

1950

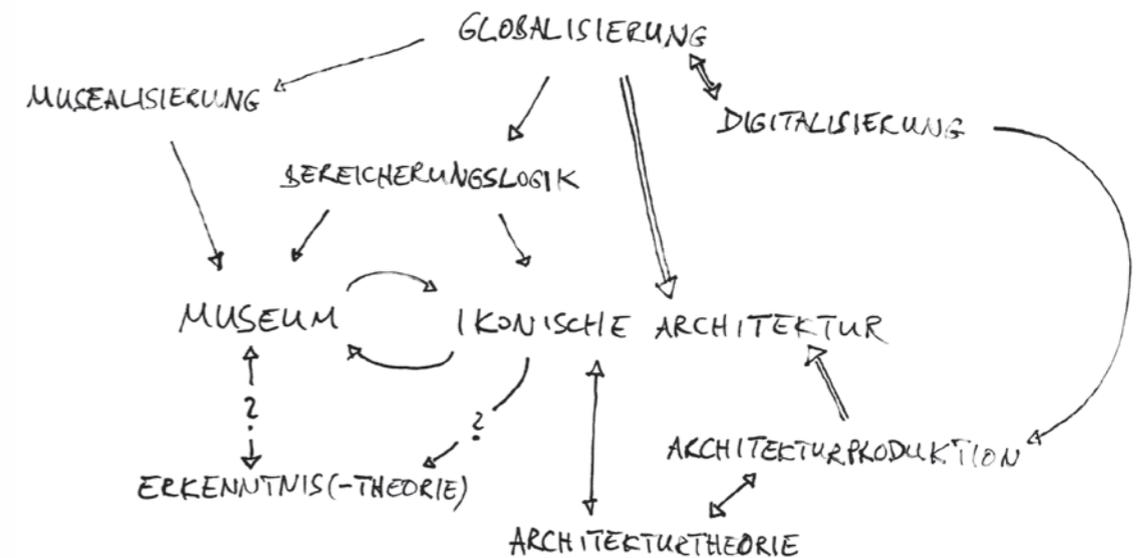
(reference)



(top) Although today in harmony with the glass and steel architecture of neighbouring buildings, when it was first built MoMA's pioneering style stood out boldly from its historical surroundings. The Museum of Modern Art, New York City

(right) Some lines in the net that stretches between the museum and iconic architecture. Drawing: Pablo von Frankenberg

The attraction of the ambiguous. The museum as a source of friction for architecture Pablo von Frankenberg



- ⇒ bedingt
- hat einen Einfluss auf
- ↔ stehen in Wechselwirkung
- ?→ noch zu untersuchender Zusammenhang

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{ Haus
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Reconstruction phase in the **foyer**, lightbox with section for the location of projects in the **Kunsthaus**

The attraction of the ambiguous

The museum as a source of friction for architecture

The museum architecture of the 19th century mainly conformed to existing architectural styles and directions, referring either to the origin of the collections – the palaces of rulers – or to classical antiquity as an educational ideal.¹ With the opening of the Museum of Modern Art in 1939, designed by Philip L. Goodwin and Edward Durell Stone, there was a fundamental change in the relationship between the museum and architecture. In 1939 MoMA, built in the *International Style*, formed a striking contrast with its historicist surroundings in a way that we can hardly imagine as it stands today, in an environment made up almost entirely of smooth glass surfaces. The museum building was a trendsetter. All other types of building in the neighbourhood seemed to follow on from its example. From now on, the building of a museum was linked with the possibility of achieving new and controversial architectural settings.

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In the early 2000s, the architectural theorist and critic Charles Jencks proclaimed the age of iconic architecture.² The museum entered into an alliance with iconic architecture that had a radical impact on the institution of the museum, the exhibits, the surrounding urban space and architecture itself. Little research has been conducted on this subject up to now. This essay traces some of the lines of the network resulting from the alliance between the museum and iconic architecture. As we shall see, the connection between them is by no means accidental.

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Iconic architecture and art

According to Jencks, one characteristic of iconic architecture is its proximity to contemporary art – ‘The iconic building, when successful, puts architecture on a par with the best contemporary art to explore freely the possibilities of open-ended creativity.’³ The strength of iconic architecture lies in a contradiction – on the one hand it can hardly be categorised in terms of its formal language, but nevertheless it serves as a logo. It generates a recognisable, clear, unmistakable image that appears to be without precedent. It thus generates a broad repertoire of possible interpretations. This is reflected not least in the richness of the metaphors used by architectural critics to describe it.⁴

However, this diversity of interpretation by no means leads to indeterminacy. In spite of diffuse attributions of meaning, every iconic building is so distinctive that it serves as a landmark and an emotional point of reference.⁵ The visibility of architecture, especially public buildings, provokes a reaction. While art itself hangs in the clearly separated area of the *white cube* or, far more frequently, slumbers in the depots of large museums out of the public’s sight, the museum as a building stands in the overwhelming diversity of the urban space. It is not only seen by museum visitors and curators. It is possible to avoid the contents of a museum, whether they be old masters or abstract paintings, dinosaurs or steam engines, coins or minerals. Avoiding museum buildings is more difficult – with the exception of highly segregated cities.



The first tactile guidance system was developed in 1965 by Japanese inventor Seiichi Miyake to make life easier for a visually impaired friend. The tactile paving provides haptic cues, offering safety and navigation and, like all measures to improve accessibility, makes the Kunsthaus Graz an exhibition centre for all!

Eva Ofner, visitor management, accessibility contact

The public domain of a work of art is governed by its canonisation, in which many parties are involved, including art historians, critics, the art market, collectors and museums. But even a canonised work of art is not necessarily accessible to the public, for example if it disappears into a private collection, is not included in the current exhibition, or if its presentation in the museum is associated with financial and/or social thresholds.⁶ From the beginning, the public aspect of museum architecture is defined in a different way to the contents that are exhibited inside it.

However, the genesis of iconic museum architecture differs significantly from that of a work of art. Even though there are artists who work together in a team in a similar way to architects, creating their works of art with the help of employees, the development and design of architecture is generally less free than art can be. In contrast to artists, who can also of course be subject to existential economic pressure, and sometimes even political influence, architects are dependent on a whole range of external factors that are often predetermined (e.g. building regulations), as well as on clients, experts and stakeholders (political decision-makers, structural engineers, urban planning offices, fire prevention experts, private developers, property market developments, etc.) Architecture, especially the architecture of public buildings, gains its importance not only through its reception, but above all through its use, i.e. through social interaction. Social interaction can certainly arise from a work of art, but it is a fundamental component of architecture. By using a piece of architecture, walking through it, meeting others in it, getting a feeling from it, finding refuge in it, seeing it in the context of a city or a landscape, one attaches importance to it.⁷ Its importance is never limited to its worth as a showpiece – it is also defined by its utility value.

