# An Inquiry into the Architectural Identity of Herzog & de Meuron: a study of their Tate Modern, London, and the Museum of the Twentieth Century, Berlin, competition events and design strategies

*by*

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> Unlike many architects, they [H&dM] do not have a signature style, but through detailed research and analysis they develop unexpected and highly original designs, each different from the other.[1]

*This opening statement is drawn from the gallery guide to the Herzog & de Meuron (H&dM) exhibition held at the Royal Academy during the summer of 2023. As the work on show clearly demonstrated, the first part of the claim is true – H&dM do not have a signature style; however, no matter how many times the exhibition is viewed, nor how intently one views the items on show, it is impossible to decide about the second part. Impossible simply because of the space to show and the time available to read a fully documented account of all their projects.*

*This essay looks at what the claim means if we look carefully at a select few of H&dM's projects. Just as the exhibition directors had to devise a strategy for demonstrating the diversity and inventiveness of their work within a limited space and timeframe, so it has been necessary to devise a strategy for focusing on H&dM's design methods within the limited framework of a journal essay. Hence, to gain the necessary focus, this essay considers just two pairs of architectural competitions, both for museums of modern and contemporary art – in the cities of London and Berlin – and both won by H&dM.*

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An architectural competition is an ephemeral event, it can be documented and archived but the event itself is gone forever. It is distinguished from a direct commission by the simultaneous attention to the same project by competing architects. The whole point of the competition process is to select a 'winner' and among the competing architects only the winner stands a chance of going on to author a building and/or place. In any generation of architects, it is only a select few who win competitions and, it would seem, one reason for H&dM's overall success is because they have been extraordinarily good at winning, especially for the design of modern art museums.[2]

Art museums have been the subject of much activity in the competition arena recently. An art museum is an architectural framework that can be filled with items selected according to the agreed criteria of the museum director(s) &/or curator(s). It is a place where artworks from different artists can be seen, compared and contrasted, thereby allowing museum visitors to recognise different cultural values and to understand, question and enjoy them. More recently, in the internet age, where so much of our day-to-day life is conducted in the incorporeal space behind the computer screen, smart phone and tablet, the art museum is one of the few places where it is still possible to wander about freely, to enjoy objects and artefacts that are not commodities, which occupy the same space as we do and where other people are present and appear to be sharing our experiences.[3]

Art is a constant reference for H&dM and perhaps that has contributed to their success at winning art museum competitions. In an interview back in 1993 H&dM said it seemed to them, certain artists had developed more interesting strategies than had architects for investigating the possibilities for what architecture can do in contemporary cities and public buildings. In the same interview they stressed, it was their interest in strategy that drew them to art, not the desire to discuss aesthetics with artists.[4]

The focus of this article is H&dMs success in a group of related competitions for the design of two new art museums – the Tate Modern, in London (TM) and The Museum of the Twentieth Century (M20),[5] an extension to the New National Gallery on the Culture Forum in Berlin.[6] These competitions make an interesting comparison because, on the one hand, their respective sites are each located within European capital cities that share a similar concern to question and rethink the modern art museum as a project for the early-twenty-first century. On the other-hand the two competitions illuminate differences, first because the host cities are qualified by the differing histories of their respective status as capital cities. London has remained a capital city throughout the twentieth century whereas Berlin's status as a capital was compromised by the division of Germany into two independent nations. Berlin's geographical location meant it fell in the territory of the German Democratic Republic (GDR or East Germany), allied to the Soviet Union. But Berlin did not become fully part of the GDR, it too was split in two: East Berlin, which became the capital of the GDR, and West Berlin which proved impractical to be the capital of the other, Federal Republic of Germany (FRG or West Germany), so it was designated an exclusion zone – exclusion that is from the GDR. Following the reunification of Germany in 1989, Berlin was formally returned to its status as capital of Germany and the lived reality of that return has been unfolding ever since.

Second, the competition illuminates differences because of the way each one was structured and organised and third, because of their temporal sequence, with the TM competitions preceding those of the M20, it might be argued TM influenced M20, whereas M20 did not influence TM. The fact there are commonalities and differences between the competitions is especially interesting





for this inquiry because H&dM promote themselves as designers who approach every project as an opportunity to 'reimagine the potential of architecture,' and to 'relentlessly' question 'the context and purpose of a building'.[7] When speaking or writing about their practice, H&dM like to use the term 'conceptual,' claiming conceptual work is a means for undermining their authorship within the design process, thereby keeping their architectural identity hidden, they state:

> This conceptual approach is actually a device developed for each project by means of which we remain invisible as authors. Of course, this invisibility does not apply to the name Herzog & de Meuron which cannot remain hidden ...; rather it applies only to our architectural identity. It is a strategy that gives us the freedom to reinvent architecture with each new project rather than consolidating our style.[8]

## TATE MODERN (TM) PHASE ONE[9]

When Tate[10] embarked on the enterprise to turn the redundant power station on Bankside into a new museum of modern art for the twenty-first century it did not yet have full property rights and so it was necessary to divide the project into two phases.[11] In its original incarnation, as a house for machinery, the power station took the form of an enormous brick box with a high chimney at the centre, arranged internally as three aisles running parallel to the river, each aisle was (and still is) named after the kind of machinery it once housed. The central aisle is called the Turbine Hall, the aisle to the north is called the Boiler House and the aisle to the south is called the Switch House (Fig.1). In addition to the three aisles, there is a fourth spatial element, the Oil Tanks – three large, circular volumes, clustered into a clover-leaf arrangement and located below ground to the south and west of the Switch House. At the time the Tate Modern project began, only the Turbine Hall and Boiler House were available as possible spaces for development, however it was understood that sometime in the future the Switch House (or

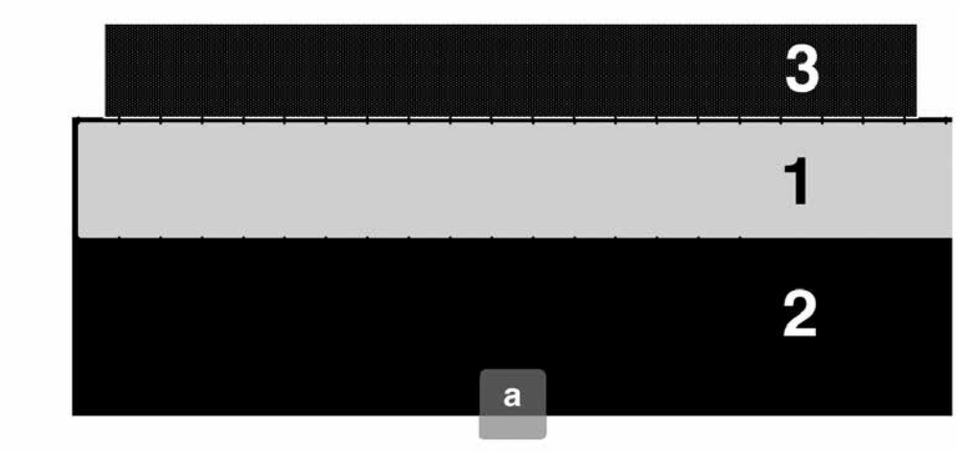


**Fig.1**
Tate Modern phase one. Plan diagram, division into three aisles: 1. Turbine Hall; 2. Boiler House; 3. Switch House; a) chimney
*All images prepared or photographed by author unless stated*

parts of it) and the Tanks would become available for incorporation into the new art museum complex. Although the first phase aimed to deliver a fully operational museum it was expected that the design strategy would take into consideration a future second phase expansion.

To get this initial phase started, in July 1994, Tate's director, Nicholas Serota[12] launched a somewhat unusual architecture competition, its stated purpose was to select an architect, rather than single-out a preferred design strategy, from a field of entries. The competition was structured as a three-step process, beginning with an 'initial call' that required no architectural design work but did require architects to express interest by submitting a portfolio of work, a *curriculum vitae* and a 750-word statement outlining their priorities in response to Tate's brief. Of the 148 expressions of interest just thirteen architects were invited to proceed to 'stage one' that did require some strategic design thinking with regards the setting of the building in the urban context, the planning of the general layout of the building and the proposal of ideas for display spaces. Each architect was asked to submit no more than four A1 boards and to present their ideas to the assessors at an in-person presentation and interview session lasting no more than an hour. Copies of the architect's stage 1 boards and the minutes of the assessors meeting are now publicly available at Tate Archives, they make fascinating reading and merit further study; however, for the purpose of this essay we will remark only on what it was that made H&dM stand-out.

