed a vertical oblong grid pattern similar to that on the surface of the List Art Centre. Martin had been a constant presence on the New York art scene for a number of years, thanks to annual solo exhibitions at the Robert Elkon Gallery since 1962, and her work was known to Johnson, an avid collector of contemporary art, who had purchased her drawing, *The Red Bird* in 1964, just as design work for the List Art Centre got underway.[29] Looking back, we can see a potential hint at Johnson's motivation to apply a grid in the definition from Krauss's seminal essay, 'Grids':

Logically speaking, the grid extends, in all directions, to infinity… By virtue of the grid, the given work of art is presented as a mere fragment, a tiny piece arbitrarily cropped from an infinitely larger fabric. Thus the grid operates from the work of art outward, compelling our acknowledgment of a world beyond the frame.[30]

While Johnson never explicitly mentioned a connection between the List Art Centre's grid and Agnes Martin's drawings, the idea of treating the surface of an art centre as a gigantic canvas must have seemed compelling.

As the List Art Centre's design was evolving, Johnson must have been acutely aware that his project would invite comparison with two recent buildings with similar programmes and sizes on two Ivy League campuses nearby:

List Art Centre, 1971
© Brown University Archive

Paul Rudolph's Art and Architecture Building at Yale (completed in 1963) and Le Corbusier's Carpenter Centre at Harvard, completed a year earlier, in 1962.[31] Both were of reinforced concrete and both made surface treatment a major design feature – in the case of Rudolph's building, the famous 'corduroy' pattern of a roughly hammered, corrugated surface, in the case of Le Corbusier the exact opposite: a refined smoothness, painstakingly executed under J L Sert's supervision, using specially trained craftsmen and custom-manufactured formwork. The urban siting of Rudolph's and Le Corbusier's buildings is also diametrically opposed: while Le Corbusier clearly negotiated and challenged the existing street grid on Harvard's campus with his diagonal crosswalk, Rudolph designed a solitary fortress that avoided contextual references. At the List Art Centre, the integrative response to the urban context was a central factor of the design.

The importance of Le Corbusier and Rudolph buildings at this moment becomes apparent from a text that Johnson wrote while working on the List Art Centre. 'Whence and Whither: The Processional Element in Architecture' appeared in Yale's architecture journal *Perspecta* in the autumn of 1965.[32] Johnson compared the 'shifting, rising, declining path' of the Carpenter Centre to the 'off axis' approach and 'baffling' mannerism of the 'explosion into space' in Yale's Art and Architecture Building. He then proceeded to describe the imagined approach to the Kline Biology Tower in New Haven that he was planning at the time. It could easily be mistaken for a description of the approach to the List Art Centre, also on his drawing boards: 'What I intend there is space seen in motion. A walk with change in direction with changing objectives… Walking up the hill … you enter through a propylaeum, a covered, columned portico.'[33] It seems safe to assume that the List Art Centre was indeed meant as an answer to, even a synthesis of, Le Corbusier's thesis and Rudolph's antithesis.[34] How much the choice of material at the List Art Centre was influenced by its two predecessors is confirmed by the fact that no other building by Johnson at the time employed raw concrete. All others were clad in stone, brick or stucco.[35] For Johnson this meant an engagement with the broad discourse on brutalism, which until then he had studiously avoided (Reyner Banham's *The New Brutalism* appeared in 1966) and with it a return to essential modernist principles of honestly exposed and readable, load-bearing structure, material and process, which he seemed to have abandoned long before.

Another of Johnson's essays from this time is equally instructive. In a review of Robin Boyd's *The Puzzle of Architecture* (1965) he follows the author's division of contemporary architecture into three phases or degrees of development of the international style. The second phase after the classic beginnings had, according to Boyle seen a 'monolithicism' of buildings, where the functions were 'stuffed … into preconceived geometric volumes'. Johnson sees himself as part of that stage and, indeed, his Bielefeld Art Museum, Kline Biology Tower or Bobst Library all fall easily into this category. But he is more excited about Boyle's 'third stage', which seems to provide a blueprint for the List Art Centre, with its 'synthesis of unity and diversity, clarity and complexity' and the 'play of external space semi-enclosed by functional elements strongly expressed'. This phase is also 'contemptuous of careful finishes', favouring the 'toughness' of raw concrete. From his examples – Rudolph's

Government Service Centre in Boston, Kahn's Richards Medical Research Laboratories at the University of Pennsylvania, or Johansen's proposed library for Clark University, which 'expresses separately almost every varying function in the building' – it is clear that he sees the List Art Centre as belonging to this category.[36]

