Hans Scharoun, Marl School, Marl, Germany, 1979; renovation by Pfeiffer Ellermann Preckel Architects (completion 2017). © Ana Tostões, 2017.

ANA TOSTÕES

Chair of **docomomo** International

100 years back, 100 years forward

The theme of this ***docomomo*** *Journal* is that reuse is a key for both a sustainable future and for education. This issue also celebrates the Bauhaus centenary (1919–2019) and tackles the physical and ideological legacy of the German school while confronting it with the challenges we face today and the role that education might play in this fight to value Modern Movement architecture and to pursuit its longevity.

The Bauhaus had a pioneering influence on design worldwide which still endures today; through education, experimentation and materialization, a revolution took place in architecture, urbanism and design for mass production. In 1918, during the immediate post-war period, Walter Gropius (1883–1969) achieved a fusion between the *Kunstgewerbeschule* and the *Hochschule fur Bildende Kunst* in Weimar, with the creation of an interdisciplinary school of design and crafts. In April 1919, he was elected director of the school which was by then called the *Staatliches Bauhaus*. He also published the *Bauhaus Manifesto*, which remains as a pioneering moment in history, with irreversible consequences at a global scale. The Bauhaus as a school, as a method of experimentation, education, and research, embodies the idea of science applied in service of the society. At the Bauhaus, utopia was combined with pragmatism, agitation and propaganda with public service, poetry with utility, *Neue Sachlichkeit* with creation and freedom. Its premises continue to be relevant today with the great issues of sustainability and democracy needing to be addressed through art and technology.

Aware of these concerns, the *14th International* ***docomomo*** *Conference*, held in Lisbon in 2016 under the theme "Adaptive Reuse", summoned up the pertinence and urgency of education for reuse as the key for a sustainable future, recalling the Seoul-Eindhoven statement updating the **docomomo** constitution with the concept of reuse. Within this scope of education, an Agreement of Collaboration was signed between **docomomo** International and the J. Paul Getty Trust (operating as the Getty Conservation Institute) with the aim of developing a report on the worldwide offer of educational programs and training courses on modern heritage conservation.

Additionally, **docomomo** joined several universities across Europe in the research project RMB — Reuse of Modernist Buildings — coordinated by Michel Melenhorst (Technische Hochschule Ostwestfalen-Lippe OWL *University of Applied Sciences and Arts*), who acts as well as guest-editor of this ***docomomo*** *Journal*. The RMB consortium looked into the current paradigm of architectural education focused on 20th century architecture in order to develop a Master's program that could bridge and enrich the growing field of rehabilitation and reuse.

I wish to thank Michel Melenhorst who accepted the challenge to work as guest editor of this "Education for Reuse" issue. His commitment and perseverance were shared by the authors' who collaborated generously with their knowledge and dedicated work. A large variety of approaches and points of view are presented, showing the cross-fertilization of subjects that education and reuse of Modern Movement architecture raises, worldwide: from Brazil to the Netherlands, Israel to Germany, USA to Switzerland.

Barry Bergdoll's essay, which illustrates the backstage and preparation of the 1938 exhibition *Bauhaus 1919-1928* at the Museum of Modern Art in New York, allows us to analyze and understand how the main figures of the Bauhaus wished to present the school and its vision to the world. Jasmine Benyamin analyzes the educational program Gropius envisioned and developed at the Bauhaus, and the principles it ended up passing on to its students and followers. The impact of his ideas on theory and education, aiming for the unity of all arts, would take over the historiography of architecture, design and urbanism and still lingers to this day. Marina Epstein-Pliouchtch and Talia Abramovich elaborate on the demystification of Tel'Aviv as the mythical White City, presenting the real effect the Bauhaus had on the city. The Documentation Issue chapter presents an inspiring essay by Dietrich Neumann who generously shares with **docomomo** his recent research on the beginnings of the Bauhaus.

Other contributions document reuse projects whose main goal was to create new lives in architectural structures or public spaces, such as Renato Anelli's essay on SESC Pompeia (Lina Bo Bardi, 1961) in São Paulo or Vincent Ligtelijn's essay on the Amsterdam Playgrounds (Van Eyck, 1940's), contributing to the debate on sustainability. In a thoughtful pause, Robert Huber's essay allows one to reflect on architecture production talking about the different forces that could be involved in a process of preservation and how to find the balance between them while presenting the *bauhaus reuse* project. The topic of education for the reuse of buildings is deepened through the best practices reports on education conducted in two leading European architectural schools: EPFL by Franz Graf and TUDelft by Nicholas Clarke, Hielkje Zijlstra and Wessel De Jonge.

Finally, ***docomomo*** *Journal* is grateful to David Chipperfield and Wiel Arets for having provided the basis for two fruitful discussions on modernity and modern heritage, economy and sustainability, addressing the social mission and the responsibility of architects towards the future.

Wiel Arets

On the 27th August 2019, at his Amsterdam office, DJ (Ana Tostões, editor, and Michel Melenhorst, guest editor) interviewed Wiel Arets, an internationally renowned architect, and the founder of Wiel Arets Architects (1983). He has since taught at several universities worldwide, having also been Dean of the Berlage Institute in Rotterdam (1995–2001) and Dean of the College of Architecture (CoA) at the Illinois Institute of Technology (IIT) in Chicago (2012–2017).

DJ In **docomomo** we are concerned with how to use existing buildings, sites, and neighborhoods, but we also believe that the Modern Movement's ideals remain inspiring for our future. In this perspective, we much admire your work. In your career there are several times when you touch, redo and even demolish a building, and every time there seems to be a different approach. Would you agree with that, or would you say you had the same attitude towards the Antwerp Tower (2017–) and the Glaspaleis (1998–2004), both refurbishment projects that are quite different from one another. So, perhaps you can take us on a tour from the late-1980s, like the Beltgens Fashion Shop in Maastricht you intervened on, to the projects you are working on now, and how you have changed in your own attitude, approach, and design strategies.

WA I'll start with when I was born; my background. I was born in Heerlen. It was a miner's town. So, what I've learned from the Heerlen mining was that as they started to explore for coal, the city grew, in 25 years, into one of the most important cities in the Netherlands. Heerlen became a very entrepreneurial city where they were focused on how to mine and take advantage of the latest technologies in order to develop a new society at the end of the 20th century. In Heerlen, there were three different countries represented in the mines. You could see mines built by Dutch engineers, some by French engineers, and some by German engineers. They were built in concrete, steel, brick, and you could see the landscape they created, above ground. By now the city had neighborhoods with 7-, 8-, 9,000 people, but below them, the miners and engineers had created a network underground, which is incredible. For me, this has to do with building a society, bringing people with a certain attitude to the same place — a multicultural society. There were people from Poland, from Morocco, from Turkey, and from Amsterdam.

When I was younger, I wanted to study physics, not architecture. I wanted to become a physicist and I very much enjoyed topics concerning the mind as well as sports. There was this Dutch magazine called *Kijk*, which means to "look", that had all the newest and latest scientific developments and debates, which I was very interested in. So, once in *Kijk,* there was an article about a mountain, and someone wrote, "Here is a human being and, as a human being, you can walk through that mountain without there being any hole in it". He believed we all are in a certain frequency; "There's a frequency A, a frequency B... And the only thing you need to do is to sync into the right frequency, and you would be able to walk through the mountain without making a hole", and that certainly caught my attention.

For me there were two main aspects of my life, which start here. There is the *ziel* (soul), and the mind; body, and soul. And *ziel* is something you can't define. For me this is extremely important. When we talk about periods such as the Renaissance, the Baroque, Gothic, until the Modern Movement, and today; I still believe that we, intrinsically, talk about these two ideas, of body and soul. For example, before the machine age, there's the mind and the body; god and soul. There's the idea that we won't die, the soul will always be alive, only the body dies. Then in the 20th century we get the machine. The machine makes the statement "god is dead", now the machine doesn't die, the machine can repeat, and "live" on.

Now to answer your question, about my start in architecture... In 1977 I started to study, graduating in 1983. On the 23rd of June I got my diploma from the Technical University of Eindhoven and on the 24th I went to Japan. Every year I undertook an intense trip which I always prepared months in advance, with a lot of literature and much writing. I traveled to Italy, to Paris to study Le Corbusier (1887–1965), and as a 2nd year student, in 1979, I traveled to Russia to see all the Konstantin Melnikov (1890–1974) projects. Before I visited Japan, I prepared for the trip. I wanted to go to Japan to understand who Kazuo Shinohara (1925–2006) was; who Tadao Ando (1941–) was, who Fumihiko Maki (1928–) was. These three were extremely important for me and also three completely different architects. So, I went to Japan and spent about five weeks there. There were two more important trips for me in this period. One was Mexico, which was important for Luis Barragán (1902–1988) and the local 19th and 20th century architecture, as well as for the cultures of the Aztecs, Toltecs, and Olmecs.

The other extremely important moment is when I first discovered Malaparte (1898–1957), the man and the villa. I discovered Malaparte's writings, *Casa come me*, the house as

the story of his life; the Jean-Luc Godard's film "Le Mépris" (1963). I stayed at Villa Malaparte a bit after I started to teach at the Architectural Association School (AA) in 1987. I stayed 10 days there with students from a Masters Unit I was teaching, we were the first ones to visit the house after Jean-Luc Godard (1930–).

Italy for me marked the beginning of all the Classics, such as Cesare Cattaneo's *Giovanni e Giuseppe dialoghi di Architettura*[1] which is similar to Plato's *Politeia*. It is a conversation between the layman and the architects. These are extremely important to me as they are the basis of all the projects that we do; the establishment of a dialogue with the client, with people in the streets, with students, with philosophers;
I always want this debate, this dialogue.

But back to the work... It's always difficult to say which was my first project as there is always some project I never remember. I wanted to create and make, but making for me has to do with creating stories; creating something new; trying to let people go into a different frequency; to pass through *that* mountain I mentioned. Now back to the first project; let's talk about that shop.

DJ The Beltgens Fashion Shop, in Maastricht (1987), which is a re-use project...

WA We built the shop for 18,000 guilders at that time (Dutch guilder, which currently corresponds to 8,168.05 euro), which was an incredibly little amount of money. I never start a project thinking about the money. If we can build it for a certain amount, we do it with that amount. What is important is that I went there and met the owner of the shop and in that meeting we sketched a drawing. I told the client to buy a big piece of Corten Steel and to make the façade with that. There was not enough space for everything in the ground floor so we put the storage area on the floor above, connected to the shopping area by a staircase, giving them a big shop and making the act of getting the clothes from upstairs an event. Since they added the shopfront their sales suddenly tripled.

DJ The spiral staircase of the shop is like a mineshaft. What is interesting here, is that you do something that is not expected. For example, the shop window is very low and the door is elegantly rewarding us with a view between the street and the courtyard.

WA This was an existing building into which we inserted the façade, thus making a new structure. We deliberately lowered the height of the window in the façade to 1,60 m. I went outside the shop with the owner, and we marked it with tape.

So, what I'm trying to say is; Malaparte made his fireplace with glass. He did things because he believed in them. What I learned from him is that, as architects, we have to rewrite the program for our client.

When IIT asked me to consider being Dean, I thought, "I do not want this responsibility", you know. I'd been Dean of the Berlage Institute; that was for me an extremely successful moment in my life. Being part of the AA, the Berlage, Columbia, and Cooper Union was great. I also taught for a year with John Hedjuk (1929–2000), so why should I go do this in Chicago? My ambition was quite simple: Mies van der Rohe (1886–1969) made S. R. Crown Hall and Lake Shore Drive and he was extremely important for Chicago. Much the same as Frits Peutz (1896–1974) was for my hometown Heerlen. He was an architect who was, during the mining era, able to help Heerlen become something new. I wanted to be part of that legacy, of both, by combining my own experiences in Heerlen, with Chicago.

DJ Returning to the issue of body and soul, I think you use it differently from how it is commonly used in heritage – how one relates to a building – there's a completely different notion of what is important; what is essence; what is substance; what is body and what is soul.

WA Hendrik Petrus Berlage (1856–1934), as an architect, was responsible for this whole area of Amsterdam where we are now having this conversation, but he was also the one who elevated the soul in architecture. Soul is something Marcel Duchamp (1887–1968) talks about as being *energeai* — the energy something has. Buildings change and always have a body but sometimes their soul becomes decreased with time. We see this in the work of Adolf Loos (1870–1933); no one is talking about him and his work anymore. So, it's lost a bit of its soul in recent years. Adolf Loos' work, many years ago, was an important body of art, which became loaded over the years with energy; which one could also call *soul*. And who is now talking about that? This is something we should understand when talking about the Modern Movement or the initial development of the Modern Movement, when Hendrik Berlage and so on were talking about Heinrich Wölfflin (1864–1945), Karl Hugo Schmölz (1917–1986), Sigfried Gideon (1888–1968), etc., who were more than art historians as they were philosophers; aesthetic philosophers. All the good architects understand this, or at least used to understand, because they were all reading.

As a first year student, I went into the office of Frits Peutz and found in his archive, not only material from his 560 projects, but I also found a library with a lot of architecture, a lot of literature, a lot of philosophy, and a lot about Egypt, Greece, and Rome.

Actually, I am working on a new book about Frits Peutz and I talk about these issues in it. *Ordenen* (order); because it is something you can't describe. It's the same with my concept of the *Un-Conscious-City* (Actar, 2019). You cannot walk into a city and say, "Ok here's the plan of a city and that's how you perceive the city". No, you perceive the city every single second, in a different way. And a good building, like a good piece of art, a good book, or a good movie, has the quality of something you can't describe. I would call it *the soul*. And, in my opinion, we have to be very careful with this concept. Because people nowadays just believe, they believe in the machine, they believe in the virtual, and they

believe in technology. Every moment that one believes in technology, one becomes lost. You have to make the technology; you have to develop the technology to understand it. It is one of our tools, but it can never replace what we call *the soul*. That's why, at least in my own opinion, we are, at this moment, in a time of a crisis.

DJ A soul crisis?

WA I think it is dangerous to talk about *the soul*, people easily confuse it with the Catholic use of the word. I wrote several articles while studying. One of my earlier articles, "Architecture Freedom" (1989), for example, is in a way saying, "rules and freedom go together; they need one another". I always believe in this. You know, that's why I believe in the idea of the dialogue; I believe in Ceasare Cattaneo's *Giovanni e Giuseppe*, which is a dialogue. For me, Ceasare Cattaneo's house in Cernobbio, is one of his best projects.

I believe in the first, but also the second and third, life of a building. A good building has the potential and possibility for a second life. Compare it to the concept for the Porsche 911; it was a sports car concept so successful that it still is the basis for all 911's and 75% of the Porsches ever made still roll. Whenever we do a new building in the office, we test for its afterlives during the design process. That way the work is open, yet flexible to future change. That's what sustainability means for me. Could a building that's an office become housing? Could housing become an office? Or a restaurant. Yesterday I had a long talk with my client in Antwerp, about the tower we are currently building there; it's called the Antwerp Tower, it is a reuse project, and we are extending it, vertically and horizontally. We are basically constructing a new tower around the existing one. It will be the third tallest building in the city when it's completed next year. The client told me that after they started to make a few decisions themselves during the construction, they again wanted to have the office's opinion and listen to us. That means very much to me that they trust me with my total design opinion for the tower, down to the smallest detail. They were curious about renting the tower to someone, and they wanted my opinion about what to do, and what to allow a renter to do to the building, if they chose to rent it. I asked them why they asked me and they replied that the idea of a renter didn't fit into the narrative I had created for them about the building. That's exactly what I appreciate about them. When we were designing the Utrecht University Library at De Uithof, we were told that the building could have no windows because of daylight, temperature and humidity. We said, we'll go ahead and make windows, because there are people inside. We told them that we could design it so that the humidity and temperature inside stays within a very small range, but we also told them that the building will change from day one. I hope that three times as many people that study there now, will study there in five years, well after the opening of the building. By making the emergency staircases 20 cm wider, which we did, we were allowed to have the building house three times as many people than it was originally supposed to shelter at any given moment. There are 4.2 million books in that library. The building has nine storeys in total, and there is one main staircase. People walk into the building and actually use the monumental staircase, instead of using the adjacent elevators. And they do so for the same reason that people climb stairs in cities; the views from them are interesting.

Such concepts are also present in a book about my life and work, titled *Wiel Arets: Autobiographical References.*[2] It was about the new map of the world, as I saw it. The actual title was, "A Wonderful World: A New Map of the World", but Irma Boom, the designer who created the book's fantastic design, thought that it was better titled as it is now. The book emanated from a studio that I had taught at Washington University in St. Louis, together with Robert McCarter (1955–). In a way, she was probably right, because the book is very personal, and deals with a lot of people, places, and things I reference very often. So, the new map of the world relates to the idea that travel is only comfortable for about 72-minutes. I've found through research that 72-minutes is the sort of the point of no return, when, for instance, commuting to school or to work. That's the extent of efficiency of movement. So, there's also a new map of the world, in the idea that travel will soon be so quick that the world's continents will be accessible in 72-minutes, and then the whole idea of the world shrinks, because getting anywhere is, almost always possible in 72-minutes. One day; at least. So, there is travel by foot, water, car, plane, and train; each 72-minutes is different for everyone, based on their own mode of travel. So, for instance, in the program of the 72,000m² Allianz Headquarters we designed in Zürich, there is a staircase similar to that of the library we designed in Utrecht. When I sketch the map of the world, the one introduced in the book I just mentioned; the concept is basically the same as the organization of the library, as well as that of the Allianz Headquarters. The building is really its own world with its own map, and everything is organized around the 72-minute principle, but on a smaller scale. The concept of the new map of the world has to do with the body and the mind, and with the body and the soul. It all has to do with respect.

DJ How do you transfer your ideas when working with existing buildings? One always encounters loose ends and things that don't fit, namely the program seems to never be able to fit 100% into a building, making one realize a completely different result than was first anticipated.

WA When doing refurbishments or renovations, I always go back to the original drawings of the architect. I don't try to make the building perfect, because the imperfection is better than the perfect. Perfection can kill. In my opinion, it's about the identity and the soul, and the soul of someone can often be seen in their face. The moment you try to change anything, one is imbalanced. It's a very dangerous step to attempt to change one's face. In Japan, one is not allowed to show their tattoos in public. It's forbidden. In Japan, they think it's for the better. Tattoos are a kind of marketing. I don't think architecture is marketing.

Architecture has something to do with this body and soul; it has to do with body and mind. The Greeks understood this; the Egyptians understood; the Romans understood; and in the Renaissance they understood. One cannot force a soul; it has layers. It should have layers. For instance, when we designed De Nieuwe Liefde (2007–2011), a cultural center in Amsterdam, we set out to give the building a new life. We changed the interior but the exterior is the same. When first looking at the interior, I found a piece of marble inside, and this particular type of marble was in nearly all houses that were built in Amsterdam in the first decades of the 20th century. No one ever talks about marble in Amsterdam.

DJ It is very interesting how you managed to bring your architecture soul, I mean aspects you can find in many of your new constructions, to this project, combining it with the existing building.

WA If you go to the Borzo Gallery, the Borzo building has been there for ages. I met the architect of the 1932 intervention in the building, Alexander Bodon (1906-1993). He might have been 80 years old when I met him and we had a jury for a new museum extension in Haarlem. I said to our client that I wanted to look at the building through the eyes of what it was before, with the eyes of Alexander Bodon and with what you want I mind. I don't want someone to say, "That's a building by Wiel Arets". I want them to say that it is a building by Alexander Bodon and me. It is the same when we do a new building. It's the same with the B' Tower building we did in Rotterdam, directly adjacent to the Marcel Breuer (1902-1981) building, he had even made sketches for a tower next to his own building. So, it's not only about giving a building new life; one sets out to create a positive virus; an intervention into the skin of the city.

DJ But there is something interesting between this comparison between the Borzo Gallery and the De Nieuwe Liefde. With the Borzo Gallery you can see the original interior again, for the most part. But De Nieuwe Liefde has your own handwriting on its interior.

WA Anything one does, their signature will of course be on it. Bodon left his imprint on the space, and then, so did my office. We are now one of these layers in the building's soul. I didn't want to destroy everything and do something new. No, we stripped the building as much as we could back to its original state, and then looked for how we can put a new layer on top of it, to give the building a new life. Because, the building was, simply, not meant to be a gallery. If I had completely demolished the interior, the building would have been completely different. But I think I should have respect for all the different layers, and now there's the Borzo Gallery. We made some changes, we made a new life, but it is still essentially the same building, which is 500 years old.

DJ But you gave it a new life. You put energy into its own soul.

WA I gave it a new life, yes. But the soul *is* the energy. When one looks at a Rembrandt (1606–1669) painting there's energy to it. A lot of people think it's beautiful. But maybe it's not and it's just in a museum. Make sure to read Duchamp's discussion about the *energeia* of a work of art. For instance, with his snow shovel — *Prelude to a Broken Arm* (1915); the question is: why is it art? The object through its location becomes loaded with energy. You can always go out and buy a snow shovel, with the same materials, but the same energy is not there. The moment one sees a Rembrandt painting, people will experience it as having different amounts of energy. For some just seeing a picture of a painting on a postcard is enough to get them excited; for others it's the actual painting; for others, none of it matters. No difference. They just look and say, "it's beautiful", since they think that they're supposed to like it. That's the effect of marketing.

DJ Is that the theory of the *objet trouvé*?

WA Oh, yes. At the moment we are building two huge towers in Bahrain. They want a sort of icon, with glass around it, with air conditioning and everything. On the site we did something completely different. Bahrain has all this westernization at the moment. Big, big buildings that are all cooled with air conditioning. But it's not really possible for us to do there what is done for instance in America with buildings like skyscrapers, due to their climate. They have a culture that is thousands of years old. They're sophisticated. These cultures like Bahrain can't just be thought of as a *tabula rasa*. So, we first read their history; three months a year it's very warm, but during the others it's possible to be outside, and people lived outside during these months. So, after looking at their history, we made a proposal for a tower with *loggias* in each unit. And on top, there is an outdoor pool for men and women, one on each roof. The façade of each unit has adjustable louvers that can be individually moved, by each owner, depending on the time of the year, to regulate the heat. It's similar to how people in Bahrain used to live. So, it is important to always do research and get to know where one builds, and for whom one is building.

It's the same with the Jellyfish House, in Marbella. What is interesting about the Jellyfish House is that its design is based on an existing building, but one that is not on the site. This whole area has green hedges so that you pass by streets with hedges, two meters high, on both sides of the street, which shield the houses for privacy. It's a very hermetic neighborhood. So, the client wanted to buy a plot that had a house, which looked like a traditional building, and he wanted to be able to see the sea from the house because it was going to be his family's holiday house. However, from the existing house, it wasn't possible to see the sea. You didn't hear the sea, either. So, we found a ladder and put it against the house and climbed onto its roof. And then the neighbor saw us on the roof and, just asked what we were doing up there, and I said, "We're building a pool on top of the house"! The neighbors absolutely loved the idea. Then I told the clients to buy the property, and that we would build for them, a house with a pool on the roof so that

01 Wiel Arets Architects, Beltgens Fashion shop, Maastricht, the Netherlands, façade, 1986-1987. © Hélène Binet.

02 Frits Peutz, Glaspaleis, Heerlen, the Netherlands, 1935; restoration by Wiel Arets Architects, 1998-2004. © Jan Bitter.

03 Wiel Arets Architects, Borzo Gallery, Amsterdam, the Netherlands, façade, 2004-2006. © Jan Bitter.

04 Wiel Arets Architects, Borzo Gallery, Amsterdam, the Netherlands, interior of the gallery, 2004-2006. © Jan Bitter.

when vacationing with their family they could see and hear the sea from the rooftop. We understood that when there's an existing building, it gives us more inspiration and ideas, and because of that existing house, we had the idea for the new house.

When I'm sometimes critical of America, it's not that I'm negative about the country. It's very much interested in the new, and rebuilding. The character of its people is that they easily go from A to B and move from city to city. It's like a nomadic condition. They leave everything behind. While people in Spain or Italy have been there for millennia, and sometimes when one builds in these countries, there is evidence that emerges from thousands of years ago. Both are valid, there is no good or bad. The world, with all its citizens, has millions of species we call people, animals, plants. Just as Alexander von Humboldt (1769-1859) said: "We have to understand our ecosystem". We are part of it. Alexander von Humboldt had inklings that there was something to the idea of the thickness of the world, inside the Earth. What I like about him, is that he was trying to take sections of the world in his book, *Cosmos,*[3] and say whether it's Lima, or Tokyo, or Oslo; he wanted, and I want, to know what that ecosystem and each layer is. There is a balance, an equilibrium, when I change it, the ecosystem, it will change in other parts as well. I recently learned that there are anchovies in the North Sea from May to June, but then they swim to the Atlantic Ocean. I never knew that we had them here; it's the same with eels. They're migrating the whole year. What I'm saying; is that we think we know everything that there is to know these days, but we actually don't. Whether it's a building, or a room, or the world... we know so little.

DJ So, taking this idea of ecosystems, Amsterdam is nowadays a UNESCO heritage site, meaning that things that would naturally happen in its ecosystem, no longer do. Tourists are everywhere, coming to visit the UNESCO site of Amsterdam. If we think about it, Alexander Bodon would not have been able to build his shop today. How do you look at this, or do you consider it just another change to the system?

WA It's quite dangerous to talk about these types of topics in such interviews, due to the chance of misinterpretation. However, let me give it a try...