When we think about the connection between iconicity and museum architecture, then, we should not restrict ourselves to the imposing character of its design. It is more helpful to consider why a museum building is so important for architecture itself, and to acknowledge the fact that political and economic interests are associated with it. We can use two guiding questions to trace the lines of the network in which the iconic museum architecture is located: What socio-economic developments are negotiated through iconic museum architecture? And what significance does this kind of architecture have for the possibilities of the museum as an institution that stores, generates and imparts knowledge?

The attraction of the ambiguous

Since the turn of the 21st century, there has been a significant increase in the number of new museum buildings worldwide,⁸ including more and more iconic buildings. These building projects are generally equipped with a large budget and have a high prestige factor, which makes them attractive for international architecture firms. The attraction rises with the unclear formulation of the building task, which gives architects a great deal of freedom. With a few exceptions,⁹ this freedom is not intentional, but results from a lack of knowledge and experience on the part of everyone involved. Because a museum is not an everyday building, little is known about all the things that



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Shop, design by Oliver Klimpel

need to be considered in terms of technology, air conditioning, visitor flows, the handling of exhibits, safety, didactics and other requirements, which are, on top of that, often contradictory. During the course of their career, museum directors seldom have the opportunity to create a new building or extension, let alone to acquire the practical knowledge that comes from being involved in two or more large building projects. In general, people who work in museums are specialists in dealing with space, but not in creating it from scratch. This means that the wishes they formulate for a new building are often ambiguous. 'Flexibility' is certainly one of the most frequent words found in the tender specifications for museum buildings published over the last 20 years, with no further explanation of why this flexibility is required and how it will be used. Public building authorities are also rarely confronted with museum building projects. If they cannot rely on the employees of the museum or museum advisors with specialist knowledge, they generally focus on the outer appearance of the architecture. In view of the investment they are making, they are generally looking for a charismatic landmark. The fact that the building should also contribute to the efficient running of a museum often seems to be a secondary consideration. If there is no clear information on the museum programme, or in some cases even on the collection that is to be exhibited,¹⁰ the (external) design is often the criterion that dominates all discussions. Private patrons also act with similar intentions. Functionality and charisma do not have to be mutually exclusive, but planning the interior in line with the complex task of operating a museum quickly runs into difficulties if there are no clear specifications. This is especially true if the priorities of the public or private authorities funding the project are at odds with those of the architects.

The planning architects often also lack the specialist knowledge required for this particular building task. There are comparatively few architectural firms worldwide with more than two museums in their portfolio. And even that is not necessarily enough to give them sufficient knowledge on the requirements of an art museum compared with a museum of cultural history, for example, or a technical museum compared with a natural history museum. As a result, the clients outline the construction task of the museum fairly openly in their tenders, while architectural teams, confronted with relatively few specifications, see an opportunity for self-realisation. This means that very different aesthetic, cultural, political and economic interests can be invested in a museum building.¹¹ In the following, an analysis will be made of the interaction between the aesthetics of museum architecture, influenced by digitalised design and presentation methods, and the economic interests attached to it.

Aesthetics and technology

The commercial and large-scale use of Internet and digital photography began at the beginning of the 1990s, although both technologies had been developing for decades. The global rise in the construction of museums coincides with the digital production and global, individual dissemination of images. Of course, no causality can be deduced from this coincidence. However, it certainly had a favourable impact on the high concentration of iconic architecture designs for museums: visiting museums had become



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Temporary labelling of information counter;
foreground: Haegue Yang. VIP's Union – Phase I

part of a leisure economy, and this was reflected in the creation and distribution of highly distinctive images on social networks.¹² This, on the other hand, increased the economic advantages of financing architecture that was of as spectacular a nature as possible. Through their unique design vocabulary, iconic museum buildings are highly marketable – they attract tourists, and the sharing of photos on social networks makes a significant contribution to the marketing process.

At the latest since the emergence of the so-called 'Bilbao effect', iconic museum architecture has generally been considered particularly profitable. The iconic forms of newer museum architecture became an important economic factor for cities around the world even before the Guggenheim Bilbao was built, but this project also influenced the status of (museum) architecture in other ways. In order to calculate the design vocabulary of this museum, which was revolutionary at the time, Frank Gehry's architectural office used *Catia*, CAD software from the field of aircraft construction originally designed to simulate the entire production process of (aircraft) parts. In cooperation with Frank Gehry's office, the software manufacturer developed the program to enable the parametric modelling of buildings.¹³

This step enabled the production of digital images through so-called render programs in addition to digital photography and the processing of images using digital cameras and Photoshop. The three-dimensional simulation of buildings made it possible to visualise architecture beyond ground plans, sections and views from any perspective at the push of a button, so to speak. Since then, a huge amount of architectural photography has been enhanced through enormous quantities of digitally generated renderings that make local mayors and private patrons dream of creating a monument to themselves.

Aesthetics and economy

The Guggenheim Bilbao focuses on a specific function of museum architecture – it acts as an aesthetic, artistic, cultural, urban planning 'image booster' for the city. It has made other cities fantasise about achieving a social and economic upturn through a new museum building, even though they are unable to afford an additional extensive infrastructural programme like Bilbao, or are not involved in a larger marketing concept like the Kunsthaus Graz during the Capital of Culture programme in 2003. This does not only apply to art museums and publicly funded institutions. In the last 20 years, private donors or firms have funded a whole series of new museums that are often named after them. These buildings obey the principles of iconic architecture – in Europe as well as in the USA, Asia and the Arab world.

Here, museum architecture belongs to the structures of 'enrichment' analysed by Luc Boltanski and Arnaud Esquerre. They examine new economic instruments that feed into the processes of capitalist accumulation, focussing on the interaction between areas such as 'the fine arts, culture, the antiques trade, the foundation of trusts and the creation of museums, the luxury industry, patrimonialisation and tourism'.¹⁴ Rather than adding value through the production of new goods, the logics of enrichment

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Former café Les Viperes

suggest that profits are generated through ‘the exploitation of the past’. This works by relating things that already exist to the past, thus making them more valuable.¹⁵

For Boltanski/Esquerre, museum architecture is an important example in their argumentation. They use Frank Gehry’s museum building in the *Parc des Ateliers* in Arles, France, as an example. The complex is built entirely from the proceeds of a fortune inherited from a pharmaceutical company. The project speculates explicitly on the Bilbao effect¹⁶ – i.e. it aims to upgrade not only the newly founded museum, but the entire region. This project also implicitly underlines the authority of the financial donor as a patron of the arts and culture, thus strengthening her influence in cultural policy and the artistic field. The fact that this does not pay directly into the account of the pharmaceutical company from which the money ultimately came is irrelevant, since the cultural capital, generated in the form of reputation, can be converted into economic capital and/or political influence by the heiress.