Certain formal features were shared with other recent buildings. The protruding top floor was a current fashion embraced by Kevin Roche's Ford Foundation Building, Kallmann, McKinnell & Knowles Boston City Hall, Minoru Yamasaki's Roberston Hall at Princeton, and Shapiro Hall at Wayne State University by Paulsen, Gardner & Associates, among others. 'Architrave buildings', a German architecture magazine called them. For all of these works, Le Corbusier's La Tourette Monastery had been a decisive influence.[37]

Johnson's design was put out to tender in September 1967. Thereafter, a series of unfortunate events unfolded that would seal the fate of the building's reception, ensuring its complete obliteration from the critical discourse. The bids all came in too high, so the department's faculty and the Office of Construction Planning were asked to find ways to cut costs. The most important changes were the elimination on the Waterman Street side of an outdoor sculpture court and light cannons to bring daylight into the basement sculpture studio.[38] So revised, the plans were put out for new bids in September 1968, which were once more judged excessive.[39] To complicate things even more, a new department chair, Juergen Schulz, arrived from Berkeley, and requested changes in the layout of the fourth floor to create more individual office space for the planned growth of the department the following year.[40] Exasperated, Johnson and Burgee complained that between them, the wished-for savings and the new changes made a 'complete redesign' of the building necessary.[41]

In the meantime, the university had hired a new president, the rather hapless Ray Lorenzo Heffner (who would suddenly resign three years later, frustrated with internal politics). He set the institution on a strict course of financial thrift and had little patience with Johnson and Burgee's objections. He had never met Johnson, and as a scholar of Elizabethan poetry, he had no experience with architectural design processes. He authorised the university to entrust the project to another architect, and apparently no one on the building committee had the guts to tell Johnson, who only found out when he got a message from the firm of Samuel Glaser & Partners of Boston in early October 1968 informing him that they had been retained by Brown University to make 'architectural, structural, electrical and plumbing changes … redesign the heating, ventilation and air conditioning systems … and administer the construction' of the building.[42] Shortly afterwards Johnson encountered Albert and Vera List at the Metropolitan Opera in New York. When he told them of this development they expressed astonishment and indignation. In all likelihood, however, they were informed and perhaps even complicit in the decision, Mrs List especially so, because – as she even volunteered to Philip Johnson that night – Samuel Glaser was her brother.[43]

Needless to say, Johnson was deeply offended and relations between him and Brown University crumbled. In early November he wrote to president Heffner, asking that Johnson & Burgee be released from their contract. 'Since it is impossible for us to be "semi-responsible" for a building', he concluded, the university should now 'continue with the other firm' and stop using the names of Johnson & Burgee 'on any drawings or publicity, and similarly that the names of our engineers should be deleted from the plans and not used as a reference in any way'. Since the university continued to refer to the rising building as designed by Johnson, he wrote another, more strongly worded letter in 1970, insisting 'that my name is on the sign on the construction site and I would like very much to have that removed.'[44]

And so it was to be: final changes were made by Glaser & Partners, and supervision of actual construction fell to them. What were Glaser's changes to Johnson's plans? On the exterior and in the layout of the main floors there were none at all, except for the aggregate from which it would be formed. Johnson had specified a red granite aggregate, similar to what he had used at Brown's computer centre ten years earlier, which would have given the exterior a slightly pinkish hue. However, that aggregate had to be trucked in from the Midwest. To save the university $120,000, Glaser substituted a local aggregate that produced a neutral grey concrete closer in colour to the Vermont marble on the neighbouring Hay Library.[45] No changes were made in the design of the exterior, except for the omission of the Corbusian light cannons on the ground floor of the north side of the building. In the interior an expensive system of heavy rafters over the basement was replaced by a system of columns and the basement's height was reduced, saving some $20,000 on making the sewer connection. A giant HVAC mechanical plant in the basement was replaced by small mechanical rooms on each floor. (As part of this, air conditioning was added for the painting and drawing studios and the artists' studio-offices on the top floor.) According to Samuel Lerner, 'Glaser & Partner's use of new engineering principles saved us a small fortune'.[46] Put out to bid, the revised plans came in at just short of $2.1 million; the winning tender came from the Dimeo Construction Company of Providence.[47]