We have to respect people who are fighting for their beliefs, even if they differ from our own. What I understand is... In the long run, all of this will solve itself. We have tourists in Amsterdam, and tourists in Venice. So, we can be irritated about the idea that there are so few Venetians in Venice, and a disproportionate number of people who are tourists in the city. Some say that they're destroying the city, but you could also say that their presence is part of the deal of tourism. What's very dangerous; is to freeze cities. Freezing something means that it is dead. The moment that people say that they want to protect a city; great! But what are people protecting? Maybe we should protect the fact that there are changes. Life is always in motion... you can't freeze it nor protect it. I was once just a year old, then 25 and 40; and at all these moments in life, I reset my agenda every day; a fresh perspective. That's what a building, a room, an office and people should always do. So, if we freeze a city, it becomes the most boring place on Earth. It's like a museum that's not alive. For instance, we could go to the Dutch village of Volendam just outside of Amsterdam and see women sitting around in clothes that are 'traditional' in that they resemble 19th century Dutch clothing. We only believe that they look like women dressed from that time period, but these women have a different perception because they live in a different time.

This debate is a very difficult debate. They wanted to change Frits Peutz's Town Hall in Heerlen. As soon as I heard about it I went to the city council and I said "don't touch it, leave it". People want to change it because of new legislations and fire regulations. This building was built at a certain time, for a certain use, so perhaps you should reconsider the use and leave the building untouched. I've had this debate with the Borzo Gallery, with the Glaspaleis, and the S. R. Crown Hall in Chicago. At the Glaspaleis, the size of the original windows is bigger than the maximum size produced nowadays. Back then, the glass sheets were fixed in the window frames with a specific technique, called *stopverf* in Dutch. People used this method in the Netherlands until about 30 or 40 years ago. They wanted to change all of that, also because of regulations. I was the first one that said, "Let's keep this original glass in the Glaspaleis". This required using *stopverf* to rebuild them and it also makes it necessary for the windows to be checked every five years or so, but had we not used that material, the building would have surely been damaged.

But back to this debate about UNESCO. I think they are doing a great job. Perhaps, I don't have enough knowledge about what the organization is doing... But it's never just good or bad. The museum is great, as long as it's alive. In museums there are artifacts of previous generations; we keep them as they are. But the moment the artifacts are not connected to the young people, they die. They disappear.

DJ Turning now to the education that is being given to architecture students.

WA I don't believe in education. I believe in story telling. For 3,000 years we had no university. Before that one had to learn by doing and maybe there were better architects than ever at that time. Today the education system is divided into academic and vocational streams and we try to solve this division with the art and technical schools by bringing them into a new system. But we are actually more and more destroying the education system by trying to tell people that when they send their child to a school, and pay 25,000 euros or dollars, that that child will be a good architect. But that's of course not the case. It's simply not a ticket to heaven. Tadao Ando, Kazuo Shinohara, Mies van der Rohe and Le Corbusier were not educated as architects. I've always tried to fight the education system of which I was a part of from within, but in some schools,

like the AA, the students need to fight from within because the school was made for them to explore. Self-education is the only way; the moment you believe that you go and buy a diploma and your professor puts some marks on your work — no. People who make the world interesting are all self-educated people.

Please read *Nowness 1*, and *Nowness Files* (IITAC Press/ Actar, 2013/2019), which were produced during my time at the Illinois Institute of Technology's College of Architecture when I was Dean. The latter spells out the changes that were made under my leadership at the school. On one of my first days I thought, "I might quit", because, when I started, I understood just how big a responsibility the school was; where people believed in Mies van der Rohe, like a saint! The challenge of taking the deanship was to get everyone on board with the changes I wanted to make... Like the city having a biennale, starting a publishing department, making a larger campus plan. I think I was perhaps a bit too ambitious. But with the former Provost and now president Alan Cramb, and John Rowe; we were able to institute many changes. Steven Crown was also very helpful and clever. And the mayor, Rahm Emmanuel, was always supporting us. People literally told me that students of architecture no longer read; and so, we started to publish books as part of the activities I implemented in the school. And we invited so many people to give lectures and to participate in what we called "Cloud Studios". We innovated the curriculum and brought in new degree programs and an end of year exhibition. Failure was part of all this too. The moment one talks about failure, people start getting nervous. Without failure as a philosophical strategy, there is no success. Education systems are, for me, more about the freedom to explore one's own interests within the educational framework; a sort of self-training.

When I taught in Denmark, I told the students there that what we'll do is to go out into the world and come back to the studio in one hour with a book. Some asked which book and I said, whatever you want to bring back. They came back proud of their books. After a week, there was a presentation of the main assignment. Some built models very high and very heavy. I said that each of their models should come to a certain height, but that the models were, also, not allowed to touch the room. Then I said, "see you tomorrow at the opening!". They weren't shocked because they'd been working with me for a week. One student quit after a week because he didn't know what to do. His was the best project at the end. He made a series of hinges, which then became a bridge, and each had a camera lens in it... What was it? The assignment was to make a positive virus for Manhattan... but he still quit, because he expected to come to the school to fill a design brief. I like to make people be aware of what they are doing. Of course, I asked them about the books they chose, and all that. But I wanted them to be conscious of the subconscious choices that they had made, unconsciously.

DJ It seems that you take each student seriously upon their arrival in a school; you just tend to show a different technique than most of the other professors to get them to understand that they are already equipped. It's a sort of self-education but also creating the right circumstances for students: by inviting guests, producing books, encouraging them to explore... Often the students are not taken seriously.

WA People are so quick to label people and situations. You're an architect or an engineer; or you are *this*, or you're *that*. The moment one is able to understand UNESCO, education institutions, etc.; they are all, porous, and they breathe. If a client wants a building from you, they think that they come to you with the statement that they don't know what to do. So, you have to ask them questions and find out what they want to do. I also have to believe that I am willing to learn from the situation, if I choose to work with them. That's why I very much like Paul Valery's *Cahiers*.[4] They are evidence of the permanent exercise that he did every day, which was to just wake up and begin writing–a sort of free writing. Every day he reset his agenda and started with a blank slate. I live my own life, much in the same way. As I've told my children from day one; every day for me is a reset. I wake up and I see a new day and I have to do something. It could be designing a spoon, or it could be to build a kettle, or build a school — one must continually strive to develop something.

Notes

1 C. Cattaneo, *Giovanni e Giuseppe. Dialoghi d'Architettura*, Milano, Libreria Artistica Salto, 1941 [New edition Milano, Jaca Book, 1993].
2 Wiel Arets in Robert McCarter (Ed.), *Wiel Arets: Autobiographical References*, Birkhäuser, Basel, 2012.
3 COSMOS: *A Sketch of the Physical Description of the Universe*, Vol. 1, Translated by E. C. Otte on Project Gutenberg.
4 Paul Valery, *Cahiers (1894-1914)*, Edition published under the direction of Nicole Celeyrette-Pietri and Judith Robinson-Valéry, Vol. I-IX, Collection blanche, Gallimard, 1987.

Wiel Arets

(b. Heerlen, the Netherlands, 1955) Architect and Educator. Arets affirms his critical thinking and intense interest in physics, philosophy, cinema, literature, and the human condition; they inform every level of his life and work. He established Wiel Arets Architects (WAA) in 1983. During his studies at the Technical University of Eindhoven, his MSc thesis explored the idea of "The Architecture of Freedom"; while teaching as the Diplom Unit One Master at the AA London, "Void" was the focus of the research; thereafter, at Columbia University and the Cooper Union New York, his research centered on the theme "Virological Architecture". From 1995–2002, he was Dean of the Berlage Institute, in Amsterdam and Rotterdam. During 2004-2012, as Professor of Building Planning and Design at the Berlin University of the Arts, he focused "Studio Arets" on "A Wonderful World: A New Map of the World" (in Robert McCarter (Editor), Wiel Arets: Autobiographical References, 2012). From 2012-2017, as Dean of the College of Architecture at the Illinois Institute of Technology in Chicago — where his approach was "Nowness"; the school was structured around the idea of "Rethinking Metropolis" — and where he remains a tenured architecture professor. Wiel Arets Architects is organized around the core principle of making; with its globally renowned built oeuvre, which is widely published, it has, from its onset, concentrated on the making of architecture, urbanism, research, books, and industrial design.

Cover of the exhibition catalog "Bauhaus 1919-1928", New York, The Museum of Modern Art: Distributed by New York Graphic Society, 1938.

Memento mori or eternal Modernism? The Bauhaus at MoMA, 1938

BY BARRY BERGDOLL

On the occasion of the exhibition which I co-curated at New York's Museum of Modern Art (MoMA) with Leah Dickerman in 2009 for the 90th anniversary of the founding of the Bauhaus (and the 80th anniversary of the founding of the museum), I delved into the museum's archives to shed light on the political context as well as the complex logistics of the museum's earlier Bauhaus exhibition staged in 1938. The museum's 1938 book that accompanied that important episode in the early reception of the Bauhaus in America remained the standard work on the school and its art philosophy in the English-speaking world until the publication of the English translation of Hans Maria Wingler's monumental Bauhaus in 1969. This essay, addressing the exhibition staged in New York and the misconceptions about the Bauhaus it set in motion for many years, is based on a lecture I gave at the exhibition symposium; a version of that text was published for the first time in a book of essays published in honor of one of my professors at the University of Cambridge, Jean Michel Massing, in 2016.[1] This is a slightly modified version for the 100th anniversary of the Bauhaus, a decade later.

The Museum of Modern Art's founding director Alfred H. Barr, Jr. (1902–1981) wrote to Walter Gropius (1883–1969) on 15 September 1938, in the lead-up to the museum's planned exhibition on the now defunct school that Walter Gropius had founded at Weimar nineteen years earlier: "I regard the three days which I spent at the [Dessau] Bauhaus in 1927 as one of the important incidents in my own education".[2] Indeed, as has often been pointed out, the Bauhaus had had a profound influence on Alfred H. Barr's draft plans in 1929 for the structure of an unprecedented American museum of "the art of our time",[3] with proposed departments of architecture, industrial art, photography, theater and film. It also influenced Alfred H. Barr's famous mapping of the evolution of modern art movements, cogently diagrammed on the famous cover of the 1936 *Cubism and Abstract Art* catalog. There, the Bauhaus was positioned as the synthesis of Expressionism, *De Stijl* and Neoplasticism, and the flow of Cubism into Suprematism and Constructivism. Remarkably, however, its only outlet into the decade of the 1930s and the future — to judge from the diagram — seems to have been into "Modern Architecture", which Alfred H. Barr's chart would have consolidated at the very place where French Purism, Dutch *De Stijl* and the German experimental school intersected to form into a coherent architectural movement at the center of his timeline. But, of course, by the time this chart was drawn up, the Bauhaus itself was no more, having lived a tumultuous history, forced to move and then closed by the rising force of National Socialism, and largely erased from the German art scene, it was, as a school, dead.

Within a year of the publication of Alfred H. Barr's diagram, plans were afoot at the young New York museum for staging a major Bauhaus exhibition, catalyzed by two interlinked events of 1937. The first was the escalation of the German artistic and intellectual *exodus*, changing the face of American art and architectural education with the arrival, notably, of Walter Gropius at Harvard. He was one of many *émigrés* from Adolf Hitler's Germany who made the eight-year-old MoMA an early port of call upon arrival in the new world. A single page alone of the Museum of Modern Art guest book for 1937 is revelatory, with its close juxtaposition of the signatures of László Moholy-Nagy (1895–1946), Marcel Breuer (1902–1981), Herbert Bayer (1900–1985) and Ludwig Mies van der Rohe (1886–1969). Simultaneously the controversy on the other side of the Atlantic generated by the Nazi's *Entartete Kunst* (Degenerate Art) exhibition, staged in the newly completed *Haus der Kunst*, Munich, a design by Hitler's favored architect Paul Troost (1878–1934), was the clearest state celebration of the official dismantling of the Bauhaus project. The Museum of Modern Art's purpose-built home, designed the following year and opened on the museum's 10th birthday in 1939 (it had been a nomad for that first decade) would indeed pay homage to the building that Walter Gropius had designed to accommodate the Bauhaus in its second home city of Dessau, after it had been forced to leave Weimar in 1926. MoMA's new building was a veritable counter model to the neo-classical architecture of Hitler's museum or, for that matter, John Russell Pope's contemporary National Gallery of Art in Washington (1938–1941). By the time the Museum of

Modern Art, designed by Philip Goodwin (1885–1958) and Edward Durrell Stone (1902–1978), opened at 11 West 53rd Street in 1939, the Bauhaus was but a memory, having been definitively shut by the National Socialists in 1933 in its last, makeshift home in a disused Berlin factory.

Even before the idea of MoMA emerged, Alfred H. Barr had been focused, as a young art history professor, on the German design school. He recalled in an interview in 1967, that he had been eagerly anticipating his visit to the Dessau for some time before he was able to make the trip in 1927.[4] Already in 1926 he had invited the young architectural historian Henry-Russell Hitchcock (1903–1987) to give a guest lecture about Walter Gropius at Wellesley College, the progressive women's college where Alfred H. Barr's lectures on modern and contemporary art were pioneering, since most considered contemporary practice outside the purview of the discipline of art history. As he recalled:

> *The Bauhaus idea did have an important influence on me well before I went to Dessau. Gropius's ideal of bringing together the various visual arts influenced my course in Modern Art at Wellesley... It included architecture, industrial design, graphic arts, painting, sculpture, films, and photography. A few years later the Bauhaus also influenced my plan for the Museum of Modern Art... I had looked forward with great anticipation to the Bauhaus ... among the ... things ... I remember most vividly was the gentle charm of Klee, his interest in music, the sound of Frau Klee playing a Mozart sonata, his little collection of odds and ends of shells and minor curiosities, and his interest in children's drawings ... Moholy-Nagy's sullen expression when I asked him whether he or Lissitzky first used photomontage; the students at work on their various exercises, particularly Formlehre; Lux Feininger's enthusiasm for the Bauhaus jazz band; and Gropius's unsmiling earnestness...*[5]

Alfred H. Barr was not alone. Philip Johnson (1906–2005) followed progress at the Bauhaus almost yearly on visits to Germany, writing in 1929, the year the New York museum was founded, that he had visited the Dessau school with a German friend, an interior architect, and had been shown around by Lyonel Feininger (1871–1956). Philip Johnson wrote to Alfred H. Barr:

> *I told Kandinsky about your writing about abstract in art, and he thinks naturally he will be the hero of the book. Klee I found entrancing, the simplicity of a great man, without hide bound theories or illusions as to his greatness.*[6]

And he went on to speak at length in the same breath of figures who had left the Bauhaus and whom he met in Berlin:

> *Breuer, the young interior man whom you may have met ... is like Gropius, a utopian ... more interested in propaganda and education than in anything else, but ... if he had only invented that now famous chair of pipes, he would be something at his age of 26... Gropius was naturally most charming ... sees things in a big way, and [...] has the magnetism to draw people after him, never contented with a thing accomplished, always fighting for a new idea, now it is this business of ten story dwellings to save ground space and light. The Bauhaus suffers more and more without him...*[7]

Hannes Meyer (1889–1954), the director from 1928 to 1930, was not mentioned by name, nor is there any indication that Philip Johnson met the architect/director. And Hannes Meyer was not to be included in what is the first documented Bauhaus exhibition held in America, mounted in 1930 by the Harvard Society for Contemporary Art "Bauhaus Weimar Dessau". Nor was he included one year later in another small Bauhaus show at the Arts Club of Chicago. This omission set the stage for his exclusion again at MoMA in 1938 by Walter Gropius, Herbert Bayer and Marcel Breuer, all of whom had left the Bauhaus as Hannes Meyer took the reins in 1928. Meyer's leftist views in politics and his productivist vision of art education and art-making soon came to be seen as a critique of Walter Gropius's curriculum and *ethos*, even though it was Walter Gropius himself who had sought out Hannes Meyer in Basel to open the Bauhaus's long-delayed architecture department in 1927. Already during his directorship Walter Gropius had begun his efforts to minimize Meyer's reputation as a formative figure in the Bauhaus.

For the exhibition at Harvard University, his *alma mater*, Philip Johnson gave money, lent from his growing collection, and even wrote to Alfred H. Barr:

> *Dear Alfred,*
> *It comes to a pretty pass when the likes of us asks the likes of you for money. Yes — a subscription to our work at the present we are having a Bauhaus show. At the present we are terribly hard up.*[8]

The investment banking firm Goldman Sachs (Paul Sachs, son of the firm's founder, was the teacher of Johnson, Hitchcock, Alfred H. Barr and many others at Harvard) had chipped in, but not enough, he reported. Lincoln Kirstein (1907–1996), who curated the show, which ran for six weeks in December 1930–January 1931, was "writing 200 personal letters in long hand asking for ten dollars apiece".[9] But with little success. The exhibition, as Nicholas Fox Weber later discovered, was afterwards shown at the John Becker Gallery on Madison Avenue.[10] In summer 1930, Johnson again made the pilgrimage to Dessau, where Mies van der Rohe was now the new director after Hannes Meyer's recent ousting by the right-wing local government. On this return visit Johnson was accompanied by Hitchcock in preparation for "Modern Architecture: International Exhibition", the new museum's first foray into exhibiting architecture. Alfred H. Barr wanted to float this as a trial balloon to convince the reluctant trustees that the new museum could have something all but unprecedented: a Department of Architecture.[11] The model of the Dessau building that Walter Gropius and Herbert Bayer had had prepared for their installation of the German section of the Werkbund exhibition in Paris in 1930 was sent on to New York to feature prominently in the 1932 show and was to travel throughout the country.

01 Installation view of the exhibition, "Bauhaus: 1919-1928."; Photographer: Soichi Sunami; December 7, 1938–January 30, 1939; Gelatin silver print, 7 x 9 1/2" (17.7 x 24.1 cm) Photographic Archive. © The Museum of Modern Art Archives, New York.

02 Installation view of the exhibition, "Bauhaus: 1919-1928."; Photographer: Soichi Sunami; December 7, 1938–January 30, 1939; Gelatin silver print, 7 x 9 1/2" (17.7 x 24.1 cm) Photographic Archive. © The Museum of Modern Art Archives, New York.

03 Installation view of the exhibition, "Bauhaus: 1919-1928."; Photographer: Soichi Sunami; December 7, 1938–January 30, 1939; Gelatin silver print, 7 x 9 1/2" (17.7 x 24.1 cm) Photographic Archive. © The Museum of Modern Art Archives, New York.

04 Installation view of the exhibition, "Bauhaus: 1919-1928"; December 7, 1938–January 30, 1939; Gelatin silver print; 2 1/2 x 2 1/2" (6.3 x 6.3 cm); Photographic Archive. © The Museum of Modern Art Archives, New York.

In autumn 1931, Johnson again journeyed to Dessau, this time on an architecture tour with the young American architect John McAndrew (1904–1978). John McAndrew would become an influential teacher of art history at Vassar College and a curator in the Department of Architecture at MoMA, where he would assume the departmental directorship in 1937.[12]

"Today naturally I am reminded of you", Johnson wrote in 1931 to Alfred H. Barr,

> *...We were really thrilled at the sight of the Bauhaus. It is a magnificent building; I regard it as the most beautiful building we have seen, of the larger than house variety. Perhaps the Hook [J. J. P. Oud's housing at Hoek van Holland which he had earlier called "the Parthenon of Modern Europe"] has what Hitchcock would call more lyric beauty, but the Bauhaus has beauty of plan, and great strength of design. It has a majesty and simplicity which are unequaled.*[13]

They were led through probably by Howard Dearstyne, an American student:

> *He is in the second half of the program, that is working on chairs and things. The system impressed me as being a very good one indeed for such a school. This American did not seem to know it but he was getting, as John tells me, a much better architectural education than in any architectural school in our country.*[14]

Later in the day Johnson bought a few Paul Klees at the painter's one-day show in a Dessau gallery.

During the 1930s, even after the Bauhaus was closed by Mies van der Rohe to pre-empt a definitive closing by the National Socialists who had already raided the school, MoMA remained intimately linked to the defunct school through its former masters and students. Mies had emerged not only as Johnson's hero in his many visits to Berlin and to Dessau, but also as Alfred H. Barr's preferred choice for architect of the new building that the museum hoped to

build in midtown Manhattan to declare its adherence to the principles of European modernist architecture. Many involved with MoMA were also personally involved in aiding the emigration of *Bauhäusler,* as the former masters and pupils continued to refer to themselves. Just weeks after the closing of the school in Berlin in May 1933, Eddie Warburg (1908-1992), another of the so-called "Harvard apostles" who had advocated modernism (and who through his family banking money was a major funder of their efforts), began a campaign to bring Josef Albers (1888-1976) to the United States. He told Alfred H. Barr, then on sabbatical leave to treat the nervous exhaustion caused by the first four years at MoMA, "I cannot help but feel that getting Albers into this country would be a great feather in the cap of the Museum of Modern Art… With Albers over here we have the nucleus for an American Bauhaus!"[15]

Philip Johnson, like Alfred H. Barr, was again in Germany when *The Bauhaus Staircase* (1932) was purchased from Oscar Schlemmer's abruptly shut one-man show in Stuttgart. Alfred H. Barr recalled:

> *I missed the opening but got in afterwards by official permission as a foreigner. I was so enraged that I cabled Philip Johnson to buy the most important picture in the show just to spite the sons of bitches. Philip replied by buying the two biggest with Bauhaus subjects.*[16]

In January 1934, as the national tour of the "Modern Architecture" show came to a close, Philip Johnson wrote to Walter Gropius (on the letterhead, incidentally, of his next great venture, the "Machine Art" show which gave birth to the museum's Department of Industrial Design):

> *I will be delighted to return your model of Bauhaus [sic] which has caused such great interest all over the country. I am enclosing a few excerpts of how it was received in the various cities. The whole Bauhaus idea has become much better known because of this exhibition and of course your name as well… I am awfully sorry that you are having such a difficult time in Germany and I sincerely hope we will be able to have you come over here to give some lectures if you still think you would be able to give them in English.*[17]

The model returned to Germany somewhat the worse for wear – "it was the worst built of any of the models we received from Europe",[18] Johnson noted. After Walter Gropius had it restored, he packed it up for travel again in 1937 to Massachusetts as part of the first shipment of his household goods. "As soon as they have come, I shall be in touch…" Walter Gropius wrote to Alfred H. Barr, "I should be pleased to have that model permanently in the Museum of Modern Art".[19] So the model that featured in the window of the museum's temporary quarters in Rockefeller Center in 1938 was to join a growing collection of models out of which Alfred H. Barr hoped to create a permanent gallery of modern architecture in three dimensions.[20] This project was not to be; in fact the model spent much of its time in storage, or travelling to schools along with other MoMA models. By the mid-1950s Walter Gropius requested its transfer to Harvard's Busch-Reisinger Museum, which he felt to be a better guardian of the Bauhaus flame than the Museum of Modern Art whose focus had turned increasingly towards home matters – and to cultivating Latin America[21] – during the war and the immediate post-war period. Later he managed again to have it transferred to the newly formed Bauhaus archive in West Germany, first established in Darmstadt in 1960 and then moved to West Berlin in a purpose-built Walter Gropius building in 1979, where it is still one of the prize exhibits. Ironically, it was too fragile to make a return trip to the United States for the 2009 exhibition *Bauhaus 1919-1933 Workshops for Modernity*.[22]

In summer 1937, as the Degenerate Art show began to make headlines in Europe, discussions began in New York — and in Walter Gropius's rented vacation house at Buzzards Bay, Cape Cod where Moholy-Nagy, Marcel Breuer, and Xanti Schawinsky (1904-1979) gathered — of mounting a large-scale Bauhaus show at MoMA. McAndrew, who would officially join the museum in October as Curator of Architecture — and curator of the show — was already involved. Planned for winter 1937 (thus overlapping with the closure of Degenerate Art's Munich leg and the beginning of its tour around Germany and Austria), on Walter Gropius's advice the American show was postponed to autumn 1938. It was delayed again, before opening in New York on 6 December 1938. But from the beginning the idea was clear: "Our purpose would be to illustrate, largely by means of objects produced at the school, the principles of education for which the Bauhaus stood".[23]

Strategizing for the exhibition went into high gear in September and was to be led on multiple fronts. In New York McAndrew and his assistant Janet Heinrich began a massive letter writing campaign to former *Bauhäusler*, seeking both potential loans and leads on the whereabouts of the Bauhaus diaspora. In Berlin Herbert Bayer, recently returned from a trip to the US, was charged with assembling materials and tracking down *Bauhäusler* in Europe, the team having learnt that virtually nothing worthy of exhibition remained in Dessau itself. Responses began pouring in, but many were discouraging. For instance, Wassily Kandinsky (1866–1944) regretted not being able to lend, since his own work was in storage. However, he recommended his former pupil Max Bill (1908–1994) in Zurich to join the effort from his neutral Swiss base. Soon correspondence began to bifurcate with letters sent within Germany referring to a show on "industrial art" and sometimes closing with approved sign-offs such as "with German greetings". The latter were however written entirely in lower case Bauhaus style rather than in the neo-traditional orthography of the Nazis.[24] Letters sent to possible lenders in the rest of Europe and in North America explicitly trumpet a Bauhaus exhibition, but the wording became ever more circumspect. Max Bill addressed a letter to MoMA, suggesting helpfully: "At the moment it is not well advised to carry on correspondence with Bayer about the exhibition since he is Austrian and since the Annexation of Austria has become a 'Reichsdeutscher' and thus carefulness is requested".[25]

By November the dragnet has been joined by former Bauhaus student Hajo Rose (1910-1989), in exile in Amsterdam, who helped arrange shipments, and by Hungarian architect Farkas Molnar (1897-1945), a former assistant in Walter Gropius's Dessau architecture office, who gathered material including his own architectural drawings in Budapest. In writing to former Bauhaus students in America such as the Chicago architect Bertrand Goldberg (1913-1997), the advertising designer Edwin Fischer (then working with Breuer on designs for a house outside New Hope, Pa.) and the American architect Howard Dearstyne, now at work in Wallace K. Harrison's office where the design and supervision of Rockefeller Center was coming to a close, McAndrew laid out the basics:

The show is going to be fairly large, filling all the space in this year's temporary quarters in the basement of Rockefeller Center. Gropius is supervising the whole show and authorizing it as a semi-official demonstration of what the Bauhaus was, and what it accomplished. Breuer, who has just gone to Harvard to teach under Gropius will also help. Bayer is in Germany right now hunting up material... We are planning a fairly elaborate installation scheme, for the main idea of the show is to show what the Bauhaus was, rather than to be just an accumulation of objects produced there; to show this, all sorts of ingenuities of installation will be necessary. Bayer will see the catalog through too.[26]

The highly political atmosphere was evident in Walter Gropius sending Alfred H. Barr a newspaper clipping about a second degenerate art show in Dessau: "As the Museum at Dessau had very good pictures from the Bauhaus, it came to my mind that it might be worth your while to negotiate with these people about buying some of the pictures".[27] Nothing seems to have come of this provocative suggestion.