While the enhancement of cities or regions through new museum buildings is usually accepted without question, little research has been done on how this constellation works and, above all, on the distribution of the added value it generates and the objectives of its profiteers. However, the fact that the museum in Arles is, like other museums, privately financed, and that these museums are sometimes associated with the names of brands or individuals and used by companies for representative purposes, corresponds directly to the enrichment principle described by Boltanski and Esquerre. These mechanisms are by no means new. They were already exemplified in the first iconic museum building, the Guggenheim Museum New York, built in 1959. Frank Lloyd Wright had not planned the economic exploitation of his architecture, but he was aware of it even before construction was finished. In 1954, Wright wrote to his nephew expressing the concern that the museum’s new director, James Johnson Sweeney, the successor of Hilla von Rebay, the initiator of the project who had fallen from grace after Solomon Guggenheim’s death, would make a ‘museum business’ out of the building.¹⁷ Museum architecture gives art and culture, which is visually effusive and constantly changing, a distinct, permanent image that is easy to market. What role the emergence of iconic museum buildings plays in the development of the global art market, however, is more difficult to ascertain. The fact that the price of a work of art rises once it has been exhibited in an important museum, or the origin of an antique is considered more secure and its value rises, cannot necessarily be attributed to the architecture of the museum. Nevertheless, the significance of a museum can increase through new architecture, and this can have an indirect impact on the art market.

Even if architecture plays its part in this logic of ‘enrichment’, it is not the only effect it has. As a public place, a museum building can have far more diffuse connotations.¹⁸ Nonetheless, it is no coincidence that contexts of economic exploitation are particularly related to the architecture of a museum. Since the Guggenheim Museum in New York, museum buildings have been creating landmarks in a reliable way. They have become easily distinguishable icons that symbolise an institution, a city, or a company, and can be marketed accordingly.¹⁹ This formula seems to work on an international scale, and is one of the empirically proven reasons for the boom in museum building, even in countries with no tradition of museums.²⁰

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For the work *Cuestión de Pasta* by the Italian artist Fausto Grossi (based on an idea by M. Victoria Lasheras Penã), lawyers from the Guggenheim Foundation tried to obtain an injunction for alleged copyright infringement against the artistic pasta production. 'Pasta' can also mean 'money' in Spanish.

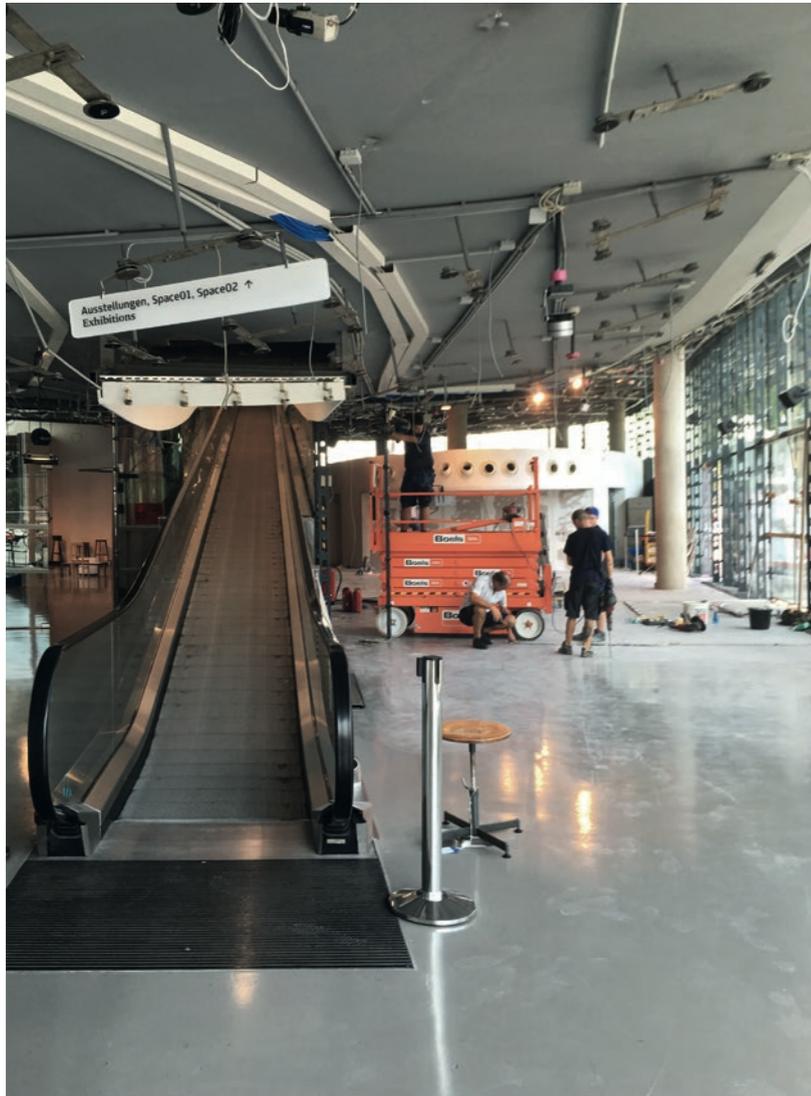
Design in transit

The internationalisation of museum architecture not only defines itself through the global dissemination of its images and its attractiveness, even in countries with no museum tradition, but also through a certain group of architects who are responsible for many of the museum buildings that have received worldwide attention. These architects (mostly male) sleep in hotel beds far more often than in their own. They travel back and forth between various clients, offices, construction sites and biennials, hardly ever taking more than a couple of days' holiday a year. They often design their drafts 'on the move', in Business Class on a transatlantic flight, in video conferences between different time zones, between the desks of an open-plan office or over lunch, because every project manager has to seize the opportunity if the 'master' (extremely rare: the woman master) is in the office for half a day. This way of working only succeeds through the maximum exploitation of a work force that is willing to compensate for inadequate organisation structures by working through the night and taking certain substances to enable them to do so. Precarious employment contracts, hordes of trainees and a team organised in a strict hierarchy, i.e. focussed on a single individual, are the ingredients of international architecture production.