Opposite: List Art Centre, seen over the rooftops and spires of Providence, 1971

Construction began in 1968 and continued for almost three years, with a one-year hiatus caused first by student protests in favour of minority hiring by the Dimeo Construction Company and then by striking ironworkers and carpenters.[48] As the building neared completion, in January 1971, Johnson reached out to John Carter Brown in a gesture of reconciliation: 'Just stopped off in Providence to see The Building. My Congratulations! It is beautiful and exactly like the drawings. I am impressed and very pleased.'[49] According to Burgee, it was at that moment that Johnson decided to 'put his name back on the building'.[50] Delighted, John Nicholas Brown asked Philip Johnson to design a *stele* for its southern front carrying the name of the building. Adding insult to injury, however, the building committee viewed a mock-up in August and promptly rejected it. Brown's new president Donald Hornig, even more bent on savings than his predecessor, stepped in and suggested a simple slate sign detached from the building, which was subsequently installed.[51] Though rebuffed once again, Johnson remained unfailingly generous. He accepted an invitation to attend the opening in October 1971 and made a few remarks – including a characteristically teasing reference to Albert List's generosity – giving no sign of rancour.[52]

The building received almost no critical reception when it was completed.[53] Probably the university was unsure of how to handle the complicated question of its genesis, and two administrations and many delays later, the building was left with few enthusiastic supporters on campus who could have started a public relations campaign. At least John Nicholas Brown was delighted: 'If the art department couldn't have a tasteful building, who could expect one?'[54] The *Art Journal* reported on the opening and the building's complicated authorship: 'Originally designed by Philip Johnson, the stunning building, beset by more than usual problems of budgetary woes, construction difficulties and local strikes, was erected by the Boston firm, Samuel Glaser & Partners, who perhaps deserve more credit than they officially received at the dedication festivities. Star of the ceremony was Philip Johnson.'[55] In 1973 a 22-year-old Paul Goldberger, recently graduated from Yale, produced a rather fawning article in *Architectural Forum* on two 'new museums and two college art centres' by Philip Johnson, declaring 'at least three … worthy of an extended look': the Art Museum of South Texas at Corpus Christi, the Neuberger Museum of the Visual Arts at the State University of New York at Purchase, and the Fine Arts Centre for Muhlenberg College. Fourth was the List Art Centre, represented by a photograph and plan but referred to nowhere in the text.[56] Johnson himself never mentioned the building again and did nothing to promote it. He did not give Ezra

Stoller the usual commission to photograph the finished project, and in all of the vast literature on Johnson's work, Peter Blake's monograph is the only one to illustrate it.[57] Twenty years on, in a series of interviews with Robert A M Stern, Johnson acknowledged his difficulties during the time of design but never the List building. Thirty years on, when viewing photographs of the building, he still remembered its complicated genesis: 'You see, it wasn't all that bad, after all, was it?'[58]

Like all inhabited structures, the List Art Centre has suffered changes over the years, not all of them felicitous. The entrance lobby retains Johnson's ceiling, with lighting housed in a grid of wooden slats, for instance, but the raw concrete walls that once exhibited the same lines and stopped-up holes seen on the exterior have now been resurfaced with white plasterboard. In 2002 Signer Harris Architects renovated the adjacent lecture hall, eliminating the sloping floor in the front row of seating. In the 1980s the north side of the second floor, which dog-legged to lead up to a rooftop terrace covering the large lecture hall, was walled off to create a new office. Use of the terrace itself was initially proscribed by the university's safety officer due to its low parapet, and immediately after the building opened it received an added railing.[59] More recently, portions of the second, third and fourth floors have been rebuilt to accommodate changes in function, and in 2009 the university safety officer ordered the characteristically thin Miesian steel handrails running along the interior stairs to be replaced with thick, clumsy tubes. There have been no changes to the exterior, which at the age of 40 remains the finest and most striking monument of the modern movement in Providence.