Throughout 1938 the hunt continued in Europe, while reconstruction of lost works got underway in America. Albers at Black Mountain College, North Carolina and Moholy-Nagy in Chicago were working with students to produce reproductions of works from the Preliminary Course. Bayer, Bill and Hajo Rose between them tracked down Hirschfeld Mack (1893-1965) and Otti Berger (1898-1944) to London (later Otti Berger would return to her native Croatia, only to die in a concentration camp).[28] Both agreed to lend fabrics, postcards and Bauhaus books. Mariana Brandt (1893-1983) in Chemnitz lent materials, which would be purchased or returned to her twenty years later in 1957, when she was relocated in the German Democratic Republic. This formed part of the museum's ongoing efforts to return materials to lenders even two decades after the show. The most poignant case was Oskar Schlemmer (1888-1943). Herbert Bayer explained the project to him:

...an exhibition of industrial art, which is more or less a historical representation of precedents and also effects... What I would like from you is everything that you consider important: theoretical, instruction, theater performances, life and events, parties, commercial graphics, etc. I am thinking also to reserve a part of the exhibition for "freien kunst" (as painting and sculpture and the non-utilitarian arts were called at the Bauhaus) especially for a selection of works that were carried out in Weimar and Dessau, including I hope yours....[29]

Oskar Schlemmer replied:

My situation in Germany is scarcely tenable, and anything that can extend my work over the borders is to be embraced. I am indeed already well known in the MoMA and represented there with my "Bauhaustreppe". I can't imagine that this picture won't be in the exhibition... I am especially interested in theater; I want to turn entirely to that in the future, after painting has now been condemned to death.[30]

By August 1938 his tone was more desperate: "Please take as many of my things over there as you can, especially the Ballets".[31] He wanted to give three footlockers of costumes, and suggested displaying them in a harsh red light to make something dramatic, a "phantasmagoria". It would be fun, so he hinted, to be able to work with them in film, and maybe having the costumes in America could lead to further performances.

In the end much of the material would come from the *émigrés*: Alexander Dorner (1893-1957), now at the Rhode Island School of Design, lent textiles (and wrote an important text for the catalog). From Black Mountain College, Schawinsky sent theater pieces, while Anni and Joseph Albers provided not only textiles but some of their household furniture, including a "steel arm chair" by Marcel Breuer. Walter Gropius of course lent many pieces. Marcel Breuer, the last to make shipments, sent in late November 1938 an aluminum armchair and one of his bent plywood tables. Both were produced not only after he left the Bauhaus but after he left Germany. The boundaries of the Bauhaus were clearly slipping, and the show was becoming perhaps less historical documentation than a new beginning, an embassy for the Bauhaus "idea" in America.

Soon it became evident that the full scope of the fourteen years of the school's existence could not be covered, or at least so it seemed since there is no indication that the gaps in available loans clustered chronologically. Walter Gropius wrote to Alfred H. Barr:

We are very anxious to put together all the material in an historic way, giving the actual facts, dates, etc; but in spite of all my endeavors, I couldn't manage to get my successors at the Bauhaus to cooperate... In the case of Mies, it is chiefly the difficulties in Germany which seem to hold him back... When I first saw him, months ago, ...he was still considering collaborating; but some weeks ago he definitively refused (in a letter) to take part in it.[32]

In fact, by 1938 Mies van der Rohe too had moved to America; but no attempt seems to have been made to see what he might have brought with him to Chicago, where he was taking over the directorship of the architecture school of the Armour Institute of Technology (today the

Illinois Institute of Technology, IIT). No mention was made of why it was impossible to include Hannes Meyer's years. The battle for the ownership of the Bauhaus was already well underway, as I have written in the 2009 catalog, with competing presentations of it in 1930 by Walter Gropius in Paris, Hannes Meyer in a traveling exhibition and Mies in Dessau.[33] Walter Gropius proposed the title "Nine years Bauhaus 1919–1928", to which Alfred H. Barr replied:

> *I am not unhappy about stopping the exhibition at 1928. The Bauhaus after you left did much excellent work but it seems to me that all the fundamental ideas were incorporated while you were still director and that we can do a more clean-cut and conclusive exhibition by concentrating upon the years of your tenure.*[34]

Karen Koehler first underscored the exclusion of Hannes Meyer, who was already ignored in the presentation of the Bauhaus in Paris in 1930.[35] No attempt seems to have been made to get in touch with Hannes Meyer in Geneva where he was living in 1937–1938, having been expelled the previous year like all other foreigners from the Soviet Union. Mies van der rohe, we have seen, decided in the end against participating, although he seems to have been at first considering it. Early drafts of a checklist include architectural drawings by his students, including Dearstyne, and Mies van der rohe's own furniture designs. Others also opted out. Albers warned McAndrew from the outset that the museum would have difficulties: "many Bauhaus members will not dare to lend their material for political reasons".[36] Architect Fritz Schliefer (1903-1977) in Altona responded that he had been a teacher since 1933 in the Landeskunstschule there and that his work was being published, so he could not see any point in participating: "for someone who has chosen to stay behind, you can imagine that it is not an easy matter…".[37] William Wagenfeld (1900-1990), on the other hand, explained that he did not want to exhibit his work in America for fear he might be copied.

More interesting though are both the maintenance of old rivalries and jealousies and new ones produced by the division of Bauhaus *émigrés* between Chicago and Boston. Herbert Bayer had assured Schlemmer that the show would have nothing to do with Moholy-Nagy's New Bauhaus in Chicago, although in fact the third section of the exhibition ultimately included that successor institution prominently. The reaction of architect Bertrand Goldberg is perhaps most revealing. Already in September 1937 he wrote:

> *I wish to stress my unwillingness to see the proposed exhibition, however, even under the expert guidance which the museum gives such things. There has been too much talk and action about Bauhaus here with too easy understanding of a principle dependent not upon a philosophy but upon actual work. I think in the last days of Johnson's Decline and Fall he realized this very thing, not that he did anything to stop it … I think that exhibits such as you propose further the cause of philosophizing and emasculating Bauhaus, and promote the creation of a new temporary Bauhaus style in this country. This is a great danger and will cause Bauhaus to take its place with Modern, Functionalist, Internationalist, and the reminder of the ma-Holies.*[38]

He was followed by photographer Walter Peterhans (1897-1960), who had just responded to the invitation to join Mies's faculty in Chicago:

> *My own personal work and my teaching activities, in conjunction with that of my colleagues under the direction of Mies van der Rohe, were consistently kept away from the work of the original Bauhaus. I, therefore, believe particularly in consideration of my future activities in the United States, that it would create a false impression if my works were exhibited under a name whose goal can only be identified to a limited degree with my ideas.*[39]

The show quickly began to take the form of a chronological leapfrogging. While the final five years of the Bauhaus, 1928–1933, were excluded, recent and contemporary work from the United States was gaining new prominence. As early as November 1937 Albers, the earliest of the *émigrés* involved, sought to steer things towards the new world:

> *I have come to the conclusion that this show should be more one of principle than an historical collection with results by now out of date. I think that the Bauhaus is still living and after having been denied abroad we are apparently getting a new group of the Bauhaus movement in the United States. Therefore we could ask the American students of the Bauhaus how their work done here has been influenced by their studies at the Bauhaus, and maybe we should also besides their results, show some result of the Bauhaus teachers who have been working for years in this country… I think therefore that Black Mountain College should have a place in the exhibition, showing its way of studying art problems.*[40]

An amplified third section was to be devoted not only to Black Mountain College, but to the mysterious and short-lived Laboratory School of Design in New York — asked at the last minute — 24 hours, so they claimed – and doubtless as a consequence were unhappy with their display. And then of course there was Harvard. The New York display included recent architectural commissions of Walter Gropius and Marcel Breuer, the Hagerty House in Cohasset and Walter Gropius's own house in Lincoln, soon to become something of the Bauhaus embassy in exile. All of this is documented in the catalog, beautifully designed by Herbert Bayer under Walter Gropius's supervision. It deserves its own historiographical investigation.

Herbert Bayer returned to New York only on 22 August 1938 and rapidly began working on the installation of the show now titled "Bauhaus 1919–1928". Walter Gropius appeared very rarely in the galleries in the underground concourse of building 5 at Rockefeller Center, near 49th street. On 20 October 1938 he told Herbert Bayer: "I have a terribly regretful feeling about leaving you there to work without any help, but it is absolutely impossible for me to be with you to help to build up the exhibition".[41] The installation photography is particularly rich and allows interesting comparisons of continuities and developments from Bayer's earlier counterpart at the Grand Palais, Paris in 1930,

also under Gropius and Breuer's supervision. In New York the installation was more rough and ready but an element of surrealist humor entered in as well. Bayer not only incorporated elements from surrealist painting in the graphic designs on the floor, but pointing hands and other popular techniques which he admired in American popular theater. The inspiration came about in his frequent strolls in New York's theater district of Times Square and along Broadway, and he unabashedly allowed a place for this in his handling of a Rockefeller Center storefront. For New York an exhibition was equally a show, with arrows pointing in directions, and footpaths suggested by patterns of direction on the floor. Much of the material was photographic documentation, of architecture, of performances, of life at the Bauhaus and, most importantly, of student work, since the aim was to expand the Bauhaus conquest of American art and architecture education.

The show was divided into six sections: "The Preliminary Course", "The Workshops", "Typography", "Architecture", "Painting" and "Work from Schools influenced by the Bauhaus". Visitors entered the shop front in the lower concourse – treated frankly as an advertisement in which Bauhaus and MoMA were emphatically linked. Wall labels were red, while the overall palette was creamy white, black and grey, with accents of deep blue and red. Cords, thin support posts and walls that didn't reach the ground added a sense of transparency and spaciousness. From Moholy-Nagy's Space Light Prop in the vestibule to the peep-show effects at the back of the show, Bauhaus theatricality met Broadway techniques as Xanti Schawinsky (1904–1979) and Oskar Schlemmer (1888–1949) — in *abstentia* — hoped to find new fields of operation.

The run was short — 6 December 1938 to 30 January 1939 — but the attendance was large — the largest ever in the temporary Rockefeller Center quarters with an average of 402 visitors a day. And the press coverage was enormous. Politics were not admitted into the gallery, but they could not have been far from anyone's mind. Leading American architectural historian and sociologist Lewis Mumford (1895-1990) noted:

> *Dr Gropius, the father of the German objective architecture which attained international renown, is now chairman of the department of architecture at Harvard University. At a preview of the exhibition yesterday he was reluctant to discuss the political vicissitudes of his movement except to observe that the same architectural and aesthetic phenomenon is condemned in Russia as "western bourgeois" and in Germany as "Bolshevik", while it is acclaimed in Italy as "real Fascist style".*[42]

But the reviews were for the most part skeptical to negative, and Walter Gropius and Alfred H. Barr wondered if the best response was to change aspects of the show or to respond. Walter Gropius wrote:

> *We are indeed somewhat disappointed at the rather low level of understanding among the present critics ... but we are also surprised at the critics' lack of familiarity with abstract painting, after having been so well prepared by you and your museum.*[43]

In turn, Alfred H. Barr noted: "We had a very hostile review... by Henry McBride of the *New York Sun.* Henry McBride is lazy and irresponsible. His taste is always strictly limited to Paris". Alfred H. Barr warned:

> *We must expect a certain amount of hostile criticism from four main sources: 1) Pro-Nazi, anti-modern sources, 2) Pro-French anti-German sources, 3) American anti-foreign sources, and 4) People who feel that the Bauhaus is too old fashioned to be worth the trouble.*

He noted further that the issue of anti-Semitism was not an exclusively German affair:

> *As we could have guessed, we have had already heard reports that the exhibition is considered "Jewish". Many Americans are so ignorant of European names that they conclude that, because the Nazi Government has been against the Bauhaus, the names Gropius, Bayer, Moholy-Nagy etc. are probably Jewish Communists.*[44]

Marcel Bayer's display seems to have created more confusion than clarity. James Johnson Sweeny (1900-1986), a great supporter of the Bauhaus as a historian and critic (and later an influential curator and museum director), noted in the *New Republic* that the Bauhaus produced "some of the finest industrial designs of the present century" but that

> *the Museum of Modern Art can scarcely be said to do justice to the ideas behind the Bauhaus and the influence it has exerted... [A] greater critical frankness and more stringent selection would have been less confusing... a more modest descriptive tone throughout the display might have made it clearer to the average viewer.*[45]

But Lewis Mumford, a major contributor to earlier shows at the museum, hailed the exhibition in the *New Yorker* as "The most exciting thing on the horizon", and added:

> *We all have a lot still to learn from it; indeed it will probably take our schools of architecture another half-generation to catch up with it fully ... If Gropius, Moholy-Nagy and Breuer, who are now teaching in America, can reestablish the spirit of the Bauhaus here, they will be doing a good job. For this combination of imagination and logic is what our architects mainly lack; they tend to substitute memory for the first and precedent for the second.*[46]

Plans were drawn up for two traveling versions, to the delight of Walter Gropius who esteemed the show a coup for his future plans but to the chagrin of Marcel Breuer who was eager to see the return of his living room furniture for his new house in Lincoln. A large exhibition with most of the loans went to the art museums in Springfield, Mass, Milwaukee, Cleveland and Cincinnati, where it finally closed on 5 April 1940, on the eve of the American debate over entering the European theater of the war. A small exhibition, "The Bauhaus: How it Worked", traveled to school galleries including the Addison Gallery of American Art

and Philips Academy in Andover Mass, and the University of Minnesota, Florida State University in Tallahassee, Louisiana State University, Harvard, the University of Washington, Mills College in Oakland, California, and finally to Williams College, ending in June 1940.

By then even the protagonists were having doubts and disputes. When Walter Gropius tried to get more money for Marcel Bayer for his work on the catalog, Alfred H. Barr sent a sharp rebuke: "The catalog also was by far the most expensive we have ever published on any exhibition – the cost far out of proportion to its interest, especially as it is both diffuse and confusing in character".[47] Janet Heinrich in the Department of Architecture was even more direct:

> *when I consider the conspicuous position which Mr. Bayer occupies in the catalog – he gave to himself more illustrations than to any other individual – and when I consider the extraordinary confusion and delays involved in getting the catalog ready, causing incidentally the virtual nervous breakdown of our chief of publications, I must tell you that whatever debt the Museum may owe Mr. Bayer has in our opinion been fully paid.*

To soften the blow Alfred H. Barr had ended his letter:

> *While we are speaking frankly about the Bauhaus exhibition I want to assure you that, although it was one of the most expensive, difficult, exasperating and in some ways unrewarding exhibitions we have ever had, we do not in the least regret having had it. At the same I think we should learn from it as much as we can.*

Alfred H. Barr felt that the critics might not have been entirely wrong: "… the fact is that in the Bauhaus exhibition a good many works were mediocre or worse, so that the critics were naturally not impressed".[48] Gropius's suggestion that Americans were not ready to appreciate the Bauhaus rubbed the wrong way as the country's entry into the war seemed near.

But these are tensions buried in the archive. The book would remain in print for years, reprinted on several occasions, and Alfred H. Barr's preface would be read by thousands who had no notion of the display or the events of 1938–1939. Indeed, it is that preface which set the tone for decades of Bauhaus reception in American art history and for the Bauhaus project in America. "Are this book then, and the exhibition which supplements it, merely a belated wreath laid upon the tomb of brave events, important in their day but now of primarily historical interest? Emphatically, no!" Alfred H. Barr answered his own rhetorical question thus, and asserted: "The Bauhaus is not dead; it lives and grows through the men who made it, both teachers and students, through their designs, their books, their methods, their principles, their philosophies of art and education".[49]

Notes

1 Mark Stocker and Philip Lindley (Eds.), *Tributes to Jean Michel Massing: Towards a Global Art History*, Turnhout, Harvey Miller Publishers, 2016, 15-32.

2 From Alfred H. Barr to Walter Gropius, September 15, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York. Earlier considerations of this exhibition include Margret Kentgens-Craig, *The Bauhaus and America: First Contacts, 1919-1936*, Cambridge, MIT Press, 2001; and Karen Koehler, "The Bauhaus, 1919-1928: Gropius in Exile and the Museum of Modern Art, N.Y., 1938", in Richard A. Etlin (Ed.), *Art, Culture, and Media Under the Third Reich*, Chicago, University of Chicago Press, 2002.

3 This was Alfred H. Barr's motto for the Museum and the title of the tenth anniversary exhibition which inaugurated the new building at 11 West 53rd Street in 1939. See also Harriet S. Bee, Michelle Elligot (Eds.) *Art in Our Time: A Chronicle of the Museum of Modern Art*, New York, MoMA, 2004.

4 Sybil Gordon Kantor, *Alfred Barr, Jr. and the Intellectual Origins of the Museum of Modern Art*, Cambridge, MIT Press, 2003, 155, No. 37.

5 Sybil Gordon Kantor, *Alfred Barr, Jr. and the Intellectual Origins of the Museum of Modern Art*, Cambridge, MIT Press, 2003, 159, No. 41, quoting Barr to Jane Fiske McCullough, Feb. 6, 1967, Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.

6 From Philip Johnson to Alfred H. Barr, undated letter, c. 1929, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.

7 Ibid.

8 Unsigned letter on Harvard Society for Contemporary Art letterhead, probably from Philip Johnson to Alfred H. Barr, Dec. 16, 1930, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York. See also Nicholas Fox Weber, *Patron Saints: Five Rebels Who Opened America to a New Art 1928-1943*, New York, Knopf, 1992, 118.

9 Ibid. Since this article was written the bibliography on Kirstein has expanded, see Samantha Friedman and Jodi Hauptman (Eds.), *Lincoln Kirstein's Modern.* New York, The Museum of Modern Art, 2019.

10 Nicholas Fox Weber, *Patron Saints: Five Rebels Who Opened America to a New Art 1928-1943*, New York, Knopf, 1992, 118.

11 On the show see Terence Riley, *The International Style: Exhibition 15 and the Museum of Modern Art*, New York, Rizzoli, 1992, and Barry Bergdoll and Delfim Sardo, *Modern Architects, Uma Introdução; An Introduction,* Lisbon, Babel, 2010. Since this essay was first published that introduction has been reprinted in David Hanks, (Ed.) *Partners in Design: Alfred Barr, Jr. and Philip Johnson*", New York, Monacelli Press, 2015.

12 This was at a time when the small circle of the young museum was in shock after Philip Johnson had thrown his financial support and energies to Father Charles Edward Conklin in Louisiana instead of to the nascent Department of Architecture, where he had footed much of the bill. Since this essay was first published a study of John McAndrew has appeared: Mardges Bacon, *John McAndrew's Modernist Vision: From the Vassar College Art Library to the Museum of Modern Art in New York.* New York, Princeton Architectural Press, 2018.

13 From Philip Johnson to Alfred H. Barr, Oct. 16, 1931, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.

14 Ibid. On Johnson and Politics see Franz Schulze's *Philip Johnson: Life and Work*, Chicago, University of Chicago Press, 1996, soon to be superseded by an announced new biography by Mark Lamster. On McAndrew see Keith Eggener, "Nationalism, Internationalism and the Naturalisation of Modern Architecture in the United States, 1925-1940", in *National Identities,* Vol. 8, No. 3, September 2006, 243-258. See also Howard Dearstyne, *Inside the Bauhaus*, New York, Rizzoli, 1986.

15 From Eddie Warburg to Alfred H. Barr, letter, no date, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.

16 Alfred Barr quoted in Margaret Scolari Barr, "Our Campaigns". *The New Criterion* 5, No. 11 (August 1987), 44. See also Andreas Huyssen, "Oskar Schlemmer Bauhaus Stairway. 1932", in Barry Bergdoll and Leah Dickerman, *Bauhaus 1919-1933, Workshops for Modernity,* New York, MoMA, 2009, 318-21.

17 From Philip Johnson to Walter Gropius, January 29, 1934, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.

18 Ibid.

19 From Walter Gropius to Alfred H. Barr, April 20, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
20 Barry Bergdoll, "The Paradoxical Origins of MoMA's Model Collection", in Mari Lending and Mari Hvattum (Eds.), *Modelling Time: The Permanent Collection 1925-2014*, Oslo, Torpedo Press, 2014, 159-161.
21 See Barry Bergdoll, "Good Neighbors: MoMA and Latin America, 1933-1955", in Thodoris Arrhenius, Mari Lending, Wallis Miller, Jeremie Michael McGowan (Eds.), *Place and Displacement: Exhibiting Architecture*, Zurich, Lars Müller Publishers, 2014, 113–128.
22 See Michael Siebenbrodt, Jeff Wall, Klaus Weber, *Bauhaus: A Conceptual Model*, Berlin, Hatje Kantz, 2009.
23 James M. Heinrich on behalf of John McAndrew to William Muschenheim, September 17, 1937, Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
24 See correspondence in "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
25 From Max Bill to MoMA, March 21, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
26 From John McAndrew to Charles Ross, a former student, Oct. 13, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
27 From Walter Gropius to Alfred H. Barr, Dec. 15, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
28 See T'ai Smith, "Weaving Work at the Bauhaus: The Gender and Engendering of a Medium", Ph.D. dissertation, University of Rochester, 2006, forthcoming as *Bauhaus Weaving Theory: From Feminine Craft to Mode of Design* (forthcoming from University of Minnesota Press).
29 From Herbert Bayer to Oskar Schlemmer, Oct. 28, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
30 From Oskar Schlemmer to Herbert Bayer, Oct 23 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
31 From Oskar Schlemmer to Herbert Beyer, Aug 11, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
32 From Walter Gropius to Alfred H. Barr, Sept 8, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
33 Barry Bergdoll, "Bauhaus Multiplied: Paradoxes of Architecture and Design in and After the Bauhaus", in Barry Bergdoll and Leah Dickerman (Eds.), *Bauhaus 1919-1933: Workshops for Modernity*, New York, Museum of Modern Art, 2009, 59–60.
34 From Alfred H. Barr to Walter Gropius, Sept 15, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
35 Karen Koehler, "The Bauhaus 1919–1928: Gropius in Exile and the Museum of Modern Art, 1938", in Richard Etlin (Ed.), *Art, Culture and Media under the Third Reich,* Chicago: University of Chicago Press, 2002, 287–315.
36 From Josef Albers to Janet Heinrich, November 19, 1937, "The Bauhaus 1919–1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
37 From Fritz Schleifer to Herbert Beyer, Nov. 4, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
38 From Bertrand Goldberg to Janet Heinrich, Sept. 25, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
39 From Walter Peterhans to Janet Heinrich, Mar. 2, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
40 From Josef Albers to Janet Heinrich, Nov. 19, 1937, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
41 From Walter Gropius to Herbert Bayer, Oct. 20, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
42 Article in the *New York Post*, quoted by Karen Koehler in "The Bauhaus, 1919-1928: Gropius in Exile and the Museum of Modern Art, N.Y., 1938", in Richard A. Etlin (Ed.), *Art, Culture, and Media Under the Third Reich*, Chicago, University of Chicago Press, 2002, 300, No. 45.
43 From Walter Gropius to Alfred H. Barr, Dec. 15, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
44 From Alfred H. Barr to Walter Gropius, Dec. 10, 1938, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
45 Cf. Alfred Barr, Jr., "Notes on the Reception of the Bauhaus Exhibition", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York; James Johnson Sweeny, "The Bauhaus – 1919–1928", *The New Republic*, January 11, 1959.
46 Lewis Mumford, "Bauhaus —Two Restaurants and a Theatre", *The New Yorker,* 31 Dec 1938.
47 From Alfred H. Barr to Walter Gropius, Mar. 3, 1939, "The Bauhaus 1919-1928", Registrar Exhibition Files, Exh. 82, The Museum of Modern Art, New York.
48 Cf. Karen Koehler, "The Bauhaus, 1919-1928: Gropius in Exile and the Museum of Modern Art, N.Y., 1938", in Richard A. Etlin (Ed.), *Art, Culture, and Media Under the Third Reich*, Chicago: University of Chicago Press, 2002, 307-09, No. 67: Alfred Barr to Walter Gropius, March 3, 1939, WGA, Harvard.
49 Alfred H. Barr, preface to *Bauhaus 1919-1928* by Herbert Bayer (New York: The Museum of Modern Art, 1938), 7.