If the so-called star architects indeed spend most of their time in transitory places – hotels, airport lobbies, stations, conference rooms – it is of course not far off the mark to say that the museum buildings of the last twenty years, which were mainly designed by these architects, resemble Baudrillard's 'space debris'²¹ or Jinping's 'weird architecture'.²² It is tempting to link the international effectiveness of museum buildings with the international context in which their creators move. But this view ignores the difference between architecture and art, as outlined above, which not only highlights the widely regulated process of the development of museum buildings in particular, often accompanied by public discourse, but above all shows the different social demands behind the usage of architecture and art. The significance of iconic museum buildings can therefore be found not (only) in the way their designers live and work, but in social, bureaucratic, economic and technical interdependencies, which are far more clearly defined for architecture than they are for art.

There are certain basic starting conditions for the creation of iconic museum architecture that are similar across the world. This, however, most decidedly does not lead to a similarity or interchangeability between designs; it demonstrates instead that globalised architectural production is shaped by digitalisation and mobility. Here, globalisation in no way means enforced conformity in the sense of a 'universalised world culture'.²³ Within this, capitalist principles such as growth or even 'enrichment' would not work, because it would level out precisely those differences that are the basis of capitalist exploitation. Local diversity and differences are significant 'innovators' and sources of profit for the globalised market.

Even the Guggenheim museums, whose business model has often been criticised, are proof of the fact that museum architecture lives from diversity, in spite of globalised production conditions. The museum franchise system, developed by the former



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Reconstruction phase of **foyer** and reception desk

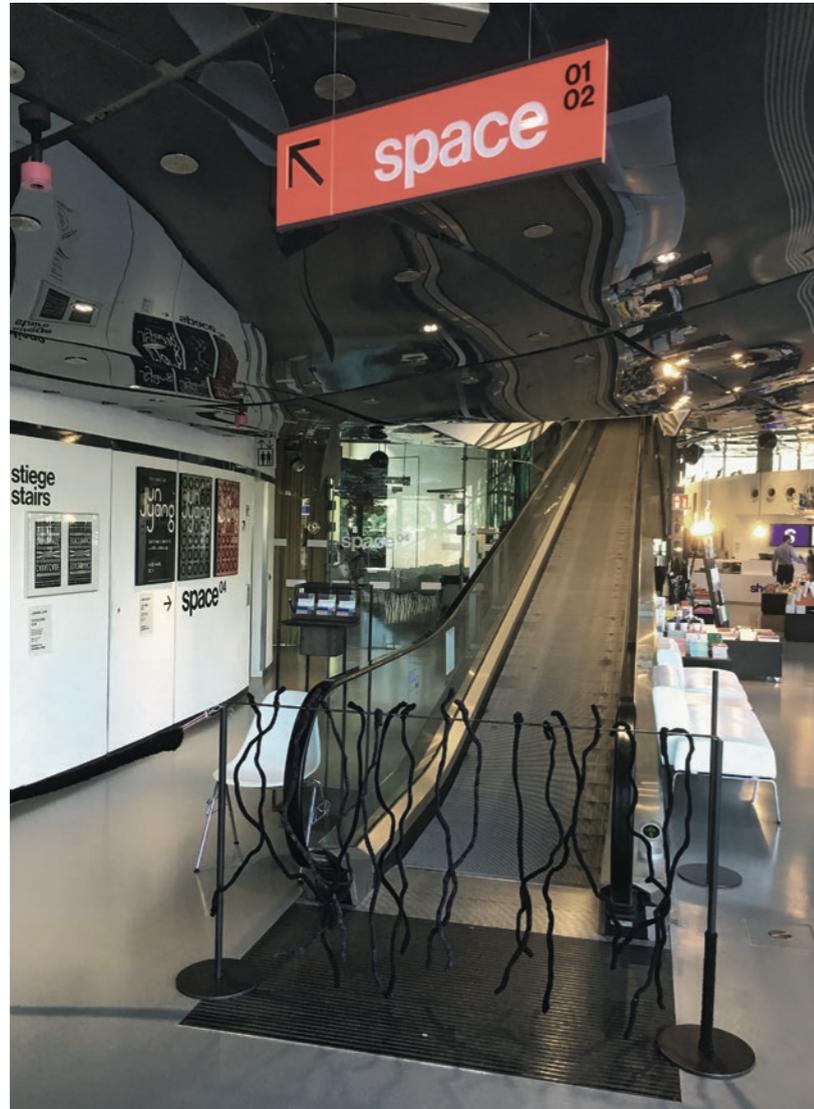
Guggenheim director Thomas Krens, relies on the various different contexts of the new buildings. The symbolic profit for the brand of the museum and the financial growth in the founding capital does not come from enforced conformity, but from the exploitation of differences. The important thing is that each place has a new architectural design (Bilbao, Abu Dhabi) or simply the promise of one (competitions for Salzburg, Guadalajara, Rio de Janeiro, Helsinki, etc.) In this way, the franchise creates a locally anchored image for expansion, which at the same time represents the reliability and high artistic standards of the brand and communicates its connectivity in just about any context.²⁴ The murmur that goes through the world of art and architecture whenever any kind of possible expansion is announced pays off for the Guggenheim brand. If it also pays off for the cities and regions in which the building is situated, this is usually because the new museum is only part of a far larger intervention in the infrastructure. This was certainly the case in Bilbao and in Abu Dhabi. In both cities it could even be assumed that not only the iconic museum architecture, but also the publicly funded expansion of roads, bridges, neighbourhoods, public transportation, and so on, contributed to the brand and balance sheet of a privately run cultural institution, as did the licence fees charged by the Guggenheim Foundation and the public contribution to the operating budget.

Digitalisation and architectural theory

Just as iconic museum architecture cannot be reduced to the conditions of its origin in a globalised and digitalised production setting, neither can it be broken down to contexts of economic exploitation, even though both are important features of its appearance at the end of the 20th century. A far more fundamental prerequisite for the success of iconic architecture is the relationship between the digitalisation of architectural production and architectural theory.

In 2001, the editors of the German architecture magazine Arch+ stated that ‘theoretical architectural debate has been exhausted (for several years).’²⁵ More than ten years later, Rem Koolhaas followed suit and took the theory several steps further: ‘[...] if you plot architectural publications, you will see a timeline that suggests Europeans and Americans were incredibly active in terms of producing architectural manifestos and architectural thinking, but that our thinking stopped in the 1970s.’²⁶ Looking back 40 years later, Koolhaas places the book *Learning from Las Vegas* by Robert Venturi, Denise Scott Brown and Steven Izenour from 1972 at the end of the productive era of Western architectural theory.