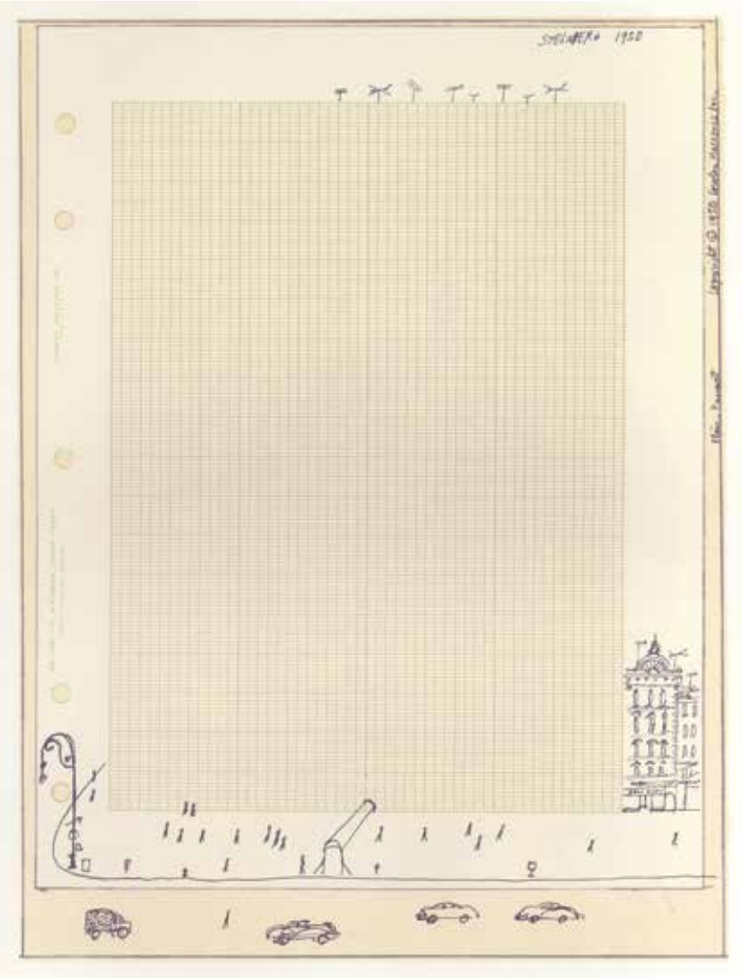
If the building had received attention at the time, chances are it would have afforded Johnson the critical recognition he was longing for. Instead, it remained a pivotal solitaire. With no formal successors or anything else that achieved a similarly convincing connection to its urban setting, the List Art Centre was one of Johnson's least derivative and most courageous schemes, and one he would never completely revisit. Upon disbanding from the project Johnson returned to safer stylistic territory, designing the playful Kreeger Museum in Washington DC (1967), the Kline Biology Tower at Yale (1966–69) and the stern, windowless Elmer Bobst Library for New York University (1972). But even when the commissions picked up again, his subsequent works displayed neither the toughness nor the structural and programmatic honesty of the List Art Centre. The Bielefeld Art Museum, built in 1968, has a vague formal resemblance thanks to its protruding upper floor.[60] A closer relative might be the above mentioned, little-known project, the South Texas Institute for the Arts in Corpus Christi, designed at roughly the same time, also with John Manley as lead designer, and finished one year after the List Art Centre opened, in 1972. Jutting out from the roof of the bay-facing wing are three slanting skylights, whose scalene forms hint at those in Providence. Yet this is where the resemblance ends. In fact, the stark white plaster and shellcrete skin, was perhaps for Johnson an exercise in letting go. Ludwig Mies van der Rohe died in 1969, just as construction on the List Art Centre was finally under way. Apart from a possible nod to Agnes Martin, the imprint of the grid on its facade might be read as a farewell to Johnson's mentor.[61] Its narrow, oblong elements echo the facade of Mies's Seagram Building, whose interiors Johnson not only designed but worked out of for much of his career. While it might not have been the sole reason for Johnson's existential crisis, it would have cast quite a shadow. As if in reaction, a few months before the List Art Centre was completed, Johnson donated his Martin drawing to the Museum of Modern Art.[62] His sense of relief was palpable. 'The days of ideology are thankfully over', he told students at Columbia University in 1975. 'Let us celebrate the end of the *idée fixe*... There are no imperatives, only choice... "Free at last", I say to myself.'[63]

Juergen Schulz passed away on 23 November 2014. He is dearly missed as a great scholar, teacher, mentor and friend.