First, H&dM were the only architects to present the new museum as a standalone building in a garden setting. This approach aligned with the competition brief, which highlighted a preference for modern art museums in open parklands rather than densely built environments. H&dM reinforced their garden concept by undermining the symmetrical appearance of the northern, river-facing facade of the power station and, more generally, by manipulating the external appearance to amplify the monolithic presence of the enormous brick carcass. To reinforce the buildings autonomous, standalone presence H&dM proposed not just one but several points of entry, encouraging different approaches to the building and movement around it in the proposed garden spaces. A second suggestion from H&dM was to open-up the full height of the Turbine Hall, from the basement floor to the roof and to manipulate the garden approach to establish a means of entry from below ground, by channeling the visitor down towards the basement and then releasing them into the vast space inside. H&dM imagined a dual function for the Turbine Hall, it would serve as a huge public foyer and a new kind of art space. Other competitors saw the potential of the Turbine Hall but seemed to have envisioned the enormous volume as a kind of commercial mall or galleria, rather than a new kind of space for imagining and exhibiting art.[13]

The third reason H&dM's proposal stood out amongst all the rest returns to the first, because they were able to convey how much they valued the homogeneous, unified look of the power station's enormous brick carcass and were able to persuade the assessors that the marginal alterations they were suggesting would enhance that look, rather than undermining it. Unlike other proposals, H&dM did not aim to break, fragment or to insert new volumes, sliced into and/or protruding from the body of the building. Their approach was more subtle, introducing zones of transparent and translucent glass interwoven into the patinated surface of the existing brickwork, thereby making the building appear as a body of light built with bricks and glass.[14] Furthermore, in keeping with the theme of light, H&dM introduced their idea for a 'light-beam,' an attic extension of translucent glass running almost, but not quite, the entire





length of the Boiler House. The light-beam was conceived as a horizontal counterpart to the vertical presence of the power station chimney. Together, the light-beam and chimney would form a cohesive cross-shaped gestalt that would act as an alluring figure on the London skyline and signal the new art space from across the river (Fig. 2).

Although they addressed tasks one and two in novel ways, at this stage of the competition H&dM paid little attention to the third task, which was to consider the museum display spaces. They simply proposed to develop the Boiler House as a five-story building, with the light-beam on top and to house the display spaces in the upper-most floors, with all the other specified functions housed in the ground and basement levels below. The unanimous decision to send H&dM through to the second and final stage of the competition was therefore qualified by the advice that they pay special attention to the issue of display. Along with H&dM, five of the thirteen other architects were selected to proceed to the final stage and although H&dM were clearly strong favorites it was by no means certain they would win. Between the close of stage one and the submission for stage two the competition assessors met with each competing architect to discuss the strengths and weaknesses of their respective proposals and visits were arranged for the assessors to see some of the realised buildings. One building by H&dM that must have influenced the assessors was the private art museum in Munich, the Goetz Gallery that is also characterised by its unitary form, garden setting and light-beam (Fig. 3).

Given the assessors advice, it is hardly surprising H&dM's stage two submission concentrated on the matter of display. Working over the survey drawings given with the competition brief, the architects drew the three-floors of display space they had already suggested in their stage one proposal, only now arranged as six suites of gallery rooms, in pairs of two on each floor, with each pair separated by a lobby overlooking the Turbine Hall. For each gallery suite the architects drew on a different rhythm of walls and doors and then, in a broken free-hand line, indicated a possible journey that a visitor might take through that particular suite of rooms. One whole presentation board was devoted to the study of devices for introducing natural and artificial light into the gallery rooms and this was complimented with a 1/50 cut-away perspectival section, filling a second board. The cut-away showed the top three floors of the Boiler House and light-beam and allowed the assessors to see the variation amongst the different types of proposed gallery rooms. The cut-away also showed the proportions of each room-type and the way each type could incorporate natural and/or artificial light and it included scale representations of artworks - mainly minimalist and pop paintings and sculptures - with human figures looking at them. The human figures and artworks were cropped and montaged into the cut-away section to show the way human bodies and artworks would establish spatial relations within the gallery setting. Just like all the other visual materials in H&dM's presentation, the cut-away section had a plain, matter of fact quality with no seductive imagery.

As well as their ideas for the gallery suites, H&dM's stage two submission included more information about how to imagine the Turbine Hall as an art installation space. One drawing was particularly effective, a perspective view with an image of the Sculpture *Ghost*, by Rachael Whiteread, montaged into it, as if Ghost had been installed inside the Turbine Hall, consequently this was widely used in the media as a symbol of H&dM's winning entry. However, the caption on the drawing mistakenly referred to *Ghost* by the name of a similar sculpture by Whiteread called *House* - both are concerned with the theme of domestic architecture made by casting voids as solid masses, using the limiting walls, floors and ceiling of the actual building

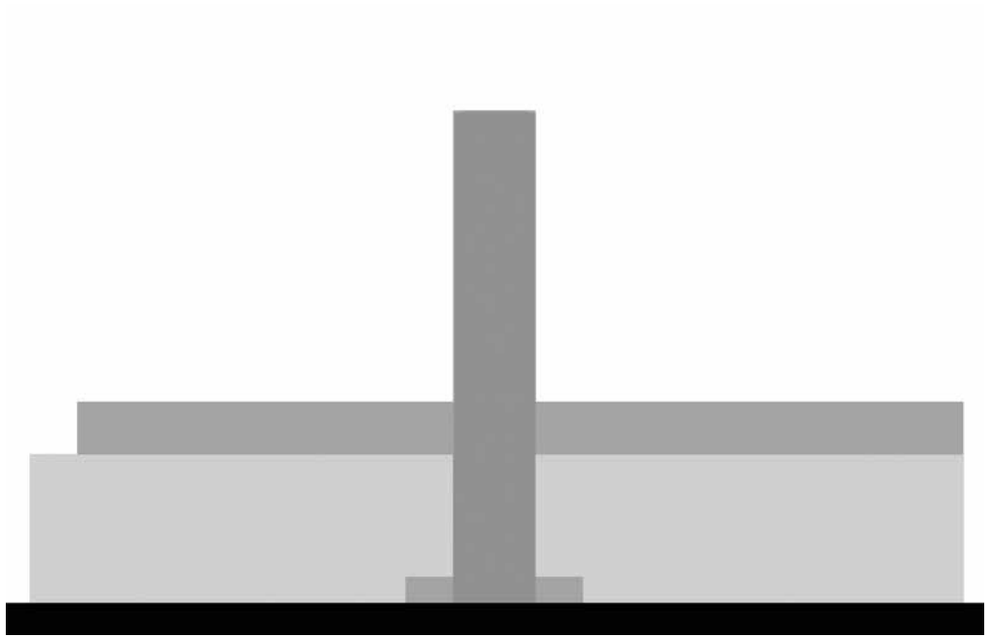

**Fig. 2**
Tate Modern phase one. Elevation diagram, chimney and 'light-beam' form a cross-shaped gestalt

**Fig. 3**
Herzog & de Meuron, Goetz Gallery, Munich, 1992 (Architects: © Herzog & de Meuron, Basel, courtesy Sammlung Goetz, München)
*Wilfried Petzi, München*





as a mould. This method produces an eerie effect because it captures the surface textures of the limiting walls, ceiling and floor as negative traces marked on the material of the cast. While *Ghost* is the cast of just a single interior space, *House* casts the entire ensemble of spaces of an ordinary London terrace house. The conflation of a picture of *Ghost* with the title of *House* was effective because the image was at the forefront of public imagination at the time. The sculpture seemed to have a hypnotic effect on the public, attracting thousands of visitors per day to the edge of a new public park in London's Mile End area where it was sited. *House* then became the subject of a minor public scandal when it was demolished by the local council in January 1994. By evoking the memory of *House* in connection with the Turbine Hall, H&dM were associating the new installation space with a well-known issue that seemed to involve urban politics and art; and by making it seem as if *House* might be resurrected in the Turbine Hall, they were blurring the distinction between the inside and the outside of the museum, implying the Turbine Hall be understood as a continuation of the garden outside.

H&dM must have been comfortable working within the terms of Tate's somewhat unusual competition process and they seem to have been able to put the assessors at their ease and to open-up beneficial conversations about the project. Possibly, by referencing minimal and conceptual art, they were able to gain some advantage over other competitors in their interactions with the assessors, but it is impossible to be certain about that just from looking at archival sources. H&dM won the competition because they were able to convince the assessors they were fully engaged with the competition brief and without making extravagant formal gestures, their submission had sufficient novelty to stand out from all the rest.

H&dM were announced the winners of Tate's phase one competition in January 1995, five years later, in May 2000, Tate Modern was officially opened to the public by Her Majesty Queen Elizabeth II and it became an instant success. The museum was immediately inundated with visitors and constantly over-crowded which meant that, although Tate had plenty of evidence to convince their investors and patrons that it was a success, there was a necessity to forge ahead with phase two of the scheme.