One of the greatest changes in modern architectural history coincides with this lack of theory: the mechanisation and digitalisation of architectural production, which provides architecture with completely new tools and means of expression. The discrepancy between the decline in theoretical perspectives concerning these technical possibilities and their proliferation is also reflected in the fact that, in attempts to produce theoretical versions of CAD, BIM and parametric modelling, the tools themselves are idealised as theory, i.e. the use of the tool is mistaken for reflection on it.²⁷



foyer
→ 186)
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Travelator with functional artwork **Soft Interventions**
by Hannes Priesch and Herta Kramer-Priesch

There is a specific reason why digitally generated images and parametric design possibilities lead to confusion between theory and tools, or why they may be mistaken for one another. They bring in a new time dimension for architectural production – the immediate future. While drawings and plans always require mediation and interpretation, and it always takes a certain amount of time to create or copy them, renderings and 3D models not only seem ‘evident’, but once the 3D data has been created, the respective models can be adapted in next to no time. The changes are shown immediately. Renderings and 3D models do not represent architecture, but simulate it. Simulation blurs the boundaries between drawing and built architecture, planning and implementation, thinking and doing.²⁸

Before the possibility of parametric 3D modelling existed, changing a design involved completing new drawings, which took a relatively long time. Now the design can be adapted immediately by changing the parameters (if the model is already in place, in just a few clicks). It is also immediately visualised in the same step. This aspect of immediacy lures us into trusting the programs and the visualisations they create more than our own thoughts on the building task at hand. As fixed systems, the programs seem to include their theoretical explanation right away. The simulation of the existing urban space that surrounds an object, for example, seems to render a site visit obsolete, or even the greater mental effort involved in imagining the design in the context of real urban space. In this way, thinking about architecture can quickly become a system that only allows outside influences that can be digitalised.

The new programs give rise to new formal languages in architecture, the limits of which seem to be determined by progress made in programming²⁹ rather than the manifestos and theories that precede the programming. This neither says that CAD or algorithm-based designs are not creative, nor that thinking was only possible in the predigital era. However, it is reasonable to assume that immediacy and obviousness, which are new in the architectural design process, can more easily escape theoretical and critical analysis.

The lack of theory in contemporary architecture is not only expressed in the confusion between theory and object. One of the main contributing factors is that architectural theory, methodology and philosophy have been pushed into a marginal position in architectural study programmes, both at universities and at universities of applied science, at the latest since the so-called European Bologna Process that aimed at standardising the higher-education system. Priority is given to the learning of technical skills (particularly CAD, BIM, project management), which would actually be more suitable study content for an apprenticeship than for a university course.³⁰

This starting point – digitalisation in the absence of theorisation – appears to be fruitful for the ever newer forms of iconic architecture. As with any innovation, all its (technical) possibilities are exhausted before it is taken down from the pedestal of novelty to find its place in everyday life. The technical possibilities of visualisation and parametric modelling and the digitalisation of the interface between planning and implementation have opened up an entirely new range of possible forms in architecture. Iconic forms have suddenly become far easier to conceptualise, portray and realise



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café
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'What I like about the reception desk is that it serves – much as it did in its previous role as the café counter – to create relationships. At a bar you hand over the drinks, whereas at the information desk, it's information; the familiar character of the "sympathetic bartender" ideally has the same communication skills as the person at the museum information desk.'

Sabine Messner, foyer management

than was the case in Frank Lloyd Wright's day – which still did not stop him from creating an iconic museum building that continues to explore the possibilities and impossibilities of exhibiting art today. Digitalisation is not a *conditio sine qua non* of iconic architecture, but it does have a significant effect. This can be seen in the example of the Kunsthaus Graz – Peter Cook first designed it using pen and paper and classical models, but then had it digitally modelled using standard programs and completely digitally transferred into the detailed design stage.³¹ The Guggenheim Museum in New York and the Kunsthaus in Graz both show that iconicity is by no means dependent on the digitalisation of architecture, but that digital design possibilities facilitate iconic design language. The time required for the complete planning and construction process of the Kunsthaus was around three and a half years, while the Guggenheim Museum took 16 years.³²

→ design
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Revival of the museum

The loss of theory in architecture, along with the emergence of its new technical possibilities, coincided with a revival of the museum that had been imminent for some time. In Germany, for example, history museums had been losing importance, but with the onset of deindustrialisation in the 1970s and 1980s, history exhibitions now attracted unprecedented numbers of visitors. The major attractions at that time were the national exhibitions on the Staufer dynasty in Stuttgart and on the Prussians in Berlin.³³ The renaissance of the museum was by no means limited to the German-speaking world. In the Anglo-Saxon world it was reflected not only in the increasing number of new museums being founded,³⁴ but also in a shift towards broader mediation methods aimed at introducing people with no in-depth education in the humanities to history museums.³⁵

From a business perspective, this change in the 'institutions in the 'business' of making aspects of heritage available' was seen as an important factor in the development of 'heritage marketing'.³⁶ In the 1980s, mass tourism was accompanied by the emergence of the leisure economy.

Deindustrialisation not only resulted in mass unemployment in some areas, but also led to the 'elevator effect' as far as income was concerned.³⁷ Mass tourism and the leisure sector reinforced the importance of the marketing of history, which is the starting point of the enrichment analysis carried out by Boltanski/Esquerre. Museums and their buildings became important again, albeit without one or the other being clearly defined in terms of its nature and significance, its functions and its requirements, as outlined above.

Still, the museum is an instance of cultural self-assurance and reflection. The museum has a sovereignty of interpretation in fields of knowledge, aesthetics and history, which in the best case makes itself available in a reflective sense. In this way, the museum provides a source of friction – also for architecture. Once described as the 'playground'³⁸ of architects, it is in reality unknown territory, for which neither architects nor the people who work in it have a map. In many ways, designing a museum



Thomas Kirchmair, foyer management

'For my work, which focuses on the people who visit the building, this open and bright atmosphere is a crucial factor that positively shapes their first impressions and our communication. Glass walls surround the **ground floor** both towards Lendkai and towards **Space04** and the **inner courtyard**, allowing a view of Esther Stocker's **mural, No. 19.**'
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is like finding your way without a compass. The fact that this exploratory procedure frequently results in iconic museum buildings is not only due to contexts of economic exploitation or digitalised and globalised design processes, but also to the museum itself – it provides a platform for social, cultural, aesthetic and scientific discussion, a platform that seems to have been lost to architecture as a discipline.

Museum architecture as an experiment

The museum is a place of discourse that generally works in close cooperation with certain scientific disciplines. Art museums – whether they are contemporary, modern or dedicated to the Old Masters – usually recruit their personnel from the field of art history. The catalogues of their exhibitions thus obey scientific standards, even in cases where the target audience is not only made up of specialists. Technology museums are often run by engineers and technology historians. Museums of natural history and their specimens still serve as scientific research facilities. Even history museums not only organise exhibitions, but also carry out research according to the standards of their (specialised) discipline. Even if the museum cannot be defined solely by its rational/scientific frame of reference, it is a characteristic that museums all over the world have in common. Museums are places that offer the possibility of addressing various scientific views of the world – or at least this is the aspiration on which they are based. Since the Enlightenment, scientific research has been the view that defines the world. The museum progressed from the Chamber of Art and Curiosities in the Renaissance period to become an independent scientific institution during the course of the Enlightenment. Once this transformation was complete, it became a building task of its own.