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Walter Gropius, Bauhaus building, Dessau, Germany, 1925–1926. © Aufbacksalami, 2018.

Walter Gropius and Operative History: An Architectural Palimpsest[1]

BY JASMINE BENYAMIN

This essay evaluates the legacy of the pedagogical model set by Walter Gropius and other founders of the Bauhaus on subsequent curricula for schools of architecture. More specifically, it uses Walter Gropius' views on history as a backdrop for a closer reading of operative history. While at the Bauhaus, Walter Gropius did not initially mandate the teaching of history. Later, as Dean of Harvard's Graduate School of Design, he re-structured the history sequence as electives, thereby undermining its hitherto central role in what he viewed as a traditional approach to pedagogy that was overly analytical and intellectual. Rather, he encouraged his students to "make history" for themselves.
What are the manifestations of operative history in architecture schools today, and how have they gone beyond references to 20th century Modernism? It is undeniable that there is a concerted effort among contemporary historians to complicate the history of the movement. Nonetheless, the impulse to self edit persists, such that imagery of like minded practitioners converge and sometime eclipse other architectural production.

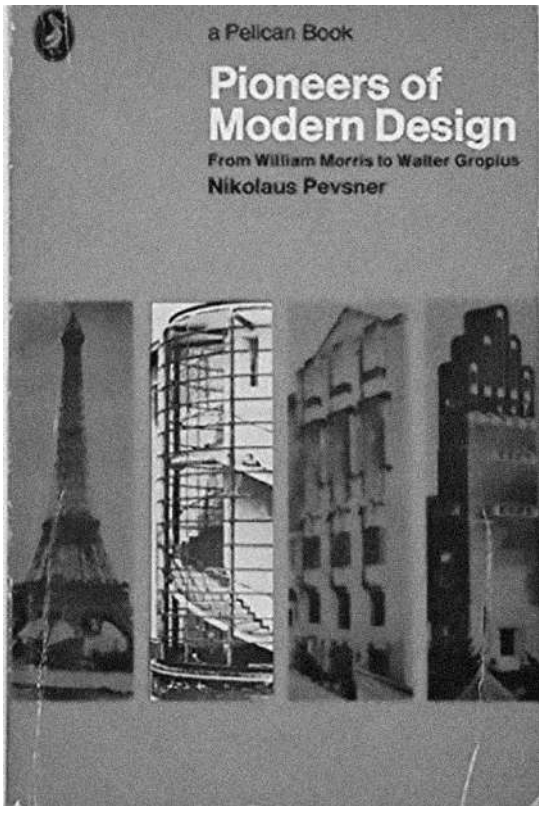
From here onwards, a critical re-assessment will be offered of the central role the founding members of the Bauhaus played in shaping the discourse and subsequent historization of architectural modernism. More specifically, proposing the use of Walter Gropius' views on history as a snapshot of operativity in historical accounts and their resultant teleological narratives. In *Theories and History of Architecture,* Italian historian Manfredo Tafuri (1935–1994) defined operative criticism as a mode of writing that self-reflexively consolidates the history leading up to the Modern Movement in order to present the latter as a definitive "break" from the past.[2] Such a short-circuiting required an unbroken linear genealogy for the movement, in part by simplifying the historical tendencies in opposition to it. This criticism was in turn tied to the so-called "pioneers" of modern architecture, among whom Walter Gropius (1883–1969) assumed a central position.[3] Manfredo Tafuri identified these figures not only with their practices, but also in the way they crafted their stories alongside and often in concert with, the discipline of architectural history.

Post-war historians such as Nikolaus Pevsner (1902–1983) and Sigfried Giedion (1888–1968) self reflexively consolidated the history leading up to the Modern Movement in order to present the latter as a unified amalgam of practices and outcomes.[4] Such a consolidation required a selective historical reading that delineated a clear genealogy for the movement, in part by simplifying the historical tendencies in opposition to it: the battle of styles in the 19th century and its resultant era of eclecticism. Historians in this category believed it a mandate of their discipline to re-read the past through the lens of the present and retained only those aspects of the former they deemed "still vital".[5]

Walter Gropius and History

In his pre-Bauhaus years and as a young member of the Werkbund, Walter Gropius understood the power of media manipulation to exert control over the narrative of architecture within a larger arc of history. His early interactions with Karl Ernst Osthaus (1874–1921) and the Deutsches Museum — in particular his role in coordinating and curating that institution's substantial photography collection — helped shape his later activist attitudes. Through the vehicle of the museum's traveling exhibitions, and his own burgeoning collection of photographs, Walter Gropius exploited the value of architectural images to polemically craft readings of the built environment. In fact, by the time of the relocation of the Bauhaus to Dessau, he had already begun curating the visual output and dissemination of his own projects. As the historian Winfried Nerdinger (1944–) has noted, Bruno Zevi (1918–2000), a former student of Walter Gropius at the Harvard Graduate School of Design, indicted the elder for his "reactionary and biased concept of history".[6] This statement was based on the fact that art and architectural history at the Bauhaus was never taught regularly as required courses. In fact, even as Hannes Meyer (1889–1954) formally initiated an architectural curriculum in 1927, history was left out.[7]

In an essay entitled "My Conception of the Bauhaus Idea" (1937), Walter Gropius elucidated the core principles of his pedagogical approach. Central to this was his



01 Nikolaus Pevsner, cover of *Pioneers of Modern Design: From William Morris to Walter Gropius*, London, Penguin, 1936.

02 Walter Gropius, *Internationale Architektur*, Munich, Albert Langen Verlag, 1925.

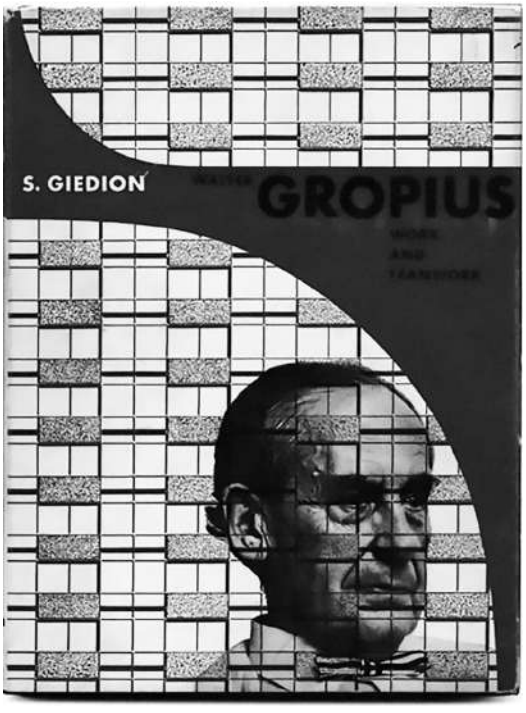
notion of so-called "training" through the development of a language that prioritized visual over technical skills. The architect equated this formal thinking with "a special language of shape," which manifested in the "visible expression" of ideas.[8] He went even further to define the evolution of visual literacy as constitutive of a "scientific knowledge of objectively valid optical facts", of which examples included "optical illusions".[9] As in his lectures dating from his earlier *Werkbund* career, Walter Gropius repeatedly incorporated images of industrial architecture in presentations from the 1920s, as well as his own Fagus project. Rather than framing modern architecture within a broader engagement with precedents, he used history selectively to favor his own intentions and agenda, both before and after the formation of the Bauhaus. His interest in history was targeted; he viewed it as a vehicle to understand the use of materials and the deployment of techniques, and not in their wholesale adoption in form making. His anti-imitative stance could be summed thus: "clear cognition of what lies behind the forms… should be the only topic of these studies".[10] Furthermore, studies in architectural history provided the basis for what Walter Gropius in "Blueprint of an Architect's Education", referred to as "fact-knowledge", an element of architectural pedagogy that, in his view, had been overemphasized to the detriment of design intuition. It was after all the latter that provided the "eternal source of all creative action".[11]

Walter Gropius' stance *vis-a-vis* history was further codified at Harvard, where he was chair of the architecture department between 1937–1952, and where under his leadership, the architectural history curriculum radically altered. In yet another essay from 1949 entitled "Not Gothic but Modern for our Colleges", the architect decried the "purely analytical and intellectual approach" to pedagogy, in which history courses played a central role. The consequence of this system, Walter Gropius explained, was that visual apprehension was developed in light of historical and critical methods of appreciation.[12] He continued: "we seem to have forgotten that there is an opportunity to make architectural history for ourselves, and to have buildings designed in unmistakable terms for our period".[13] As a result of these prevailing views, he re-designated previously required survey courses as electives.[14] In short, history for Walter Gropius was useful insofar as it validated his conception of modern architecture.

Operative History in Action

One can also look at Walter Gropius's own narratives of Modernism (and his place in it) to find examples of curated self-historization. In a publication from 1925 entitled *Internationale Architektur*, Walter Gropius' "Picture Book" (*Bilderbuch*)[15] "wrote" a new history of modernism almost entirely in images. The polemical introduction made his intents even clearer: the purpose of the images was central and accounted for their graphic dominance on the page. As he pronounced, the images succinctly defined the "common features" that bound the examples and further, manifested "the will to develop a unified world picture, the will which characterizes our age".[16] The particular formal features of

03 Walter Gropius, Fagus Factory as photographed by Edmund Lill, in *Internationale Architektur*, Munich, Albert Langen Verlag, 1925, 15.



04 Sigfried Giedion, cover of *Walter Gropius: Work and Teamwork*, New York, Reinhold, 1954.

the buildings were neutralized by the common treatment of the images, thus enabling the self-fulfilling prophecy of the Modern Movement to manifest "a uniformity of character".[17] By extension, the architectural examples — though disparate in their provenances — were united in their "strict utilization of time, space, material and money".[18]

Published the same year as the opening of the Bauhaus campus in Dessau and designed by his colleague Laszlo Moholy-Nagy (1895–1946), the book positioned Walter Gropius' own recently completed Fagus project in the lineage of Jacobus Johannes Pieter Oud (1890–1963), Mies van der Rohe (1886–1969), Le Corbusier (1887–1965), who similarly embraced new tectonic conceptions. Walter Gropius' efforts to parse his conception of tectonics were also evidence of his deployment of the photograph as an editorial tool; the Fagus was part of a select group of pre-war projects that in his view ushered a new language. Walter Gropius' choice of only one photograph — an exterior view highlighting the glass and metal curtain wall of the administrative building — is logical, since it was only through this angle that the building could be neatly positioned as a direct precursor to his Dessau campus design. This image and others were selected to highlight shared formal traits that referred not to a bygone style but emanated from their technological "will to form" (*Gestaltungswille*),[19] and thus represented work of national and international significance.

In another book written in the same year (but only published in English in 1935) entitled *The New Architecture and the Bauhaus.*[20] Walter Gropius again reduced his own architectural history pre-Bauhaus to the Fagus. In this instance, he referenced the primacy of the building's "outward" formal appearance, which he viewed as an "inevitable logical product" of the building's material and spatial development.[21] Through the fundamental transformation of the wall to "mere screen", the term window underwent a similar transformation, such that the ratio of (solid) wall and (void) window — as "sparkling insubstantiality" — exemplified a substantial reversal in ratio.[22]

This paradigmatic semantic shift from "wall" to "screen" was cited by Walter Gropius' friend and collaborator Sigfried Giedion in *Walter Gropius: Work and Teamwork* (published simultaneously in English and German in 1954), in which he referred to the Fagus project as evidence of a "trend towards transparency and absence of weight".[23] Walls were no longer load bearing, but rather had receded to "mere screens". Again, photographs were deployed to further their larger operative agenda, and to draw a clear and inevitable direction for modern architecture.[24]

This editorial logic is consistent with Siegfried Giedion's earlier remarks on history in *Space Time and Architecture* from 1941. In his forward to the first edition, Sigfried Giedion stated that his study cast a wider net by asserting the role of history to uncover an otherwise "secret synthesis" in order to help society navigate its way through the chaos of unfolding events. Continuing in literally photographic language, Siegfried Giedion argued for a history defined not as a "compilation of facts" nor "obtained by the exclusive use of the panoramic or bird's eye view".[25] Rather, he asserted that the historian's responsibility was to offer "insight into a moving process of life", by "isolating and examining certain specific events intensively, penetrating and exploring them in the manner of the close-up".[26] I would argue that this interpretive model superimposed both men's attitude towards images. The Fagus project and many other proto-modern buildings like it had undergone a similar telescoping, which enabled ex post facto a visually uninterrupted line of vision from 1911 to 1954.

Today, with several decades of hindsight and subsequent operative historicizing, it is clear that both Walter Gropius and Sigfried Giedion retroactively crafted — indeed cropped, re-framed, and in some cases eliminated — examples from the former's pre-war career in order to serve as a more fitting precursor to the architect's Weimar era production at the Bauhaus and at Harvard. Towards the end of his career, one could argue that Gropius' view had in some ways come full circle. In his introduction to *Scope of Total Architecture*, a collection of essays predominantly written during tenure at the Graduate School Of Design, Walter Gropius proclaimed that the discipline in its most complete or "total" sense mirrored the constituent feature of democracies since both had to engage in an effective "interplay" of seemingly contradictory aims: maintaining a diversity of ideas in the discourse, while also holding fast to the "essential" and "typical" features of regional expression.[27] In so doing, Walter Gropius reinforced the modernist trope of a movement without precedent, as a "decisive break from an eclectic period of architecture to an entirely new material language".[28] Sigfried Giedion's remarks on the Fagus (and their appropriation via highly curated images) constituted part of a larger normative trend *vis-à-vis* the Fagus and its role as a significant benchmark for the Modern Movement. In fact, his particular historiography of the project must be read in the context of Nikolaus Pevsner's teleological account: if one were to follow Nicolaus Pevsner's lead, one could only encourage and hasten the arrival of the "new" architecture, or one could be irrelevant. Therefore architects only needed to pay attention to those figures and works that complemented the message of the inevitable new world order.

Seeking to remedy Walter Gropius and Sigfried Giedion's historical cropping, the English historian Reyner Banham (1922–1988) rightly noted that the degree to which Walter Gropius' pre-war buildings could be considered as the "first"of the Modern Movement owed their "high esteem in part to (his) personal relationship to (their)… historians and also, in part, to the accidents of photography".[29] The truth of course was that the purported functionalist "modernity" of the factory complex was "visible, indeed, only on parts of two sides…" and "…(in) strong contrast to the unadventurous neo-Classical regularity of the rest…".[30]

As with many other examples from the pre-Bauhaus period, the Fagus can be thought of as a kind of architectural palimpsest: its material reality was effaced and eclipsed by its photographic re-framing; its particular story was written and re-written through images. Along the way,

the ideological forces driving the *Werkbund* were replaced by the self-fulfilling rhetoric of the so-called "new" Bauhaus, which favored a hegemonic message in words and images. In doing so, its singular rendering in operative discourse effectively suppressed all previous anxieties of the turn of the century — captured then erased.

Conclusion

The example of the Fagus' operative instrumentalization is by no means unique in the discourse of architecture. What is the role of operative history in architecture pedagogy today? Certainly with regard to educating students on the Modern Movement, there has been a concerted effort to "muddy the waters" so to speak, by re-inserting hitherto erased examples from that period that did not neatly fit into the narrative the movement's founders wanted to craft. Today, our histories are more accommodating of cultural, social, and political heterogeneity. Furthermore, the proliferation of blogs, websites, and online journals devoted to the built environment consistently challenges the impulse to design in a historical vacuum. Nonetheless, and as was the case 100 years ago, current histories in the making tend to converge around clusters of like-minded architectural impulses.

One such group currently in favor is that which revolves around the topic of the "postdigital" — a conception of material thinking that literally and figuratively flattens distinctions between the domains of physical and virtual. What results is work that similarly flattens history: The reliance on precedents is unapologetic, but notably limited to the recent past. History is treated in much the same way as its formal language, namely as collage and montage. It requires an activist editorial process of cutting and pasting distinct moments in an apparently seamless space-time continuum.

Notes

1 This essay was presented at the *16th* ***docomomo*** *Germany/3rd RMB Conference*, wich took place on the 1st of March 2019, in Berlin, Germany. Its presentation was included in the parallel session dedicated to education, moderated by Aslihan Tavil. More information available at: http://www.rmb-eu.com/conferences-2/3rd-conference/

2 Manfredo Tafuri, *Theories and History of Architecture*, New York, Harper and Rowe, 1980, 141-169.

3 Indeed, as Henry-Russell Hitchcock announced in 1929, Walter Gropius "was the first architect in Germany to build in a fully developed post-eclectic style". Author's italics. Henry-Russell Hitchcock, *Modern Architecture – Romanticism and Myth* (1929-reprinted in 1993), New York, De Capo Press, 1993, 187.

4 Panayotis Tournikiotis, *The Historiography of Modern Architecture*, Cambridge, MIT Press, 1999, 39.

5 Sigfried Giedion, *Space Time and Architecture: The Growth of a New Tradition*, London, Oxford University Press, 1949, 6. Also cited in Panayotis Tournikiotis, op.cit., 45.

6 As cited in Winfried Nerdinger, "From Bauhaus to Harvard: Walter Gropius and the Use of History", in Gwendolyn Wright and Janet Parks (Eds.), *The History of History in American Schools of Architecture, 1865-1975*, New York, Princeton Architectural Press and Temple Hoyne Buell Center for the Study of American Architecture, 1990, 89-98.

7 Ibid., 90.

8 Walter Gropius, "My Conception of the Bauhaus Idea", (1937), reprinted in Walter Gropius, *The Scope of Total Architecture*, New York, Harper Collins, 1943. This citation is taken from a 1974 reprint by Collier, 25.

9 Ibid.

10 Cited in Nerdinger, 91, 94–95.

11 Walter Gropius, "Blueprint of an Architect's Education", in *Scope of Total Architecture*, 45.

12 Ibid., 66.

13 Ibid., 67.

14 Nerdinger, 94.

15 "Die 'Internationale Architektur' ist ein Bilderbuch moderner Baukunst". In Walter Gropius, *Internationale Architektur*, Munich: Albert Langen Verlag, 1925, 5. Author's free translation.

16 "der Wille zur Entwicklung eines einheitlichen Weltbildes der under Zeit kennzeichnet". In *Internationale Architektur*, 7. Author's free translation.

17 Ibid.

18 Ibid.

19 *Internationale Architektur*, 6. Author's free translation.

20 Walter Gropius, *The New Architecture and the Baubaus,* Cambridge, MIT Press, 1965, 26.

21 Ibid., 20.

22 Ibid., 26-29.

23 Sigfried Giedion, *Walter Gropius: Work and Teamwork,* New York, Reinhold, 1954, 23-24.

24 It is worthwhile (and perhaps not accidental) to note that this manifesto for globalizing Modernism pre-dated the so-called "International Style" codified by Hitchcock and Johnson in 1932.

25 *Space Time and Architecture*, vi.

26 Ibid.

27 *The Scope Of Total Architecture,* 13.

28 Helmut Weber, *Walter Gropius und das Faguswerk,* Munich,Callwey, 1961, 7-8.

29 Rayner Banham, *Theory and Design in the First Machine Age*, Cambridge, MIT Press, 1992, 79.

30 Ibid.

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Arieh Sharon, Ohel theatre, Tel Aviv, Israel, 1937-1939 © Azrieli Architectural Archive, The Arieh Sharon Collection, 1950s.

From "White City" to "Bauhaus City" — Tel Aviv's urban and architectural resilience

BY MARINA EPSTEIN-PLIOUCHTCH AND TALIA ABRAMOVICH

In the early 1930s, Modernism became the normative style of architecture in Tel Aviv. This was due to the architects who operated in Tel Aviv, from all over Europe, including architects who studied at the Bauhaus. This essay will discuss how Modernist Tel Aviv evolved from the "White City" (UNESCO World Heritage Site) to the "Bauhaus City", and how these myths, constantly being reinvented, have contributed to the city's resilience, which has enabled urban and architectural conservation.

Introduction

Tel Aviv's so-called White City, built in the 1930s, was declared a UNESCO World Cultural Heritage Site in 2003. It has since become recognized as a landmark of the Modern Movement, an early and singularly authentic example of an urban environment, a new town realized consistently in the Modernist idiom.[1] Established in 1909 as a suburb of Jaffa, within two decades, Tel Aviv — the "first Jewish city" — had a well-thought-out town plan and a coherent architectural character. By 1925, first, Richard Kauffmann (1887–1958), the German architect and town planner (in 1921), and then Patrick Geddes (1854–1932), the British modern town planner, had devised the city's plan for the area between the older neighborhoods in the south up to the Yarkon River, further north. The site for conservation, considered the world's largest concentration of early Modernist buildings, was planned by architects who had received most of their professional education in Europe.

Six architects who worked in Palestine in the 1930s had been students at the Bauhaus. Four left Palestine to study architecture in Germany; two others came to the Bauhaus from Poland. After their Bauhaus studies, they returned to Palestine, settling in Tel Aviv, Haifa, or in the rural settlements, just as rising waves of immigrants from Nazi Germany were giving new impetus to the country's development and construction.

In this essay, we will examine one of the prevailing myths of Tel Aviv — the "Bauhaus City". Generally speaking, architectural knowledge rarely crosses the boundaries of the profession and does not attain the level of a public asset, so we must ask how and why Tel Aviv achieved its "design" title. We will discuss the nature of the definition of Tel Aviv as the "Bauhaus City" and how "Tel Aviv Bauhaus" contributes to the city's urban and architectural resilience. We will also examine the preservation challenges facing Modernist Tel Aviv in the second decade of the 21st century.

Transfer of modernity, ideas and people

The late 1920s saw economic slowdown and serious local crises in Palestine, and particularly Tel Aviv. Consequently, a handful of young people headed to Europe to pursue studies in the arts, architecture, graphics and more. Nineteen of them spent time at the Bauhaus before returning to Palestine,[2] among them six architects: Arieh Sharon (1900–1984), Chanan Frenkel (1905–1957), Shlomo Bernstein (1907–1969), Shmuel Mestechkin (1908–2004), Munio Gitai (Weinraub) (1909–1970), and Edgar Hed (Hecht) (1904–1956).

The most prominent of these were Arieh Sharon, Shmuel Mestechkin and Munio Gitai-Weinraub; the most influential was the first.[3] Born in Poland in 1900, Arieh Sharon immigrated to Palestine in 1920 and settled in *kibbutz* Gan Shmuel. In 1926 he enrolled at the Bauhaus school under the direction of Walter Gropius (1883–1969). In 1928, he traveled with Hannes Meyer (1889–1954) to Moscow, where they presented the Bauhaus's ideas. On completion of his studies in 1929, he worked in Meyer's office in Berlin. Turning down an invitation to join a second delegation to Moscow in 1931, he chose to return to Palestine and establish his own office, where he eventually planned hundreds of public and residential buildings, from workers' housing to a theater in Tel Aviv. In the 1940s he focused his planning on rural settlements, mainly the *kibbutz*. After the State was established, Prime Minister Ben-Gurion recruited Arieh Sharon to lead the drafting of the national plan (1951).[4]

Shmuel Shmuel Mestechkin immigrated from Ukraine to Palestine with his family in 1923 and settled in Tel Aviv. In 1931 he began studying at the Bauhaus in Dessau, under the direction of Ludwig Mies van der Rohe (1886–1969); his teachers included Wassily Kandinsky (1866–1944), Josef Albers (1888–1976), and Ludwig Hilbersheimer (1885–1967). After his graduation in 1933, Shmuel Shmuel Mestechkin returned to Palestine, where he later founded his own firm.

From 1943 he was an architect and planner for the *kibbutz* movement, planning housing, dining halls, and other communal buildings. In the 1960s he designed two prominent public buildings in Tel Aviv, Brenner House and the Headquarters of the national *kibbutz* movement.

Polish-born Munio Gitai studied at the Bauhaus from 1927 to 1931, worked for Mies van der Rohe in Berlin, then moved to Haifa in 1934. In partnership with architect Al Mansfeld (1912–2004) from 1938 to 1958, he planned public and apartment buildings, public housing and factories in Haifa and its suburbs. Munio Gitai also taught at the Technion, IIT, in Haifa.

During this period, political events were determining peoples' fate. Hannes Meyer succeeded Walter Gropius as Bauhaus director in 1928; two years later he was fired and left for Moscow, where several Bauhaus students joined him. Mies van der Rohe ran the school from 1930. In 1933, the school in Berlin was closed. Its teachers dispersed to cities and architecture schools around the world. Walter Gropius went to Harvard, Hannes Meyer to Mexico, Ludwig Mies van der Rohe to Chicago. Josef Albers emigrated to North Carolina, László Moholy-Nagy (1895–1946) to Chicago. These teachers and their students became "international agents" for Bauhaus ideas around the world.[5] Few of them, however, landed in Palestine.

Arieh Sharon, Shmuel Mestechkin, and Munio Gitai were among the architects who adopted the Bauhaus concepts of social architecture. Emphasized mainly during the school's final decade, these ideas were contemporaneous with the development of the *kibbutz*, the Socialist communal settlement in Palestine. Although the city of Tel Aviv was planned primarily for bourgeois professionals, Arieh Sharon carried out residential projects for Tel Aviv workers, in the spirit of social architecture. Eight of these were constructed between 1931 and 1935, mostly in collaboration with other architects such as Joseph Neufeld (1898–1980), Karl Rubin (1899–1955), Israel Dicker, Dov Kucinski and Jonathan Schlaine. One cooperative housing complex for workers, which Arieh Sharon planned single-handedly, was called *Hod* — a Hebrew acronym connoting glory. Its uniformly-sized apartments were built around a large central courtyard that hosted shared events and housed public services: a post office, kindergarten, grocery store, etc. These aspects of the complex evoked a comparison to the *kibbutz*.