## TATE MODERN (TM) PHASE TWO[15]

The unexpected popularity of TM led to over-crowding and difficulties in circulation around the exhibition galleries and the learning and social spaces. At the same time, the added value brought by the art museum to the Bankside area began to attract property speculators – a slim, thirty-two storey tower block of luxury flats, replicating the height of Tate's chimney, was soon proposed but, despite being granted planning permission (and fiercely opposed by local residents) was never built. A few years later, Land Securities successfully developed the area directly to the south of the museum with three speculative office blocks, containing over one million square feet of commercial space, while Grosvenor and Native Land developed the area to the southwest with four pavilion towers containing 217 luxury flats. Aware its own plans for expansion would have to contend with the speculators, Tate became increasingly anxious about the need to press-ahead with phase two.

In 2004, when the energy company that had been occupying the whole of the Switch House was able to retract into just the eastern half, Tate saw the opportunity to imagine a realistic

strategy for extending and transforming Tate Modern and reconfigure the art museum. The key objectives of the phase two strategy were: first, to devise a new, southern entrance to the museum; second, to link the Turbine Hall to the underground Tanks and third, to build an additional gallery with learning and social spaces. An international competition was convened in 2005 and it was won by H&dM who, by then, had been awarded the Pritzker Prize for, amongst other things, Tate Modern phase one.[16] By comparison with the first phase, there is almost no information about the second competition, and the little that is available is ambiguous and contradictory.[17]

According to Serota, H&dM won the phase two competition 'slightly against the odds',[18] and 'purely on the merits of their design proposal, rather than their initial involvement in the Bankside site's original redevelopment'.[19] In order to make sense of this statement it is necessary to take a look at the broader context in which H&dM were practicing at the time of the second phase competition. Just like many so-called 'starchitects', H&dM were caught-up in the excitement of the global construction boom that marked the last years of the twentieth and early years of the twenty-first century, a boom that was destined to come to an end between 2007 and 2009 with the financial crisis. To understand H&dM's design strategy for TM phase two we need to look at a conceptual device they had developed that they called 'stacking.' It was a creative design procedure allowing them to maintain a sense of invisibility as authors whilst dealing with the more extravagant building programmes that came their way in those heady days. H&dM's Tate phase two winning entry was an example of stacking, consisting of a stack of box-shaped, glass volumes, sheathed in, but at the same time protruding from, a distorted pyramidal form that was also made from glass (Fig. 4).

**Fig. 4**
Herzog & de Meuron, The Tate Modern Project, 2005-2012, work in progress on the stack design
*Philipp Schaerer*





There is a succinct account of stacking in volume 6 of *H&dM's Complete Works*, it explains how the architects first began to experiment with stacking when they were working on a collaborative project with the Chinese artist Ai Weiwei for the development of a campus for The Beijing Film Academy.[20] The ambitions of the new Academy were grand and impressive, it wanted to put the Asian film industry on the map, ultimately to rank with Hollywood and that meant the campus planning and building had to be conceived on a grand scale:[21]

> Faced with the challenge of understanding and working out plans for the colossal size of the Film Academy, we resorted to a crude but extremely efficient method. We cut blocks out of paper and foam in different sizes and colours to a scale of 1:500, representing the diverse dimensions and functions of the entire project: education, accommodation, administration, communication, etc. We ended up with a huge number of building blocks that could be arranged and moved about like dominoes.[22]

The account proceeds to explain how the initial attempts to arrange the 'dominoes' in flat or superimposed layers on the basis of square or rectangular patterns were unsatisfactory; hence, a more 'playful' approach was adopted 'stacking the blocks, piling them up and taking them down.' This playful approach led to the emergence of 'much more complex spatial and functional relations…among all the varied parts of the project'. By using a small camera to model the position of the eye of a scaled-down human figure it was possible to simulate movement through the domino piles:

> We kept making corrections and adjustments as we followed the path of the camera. The forms of the building complex as a whole almost took shape by themselves – on the one hand, extremely specific and unanticipated, on the other, with a perfectly natural logic and simplicity.[23]

H&dM's account of the way they worked on the Film Academy is revealing because it tells us two things about the way the authority of the designer remains present even as they work through mediating concepts. First, H&dM remained present because they devised the open-ended procedure of stacking as a means of generating a field of possibilities for arranging architectural volumes in space. Second, they remained present because they made choices and took decisions within that field. Another important thing to notice about H&dMs account of stacking is the way they presented it as merely a method of form-finding, no attempt was made to connect it to a theory of design. It is worth pointing out at this stage in the discussion, H&dM have never been interested in presenting their approach to architectural design in the way that, say, Le Corbusier presented his *Five Points* as general principles of a radically new kind of architecture, or Aldo Rossi presented his *Analogous City* as a new way of understanding architectural and urban form. Antipathy towards theory is a theme that crops up again and again in public presentations of H&dM's practice, the architects have consistently seized on the opportunity to articulate their hostility to theory in public lectures, interviews, articles and written statements.[24]

H&dM never got to take the Film Academy any further, however they went on to deploy stacking in subsequent projects, most notably the Actelion Business Centre in Allschwil, Switzerland; the VitraHaus in Weil am Wein, Germany; 56 Leonard Street, New York[25] and, as already mentioned, Tate Modern phase two. Since none of these projects come even close to the size and complexity of the Film Academy it is not immediately evident why stacking seemed like the right approach in each case. H&dM say they turned to stacking because it seemed like

a good way to rise to their clients' desire for a 'free and open' architecture however they also admit that stacking appealed to their own desire at the time to resist more restrained patterns for organising spatial units, such as arranging them in straight rows, or around a courtyard. The development of stacking as a design method seems to have been born out of the specific circumstances of architecture and development in the late 1990s and early 2000s, it provided them with a systematic and structured method for generating the formal openness and spontaneity that was attractive to their clients in those days.

Tate's phase two competition proved that it was important for H&dM to demonstrate they could make the transition from working within the constraints of the readymade form of the power station to generating new form, seemingly out of nothing. The turn to stacking made strategic sense if H&dM were to be in with a chance of winning the competition because, as Serota explained: '[Tate was under a] self-imposed pressure to answer some of the criticisms that had been made a decade earlier when we took on the power station...principally that we didn't have the conviction to do a totally new building.'[26] Since they were the architects of Tate phase one, H&dM were especially sensitive to this kind of criticism, perhaps even more so because a great deal of it came from and was circulating within, the higher ranks of the architecture and art establishments and their press. Their decision to deploy the stack method was a calculated risk, aiming to appeal to the anxieties of the Tate about its public image and to win them over on that basis.

There were objections to the stack proposal, Gavin Stamp thought it was 'not only pretentious, excessively domineering and ill thought out in itself, but will gravely damage Giles Scott's building both physically and aesthetically'.[27] The Greater London Authority were more concerned about the feasibility of the proposal, they could see no evidence that this 'misshapen pyramid' could be translated into 'a world-class building'.[28] However, Southwark Council evidently liked the look more than they did the objections and the planning committee awarded the go-ahead for the stack design in August 2007. At the time it was hoped the construction might be 'fast tracked' so that a transformed Tate Modern would be completed in time for the London Olympics in 2012. Two further factors contributing to the success of the stack were, first H&dM's winning of the Royal Institute of British Architects gold medal in October 2006 and, second the design and construction of the Beijing 2008 Olympic Stadium (the Birds Nest) that they were working on simultaneously, again in collaboration with Ai Weiwei. At the time the Birds Nest was having a mesmerising psychological effect across the globe, it was seen 'in the country and around the world as a sign that China's astonishing economic growth would be followed by democratic development'.[29] In those days it was still not yet possible to imagine capitalism without democracy.

The financial crisis did not stop the phase two project but it did slow it down, fund-raising became more difficult and on reflection it was thought perhaps the stack approach was not right for expanding Tate Modern. The bold glassy look that had evoked a sense of progress and optimism prior to the crisis now came to be associated with the destabilising world of banking, finance and debt, a world of villainous entrepreneurs and fraudsters who could create vast amounts of wealth, seemingly out of nothing and then miraculously make it disappear into thin air. In the light of those changing-perceptions it was felt the museum of art needed to appear more substantial, less weird and playful, more logical and soundly regulated. A second reason for the change of direction relates to the logistics of building, including costs and construction. It is not necessary to be an expert in such matters to see how much more difficult it would be to build a glass stack than to merely simulate one inside a computer.





Thanks to the way H&dM had formulated the phase two design it was possible to eliminate the stack effect without doing away with the pyramidal massing and this was because the size and shape of the distorted pyramid was derived by extrapolation of several factors intrinsic to the competition site and to the urban regulations that impinge upon it. In H&dM's account of the project given in *El Croquis 152/153*, there is an unlabeled diagram that illustrates the process. It is arranged as a 4 x 4 matrix of 16 drawings, each one is the same axonometric projection, but each one is different because it shows how one particular parameter contributes to shaping the over-all pyramidal mass.[30] The matrix reads as a step-by-step account of how the twisted pyramidal form was generated out of the opportunities and restrictions inherent in the Bankside site and urban context (Fig. 5). On the same page, below the matrix is an untitled photograph showing a group of models, all to the same scale, which clearly refer to the twisted pyramid and its process of generation. Each model shows a different iteration of the pyramid, some of them can be matched to particular steps in the matrix above, but some of them cannot. The models that cannot be matched are those that refer to the older, stack design, those that can have lost all indications of a stack effect. The presentation of both stack and non-stack models sharing the same page as the matrix is effective, because it makes it seem as if the elimination of the stack effect belongs to the same step-by-step process that is mapped out in the matrix, whereas, there is no place for stacking – or indeed unstacking – in the logic of the matrix. The matrix is concerned solely with a pyramidal tower, not a pyramidal stack. With the pyramidal tower all traces of stacked volumes disappear, instead interior space is developed vertically by means of a conventional circulation core with a stairway, loosely wrapped around it that meanders from the bottom to the top. Unlike the stacked dominoes, which popped in and out of the pyramidal envelope, the core and stairway are completely sheathed within the tower.