Far more significant than this development – which was also reflected in museum architecture – was the fact that, with the increasing scientificisation of the world and differentiation between academic disciplines in the 18th and 19th centuries, the importance of philosophical epistemology was called into question. The German philosopher Jürgen Habermas states that epistemology dissolved with the specialisation of the sciences into the theory of science and the methodology of individual disciplines.³⁹ From now on, epistemology was the teaching of how sociology or astrophysics, palaeontology or entomology, experiments, researches and generates new knowledge. But Habermas is critical of the advance of scientism, in which knowledge of the world can only be gained through the findings of special scientific disciplines, and in which Kant's question 'What can I know?' is only seen as a question for individual disciplines. Scientism replaced philosophical epistemology (which for a long time had hardly been separable from theological epistemology), which until then had been a guiding force in the exploration of the conditions of human perception and knowledge. What is recognisable, what is not, and in what way, was now limited to the self-reflection of each individual specialist field and its specific methodology. According to Habermas, the unique characteristic of philosophy – the fact that it addresses the conditions of knowledge in a way that encompasses all areas of human life – seemed to be disappearing.⁴⁰



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Space04 with a view of Esther Stocker's mural Nr. 19

This development was quite problematic for architecture, as its methodology was not particularly well developed.⁴¹ This is partly due to the modern self-conception of the subject, which does not necessarily see itself as a researching science.⁴² Architecture was once understood as a universal discipline that sought methodological inspiration from its neighbouring disciplines (essentially philosophy, but also sociology, engineering, physics, etc.), but the more it concentrates on its technical skills and practical competence, the more its capacity for theoretical and methodological self-reflection declines.

Highly complex in terms of content and function, the museum, as a poorly defined construction task, shakes up the realm of architecture with its recent lack of theory and methodology and digital upgrading. At the same time, architecture, with its practice-oriented design approach, its ability to reduce complexity through visualisation and its radically subject-alienated external perspective, shakes up the spatial and institutional reflective competence of the museum, which is often non-existent or far too entrenched. Due to this starting position, recent museum architecture must be seen on many levels as an experiment that can give rise to heated controversy both before and during the planning period, as well as after completion.

The Kunsthaus Graz, this 'calculated uncertainty',⁴³ is a good example of this. As the embodiment of a historical architectural utopia (Archigram), it not only explored the relationship between theory/utopia and practice in a new way; the approach to the UNESCO World Cultural Heritage site in the old town of Graz also had experimental characteristics. For the interior, the description 'anti-white cube' is rather an understatement. The exhibition space certainly poses a challenge to the curators' experimental creativity.

The Guggenheim museums in New York, Bilbao and Abu Dhabi are also examples of the source of friction that architecture can become for a museum, and conversely, the museum can become for architecture. The ramp at the New York museum creates new perspectives on the connection between art and space. The museum in Bilbao is the first serious attempt to create a new business model in the cultural field; additionally it provides spaces with dimensions that can accommodate large sculptures, which could otherwise only be exhibited outdoors. The branch in Abu Dhabi, on the other hand, broadens the experimental expansion approach to a region that has no museum tradition.

The experimental aspect of iconic museum architecture is not only limited to art museums, as the example of the Mercedes-Benz Museum in Stuttgart reveals. Its underlying double-helix structure not only broke new ground in terms of construction and statics, but the way in which it interweaves museum storytelling and architecture was unprecedented. The Musée du Quai Branly in Paris is another example that created something new through its special combination of architecture and the approach to exhibits, which influenced museum discourse on a permanent basis. The Ruhr Museum of Cultural History in Essen, on the other hand, rebalanced the relationship between monument protection, the presentation of exhibits and structural change through the conversion of a disused colliery building, featuring Rem Koolhaas' iconic luminous



In the exhibition **Bonheur automatique**, Hanspeter Hofmann explored the question of how quasi-mechanical intersections between humans and their surroundings can be used creatively. To this end, Hofmann operated a week-long print shop in **Space04** – which is usually reserved for events. Every day, new information and new images were integrated into the work process and superimposed on a pre-produced graphic using a printing press on location.

Hofmann applied the resulting images to the walls of the room, so creating a constantly evolving process of artistic entrenchment and intergrowth with daily realities, and at the same time addressing fundamental questions about the generic distribution of artistic work categories between print-making, painting, performance or installation.

Hanspeter Hofmann. Bonheur automatique

escalator as its point of access. New architecture often leads to a process of museological rethinking that no temporary exhibition or reorientation of a permanent exhibition could ever achieve.

Conversely, for architecture this means that it can scarcely avoid clear statements and critical debates regarding the museum, even though it no longer has a systematic and theory-building influence in other areas, such as critical discourse on living and working, urban coexistence, learning or health and safety. Even though the client's interest in profit and securing the next contract may generally have more impact on an office's design than the nature of the building task at hand, the museum is dissociated from such considerations in spite of the logics of enrichment, especially since it remains a rare building task despite the museum boom. We can therefore assume that explorative and experimental approaches can be found in every iconic museum building (project), which in its turn allows conclusions to be drawn on both the social position of the institution of the museum and the status quo of architecture.

The museum offers spaces for analysing our perception of the world. As an institution of knowledge, the museum is a mediator of and between world views, a space where encounters between different views can take place. It invites us to pause, to take a critical stance. Accordingly, the construction of this space must address the question of what constitutes the conditions of our perception. Iconic architecture seems to be a perfect partner for this. The extent to which architecture affects the epistemic processes in the museum, and thus contributes to associated subjects, remains to be investigated. What is certain, however, is that the connection between architecture and knowledge can be analysed precisely on the basis of the source of friction the museum provides for architecture.



In the dance performance **ONÍRICA**, Marta Navaridas created a physically intense and visually compelling play between three performers, in which emotional and physical states manifested themselves as live sketches.

The dancers moved within a choreographically and spatially defined frame that had been installed in the event space, continuously painting the walls, floor and ceiling with blue Edding crayon.