1. Franz Schulze, *Philip Johnson Life and Work* (New York, NY: Knopf, 1994), p 320.
2. Interview with John Manley, 27 August 2012.
3. Franz Schulze, *op cit*.
4. Monographs about Johnson include: Charles Noble and Yukio Futagawa, *Philip Johnson* (New York, NY: Thames & Hudson, 1972); Nory Miller, *Johnson/Burgee: Architecture, the Buildings and Projects of Philip Johnson and John Burgee* (London: Architectural Press, 1980); Hilary Lewis and John T O'Connor, *Philip Johnson: the Architect in his own Words* (New York, NY: Rizzoli, 1994); Franz Schulze *Philip Johnson: Life and Work* (New York, NY: Knopf, 1994); Alba Cappellieri, *Philip Johnson: dall'International Style al Decostruttivismo* (Naples: Clean, 1996); Peter Blake, *Philip Johnson* (Basel: Birkhauser Verlag, 1996); Stephen Fox, Hilary Lewis and Philip Johnson, *The Architecture of Philip Johnson* (Boston, MA: Bullfinch, 2002); Robert A M Stern, Philip Johnson and Kazys Varnelis, *The Philip Johnson Tapes* (New York, NY: Monacelli Press, 2008); Emmanuel Petit et al, *Philip Johnson: The Constancy of Change* (New Haven, CT: Yale University Press, 2009).
5. Philip Johnson on his work of that period: Robert A M Stern, *op cit*, p 176.
6. Open Letter, Robin Middleton to Johnson, *Architectural Design*, March 1967, p 107.
7. Philip Johnson, lecture at the AA, 28 November 1960. See Philip Johnson, *Writings* (New York, NY: Oxford University Press, 1979), pp 104–16.
8. Robert A M Stern, *op cit*, pp 11–12. Stern links these two quotes to events in the years 1963 and 1967, coincidentally the years during which the List Art Centre was designed.
9. Interview, John Manley, *op cit*.
10. Most of the details of the building's history that follow have been extracted from files in the Brown University Archive and include: the John Nicholas Brown Papers, here cited as JNB papers; the Davis file; Dean of the College files; and President Hornig files. A few are memories of Juergen Schulz. The complete, departmental files of papers and drawings concerning the design and realisation of the building, which were kept in metal file cases in the building's basement, were mindlessly destroyed in 1984 when they were declared a hazard by the University's Safety Officer.
11. See 'Recent Work of Philip Johnson: Computing Laboratory Brown University, Providence, RI', *Architectural Record* 132, 1962, pp 124–25. Johnson described it as 'neoclassical in concept' but 'the materials and designs of the columns are of today. Only precast stone could have been used to form the Xs of the entablature, only plate-glass could render the porch useable in the New England climate. Red granite chips were used as exposed aggregate in order to harmonise the new centre with the nineteenth century which surrounds it.'
12. Letter from S Lerner to B C Keeney, president of Brown University, 2 March 1964 (JNB 6/18). Lerner's first list (Alvar Aalto, Le Corbusier, Pierre Jeanneret, Louis Kahn, Pier Luigi Nervi, I M Pei, Paul Rudolph and Mies van der Rohe) was followed by a second list including Architects' Collaborative (Gropius), Bunshaft of Skidmore, Owings & Merrill, Ralph Rapson, Saarinen Associates, Edward Durrell Stone, Hugh Stubbins and Minoru Yamasaki.
13. Minutes of the Committee on New Buildings, Brown University, February 13, 1963 (JNB 6/21). At this meeting committee member Emil E Fachon suggested British architect Basil Spence, who had just finished work on Coventry Cathedral on the site of the old church, destroyed by German bombardment in November 1940. In July 1964 Fachon enthusiastically supported John Nicholas Brown's selection of Philip Johnson. See Letter from J N Brown to Emil Fachon, 17 July 1963 (JNB 6/36).
14. Note dated 16 July 1963 from President B C Keeney to J N Brown (JNB 6/19).
15. Letter from W H Jordy to Johnson, 19 March 1964 (JNB 6/36).
16. Building Committee Minutes, 4 August 1964 (JNB 6/15).
17. Letter from S Lerner to J N Brown, 12 August 1964 (JNB 6/36).
18. Letter from Johnson to J N Brown, 8 October 1964 (JNB 6/36).
19. The Philip Johnson Papers at the Getty Research Institute in Los Angeles contain a few photographs, slides and correspondence about the executed building but no drawings. The bulk of the Johnson-Burgee archive is still in the hands of former associate Raj Ahuja, who has been trying to find a buyer since 2010. It contains some 25,000 office drawings made between 1967–91 and remains inaccessible to scholars. In a 2010 interview John Burgee played down the importance of the material: 'We did not keep our sketches – Philip and I did not feel they were that good. The sketches were only quick dashes, and Philip wanted them destroyed. Most were not dated or signed.' There is allegedly no material on the List Art Centre in Ahuja's holding of the archive. Correspondence between Raj Ahuja and Dietrich Neumann, 4 September 2012. See also Robin Pogrebin, 'The Hand of a Master Architect', *The New York Times*, 8 August 2010; Karen Cilento, 'Philip Johnson's Collection for Sale', *ArchDaily*, 17 Aug 2010; Asad Syrkett and Suzanne Stephens, 'Philip Johnson Archive Now for Sale', *Architectural Record*, 28 July 2010.
20. Interview, John Manley *op cit*. Manley travelled to Providence to inspect the site in the summer of 1964 and discussed alterations of the programme and layout throughout the fall of 1964. He worked on the detailed construction drawings in September 1964. See letters from S Lerner to J N Brown, 1 July 1964 (JNB 6/36) and to Manley, 14 September 1964 (JNB 6/35).
21. Robert A M Stern, *op cit*, p 179.
22. In a letter to Johnson dated 6 May 1964, Lerner indicated that the land would only become available in the fall of 1965, and urged Johnson to allow the university's art department enough time to review the drawings and arrive