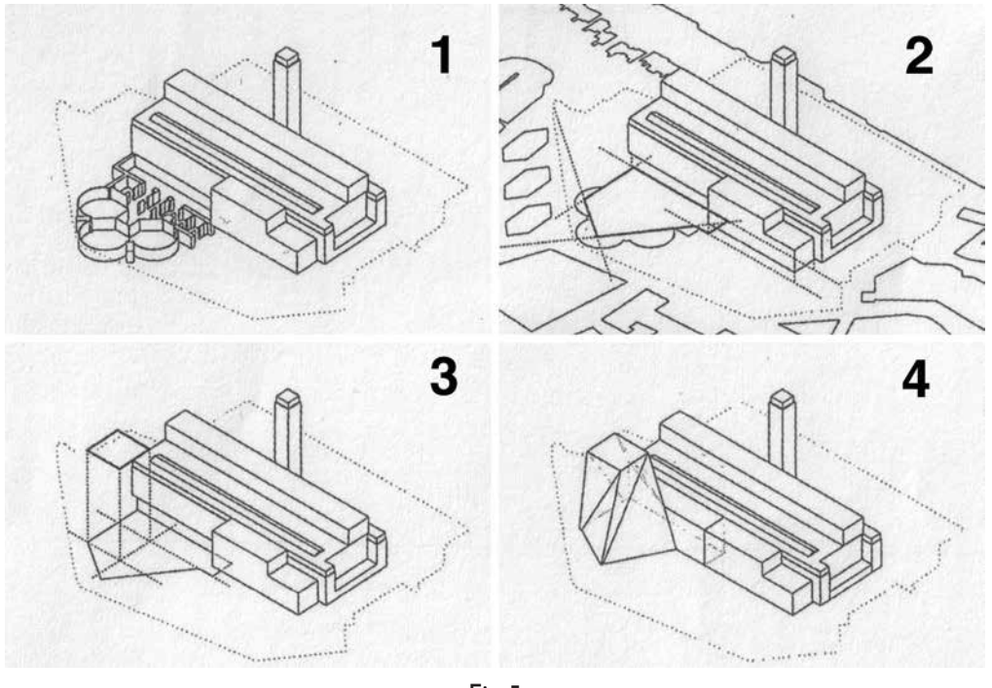


**Fig. 5**
Tate Modern phase two. Four drawings from the matrix: 1. R2/C3 - oil tanks; 2. R3/C1 - context geometry; 3. R3/C2 - existing building geometry; 4. R3/C3 - geometry

**Fig. 6**
Tate Modern phase one. Gallery space at level five, interactions of art works and visitors

**Fig. 7**
Tate Modern phase two. Brickwork tower under construction on the right, reflected in the glassy facades of speculative apartment blocks on the left





There is a further moment in the post-crisis rethinking of the second phase design, which resulted in the pyramid assuming a more archaic look. The materiality was changed from glass to brick and the extension was made to mesh, almost seamlessly with the brickwork shell of the original power station building. To work through those changes the architects seem to have returned to a concept they had first used between 1995 and 1998 with their Dominus Winery project, Yountville, Napa Valley, California, USA. Having noticed how the voids within a gabion wall contribute as much to the over-all appearance of the wall, as do the solid materials piled up inside, they used the voids to bring natural light into the winery, thereby eliminating the necessity for windows and consequently the need to compose building facades. There was never any intension to build Tate's extension with gabion walls, yet they devised a new way of achieving the same homogenous over-all effect by using a similar terracotta material as the bricks of the Switch House. A new kind of screen wall made of square bricks, stacked in pairs to make cubes. The cubes were arranged in an all-over pattern of alternating solid and void and fixed to a reinforced concrete frame. The frame not only supported the brickwork screen, it also gave structure and shape to the pyramidal tower that now looked as if it were made of bricks. The tapering, twisting shape of the frame, as it rises through the tower was only possible to model thanks to the digital softwares that were becoming common place in architectural design practice. On the page opposite the matrix diagram in *El Croquis 152/153* there is an image of a digital model showing only the bare frame, it is projected in perspective, showing how the frame torques and twists upwards. By presenting an image that has evidently been generated from a digital model, the role of the computer and its algorithms in the form-finding process is emphasized, while the agency of the architects is downplayed.

Between the initial proposal for the glassy, crystalline stack and the more archaic perforated brickwork tower, H&dMs role as form-giver seemed to recede into the background, even so, their presence as creative designers were still more evident in second phase than it had been in the first. One important reason for the difference was a consequence of the changing circumstances of the Tate Modern enterprise between the late 1990s and the early twenty-first century. During phase one the main preoccupation of the initiators and leaders of the project was the question of how to display art without drowning it in architectural form. This meant the focus of this phase was the gallery spaces and the journey to them (Fig. 6). In those circumstances it was important to understate the external image of the new museum and to focus attention on the transformation of the power station interior. By the time of phase 2, attention had shifted away from the display of artworks, which it was generally agreed that the architects had solved, towards combating the speculative developments that were dominating the Bankside environment and framing the museum's urban presence (Fig. 7). In those changed circumstances it is not surprising the emphasis of the phase two competition was the external look of the museum, eventually resulting in the quirky looking brickwork tower that we see today (Figs. 8, 9 and 10).

The transformation did not leave the interior spaces of the museum untouched, in fact it altered them quite radically because it established a much more elaborate circulation pattern that runs throughout the building and into the spaces outside. With phase one there were only two possibilities for entering the museum, from the west via the ramp, down to the lower level of the Turbine Hall, or, from the north, at ground level, across the Boiler House to a landing, suspended within the Turbine Hall. From there a stairway dropped down to the lower level. Once in the Turbine Hall, the visitor had no choice, there was only one way to turn if they wanted

**Fig.8**
Tate Modern phase two. Brickwork tower under construction, concrete frame prior to installation of brickwork shell
*Kirti Durelle*

**Fig.10**
Tate Modern phase two. Brickwork tower in state of completion

**Fig.9**
Tate Modern phase two. Brickwork tower with scaffolding caught in sunlight





to get to the stairway and stacks of lifts and elevators leading up to the gallery suites. In phase two, with the addition of the southern entrance, the museum's circulation system became more complex, perhaps most significantly it was now possible to use the museum as an urban throughway, entering on the southern side and walking straight through, at ground level, to pass over the Turbine Hall, walk through the Boiler House and then leave the museum on the northern side, without going into any other of the museum spaces. At the intersection of the ground level walkway and the Turbine Hall there is a new staircase and, as was the case with phase one, those who so desire can walk down to the lower level, where they intersect with the visitors who have entered via the ramp. However, unlike phase one, visitors now have several options for what they might do next, for example they might pay a visit to the Tanks and then decide to go up into the Pyramid and Switch House. Or they might decide to cross over the Turbine Hall to the Boiler House on the other side. Higher up, at third floor level, a bridge now spans across the Turbine Hall, connecting the Pyramid and Switch House to the Boiler House on the other side, so visitors can now go up on one side, enjoy the thrill of passing across the Turbine Hall at a great height and then come down again on the other side. These extended circuits of circulation are a real bonus for the transformed museum, making it seem as if it has expanded far more than the physical limits of what has actually been built and made publicly available (Figs. 11 and 12).