ONÍRICA. A dance installation by Marta Navaridas

- 1 The museum is a comparatively recent building task. If we assume that independence, accessibility to the public and purpose are the fundamental criteria for the building task of the museum, the Dulwich Picture Gallery (built in 1817 by Sir John Soane in south London for two private collectors who donated the museum to Dulwich College) was the first museum ever. The Fridericianum in Kassel (1776) is often claimed to be the first museum building (e.g. Maximiliane Mohl: *Das Museum Fridericianum in Kassel: Museumsarchitektur, Sammlungspräsentation und Bildungsprogramm im Zeitalter der Aufklärung*, Heidelberg 2020, 99–100), but its public character is doubtful. The owner, Landgrave Friedrich II, was able to use the museum as his private study without being disturbed by the public at any time. Although it had an outside entrance, like the Düsseldorf Picture Gallery (1714) before it, public access depended on the goodwill of the ruler.
- 2 'A specter is haunting the global village – the specter of the iconic building. In the last ten years a new type of architecture has emerged. Driven by social forces, the demand for instant fame and economic growth, the expressive landmark has challenged the previous tradition of the architectural monument. In the past, important public buildings, such as the cathedral and the city hall, expressed shared meaning and conveyed it through well-known conventions.' (Charles Jencks, *The Iconic Building. The Power of Enigma*. London 2005, p. 7). The term 'signature architecture' is related to iconic architecture, but is used in more of a pejorative way.
- 3 Loc. cit.
- 4 On the meaning of metaphor for (iconic) literature, see the contribution by Sophia Walk in this volume. p. 219.
- 5 The association between emotion and iconic architecture is made by Anselm Wagner, who considers it to be inseparable from what is reported about this architecture: 'which emotions a popular *iconic building* [can trigger], which uses all the means of (neo-) romantic staging and also has an accompanying media echo'. (Anselm Wagner, 'Architektur und Emotion. Eine Skizze', in: *Archimaera*, 8/2019, pp. 9–32).
- 6 This also applies to other kinds of exhibits, of course, even if some of the economic structures are different here. An Eames chair in a museum of applied art always has an advertising and thus a value-enhancing effect, even if the chair on display is not subject to capitalist exploitation. Before its museum career, an archaeological exhibit is most likely to have been traded on the antiques market, which is similar to the contemporary art market, although it is dominated by other actors and areas of knowledge. See also the *Rubbish Theory* by Michael Thompson, particularly the performative elements that play a role in the cycle of value being attributed to things (Michael Thompson, *Rubbish Theory. The Creation and Destruction of Value*, London 2017, p. 113).
- 7 See Umberto Eco, *Einführung in die Semiotik*, Munich 2002 [1968], p. 300.
- 8 See Pablo von Frankenberg, *Die Internationalisierung der Museumsarchitektur. Voraussetzungen, Strukturen, Tendenzen*. Berlin 2013, pp. 1–2.
- 9 An example of such an exception would be the Danish Architecture Centre in Copenhagen, which houses a museum as well as fulfilling other functions. The briefing for the entire building was drafted in cooperation with the team of architects from OMA, which then served as a binding and accepted basis for the planning and construction process that followed.
- 10 See Frankenberg, 2013 (as in note 8), pp. 116–120.
- 11 See Frankenberg, 2013 (s. note 8), p. 244.
- 12 The structural conditions of this principle were examined by Pierre Bourdieu and Alain Darbel in the pre-Internet era. The results of this empirical study can also be seen as a basis for understanding the mass posting of museum buildings and works of art on Instagram and similar platforms. *The Love of Art: European Art Museums and their Public*. Palo Alto 1991.
- 13 See Gunnar Eliasson: *Advanced Public Procurement as Industrial Policy: The Aircraft Industry as a Technical University*, New York 2010, p. 221; Nikola Marinčić, *Computational Models in Architecture*, Basel 2019, pp. 98–99; Timothy Lenoir, Casey Alt, 'Ströme, Prozesse, Falten. Überlagerungen zwischen Bioinformatik und zeitgenössischer Architektur', in: Henning Schmidgen, Peter Geimer, Sven Dierig (eds.), *Kultur im Experiment*, Berlin 2004, pp. 37–81, here: 59–62.
- The museum's website still proudly mentions this innovative technology transfer: www.guggenheim-bilbao.eus/en/the-building/the-construction (17.03.2020).
- 14 Luc Boltanski, Arnaud Esquerre, *Bereicherung. Eine Kritik der Ware*, Berlin 2018, p. 15.
- 15 Loc. cit., p. 16.
- 16 Loc. cit., p. 85, see also www.monopol-magazin.de/arles-maja-hoffmann?slide=2 (18.03.2020).
- 17 Leslie Sklair, 'Iconic Architecture and the Culture-Ideology of Consumerism', in: *Theory, Culture & Society*, 27 (5), 2010, pp. 135–159, here: 155.
- 18 See e.g. the role of the museum in the creation of public spaces in the Arabian Gulf, Frankenberg, 2013 (see note 8, pp. 127).
- 19 It is difficult to gauge the value of such a landmark. An internal analysis by Daimler AG (formerly DaimlerChrysler) shows that it greatly exceeds the costs of building the museum. The company offset the coverage of the Mercedes-Benz Museum by UNStudio against the advertising costs that would have been due for the same amount of space in similar media. According to this calculation, the construction costs had paid for themselves in just a few years. The Guggenheim Museum Bilbao is also extremely conscious of its value. When the Bilbao-based Italian artist Fausto Grossi made pasta in the shape of Gehry's building, he immediately received a letter from the museum's lawyers: 'cease production of the noodle or prepare to be sued', see Andrea Fraser, 'Isn't This a Wonderful Place?'



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'The bookshelf, designed by Vito Acconci for the Walther König bookshop on the occasion of documenta IX in 1992, establishes a connection here in Graz with the Murinsel, which Acconci also designed. The shelf opened up a place in the building that was not visible to the visitor in this form before.'

Claus Sondergelt, shop manager

(A Tour of a Tour of the Guggenheim Bilbao)', in: Alexander Alberro (ed.), *Museum Highlights: The Writings of Andrea Fraser*, Cambridge 2005, pp. 233–260, here: 244. The market value of museum architecture is thus considered to be higher than the artistic value of macaroni.

- 20 E.g. in China and in the Arabian Gulf, see Frankenberg, 2013 (see note 8).
- 21 'Architecture in its ambitious form no longer builds anything but monsters, in that they no longer testify to the integrity of a town, but to its disintegration; not to its organic nature, but to its disorganisation. They do not give rhythm to the town and its exchanges, they are dumped on it like space debris fallen from some unknown disaster.' (Jean Baudrillard, 'The Indifference of Space', in: Francesco Proto (ed.), *Mass, Identity, Architecture. Architectural Writings of Jean Baudrillard*, West Sussex 2006, pp. 71–80, here: 77).
- 22 A remark made by Chinese President Xi Jinping at an official symposium on art and literature in 2014, which became a directive of the Chinese government in 2016 (www.nytimes.com/2016/02/23/world/asia/china-weird-architecture.html, 18.02.2020).
- 23 Ulrich Beck, *Was ist Globalisierung? Irrtümer des Globalismus – Antworten auf Globalisierung*, Frankfurt/Main 1997, p. 87.
- 24 An interesting side note here is that more and more property magnates make up the board of trustees of the Guggenheim Foundation

www.nytimes.com/2005/04/27/arts/design/a-museum-visionary-envisions-more.html (03.03.2020).