In the early 1930s Modernism became the normative style of residential architecture in Tel Aviv.[6] It also dominated the public space, Dizengoff Square being the most prominent example. Modernism, or rather a certain blend of Modernist elements, practically became the vernacular of Tel Aviv, where there was a paucity of means but a wealth of forms. This Modernism emanated not only from the Bauhaus-trained architects but also those who had studied elsewhere in Europe: Genia Averbuch (*École des Beaux-arts,* Brussels), Joseph Neufeld and Karl Robin (Vienna School of Architecture), Ze'ev Rechter (*École des Ponts et Chaussées*, Paris), Werner Wittkower (Berlin and Stuttgart), et al. Alongside the functionalist cubes that characterized Walter Gropius' buildings, Tel Aviv boasted the poetic curved lines of Erich Mendelsohn (1887–1953). The influence of Le Corbusier (1887–1965) was also imprinted on the city: a few of Tel Aviv's architects had worked for him (Sam Barkai and Shlomo Bernstein), and others, like Ze'ev Rechter (1899–1960), had clearly absorbed his concepts.

The "White City"— Tel Aviv's Modernist heritage

In the all-new city of Tel Aviv, the impact of Modernism was not truly felt until the major wave of immigration from Germany, which brought clients with European taste as well as architects who could satisfy them. Commissioned in 1925 by the mayor, Meir Dizengoff, Patrick Geddes outlined a garden city plan for Tel Aviv in keeping with the boundaries set by the British Mandate government. Patrick Geddes' plan called for residential urban blocks, where every home was placed within a garden. A public building or park at the center of each block served the residents. Within a decade, an extensive and homogeneous Modernist environment emerged,[7] incorporating Modernist architecture within Patrick Geddes' city blocks and setting the pattern for Tel Aviv's unique urban and architectural fabric.

No less important than this built heritage is the visual and written material about Tel Aviv produced by its contemporaries and preserved for decades in the yellowing pages of local and foreign magazines, architectural photographs, propaganda posters, and depictions in art and literature. In 1932 Israel's famous poet Nathan Alterman declared (in *Ha'aretz*):

> *Because I loved being a drifted grain in the Niagara Falls of roads and sidewalks ... Because Tel Aviv must grow, to be like its distant sisters, desert-elicited, and desert-eliminating, alien and loved, full of people and heroic beauty. City! Concrete jungle, electricity and iron...*[8]

According to Alterman, Tel Aviv was destined to be a major city; like her "distant sisters" she was both stranger and lover, closely linked to the circle of great cities around the world. Like other poets and artists, Alterman addressed the whiteness of the Modernist buildings, and on occasion described Tel Aviv as a "White City".

An exhibition at the Tel Aviv Museum in 1984, marking the city's 75th anniversary, was a landmark for the historiography of Israeli architecture. Entitled "White City", the term has become the standard tag for the Modernist City.[9] The narrative of the White City crossed the threshold into art, academic literature, and popular imagination.[10]

Modernist architecture in local mythologies

When Modernism arrived in Tel Aviv, the city already had its origin "myth": a new town, born out of the sands, spontaneously fulfilling the dream of producing a society both Jewish and modern. How was Modernist architecture assimilated into the myth of Tel Aviv? Modernism's attraction was, perhaps, that it conformed to the town's — and Zionism's — general belief in modernity. In fact, it provided the visual imagery for modernity as it was promoted in posters and book illustrations.

01 Aerial view of Tel Aviv's center with Dizengoff circle, Tel Aviv, Israel, 1945 © Government photo archives.

02 Arieh Sharon, Hod workers housing, Tel Aviv, Israel, 1931–1935, communal courtyard © Marina Epstein-Pliouchtch and Talia Abramovich photograph, 2019.

However, the celebration of architectural style belonged to professionals, not to the general public. Lively debate of the issues took place among Tel Aviv's architects. In the 1920s, a Society of Engineers & Architects began functioning. Of special note was the group of architects known as "the Circle". They promoted Modernist concepts in their magazine, *HaBinyan* (*The Building*, 1937–1938), which is an invaluable source of the architectural history of Tel Aviv.

The "Jewish Modernism" in Palestine in general and Tel Aviv in particular soon garnered international attention. There was a conscious attempt, in fact, to "market" local Modernism through international periodicals. In 1937 two Tel Aviv architects, Julius Posener (1904–1996) and Sam Barkai (1889–1975), edited an issue of *Architecture d'aujourd'hui* dedicated to Palestine. Sam Barkai had worked briefly in Le Corbusier's office in 1933, and Sam Barkai may have introduced him to the cooperative settlement projects in Palestine. Julius Posener also published a paper on the subject in a German journal.

By the end of the 1940s the Modernism of the previous decade had entered the annals of history. After the creation of the state of Israel, the state took the lead in the country's development and construction. A new generation of young, native-born architects cornered the field, and post-war Brutalist Modernism rapidly replaced the ethos of classic Modernism.

Meanwhile, the historical fabric of Tel Aviv came to be regarded as old and out-dated. The buildings of the 1930s slowly began to deteriorate in the salty, humid air of the Mediterranean coast. The commercial density grew larger than the original design permitted, and the quality of life eroded. Sections of 1930s Tel Aviv became a Modernist *città vecchia*.

The Modernist heritage of Tel Aviv was not explicitly celebrated in the 1970s. In the popular mind, its architectural style came to be defined, mistakenly, as "Bauhaus". The epithet has since caused no end of confusion, compounded by the above-mentioned "White City" exhibition at the Tel Aviv Museum in 1984. Curated by Israeli art and architectural historian Michael Levin, the show dramatized the uniqueness of Tel Aviv's Modernist architecture and instantaneously produced the mythological "White City" of Tel Aviv.[11] The title caught the public's fancy,[12] and the UNESCO declaration of 2003 accepted it as a matter of fact. Since then this "White City" has been awarded a plethora of new sobriquets: "Bauhaus City", "Tel Aviv School", "Weissenhof School", "Ayalon City", and more.

Bauhaus and resilience

Tel Aviv, Israel's central metropolis, is dynamic, vibrant and desirable. However, the rapidly rising value of its real estate and growth of its population put historic buildings at risk. As has been pointed out previously in our *Planning Perspectives'* paper, the resilience and durability of buildings and open spaces stems from their design and capability to absorb functional changes, facilitating a wider range of uses and activities.[13] In other words, the resilience of contemporary urban spaces "derives from their adaptable nature and their ability to address the needs of a multicultural society".[14] The resilience of Tel Aviv's urban fabric and architecture resulted from both physical and spiritual strength. The design of its historic buildings provided flexibility that has left room for adjustments to suit the needs of today's population. New functions have been added, advanced building systems installed, and interiors have been opened up and re-divided. These physical changes have been carried out for the most part with minimal alterations to the Modernist exteriors.

The city's spiritual resilience was a cumulative construct. In 1994, before the conference "International Style in Tel Aviv", initiated by Michael Levin and Nitza Szmuk[15] and jointly sponsored by UNESCO and the municipal authorities, a public survey revealed that few citizens recognized the term "International Style", though many were familiar with "Bauhaus Style".[16] Popularly, the Israeli public clearly identified the "White City" as the "Bauhaus City", associating old Tel Aviv's architectural style with the well-known Bauhaus. Despite this historical inaccuracy,

03 Arieh Sharon, Hod workers housing, Tel Aviv, Israel, 1931–1935
© Azrieli Architectural Archive, The Arieh Sharon Collection, 1960s.

04 Genia Averbuch, Zina Dizengoff circle, Tel Aviv, Israel, 1934
© The Central Zionist archives (CZA), Jerusalem, 1938.

05 Yehuda Megidovitch and Rafael Megiddo, Esther cinema, Tel Aviv, Israel, 1938–1939, Reuse into Cinema hotel
© Marina Epstein-Pliouchtch and Talia Abramovich photograph, 2019.

06 Arieh Sharon, Ohel theatre's conservation, Tel Aviv, Israel, 1937–9, Reuse into hotel © Marina Epstein-Pliouchtch and Talia Abramovich photograph, 2019.

Tel Aviv's municipality adopted the voice of the people. The "Bauhaus City" myth granted Tel Aviv international stature while simultaneously underpinning and maintaining its resilience.

The spiritual resilience fostered by urban and architectural mythology overlaps physical resilience. Mythologies stimulate advertising, innovation, and financial investment. They attract people. Hence much of "Bauhaus City" has been preserved. Adaptive re-use has extended the life span of its buildings while keeping their cultural and spiritual significance intact.

Re-use has been a major element in the widespread conservation of many Modernist apartments and public buildings in Tel Aviv. A good example is the Ohel Theater, planned by Arieh Arieh Sharon in 1937–1939, which is currently being converted into a hotel. Of singular physical, spiritual and mythological importance, the Ohel Theater was designed by the Bauhaus architect as a "Socialist Theater" for the working class. In 1940, a local newspaper noted its architect's European training and proclaimed that the theater building was the physical realization of "Berlin dreams", comparing it to the German capital's Schiller Theater.[17] The comment was guaranteed to enhance the building's significance and status, which it maintains to this day.

Conclusion

21st century Tel Aviv is constantly growing in height and depth. A wall of skyscrapers has been erected next to Modernist buildings, and its high-rise business district is as impressive as any large city's. Yet with all her ethos of modernity, Tel Aviv never again generated anything as unique and fresh as the Modernism of the 1930s. Through the constant reinvention of its myths, Tel Aviv has given rise to urban and architectural resilience, which has allowed the preservation of its Modernist "Bauhaus City". One can only wonder what the city's next myth will be.

Notes

1 Nitza Szmuk, *Tel-Aviv's Modern Movement, The White City of Tel-Aviv a World Heritage Site*, Tel Aviv, Municipality of Tel Aviv-Yafo, 2004, 10.
2 Authors' interview with Michael Levin, September 2019.
3 See catalog and exhibition in Tel Aviv's museum curated by Eran Neuman, 2019.
4 Arieh Arieh Sharon, *Baubaus+kibbutz*, Tel Aviv, Massada, 1976.
5 See Marina Epstein, 1998.
6 Marina Epstein-Pliouchtch and Ron Fuchs, 2008.
7 Similar Modernist districts developed simultaneously in Mandate Palestine's other two major cities, Haifa and Jerusalem.
8 *Ha'aretz*, 16.11.1932, Drawings, A free translation made by authors.
9 The exhibition was curated by Michael Levin.
10 For example, Alona Nitzan-Shiftan, "Contested Zionism - Alternative Modernism: Erich Mendelsohn and the Tel Aviv Chug in Mandate Palestine", *Architectural History*, Vol. 39, 1996, 147-180; Rotbard, Arieh Sharon, *White City, Black City*, Tel Aviv, Babel, 2005 [Hebrew]. The "White City" connotation is also applied to the business level. For example, Tel Aviv's town villa (Zilberstein House), built in 1947, was converted into a boutique hotel and given the name "White house".
11 On the genealogy of the epithet "White City" see Maoz, Azariahu, *Tel Aviv, the Mythical City, A Historical Mythography*, Beer Sheba, 2005 [Hebrew].
12 Yona, Fischer, *Tel Aviv: 75 Years of Art*, Tel Aviv, Massada, 1984.
13 Based on Carmona, Matthew, Heath, Tim, Taner, Oc, and Steven Tiesdell, *Public Places, Urban Spaces*, Oxford, Oxford Architectural Press, 2003, 203.
14 Talia Abramovich, Marina Epstein-Pliouchtch and Iris Aravot, "Imported Modernity and Local Design: The Creation of Resilient Public Spaces in Late Ottoman Palestine, 1878-1918", *Planning Perspectives* (online version), 2018.
15 Nitza Szmuk, the municipal conservation architect (1990–2003).
16 Authors' interview with Michael Levin, September 2019.
17 *HaMashkif*, 31.1.1940.

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Saffierstraat, 1950-1951. © *Beeldbank, Gemeentearchief Amsterdam.*

Aldo van Eyck and the Amsterdam playgrounds

BY VINCENT LIGTELIJN

Aldo van Eyck design experiences engendered the development of broader architectural concepts, many of which he further developed in his writings. Aldo van Eyck used various forums to attack an impoverished functionalism that was devoid of qualities such as ambiguity and reversibility.
In the history of architecture, it is rare for architects to reflect on their own work, but design and research, writing and building were intrinsic to Aldo van Eyck. He kept on looking for a formal vocabulary to bring the multiple and the general into order and harmony through his architectural assignments. When he set to work at the Amsterdam public works department the opportunity to regenerate the vacant urban spaces in the city arose through the design of an intricate network of playgrounds. This essay will focus on the architectural qualities of these playgrounds.

Just as one places a bench because one wants to sit, a lamppost because one wants to light the street, a newsstand because one wants to buy newspapers, I am putting a play dome there because children want to play.[1]

Just as Aldo van Eyck (1918–1999) — nestor of Dutch postwar architecture — viewed the specific and the general in each other's light, his design experiences engendered the development of more general architectural concepts, many of which, including "twin phenomena", "place" and "in-between", he elaborated poetically in his writing. A gifted rhetorician, he used various forums to attack an impoverished functionalism that was devoid of qualities such as ambiguity, reciprocity and reversibility.

In the history of architecture, it is rare for architects to reflect on their own work, but design and research, writing and building were twin phenomena that were perfectly natural to Aldo van Eyck.[2]

The most pressing problem he saw himself facing as an architect, in an age poorly equipped to address it, was that of "the great number". Since he did not receive any assignments for urban expansion — projects concerned par excellence with the visual arrangement of great numbers — he had to explore this subject in his architectural assignments. Wherever it made sense, Aldo van Eyck was looking for a formal vocabulary to bring the multiple and the general into order and harmony — something which he thought the classical syntax was not capable of, as it was aimed at the single and the special. He felt himself supported by the "aesthetic meaning of number", which he recognized in the work of Piet Mondrian (1872–1944), Georges Vantongerloo (1886–1965), Sophie Taeuber (1889–1943) and Richard Paul Lohse (1902-1988), and in the artifacts of tribal "primitive" people whose capacities he described lyrically in the catalog for the exhibition of his work in Rotterdam in 1989:

They alone, the world over, excelled in repetition and variation of element and theme, in serial composition, counterpoint, syncopation, shifting symmetry, multi-centrality and, perhaps most relevant for us today, in the ability to deal with form and counterform as equivalents and, above all, to open the center by avoiding a single or central dominant. Nor are geometric and non-geometric design ever separate categories.[3]

From the outset, Aldo van Eyck strove to ensconce the ideas of the avant-garde at the heart of a contemporary architecture by confronting them with tradition which, despite the tabula rasa of the avant-gardists, retained its value as an expression of a constant human identity that had manifested itself differently across times and cultures.

This perspective emerged in Zürich, where Aldo van Eyck studied and then stayed until after the war. Carola Giedion-Welcker (1893–1979), the protagonist of modern art, introduced him to the art world, bringing him into contact with artists of the ilk of James Joyce (1882–1941), Hans Arp (1886–1966), Constantin Brancusi (1876–1957), Max Ernst (1891–1976), Paul Klee (1879–1940), Richard Paul Lohse and Kurt Schwitters (1887–1948), giving him first-hand insight into their philosophies. Aldo van Eyck became increasingly convinced that the various "isms" in contemporary culture were expressions of one and the same new reality — that of relativity — within which things came to cohesion through mutual relationships thanks to their equality and relative autonomy. This thus brought an end to subservience to a single central hierarchical principal, creating space for polycentric constellations. The new

relationships were every bit as important to Van Eyck as the things themselves: "Reciprocity belongs to my credo", he said, in a statement that would hold true throughout his life (1918-1999).[4]

This reciprocity was expressed directly in his first playgrounds, which usually consisted of no more than a few simple pieces of playground equipment, benches, trees, bushes and paving grouped together and related to the structure of the city on a basis of equality, using both a classical and a non-classical syntax. The playgrounds subsequently developed into a polycentric network that became increasingly expansive and intricate. Each playground constituted a world in itself, and the hundreds of playgrounds together made up a cosmos whose "great number" had an ennobling and liberating effect both for children and the city.

Start

Immediately after his Zürich period, Aldo van Eyck set to work at the Amsterdam public works department under the leadership of Cornelis van Eesteren (1897-1988).[5] During the implementation of Van Eesteren's Expansion Plan (*Algemeen Uitbreidingsplan*) for Amsterdam, Jacoba Mulder (1900-1988), then head of the design department, addressed and elaborated existing ideas on the creation of public playgrounds. One playground that she initiated, at Bertelmanplein, and for which Aldo van Eyck produced the design in 1947, was so successful that he went on to produce almost 800 designs over the course of 30 years.

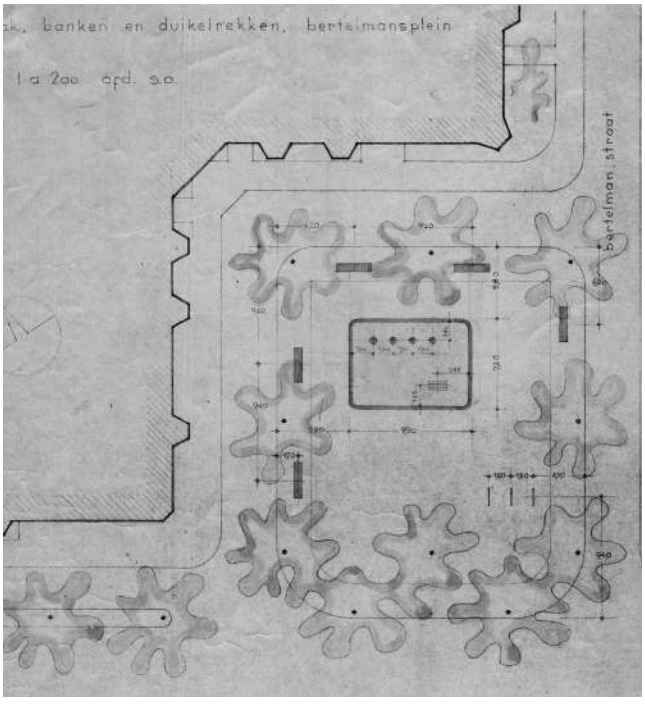
Obviously, Aldo van Eyck was affected by and aware of the influences of his time, in which children became the subject of a renewed interest in the philosophical, psychological, social and historical sciences as well as in literature, film-making and the fine arts. It is also highly significant that he was the father of two small children; he was captivated on a daily basis by a childhood that he could identify with. But rather than analyzing all those influences here, I will focus on the architectural qualities of the playgrounds that were the immediate result of Aldo's creativity.

Bertelmanplein playground, 1947

This square, set out in a classical manner with four trees at the corners and a tree in between, sets the scene for Aldo's first playground. A rectangular sandpit measuring 7.20 x 9.90 m and featuring a sturdy concrete rim with rounded corners is the central element in the playground, with its transversal longitudinal directions. The eccentric positioning of the sandpit in the north-western corner of the site leaves space for a large playing area. The associated diagonal setup is confirmed by the three tumbling bars in the opposite corner of the site.

The framing of the sandpit (not visible on the drawing) and of the square by means of zones of squared paving stones contrasting with the herringbone paving of the large area support the independence and mutual eccentricity of the square and the sandpit.

The positioning of the five benches within the framing of the square may appear rather casual but it is at the same time highly deliberate: the interval of the benches on the western side corresponds with the transverse axis of the site, while the northernmost bench at that side corresponds with the longitudinal axis of the sandpit. The interval of the benches on the northern side, on the other hand, is shifted somewhat — although across a distance that corresponds with the intermediate size of the play tables in the sandpit so that the axis of the interval runs across one of the tables.



01 Bertelmanplein, 1947. © *Archive Aldo + Hannie van Eyck Foundation.*

02 Bertelmanplein, 1947. © *Beeldbank, Gemeentearchief Amsterdam.*

While the bench at the eastern side of the square appears to be isolated, it not only constitutes an area together with an adjacent diagonal bench but is also connected with the bench on the other side of the sandpit via a rotational symmetry whose basis coincides with the axis of the eccentrically positioned row of jumping stones — as if they, as the smallest elements of the playground, form the source leading to the configuration of the sandpit, benches and other elements.

However simple and restrained this first playground may be, the play of reciprocal reactions is already in full swing. This project not only represents a precursor to later playgrounds but also to the Burgerweeshuis orphanage, particularly through the superpositions of various equivalent structures and the non-hierarchical use of axes to tack objects and spaces together, as it were.

Work in progress

The playground project took place over time, and could therefore not be based on any dirigistic masterplan. It was a matter of continuously responding inventively to the possibilities in a concrete city where circumstances were liable to differ from time to time and from place to place. Suitable locations for children's play areas had to be discovered piecemeal. Basically, that was in the hands of the municipal services (*Gemeentelijke Dienst*), but Aldo van Eyck contributed actively thanks to his cycling and walking tours through the city, during which he observed all manner of seemingly insignificant and forgotten areas – not only residual areas and clumsily arranged pavements, streets and squares but also glaringly empty lots of land where deportees had once lived during the WWII and whose homes had been demolished by city dwellers in need of fuel.

The public playground project was an entirely new assignment. There were no suitable examples extant for the required playgrounds, but Amsterdam did have a considerable tradition of enclosed/closed playgrounds. These areas, which usually consisted of a large playing area with a sandpit and mobile playing equipment were only open to children who were paid members of a playground association (*Speeltuinvereniging*). Sparsely and haphazardly located in the city, these playgrounds were permanently watched over by a playground supervisor. Aldo van Eyck regarded the new public playgrounds, prominently integrated into residential areas and freely offering space to both parents and children, as essential additions to the traditional playgrounds.

Naturally, these playgrounds brought with them a degree of nuisance for local residents – noise, balls hitting windows and walls, sand blowing around, vandalism, improper use, etc. The municipal services and Van Eyck attempted to address these problems in their selection of locations and in the designs themselves, but they were inescapable in spite of the alterations that Aldo van Eyck made to the plans at the request of the neighborhoods, and the city proceeded with the playgrounds despite the problems they entailed. Unlike the purists, Aldo van Eyck did not regard cities as some kind of heaven on earth. He was convinced that cities were inevitably chaotic with their flexibility and livability and continued to emphasize that the playgrounds' advantages greatly outweighed their disadvantages.

03 Aldo van Eyck, the second of the four Grid panels for CIAM 10, Dubrovnik. Photograph: Violette Cornelius. © *Archive Aldo + Hannie van Eyck Foundation.*

CIAM

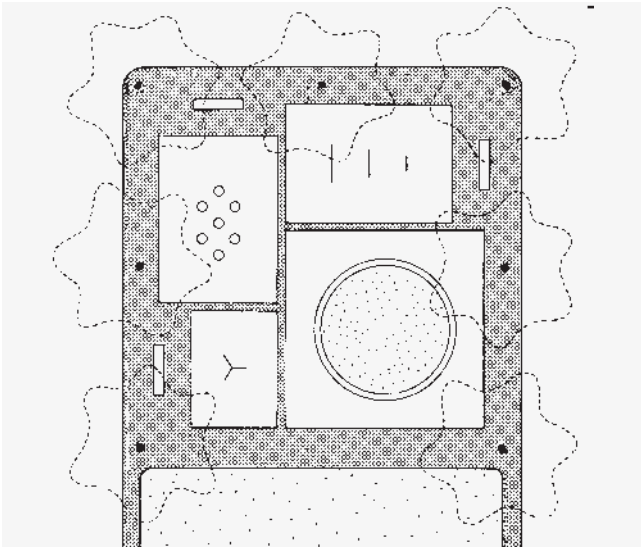
Although the local residents soon realized the significance of the playgrounds, many critics were correspondingly slow to accept them. Even Cornelis van Eesteren, who was a great advocate of the project, had his reservations regarding their expanding nature, objecting for example in 1957 to four playgrounds in the Tuindorp Oostzaan neighborhood in the hope "…that the four squares could be reserved for adults for a change".[6]

However, Aldo van Eyck did receive particular appreciation from his Team 10 colleagues for the playground project that he had presented at the CIAM 10 congress in Dubrovnik in 1956. Peter Smithson (1923–2003) praised "the playground in a city like a grain of sand in an oyster, triggering a transformation and regeneration of the social fabric", while John Voelcker (1927–1972) found them significant

> *…because they reveal the importance of time to the urbanist […] and because they represent a particular scale of work essential to the urbanist for here he may come into personal contact with some of the more positive and vital elements at work in a community: he is able to combine in a single process both creative achievement and research…*[7]

CIAM 10 took place in the same year that the playground in the Zeedijk area of Amsterdam was constructed, at a time when Aldo van Eyck was also working on the Burgerweeshuis orphanage (1955–1960). By then, he had been working on the playground project for eight years before presenting it publicly. He did so not with lengthy analyses, statistics and diagrams as was customary at CIAM, but rather with four directly appealing panels. Photographs and texts, replete with paradoxes and metaphors, illustrated the isolated position of children in the city and the task of the architect-urban planner in this context. Concisely and visually, poetically and provocatively, first and foremost the conflict between city and child and a symbol of a partial

04 Zaanhof 1948-1950. © *Archive Aldo + Hannie van Eyck Foundation.*



05 Zaanhof, plan, 1948-1950. © *Archive Aldo + Hannie van Eyck Foundation.*

solution were presented, the latter encapsulated in a photograph of children playing in a snowy city followed by a panel showing four of his playgrounds, and an appeal to the authorities:

> *Snow! The child takes over. Yet what it needs is something far more permanent than snow.*
> *If childhood is a journey, let us see to it that the child does not travel by night.*

Never before had children been regarded as fully-fledged residents of the city, or the city regarded as mature before it had taken account of the expressive significance of children.