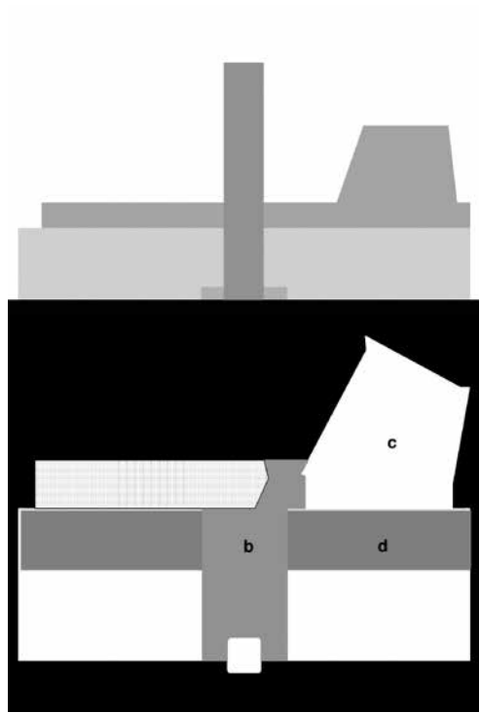


**Fig.11**
Tate Modern phases one and two. Above, elevation diagram showing chimney, 'light-beam' and pyramidal tower with slits. Below, plan diagram: b) throughway bridging turbine hall at ground level; c) footprint of pyramidal tower; d) ramp down to lower level of turbine hall

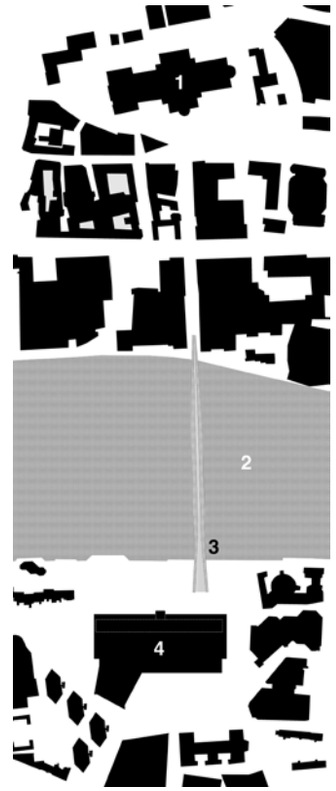


**Fig.12**
Plan diagram showing Tate Modern in its urban context: 1. St Paul's Cathedral; 2. River Thames; 3. Millennium Bridge; 4. Tate Modern

The transformed Tate Modern opened to the public on Friday 17 June 2016, just six days later the United Kingdom voted to leave the European Union. On 24 June, the Stiftung Preussischer Kulturbesitz (SPK) (Prussian Cultural Heritage Foundation) published the design competition brief for the M20.

## MUSEUM OF THE TWENTIETH CENTURY (M20)[31]

The events leading up to the publication of the M20 design competition brief had begun in November 2014, when the Stiftung Preussicher Kulturbesitz (SPK) was granted funding from the German federal government to extend the New National Gallery (NNG) on the culture forum in Berlin. The NNG is Mies van der Rohe's famous stand-alone pavilion on a podium and, although it is only an extension, the M20 would occupy an area of land that is at least the same size as the NNG podium, if not a tiny bit bigger. The M20 was to be connected to the NNG by an underground tunnel but its above ground appearance was to be that of a brand new, stand-alone building.[32] Even if the SPK had wanted to appoint H&dM directly it would not have been able to since in Germany an architecture competition is compulsory for a public building of this size.[33]

In the case of M20 it was decided to structure the competition in two parts, beginning in September 2015 with an open, ideas competition: *The Museum of the 20th Century and its Urban Integration*, followed-up in 2016 by a restricted design competition: *The Museum of the 20th Century.* The list of participants for the design competition included ten winners from the idea's competition, thirteen invited practices and nineteen practices that had proven themselves through a selection process advertised in the *Official Journal of the European Union*. Perusing the documentation surrounding the competitions is a fascinating and at the same time somewhat overwhelming experience, however, for our purpose it is sufficient to know that H&dM did not enter the ideas competition but were invited to the design competition, which they won.

Unlike the Tate competitions, where the identity of the participants was known to the assessors and built-into the assessment process, the structure of the M20 competitions guaranteed the entries remained anonymous throughout the entire competition process. It meant the identity of the winner would remain unknown until the judging had been settled, only then would the chairperson of the jury reveal the winner's name. However, for any architecture competition it is often possible to form an idea as to the authorship of some particular entry based on the drawings and annotations the architects submit on their competition boards and statement; this is especially so with high-profile architects who have a well-known theoretical approach or a signature style. In the case of H&dM, with their hostility toward style and theory we might be justified in ruling out recognition on those grounds, but there are other means for matching a competition entry to its author. In the case of H&dM their long-term success at working without identifiable theory or style had begun to show in their work. By the time of the M20 competition the practice was famous for its impressive list of awards and for the well documented accounts of its projects, which had been published in a variety of books, periodicals and magazines, including H&dMs own, self-published, *Complete Works.* This impressive archive of material not only demonstrates the range, diversity and virtuosity of H&dM's practice, it also reveals a limited repertoire of conceptual devices that recur throughout their work and give it a distinct character. It is likely that many members of the jury would have





been sufficiently familiar with the H&dM archive to be able to identify their M20 submission. However, being known to the jury would not necessarily have worked to H&dM's advantage since it is by no means certain all members of the jury would have wanted an H&dM building to extend one by Mies van der Rohe.

Unlike Tate's competition brief, which left the architects free to decide, the M20 brief prescribed the scope and types of drawings to be included on the maximum of four, A0 portrait-orientated submission boards. Board one was to contain information about the proposed urban strategy, it was to include an exterior perspective and an elevation at scale 1/500. Boards two and three were to include the floor plans, sections and elevations at a scale of 1/200 and board four was to focus on the materiality of the building facade and the building interior, including a section and part elevation at 1/50 and an interior perspective. In addition to the four boards, each entry included a 1/500 massing model on a standard base model (Fig. 13).

H&dM's massing model stands out from all the others because of its translucent materiality. It is neither solid nor transparent and appears to represent a low-lying block, extruded directly up from the building plot with opaque masses embedded inside. The largest and most prominent of the embedded masses is a Latin cross-shaped figure whose long and short axis align with those of the translucent extrusion and divide it into four sectors (Fig. 14). Upon seeing the cross-figure one is reminded of the gestalt formed by the light-beam and chimney at Tate Modern, which has by now become a globally recognised symbol of the modern art museum, as much as it is an icon of London. It is as if the London cross has been toppled over and laid out on the ground in Berlin, where it cuts from front to back and from side to side across the site. The toppled cross both signals and responds to a crucial problem of the Culture Forum area, which is that each of the buildings stands in isolation from all the rest. The long arm of the toppled cross signals a north-south line of movement across the site, connecting the NNG and the Philharmonie, the short arm signals an east-west line of movement, connecting the Berlin State Library and the museums around the Piazzetta (Fig. 15).

The first of H&dM's submission boards, concerned with urban strategy, is also dominated by the lines of movement signaled by the cross figure, where it appears in the photomontage plan projection that takes up the lower two-thirds of the board.[34] The plan shows the proposed M20 building, set within the urban surroundings and, just like the massing model, represented at a scale of 1/500. The plan reiterates what is already shown on the massing model, confirming the form of the proposed new extension has been abstracted up from the building plot and is divided into four sectors on the inside by a Latin cross figure. But there are marked differences between the visual textures of the extrusion and cross-figure as they appear on the massing model and the way they appear on the plan. Although it still appears to be translucent, on the plan the extrusion no longer looks like a solid block, rather it looks like a hollow shell that has been made from some kind of all-over perforated material; and the cross-figure no longer looks like an opaque mass but appears to glow, like a lantern, with a yellowish green light.

Turning to H&dM's second and third boards and reading between the plans, sections and elevations shown there, it is apparent that each of the four sectors delineated by the cross are intended to form a discrete ensemble of gallery spaces and that each ensemble has its own particular spatial nuance, presumably corresponding to specific sections of the museum collection and their preferred modes of display. The drawings on the second and third boards confirm that the extrusion is indeed a single large volume, hollowed-out within a building

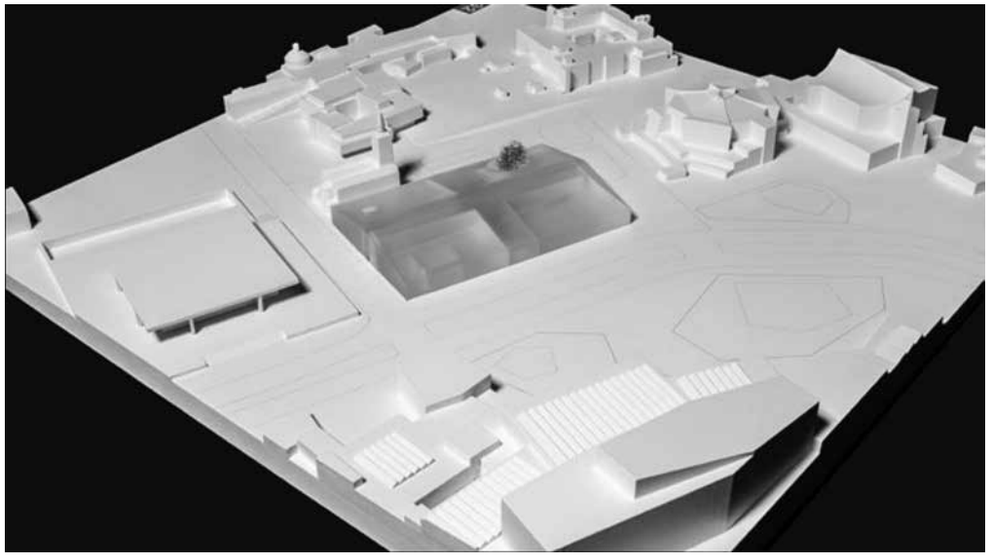

**Fig.13**
Herzog & de Meuron, Museum of Modern Art 'Berlin modern,' Museum of the Twentieth Century (M20) competition entry, massing model
*SPK Berlin*