- 25 Hans-Joachim Dahms et al., 'Neuer Pragmatismus in der Architektur', in: *Arch+*, 156/2001, p. 26. The entire issue 156 of *Arch+* is dedicated to an attempt to establish the extent to which (mainly American) philosophical pragmatism could provide guidelines for a new theory of architecture.
- 26 Rem Koolhaas, 'Preservation Is Overtaking Us', in: Jordan Carver (ed.), *GSAPP Transcripts*, New York 2014. Quoted from the online version: www.arch.columbia.edu/books/reader/6-preservation-is-overtaking-us (20.02.2020).
- 27 E.g. Patrick Schumacher, 'Parametricism. A New Global Style for Architecture and Urban Design', in: *AD Architectural Design*, Vol. 79/4, 2009, pp. 14–23. A good example is also provided by Lenoir/Alt, who in their essay identify Peter Eisenman as one of the few architects who used CAD at the turn of the 21st century not only as a tool, but to newly define architecture. At the same time, the following sentence reveals how little this approach relies on a theoretical foundation or contributes to creating one: 'In contrast to his previous works, in which he was inspired by the works of Derrida, Eisenman was now disillusioned with deconstructivism and turned to Deleuze for interesting approaches to his own work.' (Timothy Lenoir, Casey Alt, 'Ströme, Prozesse, Falten. Überlagerungen zwischen Bioinformatik und zeitgenössischer Architektur',

in: Henning Schmidgen, Peter Geimer, Sven Dierig (eds.), *Kultur im Experiment*, Berlin 2004, pp. 37–81, here: 65). In this view, architects instrumentalise philosophical works as a source of inspiration that changes periodically, and not as a means of founding their own theories, which in this case unfortunately also applies to the attempted theorisation of CAD.

- 28 'If architecture loses the idea of representation, how will buildings acquire meaning?' (David Ross Scheer, *The Death of Drawing: Architecture in the Age of Simulation*, London/New York 2014, p. 13) This fatalistic question does not arise as long as tools and theory are not confused.
- 29 Jeremy Till suggests that the problem of technical determinism in architecture probably already begins with the training of the architectural profession (cf. Jeremy Till, *Architecture Depends*, Cambridge/London 2009, p. 15).
- 30 See also Pablo von Frankenberg, 'Architecture as Science: Add on or Autonomous', in: Juan Almarza Anwandter et al (ed.), *Vom Suffix zur Agenda. Forum Architekturwissenschaft*, Berlin 2020.
- 31 The complex shape of the building was modelled using Rhinoceros 3D und Microstation, and the detailed design was then produced with the help of AutoCAD.
- 32 The longer planning and construction time of the Guggenheim Museum New York was due to a series of factors including the end of the Second World War and the inflation that followed in America, the death of the patron and

conflicts between the initiator Hilla v. Rebay and the descendants of Solomon R. Guggenheim. Nevertheless, even a layman can imagine what a challenge the manual calculation of the building was, which would have been far easier to handle as a computer model, especially in its execution. Nowadays, this possibility makes planners and builders far less afraid of exalted forms. A computer-aided simulation of the structure also makes it easier not only to present the building in the design stages, but also to directly visualise every smallest change on the way to completion.

- 33 See Anke te Heesen, Mario Schulze, Vincent Dold (eds.), *Museumskrise und Ausstellungserfolg. Die Entwicklung der Geschichtsausstellung in den Siebzigern*, Berlin 2015.
- 34 '[...] in the 1970s in the United Kingdom, a new museum opened every second week' (Allan Hepburn, *Enchanted Objects: Visual Art in Contemporary Fiction*, Toronto/Buffalo, London 2010).
- 35 This was at least the aim of Philip Coombs, the first American Secretary of State for Education and Culture under J. F. Kennedy, see Philip H. Coombs, *The World Educational Crisis: A Systems Analysis*, Oxford 1968.
- 36 Shashi Misiura, *Heritage Marketing*, Oxford 2006, pp. 3–5.
- 37 Which means, according to Ulrich Beck, that all social classes go up a level, although this had a different meaning for each different class and tended to promote social individualisation.



Photo by Georg Weinseiss

(Ulrich Beck, *Risikogesellschaft. Auf dem Weg in eine andere Moderne*, Frankfurt/Main 1986, p. 122). It is not surprising that history exhibitions were in vogue again during this period of social change. The achievement status attached to visiting a museum is connected with the search for one's own roots, especially in the case of a Prussian exhibition in Berlin or a Staufer exhibition in Stuttgart.

38 Vittorio M. Lampugnani, 'Die Architektur der Kunst. Zu den Museen der neunziger Jahre', in: Vittorio M. Lampugnani, Angeli Sachs (eds.), *Museen für ein neues Jahrtausend: Ideen, Projekte, Bauten*, München, London, New York 1999, pp. 11–14, here: 14.

39 See Jürgen Habermas, *Erkenntnis und Interesse*, Frankfurt/Main 1968.

40 See also Jürgen Habermas, *Auch eine Geschichte der Philosophie. Vol 1: Die okzidentale Konstellation von Glauben und Wissen*, Berlin 2019. Here Habermas pursues the question of what the task of philosophy consists of if, by specialising in the sciences, it wishes to avoid becoming a service provider for the cognitive sciences or a mere administrator of its own history.

41 See also Georg Franck, '„Die Architektur: eine Wissenschaft?“, in: *Der Architekt*, 1/2009, pp. 28–35. 'Eine Wissenschaft im Sinne der Wissenschaftstheorie ist die Architektur gewiss nicht', Franck writes here (p. 28) and takes this statement as his starting point for a differentiated consideration of the scientific ambitions of architecture.

42 This is revealed not least in the fact that it has been possible for a 'network of architectural studies' to develop between several German universities, which is certainly willing to understand 'architectural studies' as an independent discipline alongside architecture. See also Juan Almarza Anwandter et al. (ed.), *Vom Suffix zur Agenda. Forum Architekturwissenschaft*, Berlin 2020).

43 Cedric Price, blurb, in: Peter Cook, Colin Fournier, Dieter Bogner (eds.), *Friendly Alien. Kunsthaus Graz*, Ostfildern 2004.