Van Eyck's approach was at odds with that of CIAM. The Athens Charter[8] drawn up by Le Corbusier (1887–1965) and which served as point of departure for CIAM's postwar planning methods offered him nothing to go on, although he could draw on the Charter's dictates relating to the smaller recreational areas directly required for the residential units, as well as the photographs of the roofs of the units featuring children at play, which supported his ideas about what architecture and children could mean for each other. Nevertheless, from the start of his CIAM membership in 1947 he continued to resist the institution's rigid attitude, as well as Cornelis van Eesteren's way of implementing the theme of the 'functional city' from CIAM 4 in the General Expansion Plan for Amsterdam. It is therefore not surprising that Aldo van Eyck, irrespective of the expansion of his architectural practice — including with the assignment for residences in Cornelis van Eesteren's new district of Slotermeer, in which he clashed with him regarding his parcelization methods — resigned in 1951 from the urban development department (*Dienst Stadsontwikkeling*) and devoted himself to the playground project on a freelance basis until 1978.

A closer look at a few configurations

A selection of four groups of two playgrounds, partly based on their context.

Zaanhof, 1948

Aldo van Eyck now himself introduces the classical special definition of the playground area with four trees at the corners and four in the middle of each side as dictated for the Bertelmanplein. This time, however, the sandpit, tumbling bars, jumping stones and *tourniquet* [merry-go-round] do not feature a framework as at Bertelmanplein but rather areas with their own form and dimensions. Owing to their materials and structure — white concrete tiles — they contrast with the large dark paved area that flows through the four areas in narrow strips. By positioning the playground apparatus at the center of their areas, they constitute a whole with the playground equipment, expanding into an area, going beyond their own boundaries, bringing the playing equipment closer together than their actual separating distance. Each playing object is thus but a single step away from the next one.

Together, the areas make up an unusual windmill pattern built up from two interlocking windmill sails of three areas, each with its own rotational point. The suggested rotations are brought into balance by means of three areas interlocking with the windmill pattern, which are part of the general paving and accommodate a bench, thus also activating the ground plane. The dynamic composition of the elements in the playground and the classical static order of the site boundaries are expressed through their antitheses and brought into synthesis.

Jacob Thijsseplein, 1949

Aldo van Eyck foresaw this playground at the southern part of a square intersected by Heimansweg as having two perpendicularly positioned groups of trees with an open

corner between them, compressing the triangular site. One group of trees consists of two rows of four trees, forming a small lane from the southern corner of the area to the open corner. The other group of trees consists of three rows of six trees, with two rows on the playground and one on the other side of Heimansweg. They constitute a small lane as an extension of the pavement along the road and mark the intersection with the square. The two eccentric trees along the diagonal side are equidistant to the two groups of trees.

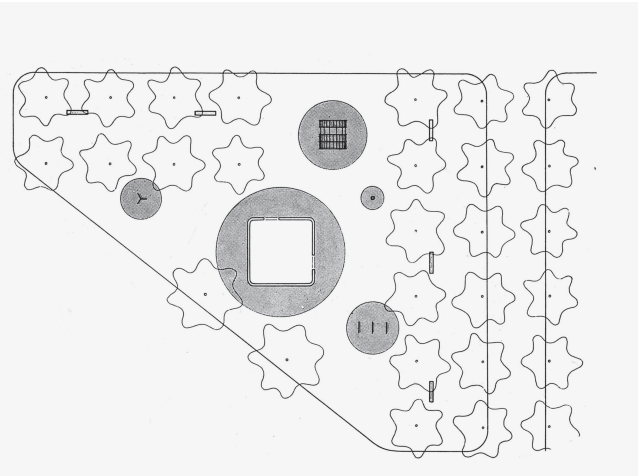
The square has a double center: the sandpit in the focal area of the triangular open area and the climbing dome at the center of the open corner area. The other pieces of playground equipment, such as a *tourniquet*, three tumbling bars and a drinking fountain fly around the large sandpit as freely as juggling balls - deceptively so, though, because their positions are carefully anchored in axes, not directed towards the sandpit and climbing dome but rather at the spaces between each set of trees. In the intermediate intervals, there are benches for sitting on, two along Sleutelbloemstraat and three along Heimansweg. The first-mentioned benches are positioned in front of the tree trunks of the outermost row, and the others behind the tree trunks of the innermost row, allowing them – just like the two groups of trees – to occupy an independent, eccentric position in relation to the square.

The pieces of playground equipment are placed centrally in their circles of clinker bricks within the expanse of white concrete tiles, forming a unit, like a hat and its brim. The circles bring the playground features closer together, preventing them from swimming around loosely in the large playing area. But first and foremost, they activate the ground plane, revolving, narrowing and widening between the circles, as if the interim areas are even more important than the circles with their playground features.

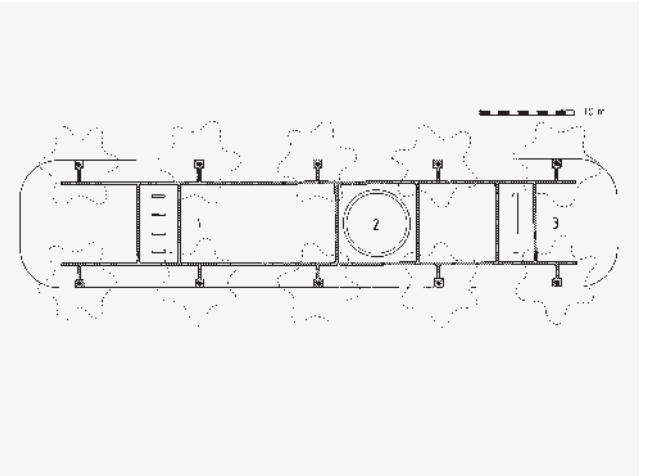
Woestduinstraat, 1949

This apparently simple linear playground is paved with paving stones and flanked on the two long sides by five trees

06 Jacob Thijsseplein, 1949-1950. © *Archive Aldo + Hannie van Eyck Foundation.*

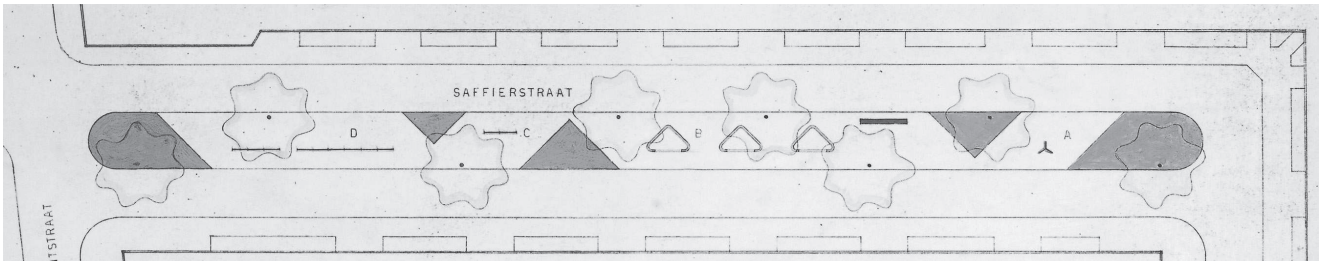


07 Jacob Thijsseplein, plan, 1949–1950.
© *Archive Aldo + Hannie van Eyck Foundation.*



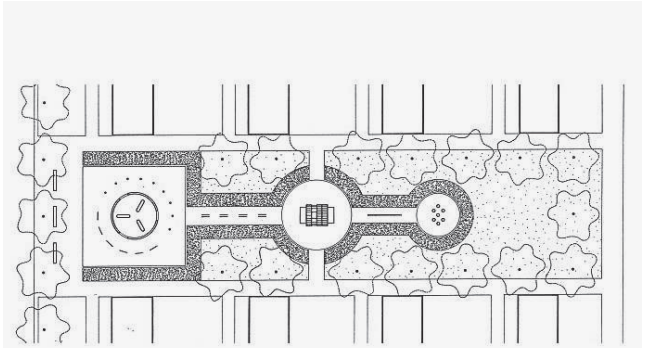
08 Woestduinstraat, project not executed, 1949.
© *Archive Aldo + Hannie van Eyck Foundation.*

09 Saffierstraat, 1950-1951. © *Archive Aldo + Hannie van Eyck Foundation.*



which are perpendicularly edged with clinker brick paving connected by two long clinker brick tracks situated eight tiles inwards equidistantly from the edge. All the clinker brick tracks are a single tile wide, reminiscent of chalk lines drawn by children on pavements to mark out hopscotch courses. These areas, however, function in a slightly different way: between the two long tracks, six cross-connections have been applied which compartmentalize the elongated central area into various smaller areas as variations on the square: a half, a single and a double one. The end areas, sized as a half and a whole square, are delineated by clinker brick tracks on three sides, while the fourth side is open to the surroundings.

Within this dynamic grid, the areas are alternately used for the playground features of tumbling bars, sandpit and bench. The spaces in between are open playing areas. The various elements of the playground are arranged according to their own system and rhythms. The whole is like a simple but fugal score in which the polyphony and varied repetitions of the parts determine the composition – beyond the hopscotch course.



10 Top: Mendes da Costahof, 1959-1960. Bottom: Dulongstraat, 1954-1957. © *Archive Aldo + Hannie van Eyck Foundation.*

Saffierstraat, 1950

Here, the problem of the long, narrow 6 x 120 m plot is tackled by articulating the central reservation lengthwise by means of triangular, dark clinker brick paving that alternately penetrates the playground from the two peripheral roads, activating the area and creating new directions. Unlike the playgrounds described above, these dark areas do not constitute spaces for the playground features, although they do sometimes contain the odd tree or fire hydrant. The *tourniquet*, benches, climbing frames and tumbling bars are positioned alternately on the right and left sides of the playground, with the exception of the three more centrally situated triangular sandpits. Longitudinally, the two large triangles and one small one within the two diagonally truncated head areas form a series with an exciting rhythm. The large white expanse thus has alternating areas that are more or less emphasized, and contractions and expansions. In between these complex rhythms, the rhythm continues of the eight trees which are positioned alternately and deliberately not evenly spaced from each other along the longitudinal sides of the site, traversing the rhythmic white and dark areas. The middle two trees suddenly appear next to each other, on the same side. The rhythm resumes with this surprising turn, contributing to the overall complex rhythm of the playground, and distinguishing it from the continuous repetition of elements in the street scene surrounding the playground, starting with that of the streetlamps.

Dulongstraat 1954, Mendes da Costahof 1957

These classical if not mythical-seeming playgrounds which are secretly hidden and apparently sculpted out of an enormous mass of human-high scrub constitute a family due to their linear linking of elementary spaces and corridors. The round spaces increase in diameter while the corridors shorten, ending as a square space. Placed centrally, the playground features ensure that the walking route is displaced from the axis, relativizing it as a "carrier". Passing along their expressive outer sides, the playgrounds are also dynamic

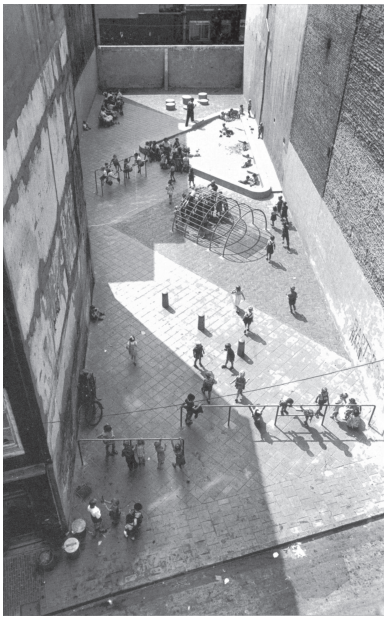
spatially because the high vegetation advances towards you and retreats alternately, causing the street area to widen or narrow. In areas without vegetation, such as at the crosswise paths or the tree-lined corridors, the other side of the road suddenly becomes recognizable.

Dijkstraat, 1954

This playground was built on the site of a house that was demolished during the WWII. The site, measuring around 10 x 25 m, is bordered on the two long sides by high walls. The rear wall of the site is low, and the street side completely open. As in the case of the central strip in Saffierstraat that became an active central space by including triangular areas that penetrate the playground from both traffic lanes, that happens here, too, but in a different way.

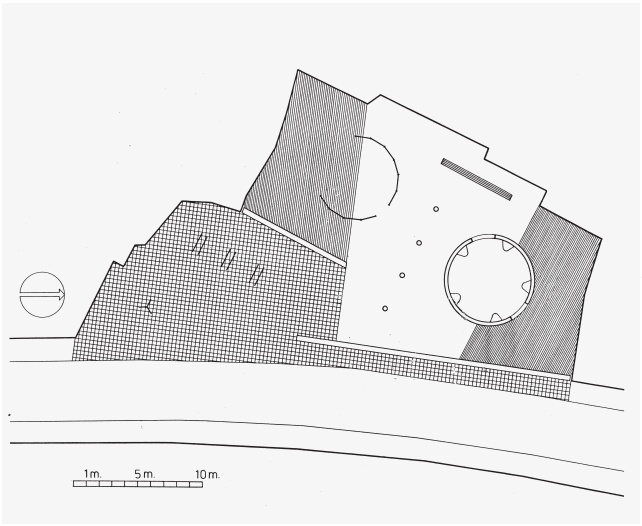
The two floor areas, each with their own clinker bricks and paving stones, and connected along their entire lengths with the adjoining partition walls, are notched together coarsely. The triangular sandpit joins in with this play by shifting partly across the two floor areas. The serrated border thus extended emphasizes the separation as well as the connection between the two areas. The ensuing tension spatially activates the area, which was previously but a lifeless remnant between two buildings.

The playing equipment is positioned eccentrically in the various areas, each feature supporting with its direction the diagonal directions of the floor areas, with the exception of the bench, which is positioned parallel to the partition wall and the two tumbling bars placed at right angles to the partition walls. These frames, placed out of alignment, create an entrance area which is both part of the playground and the street. Between the frames, shifted in relation to each other, an entrance is created that leads you to curve into the playground. At the back, the jumping stones invite you to make rotational movements, which in turn then automatically spin you back towards Dijkstraat.



11 Dijkstraat, photograph, 1954. © *Archive Aldo + Hannie van Eyck Foundation.*

12 Zeedijk, 1955-1956. © *Archive Aldo + Hannie van Eyck Foundation.*



13 Zeedijk, 1955-1956. © *Archive Aldo + Hannie van Eyck Foundation.*

Zeedijk, 1955

Aldo van Eyck broke open a piece of wasteland where five houses had once stood, overlooking the higgledy-piggledy backs of houses along Oude Zijds Achterburgwal, which had for many years been closed off from the Zeedijk by a high wall around 40 m long. The wall was replaced with a 20 m long brick retaining wall 80 cm high. Together with an equally thick retaining wall perpendicular to the longest side wall (11 m long and 40 cm high) they reduce the large site to two smaller ones, which are connected via a contraction between the two low walls, one of which is directly connected with the pavement, and the other separated from the pavement by the low wall.

Here, too, the paving plays a major role in differentiating the two areas. As a continuation of the pavement, the front area is paved with paving stones, and the main area is given a wedge-shaped paving of white concrete tiles flanked laterally by two areas of dark brown clinker bricks. The borders of the two long sides of the white area are respectively at right angles to the low wall along the building

line, and to the rear boundary, which varies in height. This radiant field can be regarded as the central area around which the three other areas are grouped.

The transverse axis of the area runs over the four jumping posts. As a basis for a rotational symmetry, this axis continues at right angles towards the bench against the rear wall and the three bridging fences in the front area. In a rotational movement, all the playground features, including the sandpit and circle of climbing frames, which increase incrementally in height, are connected in equivalence. The sandpit and tumbling bars grouped symmetrically on opposite sides of the cross axis create a connection across the border of the central space with the two side areas. With its rotation, the *tourniquet* emphasizes the front area as a transitional area between the city and the playground, which has become a dynamic system of shifting balances with the aid of multiple architectural means in an area surrounded on three sides by raggedy borders. After implementation, Van Eyck understood that the configuration could not function as a contra-composition in view of the indefinite nature of the inner space. He was not able to solve this problem using architectural means. With the help of the painter Joost van Roojen (1928-) the messy border of the inner area was transformed into a panorama of color and shape that intensifies towards the center. Aldo van Eyck was so enamored with the effect of the painting that he commented "…one would almost nevermore want to miss the fitful world of the inner area which here suddenly appears over the color explosion of the painting. 'It allows one to see once more!".[9]

Playground equipment

The public playgrounds required a different type of equipment than that used in traditional playgrounds, which featured mobile equipment such as seesaws, roundabouts and swings which were too complicated, damage-prone and risky for the new playgrounds. Aldo van Eyck simply had to design the equipment himself.

Unlike mobile equipment, on which children basically sit still, Aldo van Eyck developed static equipment that literally and figuratively got children moving:

> *Fifteen years ago, we still thought we had to create complicated things for play. Now we set up a simple tumbling frame, and we see the children somersaulting round it like flywheels while talking at the same time! It's a fine thing a human flywheel right there on the street. The tumbling child belongs in the city scene, just like herring carts.*[10]

This statement was preceded by a great deal of design work. To function as intermediary between children and the city, the equipment had to accommodate things that children do by nature such as skipping, jumping, climbing and tumbling as well as stimulating their imagination, and at the same time being included as perfectly normal street furniture in the cityscape.

> *An aluminum elephant is not real, since an elephant is meant to move, and as an object in the street it is unnatural. A child can make anything out of a single form. If a play apparatus represents an animal from the start, the form dictates its construction so much that it puts an end to pure play. There are rods you can't stand on, sharp corners into which your hand vanishes. […] The elementary archetypes such as the dome, igloo and arch are perfectly satisfactory because a child can sit on or under them and can discover all sorts of things in them.*[11]

Aldo van Eyck developed abstract forms in relation to the materials used, drawing inspiration from the restrained yet associative world of form of Arp, Brancusi and Sophie Taeuber. For economical and visual reasons, they had to be limited to a small number of types. Over the course of time, they were expanded and adjusted where necessary. They make up families, of which the concrete sandpits and the aluminum apparatus were the largest.

Sandpits

The sandpits, commonly the focal point of the playgrounds, and which were brought into balance with multiple lighter pieces of playground equipment, consisted of prefabricated elements forming a round or polygonal body. By preventing the outer and inner contours from running parallel, the upper part of the rim took on differences both in dimensions and shape, increasing the multiple aspect of the rim, also in terms of use. If running parallel, concrete jumping stones were placed inside the sandpit or against the inner wall. These stones lent dimension to the sandpit, making it feel larger or smaller. The concrete was given rounded corners and finished with decorative concrete. The same applied to the jumping posts and the round jumping stones (with a diameter of a single step) which were grouped into circles of six around a central stone, or into elliptical circles of seven stones. The epitome of simplicity, both groups elicited circular inward and outward jumps.

Frames

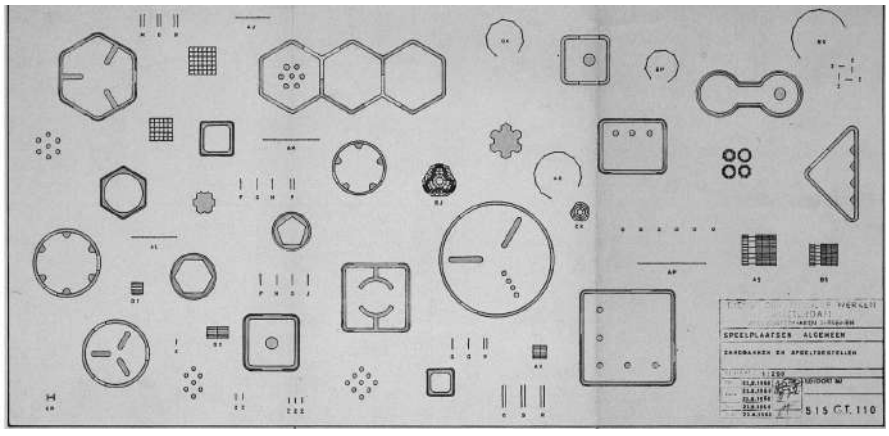
The aluminum frames formed an extended family. Initially, the tubular sections consisted of galvanized iron tubes of a single size (about 4 cm), which were later replaced by smoother and cleaner anodized aluminum tubes in various diameters.

The frames, with their varying heights and widths, were placed both in circular and linear formations, sometimes in close proximity like gymnastics equipment. The climbing arches, which children could climb over or crawl under, were soon supplemented with climbing domes, which constituted both a cave and a mountain. The subsequently developed conical climbing frames were placed next to each other in such a way or assembled together, as in the case of the roundabout, so as to activate the oblique space in between. The only mobile piece of playground equipment that Aldo van Eyck introduced was a simple *tourniquet*. These usually did not last long.

Wood

The wooden family of playground equipment is smaller. Starting as horizontal balance bars on metal supports, the

14 Photographs of playground equipment: roundabout (left); climbing funnels and climbing dome (right). © *Archive Aldo + Hannie van Eyck Foundation.*



15 Playground equipment: drawing for the Department of Public Works, 1960 (left); photograph of tumbling bars (right). © *Beeldbank, Gemeentearchief Amsterdam.*

trunks, originating as leftover cylinders from veneer plants (without an outer layer), were used as boundary elements. In the late 1960s they were incorporated into "climbing mountains". Together with palisades and flat disks they formed interlocking round and spiraling bodies, with attention falling more on the whole than on the constituent parts, accentuated by the unity of the rough material. This robust new playing apparatus was intended to counterbalance the empty spaces and colossal housing blocks in Amsterdam's new suburbs. This made these playgrounds very different from the earlier playgrounds in the historical city with their more delicately constructed city furniture.

Nevertheless, one such a robust, relatively homogenous playground was built in the inner city, but then in a large, cleared area in the Nieuwmarktbuurt neighborhood (1968). This was to be Aldo van Eyck's only playground with a roof, allowing children to play both inside and outside in all weathers.

Maintenance

Poor maintenance spelled the beginning of the playgrounds' demise. As from the late 1950s, indifference on the part of the urban authorities caused neglect to disfigure the entire fabric, freeing the way for monetization of the sites. There were no neighborhood protests; the postwar baby boom had skipped over the playgrounds, and residents wanted to be able to park in front of the door. The qualities of the playgrounds went unrecognized, as did the attention and care needed for them to function. Children paid the price, all the more so as opportunities for playing became increasingly restricted as car traffic increased. No alternatives were offered.

All the playgrounds have disappeared from the city center, apart from a few unrecognizable remnants. They served as temporary facilities in open plots that were gradually built on after the war. These were Aldo's most intensive playgrounds, having been designed in an intricate context.

A few playgrounds can still be found in a more or less original state in the postwar suburbs around blocks of flats. Most of these playgrounds have fallen into disuse, however, as a result of an aging population, and have now become derelict.

Between these two city areas, most of the playgrounds have been sacrificed to parking areas. Here too, only a

16 Zaanhof playground, stepping stones. In the Zaanhof playground the stones had all the same height, elsewhere they had different heights. © *Archive Aldo + Hannie van Eyck Foundation.*

17 Wooden climbing mountain, Molenwijk, 1969. © *Beeldbank, Gemeentearchief Amsterdam.*

18 Nieuwmarkt, city center, 1968. © *Archive Aldo + Hannie van Eyck Foundation.*

few playgrounds remain, not counting the subsequently constructed play dome, tumbling bar and conical frames in the side garden of the Rijksmuseum national museum, which are devoted to art, not children.

Coda

The playgrounds with their playing equipment, precisely arranged among themselves and in relation to the city due to their general significance, constituted focal points from which the city "rejuvenated". As such, the project formed an urban reconstruction process *avant la lettre* with an experimental start and an open ending. The ending came soon, though. The playgrounds have almost entirely disappeared: "as if the children too have gone".[12]

The playgrounds, however, were not only intended for children. As urban features, they were designed as spaces for everyone. Did Aldo van Eyck not always see the child as a metaphor for ourselves?

Heritage

A number of buildings in Amsterdam, whose inner city has been declared as a UNESCO world heritage site, have been awarded the status as a municipal and national monument. In that context, their new destinations were supposed to be carefully considered in respect of the possibilities afforded by the old construction. Their absorption capacity was limited, as was justifiably argued in the guidelines of the city's heritage policy.

Things proceeded very differently in the case of Aldo van Eyck's Tripolis office complex (1990-1994), which finds itself in a miraculous symbiosis with the adjacent orphanage now listed as a national monument on the periphery of the new and lucrative Southern Axis (Zuid-As) office area.

Motivated by profit-making, investors and project developers submitted a proposal for the conversion of the acquired Tripolis complex. The design literally and figuratively steamrollers the complex, swamping it with high-rising office blocks, depriving the Orphanage of breathing space.