at an agreement on a general scheme. More detailed drawings would only be developed once the land became available (JNB 6/36); see also University Archive (OF-1W-D1/Davis File/35). Two former residences onsite, Judson House and Old Stone House, were demolished that summer. The home of H P Lovecraft had also stood on the site, but was moved in 1959.

23. Its cost in design and engineering fees, equipment and furniture was estimated at $593,000. Construction itself was projected at $1.5 million. *Brown Daily Herald,* 8 October 1971. For the estimate see letter from S Lerner to the then new President Raymond L Heffner, 12 August 1966 (JNB 44).
24. Steve Rattner, 'J N Brown: Striving For Excellence in Architecture', *Brown Daily Herald*, 26 April 1972, pp 1, 3.
25. Similar 45-degree bevels can be found in the marble cladding on the base of the adjacent John Hay Library.
26. The resulting pattern would suggest an unnecessarily high density of anchors. It can be discerned that not all of the holes have anchors behind them. Framing plans have not survived.
27. The grid continues in the custom-made, earth-coloured, square Belgian paving bricks (9.21cm on each side), which cover the pavement in front of the building on College Street and lead under the colonnade to the entrance at the centre of the building and into the lobby. The same brick was used to cover the terrace surface above the main lecture hall. On the lobby's ceiling is a square grid of wooden slats with lightbulbs set into the centre of each square. Slats mask the bulbs while evenly reflecting light throughout the space. The feature stems from Johnson's frequent collaboration with lighting designer Richard Kelly, especially on Davis House in Wayzata, Minnesota (1954). At night, the area outside of the main entrance is lit from above by five 'light cans' – a device that Kelly pioneered, which sent 'pools of light' onto the floor, but rendered the light source itself invisible. About the collaboration see Dietrich Neumann (ed), *The Structure of Light: Richard Kelly and the Illumination of Modern Architecture* (New Haven, CT: Yale University Press, 2010).
28. John Elderfield, 'Grids', *Art Forum*, May 1972, p 53.
29. Lawrence Alloway, introduction to 'Systemic Painting' exhibition catalogue (New York, NY: Guggenheim Museum, 1966), www.guggenheim.org/guggenheim-foundation/annual-reports/category/3-archives.
30. Rosalind Krauss, 'Grids', *October*, summer 1979, pp 50–64, 60.
31. Interview, John Manley, *op cit*. Manley confirmed having a conversation with Johnson about Le Corbusier's Carpenter Centre when he started designing.
32. Philip Johnson, 'Whence and Whither: The Processional Element in Architecture', *Perspecta,* 9/10, 1965, pp 167–78.
33. *Ibid*.
34. Worth mentioning is another architectural conversation that found its final word in Providence at the same time: Paul Rudolph's Beneficent House, a retirement home finished in 1968 seems to be a conscious synthesis of Robert Venturi's Guild House in Philadelphia (1964) and Rudolph's Crawford Manor (1966).
35. Exposed concrete surfaces are rare in Johnson's oeuvre. The nuclear reactor in Rehovot, Israel (1960) is one of the few examples.
36. Philip Johnson, 'The Puzzle of Architecture', *Architectural Forum*, June 1966, pp 72–73, 93.
37. 'Ford's Feines Foyer: Outside-In', *Der Baumeister*, May 1968, pp 514–22.
38. So Juergen Schulz was told by faculty members of the department when he visited Providence later in 1967. The light cannons are visible on the plan published by Paul Goldberger, which dates the drawings to 1967 or before.
39. *Brown Daily Herald,* 8 October 1971, *op cit*.
40. He also objected to the lack of natural light in the rooms that housed the department's slide collection and slidemakers, and asked to install windows facing the neighbouring Hay Library.
41. *Brown Daily Herald,* 8 October 1971, *op cit*.