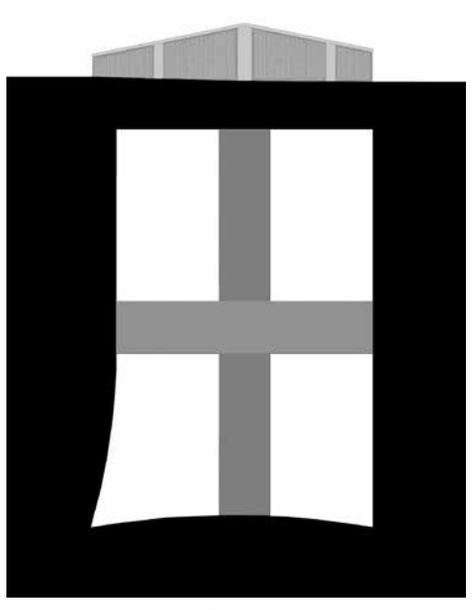

**Fig.14**
Museum of the Twentieth Century (M20). Above, elevation diagram; below, plan diagram


**Fig.15**
Plan diagram showing the Museum of the Twentieth Century (M20) in its urban context: 1. New National Gallery; 2. M20; 3. Berlin State Library; 4. Chamber Music Hall; 5. Philharmonie; 6. Arts and Crafts Museum; 7. Art Library; 8. Gemäldegalerie; 9. St Matthew's Church; 10 Piazzetta





shell and they confirm the cross figure does indeed stand for two movement lines across the site from east to west and north to south. From the plans, sections and elevations we see how this circulation system will take the form of two intersecting arcades, cutting through the building at right angles to one another, rather like the crossing of a cathedral. These boards also show how the arcades intersect, with the north–south arcade stepping down from ground to basement level and the east–west arcade bridging over it at ground level (Fig.16). With this 'fly–over' arrangement of crossing arcades we are again reminded of Tate Modern, because it is the same circulation pattern we are familiar with from the London museum, where the north–south ground level walkway intersects the east–west flow of the Turbine Hall, with its ramped floor bringing visitors from ground level down to the lower level of the museum. Since M20 and Tate Modern have a similar building programme it is perhaps not surprising to find the same spatial strategy deployed to control the masses of visitors who will come to the respective museums. In each case the fly–over crossing operates at a similar scale, serving as an interface between the exterior, where the museum dissipates into the environing city, and the clusters of intimate, gallery spaces inside, where the visitor will eventually encounter the artworks – the four sector ensembles of M20 and the suites of gallery rooms of Tate Modern.

In the case of the stack concept, discussed above, we saw how H&dM used the same conceptual approach across a variety of different building programmes, as a way of generating alternative formal arrangements. In the fly–over crossing common to Tate Modern and M20 we see another example of H&dMs conceptual approach, but now the conceptual device is spatial rather than procedural. The fly–over crossing is not a method of form–finding, rather it is an established spatial convention and in the context of the modern art museum it functions as a means of controlling and moderating the masses of human bodies that will flow into and through the building. Just as the conceptual device of stacking cannot be attributed to H&dM as its inventors or discoverers, although they can be credited with bringing it into architectural practice, neither is the spatial principle of the fly–over attributable to H&dM, it too comes as a readymade. The fly–over crossing is a recurrent feature of post–industrial cities, it is most familiar in the design of transportation systems, where it serves to sort and distribute vehicular traffic, by means of roadways, railways and even canals that are engineered to be able to fly over and under one another on bridges, cuttings and tunnels.

There is a third, much more obvious, yet at the same time puzzling, similarity between the design strategies of M20 and Tate Modern, it is directly related to the way H&dM envision the appearance of these modern art museums as large, monolithic structures in their respective urban environments. The discussion of TM phase one has commented on the way H&dM's entry stood out because they were proposing to reinforce the monolithic character of the existing power station building. They wanted it to appear as a monolithic form that was hollow on the inside, to this end they worked on the existing brickwork shell to downplay the building's composition, especially the strong central axis of the northern facade, making it appear as a single, unified object regardless of which direction the visitor approached it from. To make it feel hollow the architects proposed using glass to modify the brickwork shell, not by making new windows but by introducing patches of differently textured glass, as if woven into the brickwork, with a view to making the appearance of the transformed power station seem much lighter than it had been when it functioned as an industrial building, less like a brick box and more like a hollowed–out space inside a shell.

**Fig.16**
Herzog & de Meuron, Museum of Modern Art 'Berlin modern,' Museum of the Twentieth Century (M20) competition entry, interior view
*SPK Berlin*

The same ambition to make the modern art museum appear as a hollowed-out space inside a shell recurs in the design for the M20, only in this case the architects did not have an existing building to modify but had to invent a new one, as it were out of nothing. To get a feeling for what the M20 shell will look like it is best to return to the first submission board, where, just above the site plan image is a smaller montage, a perspective view showing the M20 building as it would appear to someone approaching from the north-west along Potsdamer Strasse and looking toward the north-eastern corner of the new museum (Fig. 17).[35] The view shows how the shell of the M20 was to be made out of the same kind of archaic brickwork that H&dM had developed for the pyramidal tower of Tate Modern's phase two extension. It is impossible to tell if the M20 brickwork is identical to the pyramidal tower, but it clearly derives from the same kind of conceptual thinking we have already come across in the discussion of Tate phase two, where we traced it back to the Dominus Winery.

Because of its proposed brickwork materiality and monolithic appearance, the M20 shell is reminiscent of Tate Modern, however in its overall massing and form the M20 shell is nothing like Tate Modern (figure 18). The perspective projection shows the M20 shell will take the shape of an enormous barn, consisting of a single, shallow pitched roof spanning from side to side across the shorter dimension of the site and resting on low-lying walls running the longer dimension, with a gable end filling-in below the roof. The perspective also shows how the hollowed-out space inside the brickwork shell will radiate through the perforations that are built into its homogenous surface, making the new museum look as if it glows.





To investigate the thinking behind H&dM's selection of a barn shape we have to leave Tate Modern and look instead to the NNG. On the perspective view looking down Potsdamer Strasse the NNG can be seen, partly occluded, but just peeping out from behind the back of the glowing M20 shell. One would never guess from this view that the two buildings belong together and house the same institution. In their perspective view, H&dM have represented the NNG so that it hardly looks like a building at all, certainly not in comparison to the conventional form represented by their barn. With its horizontal and vertical elements hovering above a podium, all of them coloured black, the NNG looks more like an assembly of elements from a Suprematist painting than a building. To gain an insight into why H&dM see the NNG as they do we need to look at their book *Treacherous Transparencies*, which they were working on at the same time they were working on the M20 competition.[36]

The main topic of this book is Mies van der Rohe's design of the Farnsworth House, but it does mention the NNG, specifically referring to the building's 'vast upper storey.'[37] This is the part of the NNG that is most obviously like the Farnsworth House insofar as it consists of a framed structure, demarcating a single spatial volume enclosed by transparent screens of steel and glass. Of course, the single volume of the NNG is much bigger and much emptier than that of the Farnsworth House and perhaps it is better to call it a hall rather than a room, but it is clear, H&dM intend much of their criticism of the Farnsworth House to apply equally to the upper storey of the NNG.