In a completely impenetrable municipal decision-making process, this application was dealt with simultaneously with the application by the Heritage Association (Heemschut) to declare the Tripolis Complex a municipal monument – and here comes the apotheosis:

Both applications were approved in combination by the "*Commissie Ruimtelijke Kwaliteit*" [Commission for Spatial Quality] (sic), after which the Tripolis complex was mutilated and then given the status of monument! An upside-down world. After the playgrounds, we are now set to lose the Tripolis complex as well due to the indifference of the municipal authorities and the scourge of the moneymakers, and with it the Orphanage. A precedent is being created for subsequent applications for protected monument status — **docomomo** has its work cut out!

Notes

1 Aldo van Eyck, "On the design of play equipment and the arrangement of playgrounds", in Vincent Ligtelijn and Francis Strauven (Eds.), *Collected Articles and Other Writings, 1947–1998,* Vol. 2 of *Aldo van Eyck Writings,* Amsterdam, Sun, 2008, 113.

2 Vincent Ligtelijn, *Aldo van Eyck Werken*, Bussum, Uitgeverij Thoth, 1999; *Aldo van Eyck Works/Werke,* Basel/Boston/Berlin, Birkhäuser, 1999.

3 Aldo van Eyck, "The radiant and the grim", in *Aldo van Eyck Writings*, Vol. 2, ibid., 648.

4 Aldo van Eyck, "Ex Turico aliquid novum", in *Aldo van Eyck Writings*, Vol. 2, ibid., 14–15.

5 From 1929 to 1959 Van Eesteren (1897–1988) was Head of the Department of Public Works in Amsterdam. He was a member of "De Stijl" before he became president of CIAM (1930–1947).

6 Ingeborg de Roode, "De speelobjecten: duurzamer dan sneeuw", in Liane Lefaivre and Ingeborg de Roode (Eds.), *Aldo van Eyck, de speelplaatsen en de stad*, Amsterdam, NAi, 2002, 100, note 12.

7 John Voelcker, "Polder and Playground", in *Architects Yearbook*, No. 6, London, 1955, 89–94. Reprint in *Aldo van Eyck, Works*, ibid., 296.

8 The Constations (Observations) of the fourth CIAM meeting were idiosyncratically drafted by Le Corbusier in 1933. In 1941 he revised the text, in order to bring about a rapprochement with the Vichy regime of Pétain. In 1943 his Constatations were provided with a new, "politically correct" preface in order to have them published in occupied Paris as "La Charte d'Athenes", with an eye forwards towards the urban reconstruction that would follow the imminent victory of the Allied Forces. See: Eric Mumford, *The CIAM Discourse on Urbanism 1928-1960*, Cambridge, Mass., MIT Press, 2000, 116, 153-156.

9 Aldo van Eyck, "the Amsterdam Playgrounds", in *Aldo van Eyck Works,* ibid.,72.

10 Aldo van Eyck, "On the design of play equipment and the arrangement of playgrounds" in Vol. 2 *Aldo van Eyck Writings*, ibid., 114.

11 Ibid.

12 Aldo van Eyck, "the Amsterdam Playgrounds", in *Aldo van Eyck Works,* ibid.,72.

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Vincent Ligtelijn

Architect and former lecturer in Housing and Urban Design at the Faculty of Architecture of Delft University, in the seventies in association with Van Eyck. His articles and lectures concern architectural items of all times and places, his books monographs about Josep M. Jujol and Aldo van Eyck.

View of the SESC – Fábrica da Pompeia's hangar of general activities. Figure 094ARQf1202. Photo: Sérgio Gicovate.
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Bauhaus and Lina Bo Bardi: from the modern factory to the Pompeia leisure center

BY RENATO ANELLI

The importance of Bauhaus to Lina Bo Bardi is herein analyzed from two perspectives. One that follows her trajectory from the industrial design course she taught at MASP to its critique, searching in the Brazilian Northeastern popular culture for sources of renewal. The second one focuses on the project of adapting a factory to be used as a leisure center in São Paulo. In addition to valuing the rationality of the factory architecture built in the first phase of Brazilian industrialization, its preservation encompassed, in order for the building to be used for leisure purposes, interventions that altered the disciplinary attributes of the space. The design was conceived as part of the architecture, discarding its serial reproduction.

Bringing the work of Lina Bo Bardi (1914–1992) into the reflections on the centenary of Bauhaus offers an interesting opportunity to meditate on the process of cultural and productive modernization of a country like Brazil, relatively remote from the European avant-garde — "remote" in the sense of spatially away from the leading centers of production of the avant-garde: France, Germany, the Netherlands, and the Soviet Union. As a consequence, Brazilian modernists started defining their agenda in 1922, searching the native roots and the colonial past for a way to construct a form of art that would be modern and national. Such remoteness of Brazilian art resembled which Italy faced in the years of Lina Bo Bardi's education in Rome on the eve of WWII, under the fascist rule of Benito Mussolini (1883–1945).

The Bauhaus in the Italian background of Lina Bo Bardi

After the closure of the first futuristic avant-garde, Italian culture also searched its past, in this case the classical Roman tradition, for the specifics for a modern and national project. With the rise of Benito Mussolini in 1922, the modern Italian field saw in it the possibility of the modernization of Italy. This project was to be made explicit by Pietro Maria Bardi (1900–1999) in 1931,[1] when he publicly proposed to the *Duce* that art and modern architecture should be the official styles of the fascist state.

Between 1931 and 1937, despite all the mishaps concerning disputes with the establishment of architecture, Italian rationalists gained a prominent position in the production of public buildings. It was only after 1937, during the production of the E-42, that Mussolini decided he would no longer accept the rationalists in representing the fascist state, then transformed into an empire and ally of Germany under Nazi rule. The appropriated architecture was classic monumentality, discreetly modernized by Marcello Piacentini (1881–1960) and his followers.

Lina Bo Bardi studied at the School of Architecture of Rome [*Facoltà de Architettura di Roma*] between 1934 and 1939, where teachers discouraged students from adopting the avant-garde architecture of countries beyond the Alps. Thus, she became acquainted with the art and architecture of the European avant-garde through the magazines *Casabella* (Giuseppe Pagano/Edoardo Persico), *Quadrante* (Pietro Maria Bardi and Massimo Bontempelli) and *Domus* (Giò Ponti). While *Casabella* was more aligned with the Bauhaus and the German New Objectivity, *Quadrante* was directly affiliated with Le Corbusier (1887–1965), and *Domus* remained equidistant, focused on the modernization of decorative arts in the new architecture.

After graduation, she worked for Giò Ponti (1881–1979) between 1941 and 1943, in his new magazine *Lo Stile — nella casa e nell'arredamento*, a magazine dedicated to the refinement of the fine and applied arts, where architecture was also one of the topics addressed. In this and other magazines, Lina Bo Bardi worked as an illustrator and interior designer, planning decorations and furniture.[2] Her companion and partner in those years, architect Carlo Pagani (1913–1999), was invited to direct *Domus* in June 1943, where he takes her as a co-director.

The resumption of the modern and national project in Italy took place in the last years of the war, anticipating the reconstruction process that would follow after the conflict ended. There the architect participated in a cultural environment rich in debates about proposals for reconstruction. Beyond the resumption of pre-war rationalism, architecture gave new importance to popular culture, a direct consequence of the Resistance's role in the defeat of Nazi-fascism.

Lina Bo Bardi maintained a broad perspective of the architect's role, from the production of objects to the architecture of buildings. When she took part in the editorial staff of *A — Attualità, Architettura, Abitazione, Arte* magazine, with Carlo Pagani and Bruno Zevi (1918–2000), such breadth of her perspective embraced the notion that Italian reconstruction would be an opportunity for radical changes in the country's way of life.

This condition is relevant for understanding how Bauhaus design concepts got to her while she was still in Italy — before, during and immediately after the war. Design was understood as an evolution of manufacturing, conceived as the basis for an industrialization that incorporated the handcrafts produced in the country. It is possible to find parallels between this conception and the production of the first phase of the Bauhaus, still marked by expressionism and lore present in artisanal manufacture. A position that would mark her design production in Brazil.

The modern project of the Bardi couple in Brazil

Lina Bo Bardi got to know Brazilian modern architecture through the catalog of the *Brazil Builds* exhibition, while still living in Italy. In addition to her fascination with a country that was building, while Europe was being destroyed, she recognized in it a modern national project similar to what had been interrupted in Italy years earlier. In 1946, the journey to Brazil with Pietro Maria Bardi, as they were newly married, was seen by her as an opportunity for insertion in this political, cultural and productive project, which animated a young architecture of Corbusean inspiration.

The year after their arrival in Rio de Janeiro, the couple moved to São Paulo, as they were invited to set up and direct the São Paulo Art Museum (MASP). There she dedicated herself to museography, applying the principles of Italian expography by Franco Albini (1905–1977), BBPR,[3] Ignazio Gardella (1905–1999) and many others. Paintings liberated from the walls, fixed in panels and tubular structures, brought to São Paulo a modern way of exhibiting art, bringing it closer to an audience without a thorough education in art history.

In design, she joined the Italian Giancarlo Palanti (1906–1977) between 1949 and 1950, producing chairs with Brazilian fabrics and timbers. In the first issue of *Habitat* magazine, in November 1950, in order to illustrate the article that presented the chairs produced by this partnership, a photo of hammocks strung in a passenger river vessel was chosen. In the caption, she states that they provide a "perfect body grip", a feature she transported to the design of a timber chair with the fabric attached only at both ends; a rudimentary Brazilian version of the Marcel Breuer's Wassily armchair (1925–1926), grasping the feeling of sitting "on a resilient column of air".

In that same issue, the magazine presented the handcrafted fabrics of Clara Hartoch (1881–1970), a weaver artist presented as a Bauhaus graduate, who would be one of the teachers in the industrial design course at MASP's Contemporary Art Institute (IAC).[4] Created in 1951, the IAC course brought together Brazilian and foreign architects, artists and designers in a Bauhaus-inspired program. The German school was already well-known and respected in Brazil during those years, mediated, however, by the Chicago Institute of Design, created at the Illinois Institute of Technology, and by the Ulm School of Design.

This was the first course to train industrial designers in Brazil, being part of the efforts of the Bardi couple to participate in the process of Brazilian industrialization. They thought it was possible to replicate the experiences of the *Werkbund* and the Bauhaus in Brazil, which did not happen due to the type of industrialization that took place in the latter, based on multinational companies that brought their projects from their headquarters. The course closed in 1953 due to the lack of support from companies. In 1955 Lina Bo Bardi joined the University of São Paulo's Faculty of Architecture and Urbanism (FAU/USP) as a temporary teacher in the discipline of "Decorative Composition", where she introduced students to the practice of modern design.

Design and popular culture: Lina in Bahia

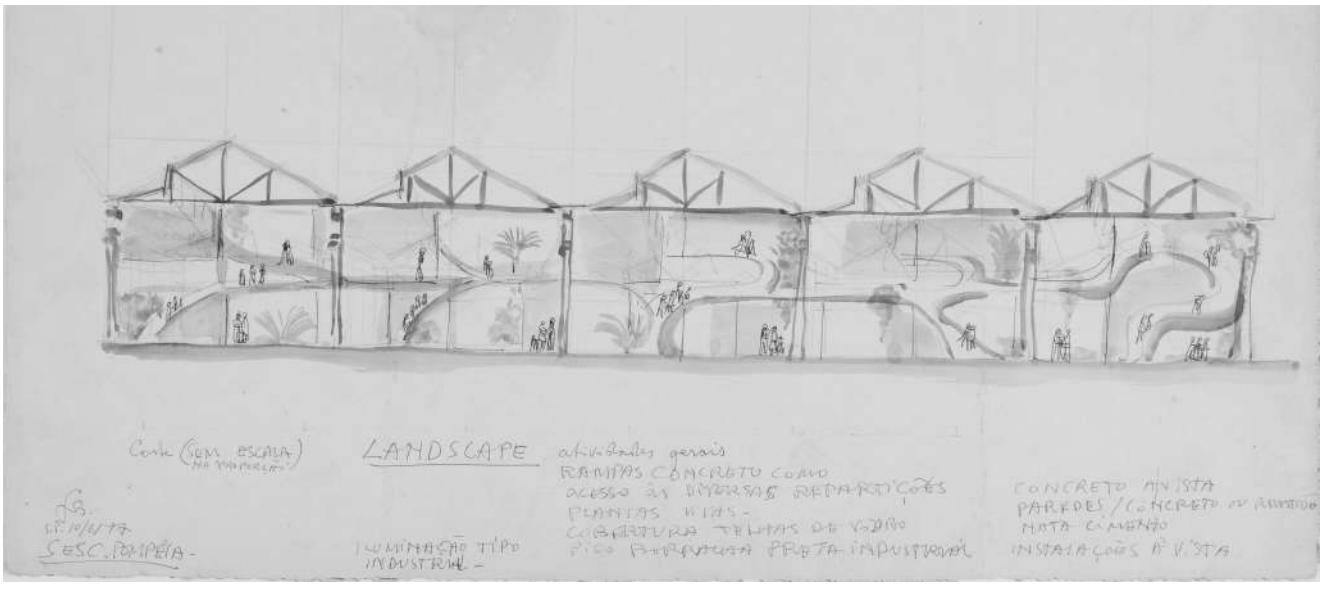
Lina Bo Bardi's experience in Brazil changed her in those years. Living in the radical transparency of her Glass House (Morumbi, São Paulo, Brazil, 1951), whose elevated living room — with three of its four faces fully glazed — awaited the growth of the surrounding garden to create conditions suitable for the tropical climate, the architect approached Bruno Zevi's organicism. She stated in a letter to her husband in 1956 that she was disillusioned with this kind of architecture and that if she were to make another house at that time, she would do it with brick and timber walls.

Shortly thereafter, in 1958, she designed the Valeria Cirell house, in São Paulo, and the Chame-Chame house, in Salvador, where she experimented in this new direction — traditional masonry and thatched-timber structured roofs in the first, and winding shapes in the second, both lined with round pebbles and shards of pottery.

She returned to Salvador in 1960 to head the Bahia Museum of Modern Art (MAM-BA), a project that made it possible for her to undertake extensive ethnographic research into traditional forms of production in the region, which served as the basis for the creation of the Center for Studies and Craft Work (CETA), in 1962. In the program manifesto, the reference to German design is taken up:

> *A Bauhaus or Metaphysical-Experimental Ulm-type of school would be useless in a young country, with civilization of strongly primitive and directly earth-bound factors, very modern factors from a modern cultural point of view.*[5]

In addition to research in the interior of the region, CETA would have an industrial design course, bringing together architecture and engineering students with masters of crafts – ceramics, wood and weaving. She gambled on the possibility of the renewal of modern design from the approach of the popular roots of crafts and manufacturing. Such a proposal sought support in Northeast regional development projects inspired by UNECLAC guidelines for poor regions,



01 Lina Bo Bardi, Section of the SESC – Fábrica da Pompeia's hangar of Activities, 1977. Aquarelle, ballpoint pen, hydrographic pen, on paper; 38,7 x 57,5 cm. Figure 094ARQd0007. © Instituto Bardi / Casa de Vidro. Detail.

to implement an economy based on labor-intensive manufacturing and little investment in technology.[6]

The project was interrupted by the military coup of 1964, but not before the new headquarters of the museum in Solar do Unhão were completed. This typical agro-industrial complex of sugar mills, consisting of a big house (*casa-grande*), chapel, slave quarters (*senzala*), warehouses and quays, built in the 16th century on the shores of the Bay of All Saints, had gone through various uses, including industrial in the 19th century, and had been listed as a national historical heritage site in 1943. To restore it and adapt it for use as a museum, Lina Bo Bardi experimented with the principles of Cesare Brandi's Italian critical restoration,[7] which would substantiate the wording of the Venice Charter that same year. Interventions to adapt the building to new uses should be made without pretending to mimic the past, making explicit the moment in which it was performed. Orienting itself within this position, the architect designed a new staircase, where the abstract geometric shape, a helical insert into a square, was constructed using handcrafted timber techniques used on ox cart wheels, demonstrating the potential of a new design, both modern and popular.

The modern factory

Lina Bo Bardi attributed the invitation she received from two directors of SESC, Renato Requixá and Glaucia Amaral, in 1976 to the positive reception of the adaptation of Solar do Unhão for use as a museum.[8] She was asked to analyze the design situation of a cultural and sports center on the site occupied by a deactivated factory in the Pompeia neighborhood in São Paulo, evaluating the possibility of its preservation and adaptation. With the project by Julio Neves' firm already approved, the factory would be demolished. However, the factory had already been poorly adapted by SESC for temporary use as sports facilities, being widely used by residents of the neighborhood.

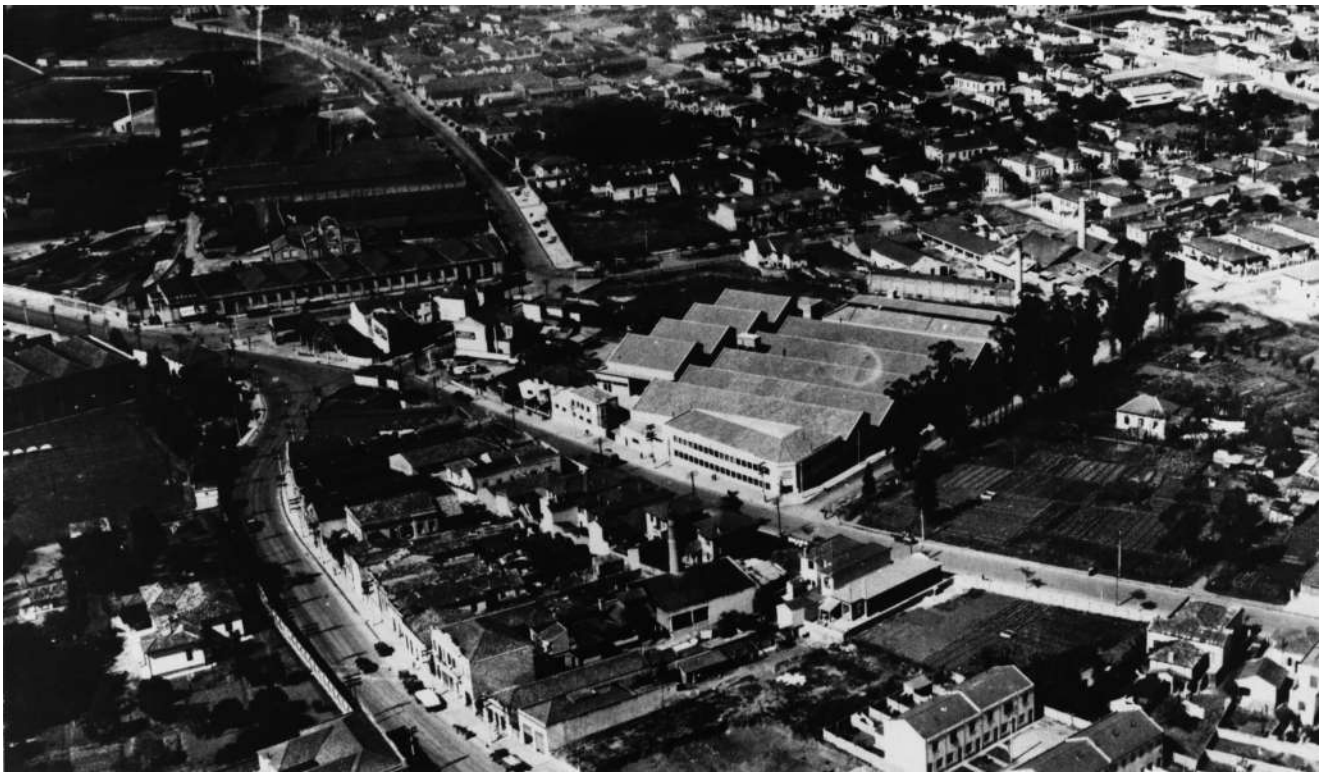
Reporting on her first visit to the site, Line writes:

> *When I first entered the then abandoned Pompeia barrel factory in 1976, what piqued my curiosity, in view of a possible recovery to transform the place into a leisure center, were those warehouses rationally distributed according to the English projects of the beginning of European industrialization, from the mid-19th century. However, what enchanted me was the elegant concrete structure. Kindly remembering the pioneer François Hennebique, I immediately thought of the duty to conserve the work.*[9]

Even without the factory being listed as an item of historical heritage, the values attributed by her to the building would justify its preservation as an example of the modernization of construction and of the country. The rationality of warehouse distribution and the structure similar to those of François Hennebique (1842–1921) were the two main highlights of the project in preserving and the adapting the factory for the new use.

The factory, owned by the company Mauser & Cia LTDA., was built between March 1938 and March 1939. The blueprint located in the São Paulo City Hall archive showed the designer to have been the German architect and engineer Max Hans Fortner, who was replaced in February 1938 by the engineer José Diez to lead the construction.

Max Hans Fortner is a professional little known within Brazilian architectural historiography. Through Sylvia Ficher it is possible to know that he was born in Reutingen, Germany, in 1907, graduating from the Mackenzie College School of Engineering in São Paulo in 1929.[10] As a student, he published the article "A Anti Architectura Moderna" [The Anti-Modern Architecture] in the *Revista de Engenharia Mackenzie* in 1927, arguing that the architect should be "primarily an engineer and an economist", opposing the preponderant academic orientations of the school. He worked with industrial buildings such as those of Vigor



02 The old drums' factory, 1940s. Figure 094ARQf0012. Unknown photographer. © Instituto Bardi / Casa de Vidro.

Dairy, Brahma Brewery, Walita, projects guided by principles of rationality and economy, as well as the barrel factory in the Pompeia neighborhood.

The plans made for approval by the city hall in 1937 refer to the construction of the administrative building, located on the corner, and the warehouses, which in SESC, would become the covered square and the theater.

The structure of the warehouses is mixed with columns and reinforced concrete beams supporting the timber roof trusses. In the cuts one can see the geometry of the defined structure, but not yet in detail. The trusses, which open on sheds for light distribution, are supported by the columns, interconnected by a pair of upper beams, both in reinforced concrete.

In the plans they are drawn with some differences from the constructed one, showing sections of square and rectangular beams, and not as a "T". The elevation also appears to differ, as it is shown as a Vierendeel beam, with the diagonal ribs inwardly facing corners, and not as it was built, with two corbels on the lower faces of the beams.

The reports of Marcelo Suzuki, one of Lina Bo Bardi's assistant trainees on the site, state that the surveys of the structure carried out by Figueiredo Ferraz's company revealed a characteristic structure of the Hennebique system, where the stirrups play a relevant structural role.

The dating of the project, however, puts it outside the period in which the structures designed by Hennebique were built in Brazil. Research in the *Maison Hennebique* collection, in Paris, states that his projects in South America were carried out between 1894 and 1914. Despite the success in establishing a network of licensed agent companies in Brazil, mastery of reinforced concrete structure design technologies was pursued at the Office of Resistance of Materials of the Polytechnic School of São Paulo, created in 1899. Already in 1913 the school handouts presented this technology, and in the 1920s its laboratory performed tests for quality control of materials used. It was an applied research process that allowed the construction complex in São Paulo to be consolidated in the 1930s, facilitating the design and construction of reinforced concrete.

There are no references to structural design in the application filed at the city hall. Due to its performance in other industrial projects, it is possible that it was developed by Fortner, although no records were found to prove it. Reference to "English projects" or "importation from England" remains vague, with no possibility of documentary confirmation.

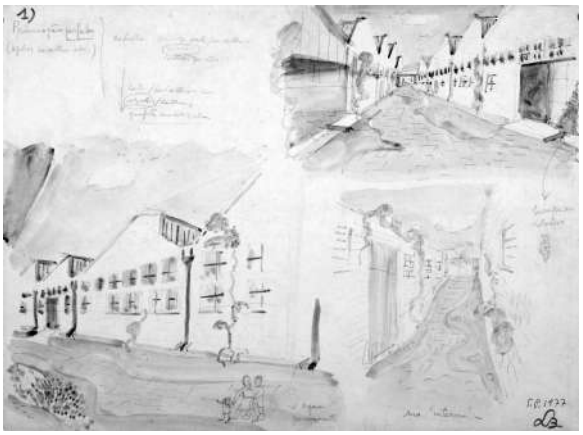
Based on maps of the city, it is likely that the land had an initial occupation as late as the 1920s. The 1924 São Paulo map did not record any building on the newly deployed parcel of land, while on the 1930 SARA Brazil map, an outline of a square plan appears in the position of the factory's main warehouse, now the covered square. The graphic record is of project or work under construction, but official documentation indicates the construction as occurring between 1938 and 1939, a date of completion that can be corroborated by the 1940 aerial photo, where the factory appears complete.

The factory is located on the northwestern edge of the Pompeia neighborhood, on the city's expansion axis to the interior of the state, and on a road and rail link that had attracted a large industrial complex, around which workers'

03 View of the SESC – Fábrica da Pompeia's hangar of general activities. Figure 094ARQf1192. Unknown photographer. © Instituto Bardi / Casa de Vidro.

04 View of the SESC – Fábrica da Pompeia's hangar of general activities. Figure 094ARQf1189. Unknown photographer. © Instituto Bardi / Casa de Vidro.

05 View of the SESC – Fábrica da Pompeia's hangar of general activities. Figure 094ARQf1226. Photo: Paquito. © Instituto Bardi / Casa de Vidro.



06 Lina Bo Bardi, Study for internal street of the SESC – Fábrica da Pompeia, 1977. Aquarelle, ballpoint pen, graphite, on paper; 28,5 x 38,5 cm. Figure 094ARQd0003. © Instituto Bardi / Casa de Vidro.

houses were installed. The barrel factory was set up years after major industries, in a position on the edge of residential areas. Such a position would be relevant for it to be the first factory structure converted to new uses. In this case, used to shelter social services for the residents of the neighborhood, when the region was deindustrialized in the 1970s.