42. Letter from Antonio P de Castro of Samuel Glaser and Partners to Johnson, 11 October 1968 (JNB 34). Glaser had been one of the first modernist architects on the East Coast, designing the Gibbs House in Brookline, Massachusetts at 6 Chilton Street (1936–37). The Chilton Street house was created for Dr Frederick and Erna Gibbs. Frederick Gibbs was a childhood friend of J N Brown's wife, Anne. About Glaser, see: George M Goodwin, 'Woonsocket's B'nai Israel Synagogue', *Rhode Island History* 58, February 2000, pp 3–21; and for the Gibbs House in Brookline, Mark Favermann, 'Brookline's Gibbs House: A Modernist Archetype', www.berkshirefinearts.com/03-16-2009_brookline-s-gibbs-house-a-modernist-archetype.html.
43. Letter from Johnson to S Lerner, 18 October 1968 (JNB 6/34).
44. Letter from Johnson to R L Heffner, 4 November 1968 (JNB 6/34). Correspondence makes no mention of the university's financial settlement with Johnson and Burgee. Total architects' fees were $300,000 according to coverage of the building's inauguration in the *Brown Daily Herald*, 8 October 1971. 'Of that, Johnson got the bulk', Lerner wrote.
45. *Brown Daily Herald*, 8 October 1971, *op cit.*
46. *Ibid*.
47. Three bids were received: Dimeo's was for $2,067,000. A contract with the company was signed on 28 March 1969. Brown University Archive (OF-1W-D1/Davis file, 35).
48. See *Brown Daily Herald*: 'Heffner to Answer Charges of Inadequate Hiring Clause', 24 March 1969, pp 1, 3; 'Dimeo Answers Clause Charges', 27 March 1969, p 1; 'Apprenticeship Issue Settled. Dimeo Signs, Building Starts', 8 April 1969; 'Opening Ends 8-Year Struggle', *op cit*.
49. Johnson to John Nicholas Brown, 6 January 1971 (JNB 6/32).
50. In 'Opening Ends 8-Year Struggle', Glaser's name was mentioned after Johnson's as 'coordinating architect'.
51. Minutes of the Planning and Building Committee meeting, 10 August 1971 (JNB Papers 6/10).
52. 'Thank God, you're rich, Al,' Johnson proclaimed, bending forward to look straight at a smiling Albert List, seated in the front row. Other speakers included President Hornig, John Carter Brown, Juergen Schulz and Kenneth Clark. 'List Dedication Friday', *Brown Daily Herald*, 6 October 1971, 3. A programme of festivities is preserved in the University Archive (OF-1C-14, Hornig 7; 1-41-1-46).
53. There are several articles in the *Brown Daily Herald* and the *Providence Journal*, for example Stephen Glassman, 'Johnson's Images Dominate', *Brown Daily Herald*, 8 October 1971, p S-2.
54. Steve Rattner, 'J N Brown: Striving For Excellence in Architecture', *Brown Daily Herald*, 26 April 1972, pp 1, 3.
55. Eugenia S Robbins, 'Art News from Colleges and Elsewhere', *Art Journal* 31, 1971–72, p 204.
56. Paul Goldberger, 'Form and Procession', *Architectural Forum*, January/February 1973, 33 ff. Goldberger confirmed that the essay evolved from conversations with Johnson, but did not recall any particular comments about the List Art Centre (Paul Goldberger, email to the author, 20 April 2015).
57. Peter Blake, *op cit*, pp 121–22.
58. Conversation with Johnson, June 1998.
59. At Schulz's request the railing was designed by Johnson's office. Yet for reasons unknown the design did not coordinate placement of the railing's supports with the grooves on the concrete wall to which they are affixed.
60. Peter Blake, *op cit*, pp 114–15.
61. Victoria Watson has discussed the essential role of the grid in Mies van der Rohe's work and examined Rosalind Krauss' 'tantalising' suggestion in 1992 that 'there was something to be learned about the architecture of Mies van der Rohe through attending to the paintings of Agnes Martin'. See Victoria Watson, 'Pictorial Grids: Reading the Buildings of Mies van der Rohe Through the Paintings of Agnes Martin', *The Journal of Architecture*, vol 14, no 3 (2009), pp 421–38.
62. Lawrence Alloway, *op cit*.
63. Philip Johnson, 'What Makes Me Tick', lecture at Columbia University, 24 September 1975, quoted from *Writings*, p 261.