One of H&dMs proclaimed objectives in writing *Treacherous Transparencies* was to explore and communicate their fascination and bewilderment with Mies' modern architecture. The book explains how, through their study of the Farnsworth House, H&dM came to doubt if Mies really had the respect for traditional architecture that has come to be associated with his name.[38] By focusing on the way that Mies explored transparency in his buildings, H&dM portray Mies as an architect who was far more interested in 'pure architecture' than he was in tradition. Based on their argument, it seems, that for H&dM, purity in architecture is something similar to abstraction in modern painting, where the artist shuns narrative content and turns to the medium itself as the subject of their work. Understood in this way, purism in architecture means the designer has turned away from considerations of use, comfort and materiality and is preoccupied with the

**Fig.17**
Herzog & de Meuron, Museum of Modern Art 'Berlin modern,' Museum of the Twentieth Century (M20) competition entry, exterior view
*SPK Berlin*

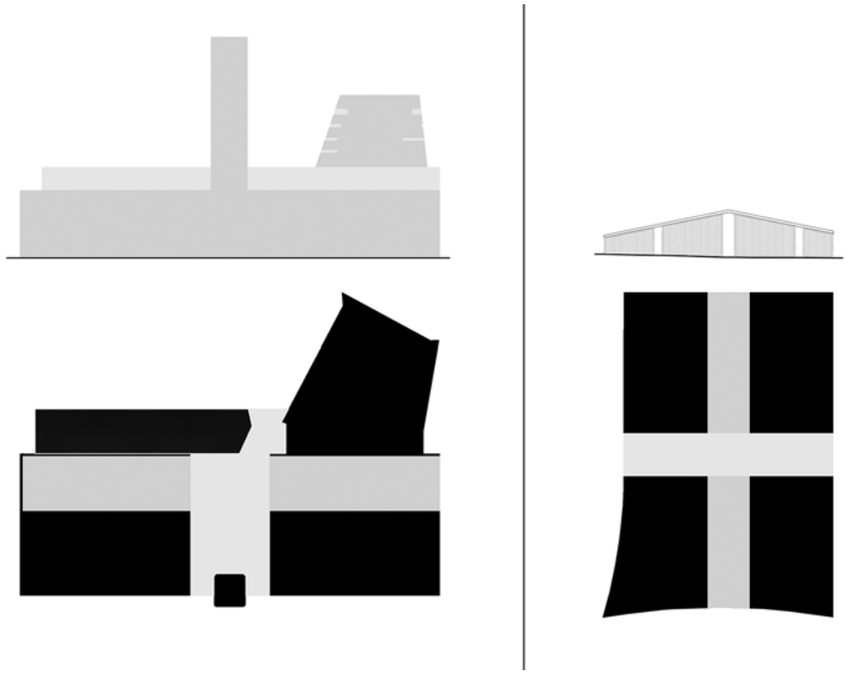

**Fig.18**
Plan and elevation diagrams (at the same scale) comparing the relative size of the Tate Modern (left) and Museum of the Twentieth Century (M20) (right)

medium of architecture, generally understood to be space and structure. H&dM argue, respect for tradition does not lead to a purist outlook, rather it leads to an interest in what 'has always been built, through the ages, a house that is traditional and therefore universal,'[39] - for H&dM a house should be a 'haven that protects users from the outside world.'[40]

H&dM's statement linking tradition and universality is on page 37 of *Treacherous Transparencies*, while on the opposite page, as if to illustrate their point, is a photographic image of a barn from the Val Verzasca region of Switzerland. It shows a building in a natural setting, consisting of a single, shallow pitched roof spanning from side-to-side and resting on low perimeter walls, barely lifted out of the ground, a large gable fills-in the void under the roof. The roof and walls of the Verzasca barn appear to be made of a single material: stone, and you can tell from the photograph that the stone of the barn has been gathered from the stones of the surrounding environment. For anyone reading *Treacherous Transparencies* who knows about H&dMs M20 proposal it is impossible not to see this barn image as a model for the barn-shaped shell that is proposed to extend the NNG. But even for the reader who does not know about the M20 proposal there is a pointer linking H&dMs critique of Mies to the barn shape. The Verzasca barn is not the only image on page 36, captioned 'Shieling in Val Verzasca,' it covers just the top half of the page, below it is a second image, a photograph of Mies standing behind a model of another of his transparent pavilion designs, the Crown Hall at Illinois Institute of Technology. The photograph is taken frontally and only the top half of Mies' body appears in the picture, his arms are spread out with his hands appearing to rest on the table or pedestal that supports the model. Mies' pose means the silhouette of his arms, taken together with his head and torso,





form a kind of pediment to the Crown Hall. Because of the thoughtful way they are laid out on the same page, it is clear the image of the barn and the image of Mies are meant to be read dialectically, as thesis and antithesis (Fig.19).

If the image of the barn in a natural setting is read as standing for traditional architecture, unselfconscious and undesigned then, by inference, the image of Mies and his model must stand for its antithesis, for modern architecture, self-consciously designed by the architect. The opposition is reminiscent of the opening passages of a famous essay by Adolf Loos' called 'Architecture' in which he evokes a natural setting and contrasts the houses of local farmers with a new villa designed by an architect. He wrote:

> May I take you to the shores of a mountain lake? The sky is blue, the water is green, and everything is at peace. The mountains and the clouds are reflected in the lake, as are the houses, farms and chapels. They stand there as if they had never been built by human hands...What is the discord, that like an unnecessary scream shatters the quiet? Right at the centre of the farmers' houses, which were not built by them but by God, stands a villa. Is it the product of a good or a bad architect? I do not know. All I know is that beauty, peace and quiet have been dispelled.[41]

Loos did not describe the villa but it is fair to assume he did not have in mind a building by Mies, however, the important thing to notice here is the way H&dM's *Treacherous Transparencies* uses the same tactic as Loos' 'Architecture' to make an ethical statement about modern architecture. In either case a building that is undesigned – universal and traditional in H&dM's terms – is contrasted with a building designed by a modern architect. The target of Loos' criticism was the ornamental designs of Secessionist architects like Joseph Maria Olbrich, with H&dM it is the allegedly pure architecture of Mies.

Leaving to one side the question as to whether or not Miesian architecture is pure, instead notice the paradoxical nature of the discursive statement under examination here: the idea of a quasi-natural, undesigned kind of architecture is evoked in such a way as to insinuate an ethical judgement about modern architecture; and yet the provocateur - the author of the statement - is them self a modern architect.

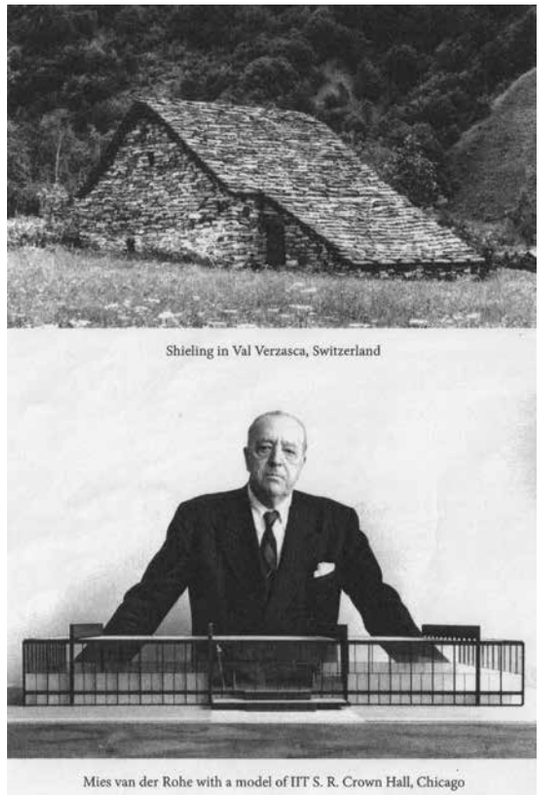


**Fig.19**
Jacques Herzog and Pierre de Meuron, *Treacherous Transparencies, 36*
*Actar Publishers*

With their proposal for the M20 to sit next to and be read together with the NNG, I would suggest, H&dM are referencing the stance of *Treacherous Transparencies*, but they do not intend to simply repeat the undesigned/designed provocation. Their drawings show that the brick-work shell will refer to the shape of a barn, but the new museum will not be built like a barn, tectonically and spatially the M20 will be nothing like a barn. The barn look is intentionally superficial, a hollow shell in the shape of a barn. Based on their track record, as the project progresses it is likely H&dM will be able to exercise sufficient control over the planning and building processes to translate the hollow, cartoon-like look through to the realised building, where it will become a feature of the new, M20/NNG couple.[42]

As part of a couple, it might well be that the barn-shape and brickwork materiality of the M20 will give the impression of being less self-consciously designed than the NNG, but that will be only an illusion, the reality of the M20 is that it will be hyper self-consciously designed in comparison with the NNG. Just as it was necessary for Mies to lavish attention on the work of design to make his architecture seem abstract and pure, so H&dM will need to attend carefully to their design work if they want the M20 to seem like an amalgam of design and undesign, or perhaps anti-design is a better expression.

To end with I would like to return to the matter of H&dMs architectural identity and make two observations. First, this focused study of a select range of H&dMs projects demonstrates that although it is true, they do not have a signature style, nevertheless there are identifying features that can be traced through their projects. What this tells us is that there is no necessary connection between style and identity in architecture. The second thing this study tells us is that H&dM are constantly at play with their architectural identity, it seems for these architects, identity is not something fixed and resolute, it is plastic, to be shaped and moulded by circum-stances and requires constant adjustment. No doubt, taking care of one's architectural identity is not unique to H&dM, it is part and parcel of what it means to be a successful modern architect however, perhaps they are more self-conscious of this fact than others are, or have been – and perhaps becoming skilled at the game of identity is the most important thing they have learned from working with artists.

## ACKNOWLEDGEMENTS

The author would like to thank John Bold and Paul Holden for their help in bringing this to publication.

## NOTES

1 *Royal Academy of Arts, Herzog & de Meuron, The Gabrielle Jungels-Winkler Galleries, 14 July – 15 October, 2023.*

2 For further information on the history and sociology of architectural competitions: Hélène Lipstadt, 'Can "Art Professions" Be Bourdieuean Fields of Cultural Production? The Case of The Architecture Competition,' *Cultural Studies*, 17, (3/4), (2003), 390-418; Magali Sarfatti Larson, 'Architectural Competitions as discursive events,' *Theory and Society*, 23, (1994), 469-504; Hélène Lipstadt (ed), *The Experimental Tradition: essays on competitions in architecture*, (Princeton Architectural Press, 1989).

3 Some recent literature includes: Charles Saumarez Smith, *The Art Museum in Modern Times*, (London, 2021); Boris Groys, *Logic of the Collection*, (London, 2021). Less recent but of relevance: James Cuno (ed), *Whose Muse? Art Museums and the Public Trust*, (Princeton, 2004) and Nicholas Serota's Walter Neurath Lecture, published as *Experience or Interpretation, The Dilemma of Museums of Modern Art*, (London, 1997).

4 Alejandro Zaera, 'Continuities, Interview with Herzog & de Meuron', *El Croquis*, No. 60, Herzog & de Meuron, 1983-1993, (Madrid, 1993), 6.

5 Since the competition, the M20 has been renamed 'Berlin Modern.' For this paper, which is primarily concerned with the competition entry we will use M20 throughout.

6 Both competitions were won in collaboration with the Landscape architects Vogt.

7 *RA Gallery Guide, Herzog & de Meuron.*

8 Jacques Herzog and Pierre de Meuron, 'The Pritzker Architecture Prize 2001', *Journal of Architecture and Urbanism, Special Issue, Herzog & de Meuron, 1978-2002*, February issue, (2002), 10.

9 Publications exclusively about Tate Modern phase one include, Tate Gallery, *Building Tate Modern*, (London, 2000); Karl Sabbagh, *Power into Art*, (London, 2000). Accounts of the phase one project can be found in: *Herzog & De Meuron, Complete Works Volume 3, 1992-1996,* Gerhard Mack (ed), (Basel, 2005), 90-113; *Architecture and Urbanism Special Issue, Herzog & de Meuron, 1978-2002*, *Journal of Architecture and Urbanism*, (2002), 208-35.

10 Tate is the institutional name of a network of art galleries in the United Kingdom. It is not a governmental institution but it does receive sponsorship from the Department for Digital, Culture, Media and Sport.

11 Bankside Power Station, 1957-1960, originally designed by the engineers Mott, Hay and Anderson with Sir Giles Gilbert Scott as consultant architect.

12 Nicholas Serota was the director between 1988 and 2017, he was responsible for the competition events and subsequent realisation under consideration in this essay.

13 The panel of assessors contained a range of specialist and non-specialist persons, including several architects, an artist, museum directors, art collectors, company directors, a journalist/broadcaster and a professor of urban design.

14 Tate Public Records, TG 12/4/6/13: Herzog & de Meuron, Stage One submission, Architectural Competition, Tate Modern Project'.

15 For an account of Tate Modern that emphasises phase two see, Chris Dercon and Nicholas Serota (eds), *Tate Modern Building a Museum for the 21st Century*, (London, 2016). Accounts of phase two can be found in: *Ibid., Herzog & De Meuron, Complete Works Volume 5,* (Basel, 2020), 116-55; *El Croquis 152/153, Herzog & de Meuron, 2005/2010*, El Croquis Editorial, (Madrid, 2011), 202-15.

16 Other art museum projects that contributed to H&dM's Pritzker Prize success were the de Young Museum in San Francisco and the Walker Centre in Minneapolis.

17 Tate Archives have not yet catalogued and transferred the records of phase two to the public domain. In Dercon and Serota (2016) the date of the competition is never given. An ambiguous statement in the 'chronology' reads: '2007, July, Expressions of interest for the Design Team placed in the Official Journal of the European Union (OJEU). Four practices shortlisted, Richard Rogers Partnership; Herzog & de Meuron; Dominique Perrault; and Wilkinson Eyre.' On Herzog & de Meurons' website the date of the competition is given as 2005.

18 Dercon and Serota, 20.

19 Ike Ijeh, 'Tate expectations', 23 May 2016, https://www.building.co.uk/buildings/tate-expectations/5081814.article accessed 30 December 2022.

20 Ai Weiwei was among the first generation of Chinese students to study in the west. At the time of his collaboration with H&dM he had returned to China to practise a form of political activism and social commentary through art, architecture, design, documentary film-making and blogging. The Chinese authorities seemed tolerant towards Ai Weiwei in those days, which was taken as a sign of the CCP's mellowing attitude toward, if not full embrace of, democratic values.

21 Herzog & de Meuron, No.269, Beijing Film Academy, Qingdao, Gerhard Mack (ed), *Herzog & de Meuron, 2005-2007, The Complete Works Volume 6*, (Basel, 2018), 20.

22 *Ibid.*, 22.

23 *Ibid.*

24 See for example, 'The End of Theory? A Conversation, Peter Eisenman, Kurt W. Forster, Jacques Herzog & Philip Ursprung', *E-Flux*, November, 2017, https://www.e-flux.com/architecture/history-theory/159231/the-end-of-theory-a-conversation/, accessed 30 December 2022.

25 Mack, 2018, No 284, No 294, No 305; 62, 78, 108.

26 Dercon and Serota, 42.

27 Quoted in 'Architectural Review', 28 March 2007, https://www.architectsjournal.co.uk/news/despite-opposition-tate-modern-extension-wins-the-go-ahead, accessed 01 January 2023.

28 *Ibid.*

29 NBC News, 'Ai Weiwei on the Birds Nest, the Olympics and all that's changed', https://www.nbcnews.com/news/world/chinas-dissident-artist-ai-weiwei-birds-nest-olympics-rcna14331, accessed 08 January 2023.

30 *El Croquis 152/153, Herzog & de Meuron, 2005/2010*, El Croquis Editorial, (Madrid, 2011), 206.

31 For documentation of the two-part competition see, Stiftung Preussischer Kulterbesitz, *A New Building for the National Galerie, The Competition for the Museum of the 20th Century*, Stiftung Preussischer Kulterbesitz and Kerber Verlag, Bielefeld, (Berlin, 2018). The SPK have also built a very good archive online that includes all of the entries: https://www.nationalgalerie20.de/wettbewerb/wettbewerbsverfahren/zeitplan A good range of images can also be found on the aaasarchitecture website https://aasarchitecture.com/2016/11/museum-20th-century-herzog-de-meuron/

32 For more about the connection, V. Watson 'Restoration, Expansion and the Building Art: Contemporary Issues in the Life of Mies van der Rohe's Museum of Modern Art (New National Gallery) in Berlin,' *Journal of Historic Buildings and Places,* vol. 1, (2022), 113-124.

33 In Germany competitions of this kind are run according to very strict rules, they are overseen by specialist managers, usually themselves architects, who manage, control and document the entire process.

34 H&dM's boards are stored on the SPK website, their entry is number 1032, to find it go to 'Design competition, all submitted designs, 1st Prize', to start your search go to: https://www.nationalgalerie20.de/en/wettbewerb/realisierungswettbewerb/einreichungen?tx_cbnewsenhancement_list%5Bcontroller%5D=NewsEnhancement&cHash=53c2d019231ad9778e016170e2b881ae#results-list

35 This image is often used as an icon to stand in for H&dM's M20 winning entry, so it is very easy to find on the internet. It appears in the arch daily article referenced above, where it is the first image; or go to the aaasarchitecture website, again it is the first image you see.

36 Jacques Herzog, Pierre de Meuron, *Treacherous Transparencies: Thoughts and observations triggered by a visit to the Farnsworth House*, (Chicago and New York, 2016).

37 *Ibid.*, 49.





38 For an interesting discussion of the way that notions of tradition played a role in the thinking of modern architects, including Mies, see Joseph Rykwert 'Thinking and Doing.' in *On Adam's House in Paradise, The Idea of the Primitive Hut in Architectural History*, (The Museum of Modern Art, 1972), 13-28.

39 *Ibid.*, 37.

40 *Ibid.*, 35.

41 Adolf Loos, 'Architecture 1910', Arts Council of Great Britain, *The Architecture of Adolf Loos*, (Arts Council, 1985), 104.

42 Since the competition, the design has gone through a series of revisions, primarily aimed at aligning it more closely to the sustainability agenda that is dominating architectural practice these days, but the overall barn-shape remains. As already mentioned, the project has been given a new name, it is now called 'Berlin Modern' and a recent SPK press release claims it will be 'a sustainable house for everyone.' https://www.preussischer-kulturbesitz.de/pressemitteilung/artikel/2023/04/18/das-museum-der-moderne-berlin-modern-am-kulturforum-wird-ein-nachhaltiges-haus-fuer-alle-1.html