Saul Steinberg,
graph-paper apartment block, 1950
© Saul Steinberg / *Flair* magazine

Contributors

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Nicolas Grospierre is a Warsaw-based artist who was awarded the Golden Lion (together with Kobas Laksa) at the 2008 Venice Architecture Biennale for their 'Hotel Polonia' installation at the Polish pavilion. More recent exhibitions have included 'The Self Fulfilling Image', Cueto Projects, New York (2009), 'The Glass Trap', Raster Gallery, Warsaw (2010), 'One Thousand Doors, No Exit', Graham Foundation, Chicago (2011) and 'The Oval Offices', State Gallery of Art, Sopot (2013). His monograph, *Open-Ended*, was published in 2013.

Andrew Higgott is an architectural historian who taught at the at the AA, where he also worked on exhibitions and publications on the work of Eric de Maré (1990) and F R Yerbury (1987), and at the University of East London, where he led history teaching from 1995 to 2011. His publications include *Mediating Modernism: Architectural Cultures in Britain* (2007) and the co-edited book *Camera Constructs: Photography, Architecture and the Modern City* (2012). He is currently working on a book introducing the work of key modern architects.

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David Jenkins is an architectural writer and editor. In the early 1990s he worked for Phaidon Press before establishing an independent publishing unit within Foster + Partners in 1998, which he directed for more than 15 years, producing numerous titles, including the Foster *Works* volumes. In 2014 he founded his own design imprint, Circa Press, which recently published *Jan Kaplický Drawings*, in tandem with an AA exhibition of a number of Kaplický's drawings.

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Paul Mason is economics editor of Channel 4 News and the author of a weekly column for *The Guardian*. His books include *Why It's Kicking Off Everywhere: The New Global Revolutions* (2012) and *Rare Earth: A Novel* (2012), and his new book *Postcapitalism: A Guide to our Future* will be published later this year. He is currently producing a feature-length documentary following the first months of the Syriza government in Greece, and he tweets as @paulmasonnews.

John Miller was born in London in 1930 and studied at the AA before working first for Lyons, Israel & Ellis and then Leslie Martin. In 1961 he established an office in partnership with the architect and historian Alan Colquhoun. While in practice he also taught at the AA, Cornell and Princeton, before becoming head of the newly formed architecture school at the RCA, which he directed between 1975–85. In 1990 the office was reformed as John Miller + Partners and continued to build a number of projects largely for housing, art galleries and educational institutions until Miller's retirement in 2008.

Dietrich Neumann trained as an architect at the AA and in Munich and is a professor of the history of modern architecture at Brown University. Among his publications are *Film Architecture: Set Design from Metropolis to Blade Runner* (1996), *Richard Neutra's Windshield House* (2002), *Architecture of the Night* (2002), *The Structure of Light: Richard Kelly and the Illumination of Modern Architecture* (2010), *Visualising the City* (2012) and *Cities of Light* (2014).

Richard Rogers was born in Florence in 1933 and moved to England during the Second World War. He studied at the AA and at Yale University, where he met Norman Foster and with whom shortly afterwards he established the practice Team 4. In 1967 he created a new office with his first wife Su Rogers, which then evolved into a partnership with Renzo Piano. Soon after the completion of their Pompidou Centre, he founded his own office with Mike Davies, John Young and Marco Goldschmied. More recently the firm has evolved again and become Rogers Stirk Harbour + Partners, and currently maintains offices in London, Shanghai and Sydney.

Renzo Piano was born in Genoa in 1937 and studied architecture at the Politecnico di Milano, graduating in 1964. In 1969 he moved to London where he taught at the AA and the Polytechnic of Central London, and soon afterwards met Richard Rogers with whom he set up a collaborative practice. Following their success with the Pompidou Centre, Piano created a new shared studio with the engineer Peter Rice, and then in 1981 founded his own Renzo Piano Building Workshop, which today employs over 150 people in three separate offices in Genoa, Paris and New York City.

Juergen Schulz (1927–2014) was professor of the history of art at Brown University from 1968–95. His research focused on medieval and Renaissance Venice, resulting in books and articles on Romanesque palaces, painted ceilings, and printed maps, plans and views of Venice, such as *The New Palaces of Medieval Venice* (2005) and *La cartografia tra scienza e arte: Carte e cartografi nel Rinascimento italiano* (2006).

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