From work to leisure: the resignification of factory space

Lina Bo Bardi's fascination with the factory's structural components is clear from the prominence they received in her speech. By extoling it, the architect aligned herself with Walter Gropius (1883-1969), Le Corbusier, Nikolaus Pevsner (1902-1983), Siegfried Giedion (1888-1968), and other modern architects for whom the rationality of industrial structures should be a starting point for the new architecture.

In the project to transform the larger warehouse into a covered square, the architect emphasized the mesh of columns. The uninterrupted spatial continuity of the hall dialogs with the water mirror and the two-level mezzanine constructions, elevated planes for reading and playing areas that bring the user closer to the top of the structure to the point of almost touching it.

As she had done in Unhão, the preservation of any pre-existing elements was selective. Tilting glass windows have been replaced with exposed brick walls that allow for permanent ventilation. All original or later masonry coatings have been removed to reduce exposed materials to only apparent concrete and exposed bricks.

The new interventions were made with apparent, in-situ cast concrete, marked by the texture of the narrow timber formwork board shapes, the masonry of concrete blocks with a coat of spackle, and glue-laminated timber furniture. Stone floors with rocks from Minas Gerais [*pedra mineira*], shards of pottery and cobblestones complemented the palette of materials and colors of the set.

The rough character of the factory building was maintained, but the details, colors and textures sought to bring it closer to the users, as if capable of humanizing it.

The main problem of the project, according to the architect's interpretation, stems from the need to transform the factory workspace into a leisure space. The call to discipline and focus of attention at work, characteristic of a factory, should be replaced by the encouragement of relaxation, easiness and fun, essential for leisure. However, the architect chose to maintain the tension between work and leisure, not erasing the meaning of the pre-existing structure. The memory of the industrial brick chimney, which had collapsed years before the intervention, is referenced in the water tank design and graphic communication. In this, the chimney releases a cloud of flowers into the air, covering the words "SESC Fábrica Pompeia, Centro de Lazer" [SESC Pompeia Factory, Leisure Center].

The emphasis on the opposition between work and leisure stems from her interpretation of the fundamentals of social leisure, a theory developed by the French Catholic intellectual Joffre Dumazedier (1915–2002) and adopted by SESC in the elaboration of its activity programs.[11] The facility should have characteristics that stimulate relaxed enjoyment by users.

Besides the humanization of the industrial structure through the use of exposed materials, Lina inserted elements with a figurative character, seeking to establish symbolic empathy with the users: the water mirror in the covered square becomes the São Francisco River, the parapets of the pathways configure a Mandacaru flower. She makes use of her scenography experience for such interventions, controlling the design decisions in the construction process.

Thus, her project work in the office set up at the construction site allowed for constant experimentation in an endless process of revisions and additions to the executive project. New inventions, directly linked to the experience of the space under construction, came about thanks to this way of designing: the arrangement of stones on the concrete floor, the channels for rainwater, the restaurant menu consisting of food sculptures made of wood by one of the workers, and many others that contribute to the successful use of the facility.

Applied arts and design, already present at the IAC of MASP and at CETA of Unhão, return literally at SESC Pompeia, in its workshops of ceramics, painting, carpentry, tapestry, engraving and typography, transmitting these crafts to new generations. However, the formative project of designers would not be repeated.

The design within the impasse

"The great attempt to make Industrial Design the regenerating force of the whole of society has failed". With this statement Lina Bo Bardi enunciated the impasse she identified in design from the 1960s on.

For her, the abstract geometric forms of design and modern architecture had lost their original transformative meaning, becoming simple disposable consumer products. From then on, Lina Bo Bardi stopped designing for industrial serial production and started developing furniture for her architectural projects, using simple techniques and materials, with a unique language, full of meaning and possibilities.

In 1992 Pietro Maria Bardi emphasized the construction root that remained in the late work of his recently dead wife throughout her career:

For Lina to design a chair, it should obey the architecture. She gave architectural importance to a piece of furniture. That is, she saw architecture in every object. I always saw and understood that, for Lina, design meant construction as architecture.

Lina Bo Bardi adopted a glue-laminated timber construction system for the SESC Pompeia furniture project. Developed by engineer Vinicio Walter Callia for structural use, the *Pinus Oocarpa* laminated timber bonding system, extracted from trees grown in replanted areas, has been marketed by Laminarco since 1960. The glue-laminated parts had sections capable of overcoming spans, being cut to form tables, chairs, and benches of the leisure center, some with reinforced concrete bases. The result of visual and physical weight hampered its movement in space and signaled its belonging to the architecture.

The shape of each piece proposes a way of sitting related to the environment and its use. Lina Bo Bardi designed large sofas for relaxation in the living area of the covered square, hard theater chairs to arouse attention during the play, large round tables in the study areas of the library, long rectangular tables with fixed benches in the restaurant.

Design no Brasil: história e realidade [Design in Brazil: History and Reality], an exhibition, curated by her in 1982, for the inauguration of the leisure center summarized the narrative of her career in the country. It presented industrial design in production at that time in Brazil: cars, airplanes, computers, utensils of an urban and modern civilization alongside objects with popular roots, the essentiality produced with low technology and much accumulated traditional knowledge. It was like juxtaposing two paths. One composed of the developments of the IAC/MASP, through the courses of the School of Industrial Design at the State University of Rio de Janeiro, the Sequence of Industrial Design and Visual Communication of FAU/USP, in São Paulo. The other, with a countercultural character, bringing together the research proposals of the Northeast exhibition at Solar do Unhão to the avant-garde theatrical production and the social movements based in the peripheries, which did not have a consistent development in the formal economic production, but which is still present in the Brazilian informal production.

Her uneasiness stemmed from the reproduction of Bauhaus design principles at the IAC/MASP, underwent profound revisions as she sought to renew industrial design by means of incorporating popular manufacturing knowledge in Bahia, and came to the denial of industrial serial production at SESC Pompeia.

From a Eurocentric attitude to a participatory and *third-worldish* attitude, Lina Bo Bardi was an isolated character in the review of post-CIAM modern architecture. Faithful to the social and formal principles of the early vanguards of the 1920s, she sought in popular culture the avenues for its renewal.

Now, in the 21st century, her legacy still continues to offer new perspectives on contemporary architecture.

Notes

1 The Second Exhibition of Rational Architecture at the *Galleria d'Arte* in Rome, directed by Pietro Maria Bardi, was visited by Benito Mussolini at its inauguration on March 10, 1931.
2 Lina also worked for *Bellezza*, *Grazia*, *Vetrina* and *L'Illustrazione Italiana*.
3 BBPR was an architectural partnership founded in Milan, Italy in 1932, by Gian Banfi (1910-1945), Lodovico Belgiojoso (1909-2004), Enrico Peressutti (1908-1976) and Ernesto Rogers (1909-1969).
4 Despite the statement, no records of Hartoch were found in the school archives in Berlin and Dessau, as highlighted by Ethel Leon (2015, 68) in her study on the IAC.
5 Presentation text of CETA, Bardi Institute / Glass House collection.
6 Renato Anelli, "Lina Bo Bardi and her relationship to Brazil's Economic and Social Development Policy". in *Lina Bo Bardi 100. Brazil's Alternative Path to Modernism*, Berlin, Hatje Cantz, 2014.
7 Ana L. Cerávolo, *Intepretações do Patrimônio*, São Carlos, EduFSCar, 2013, 135-163.
8 As the central theme of this essay is the intervention in the factory building, we chose not to approach the sports center, inaugurated in 1986. This set of buildings present complexities that would exceed the limits of this article.
9 Lina Bo Bardi, "A fábrica da Pompéia", 1986, in Marcelo Ferraz, *Cidadela da Liberdade. Lina Bo Bardi e o SESC Pompéia*, São Paulo, Edições SESC SP, 2013, 31.
10 Sylvia Ficher, *O curso de Arquitetura da Escola de Engenharia do Mackenzie*, 2017, 79. Available at: <www.mackenzie.br/fileadmin/ARQUIVOS/Public/1-mackenzie/universidade/unidades-academicas/FAU/SFicher_EEMack.pdf>.
11 Renata Bechara, *A atuação de Lina Bo Bardi na criação do SESC Pompéia (1977–1986)*, São Carlos, Master thesis, Instituto de Arquitetura e Urbanismo Universidade de São Paulo, 2016.

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BHR ox *bauhausreuse*, progress in August, Ernst-Reuter-Platz, Berlin 2019. Photo: zukunftsgeraeusche/ptw.

Modern reuse

BY ROBERT K. HUBER

The essay is part of an ongoing research work about the heritage of modernism, especially the relationship between material, information and message – projected on the genesis of values and a cultural practice of modern reuse, not least on our present legacy and an upcoming circular society. It examines narratives and developments of modernism, concerning the built environment and industry production, to question modern general principles, systems of values and socio-cultural interrelations. The examination is experimentally grounded on projects both in experimental architecture and discourse, which operate across research, practice and conceptual art – referring to the Bestandsverpflanzung (2008) and the current work with *bauhaus reuse* from 2019.

From mid 2019, on the occasion of 100 years of the Bauhaus, the *bauhaus reuse* (BHR)[1] project has been established as a public center and urban lab for transdisciplinary education, research and participation in Berlin. For the upcoming years it is located in the middle of the roundabout of the Ernst-Reuter-Platz, itself a protected monument of modern landscape architecture designed by Werner Düttmann (1921–1983), realized in 1959–1960. In a diverse program based on discursive, practical and performative formats, the center called BHR OX will work on the topics of modern societies, politics and Baukultur, sustainable urban development and circular society — as well as the future of education and labor.

The transparent pavilion, *bauhaus reuse,* is built with reused façade elements from the north façade and the atelier house of the famous Bauhaus in Dessau, originating from its postwar refurbishment in 1976. For the 50th anniversary year of the Bauhaus in Dessau, the badly damaged and, over decades, neglected building was renovated in the former German Democratic Republic (GDR). The same year the foundation stone of the Bauhaus Archive was laid in West Berlin, after controversies about the building's location, which was originally planned for Darmstadt, finally coming to Berlin through Gropius's own intervention.

For three years the *bauhaus reuse* project had been located at the Bauhaus Archive when, in 2018, it was dismantled and reassembled for its current, second time of reuse; on both occasions as a practical vocational education project — "Bauplatz" — involving around 100 students.

The BHR OX initiates an intense collaboration with the district council of Berlin-Charlottenburg and public, professional and academic institutions. The on-site cooperation with two universities — the Technical University of Berlin and the Berlin University of the Arts — establishes a pilot-platform for the realization of a number of transdisciplinary projects which will take place in dialog with the public. Furthermore an important topic is the development of the site, the perception and appreciation of the place, which is examined and conveyed with various public formats under the title "Conglomerate of Modernity — Ernst-Reuter-Platz". The temporary symbiosis of the *bauhaus reuse* with the square offers a site-specific starting point; among others: an information center about the urban history of the square and the refurbishment of the urban furniture to a heritage-protected state — again as a vocational education project.

bauhaus reuse – modern reuse

The name *bauhaus reuse* is based on the material act of reuse but indicates on this haptic basis a much larger frame of reference. The concept of *bauhaus reuse* stands for a material, societal and cultural approach on innovative methods of interpretation and dealing with the heritage, general principles and narratives of modernism.

The deeper meaning of this concept of *modern reuse* is to question what kind of cultural techniques can be developed within the legacy of modernism. Considering modernism is our most recent past and how we deal with this heritage, in comparison to how other epochs were dealing with its past – in a culturally holistic way – will ultimately define our future; more than in any other era before.

In this respect it is fundamental to retrace and question significant narratives and developments of modernism, in terms of its built environment and its material world of modern industrial production, to examine systems of values and socio-cultural interrelations – this article reveals an excerpt from an ongoing research work.

Material and information

The modern legacy and future, in transition from an industrial, raw material-based society to a knowledge-based

society, means neither less industrialized production nor less material will occur, and that society will be less affected by it, even though fewer people may be employed in classical production in a global perspective. This applies to the growth of the entire realm of things, consumer goods, and the built or cultivated environment, and to its information content. In a post-fossil circular society, the transition to a knowledge-based society means an acceptance of the conditions of a ubiquitous anthropogenic material storage in an intelligent way.

Linear added value and production chains face being converted into a non-linear system of transformation. In the best case heading towards the circulation of things and information whereby both the human being in its relation to the material, as well as the present definition of locations and locational policy, are affected. No new raw materials are to be mined, but products are to be transformed, demanding an abandonment of thinking in terms of raw and fossil-based materials.

This emphasizes the knowledge about things, and for an information-based exploration - literally grasping an intelligent reuse – and no homogenization back to a secondary raw material condition. In other words, turning to a post-fossil way of thinking, in terms of thinking in components and informed units.

It relates to a (post-)structuralist understanding of the fact that elements, information, people, locations etc., in their interdependent relationship, represent equally the entities as well as the structure or network (Latour)[2] – in other words a circular flow of arrangements and relationships. Within this necessary understanding it is not the volatile element and the fixed structure which are opposed to one another, but – within a sort of chaotic warehousing (dynamic storage) – the constant data management and allocation of information between them; technically organized through communication and multilateral contracting, oriented towards standards and ongoing assessment. This is to be achieved not at the price of determination through pure metrization or bureaucratization, no false utopia of a centralized power or bank – and definitely no aesthetic systematization. The desirable basis is an open-system circulation of material and information.

Heritage and leftovers

The legacy of modernism, its structures and, above all, its fragments, components and elements are the stumbling blocks and the iconic spolia of transformation for this – first of all – different cultural approach to a circular society and especially storytelling.

But initially, the topic of *modern reuse* includes another question, is it about the reuse of modernism, the practices or methods, or about the concept of reuse within modernism, based on the understanding of revolution and redevelopment? Both interpretations play an important and interdependent role. With the point of interest evolving in the relationship between the definition or perception of the notion of heritage and/or the notion of leftovers. Or in other words, concerning a turn towards a different approach to the built environment: in relation to the material, the message and the concluding value.

"Neubau" – "Rückbau"

Already in the 1970s — during the height of the "building boom" — redevelopment, in terms of major deconstruction of modern architecture, mainly housing settlements, became a permanent topic. For instance, as one significant example, in 1985 the German journal *Bauwelt* was already asking in its June issue: "Progress by destruction?".[3]

This is not just a phenomenon of the aftermath of "modernist believes"— or later the aftermath of the fall of the Iron Curtain or, the breakdown of the GDR and subsequent German reunification, which is a common general assertion — but is rooted much deeper.

Reflecting the situation of redevelopment of modernist building in the West, it is just to remember the so-called "end of modernism" (which in fact was not happening) that came about with the demolition or explosive detonation of Pruitt-Igoe in St. Louis. This commonly-known incident is interesting for several reasons, beside its imposing beacon and dramatic reception, as well as its symbolic connotation for the failed general promise of modernism to solve the social problems of mankind centered on the provision of humane and affordable housing for the masses. The stated "big picture" of reasons for its failure, largely based on bad maintenance, lack of social funding, wrong segregation policies and, not least, a certain ideological controversy about public housing programs, should be ignored.

Pruitt-Igoe was designed in 1951 and completed in 1956 – within a remarkable timeframe. The period spans almost exactly in between the first (1950) and the second (1956) German federal housing law after the WWII. It includes the 1953 famous Bauhaus-Debate,[4] when Rudolf Schwarz (1897–1961) attested that Walter Gropius (1883–1969) was not able to think in an occidental (European) cultural perspective, blaming functionalism as actually a materialist scam on modern ideas, based on a decaying diction of international communism. As a counterpart, in the former GDR, a similar, although differently manifested, debate took place reviling the Bauhaus as an offspring of "American cosmopolitanism"[5] and worse, a legitimization of the turn towards Neoclassicism as an artistic reason of the State; whereas 1953 also marked the beginning of the development of major housing estates based on large prefabricated panels in the former GDR with a first experimental project[6] in East Berlin. A highly topical subject, raising the question if the later bad reputation of functionalism was caused by a persisting cultural imprint by postwar propaganda (an actually unfinished debate), which in the West had its successful opponents, or if it was caused by the later highly concentrated urban development motivated by economic reasons (in both West and East), identified with functionalism, whose public reception finally buried its originally emancipatory concepts.

Parallel to the postwar debates in West and East Germany, the founding of Team 10 at the ninth CIAM congress in Aix-en-Provence dates from the same year;

01 Bestandsverpflanzung on Lenbachplatz, Munich 2008-2009.
Photo: zukunftsgeraeusche/akf.

02 Bestandsverpflanzung: catharsis, Munich 2009.
Photo/graphic: zukunftsgeraeusche/rkh.

followed by the 1965 congress which marked a break in the modern agenda and debate that was still based on the 1933 Charter of Athens.

The design of Pruitt-Igoe, with its 2,870 flats on 57 acres (23 hectares) consisting of 33 eleven-story blocks, was an actual prototype for major postwar housing estates. It was the first independent project by the architect Minoru Yamasaki (1912–1986), who is also known for another famous building built in 1968–1971, the World Trade Center in New York, whose destruction also marked the end of an era.

Pruitt-Igoe's demolition began one year later, the same year in which again the former GDR started developing its major housing program from industrial serial production, which had been instigated in 1971, and should have solved the housing shortage until 1990. The largest settlement in Europe, and most well-known for East Germany, in Berlin Marzahn-Hellersdorf, was built from 1976. The largest settlement in West Germany was built from 1967–1991 in Munich Neuperlach, planned under the management of Egon Hartmann (1919–2009) who had won the competition for the East Berlin Stalinallee in 1951. The demolition of Pruitt-Igoe started on March 16th, 1972 at 03:00 p.m. and the first stage of destruction ended with the famous blasting on July 15th, 1972, 03:32 p.m. This is what Charles Jencks later called "the day modern architecture died", as he wrote in 1977: "Modern architecture died in St. Louis, Missouri, on July 15th, 1972, at 3.32 p.m. (or thereabouts), when the infamous Pruitt-Igoe scheme, or rather several of its slab blocks, were given the final coup de grace by dynamite".[7] The final demolition took place in 1976.

What is distinctive with this, beside these concomitances, is the comparison of the produced narrative or images, which were dominantly defining the agenda for the upcoming decades was, firstly, the gaze into a bright future, and then regarding its end in an explosion. This was a schema which persisted until recently. The pictorial and common reception showed, on one hand, the newborn developments – in German, "Neubauten" – and, on the other, their redevelopment, identical to demolition.

This common schema started to disintegrate in the last few years when more and more projects for an alternative redevelopment of modern developments made its way into the general public's consciousness and more and more terms like "reuse" and "recycling" began to define the concept of urban redevelopment.

Whilst, for instance, the aforementioned *Bauwelt* magazine, in 1985, was already showing the first ideas of the so-called "Banlieues 89 Project",[8] which was projected for 1989 (sic!), alongside another approach that should be developed: a gentle and smooth redevelopment – in German, later associated with the term "Rückbau".

But mainly these images of the newly-built, bright modernism – clearly structured, unsullied, neat as a pin, a promise – were still facing the opposite images of change, aging, transience, decay and finally destruction, which, especially for modern architecture, revealed a major "explosive force" and speechlessness in terms of an appropriate language in which to handle this built fabric.

In the last two decades this was complemented by other images of redevelopment, in a similarly uniform massed manner which primarily showed the dictate of economic efficiency, resulting in random color concepts in facade painting, and fake painted or superimposed ornaments. This embodied the widespread operational and aesthetic language which had been operating for years but, to be honest, even if the current quality of living in the major estates had reached a remarkably high level in terms of housing, daily infrastructure and gentle further development, these images and its built realities are far below the original impression in both brilliance and in given promise. Not only do they act less courageously, in this attitude of disguise and concealment, and mercilessly lag behind the former spirit of novelty, they also – even if they do not speak of physical destruction – do not provide any real new ideas or language in dealing with the heritage of modernism as an opposed idea to its most radical self-interpretation: old gives way to new. Even worse, this masking attitude operated long enough with the "criminal" toolbox of ornaments and historicism.

03 *baubausTWINS*, the installation with reused windows and door elements from the Atelier House façade (1976-2011) of the Bauhaus Dessau is part of the ***baubaus reuse*** project, Festival re:bauhaus, Ostrava, Czech Republic 2019. Photo: zukunftsgeraeusche/rkh.

04 *baubausTWINS*, from the scale of a studio room of the Atelier House building the installation opens an extended space and context, Ostrava, Czech Republic 2019. Photo: zukunftsgeraeusche/rkh.

The time between the promise and the knowledge of transience has been short. Too short for some who, therefore, long for an imagined eternal past. But actually, this brevity and the conceived knowledge is exquisitely salutary. It opens eyes for the overpowering cycle of life: looking at a "modernism timeline", picturing the period from the 1950s until the middle of the 2010s, means looking at the beginning of the building boom as well as the start of its redevelopment, leading to two conclusions. Firstly, the recent past consists of 40 to 50 years of a development of redevelopment — or in consequence, as modernism embodied radical redevelopments itself not only by definition: a redevelopment of redevelopment. Secondly, (self-) destruction is an inherent part of modernism.

Conversion, conservation, conversation

This leads back to Le Corbusier (1887–1965), as destruction was a basic approach for the projected success of certain modernist concepts, of course not projecting it on an immanent self-destruction.

What is interesting, although this general approach of these early concepts, is the fact that there was also a kind of astonishing turn towards the existing inherent in Le Corbusier's modern idea, for instance for the *Plan Voisin* for Paris. Even if it was a bit of a special approach of dealing with the old, by leaving selected remains as kinds of samples or exhibits in what was being criticized as an architecture of the city as a museum. But even more interesting, this method included transplantation of old substance — in this case the remains of modern redevelopment — whole significant buildings as carriers of information and message: of (his)story, identity and certainly legitimation. What was interestingly named in a German translation by Hans Hildebrandt in the 1929 issue of Le Corbusier's 1925 Urbanism (*Urbanisme*): V*erpflanzung*.[9] A term more familiar to biology, as it contains the notion of planting, but with this particular connotation hitting the point.

This term was used by the *Bestandsverpflanzung*[10] project in Munich, transplanting (*Verpflanzung*) urban fabric (*Bestand*) from the 1972 Olympic Village to certain sites of historic and modern urban redevelopment in the city.

This method of *Bestandsverpflanzung*, as a prospective approach, was first executed by dismantling three row-house bungalows, originally designed by Werner Wirsing (1919-2017)[11] — which were actually preserved but which had been designated to be torn down and rebuilt — into its prefabricated concrete elements and reassembling them again as solitaires in a different site-specific context. It was performing as a visible act of conversion and identifying the fabric and the sites as part of the city's genesis and as well as part of its collective memory.

The bungalows, both the typology and the concise elements, were basically treated as a collection of ready-mades, regarding the new assembly as well as the three objects pointedly performing as implants. Treating modern heritage like ready-mades, and the fascinating thing about ready-mades in modern art itself, is the fact of its transformation by its transplantation in different contexts, evoking an existence in different meanings and conditions of knowledge at the same time, at least for a while or for a certain reaction period.

This parallel presence and duality between the change of its meaning and its remaining significance illustrates the crucial operation of material leftovers receiving a new connotation based on their heritage, story or background, and their new constitution of value. This duality accompanies the change: the acquisition of a new meaning and the remaining significance of the former meaning — a dichotomy, which is characteristic and fundamental to the process of recycling, especially in terms of reuse.

The *Bestandsverpflanzung* was designed like an assembly kit, able to be dismantled and reassembled several times. From its concept, the project had an open end, but in fact it followed a story like a classic tragedy based on a distinctive concept of five stages.

05 *baubausTWINS*, the term twins refers to the parallel existence of two replicas of the façade elements from the renovations in 1976 and 2011, Ostrava, Czech Republic 2019. Photo: zukunftsgeraeusche/rkh.

06 *baubausTWINS*, the exhibition hall is a former BAUHAUS hardware store reused by the Contemporary Art Gallery of the City of Ostrava, Czech Republic 2019. Photo: zukunftsgeraeusche/rkh.

First, exposition, the protagonist, moribund to death by fate, opposes to its destiny: the bungalows, losing their shield of conservation, abandoned for destruction, might be dismantled and prepared for reassembly, for a temporary second life. Second, complication or rising action, the protagonist conquers its new place amongst the living: a form of conversion and new location for the bungalows was found, against all odds. Third, climax, the protagonist reaches its highest achievements, epic fight between destiny and reincorporated glory: transplanted into the city, the bungalows succeed as a medium to foster a conversation about change, they experience love and hate. Fourth, falling action and retarding moment, the protagonist faces its invincible destiny, but catching sight for a potential future or salvation: the bungalows are leaving its temporary location, the possibility for circular reassembly and further location arises. Fifth, catastrophe (or a happy ending in a comedy – but in this case catastrophe), the protagonist succumbs to its destiny, decease: the bungalows is back on its final journey, to a recycling yard, disposal.

In conclusion, there is no escape from the final destiny. A linear way of storytelling which corresponds to conventional urban redevelopment and process chains, but not an appropriate narrative for a circular society. Considering that, the question occurs what kind of stories form a common cultural basis in general and what kind of eligible narratives can be a basis for a cultural practice, reflecting on something like *modern reuse*.

Sisyphus and Prometheus

We tend to accept stories of permanence, longing for eternity. The promise of salvation is based on the eternal life after death (even reincarnation is something after death) or in a secular way, tradition and a lasting memory, the eternal memory among the living.

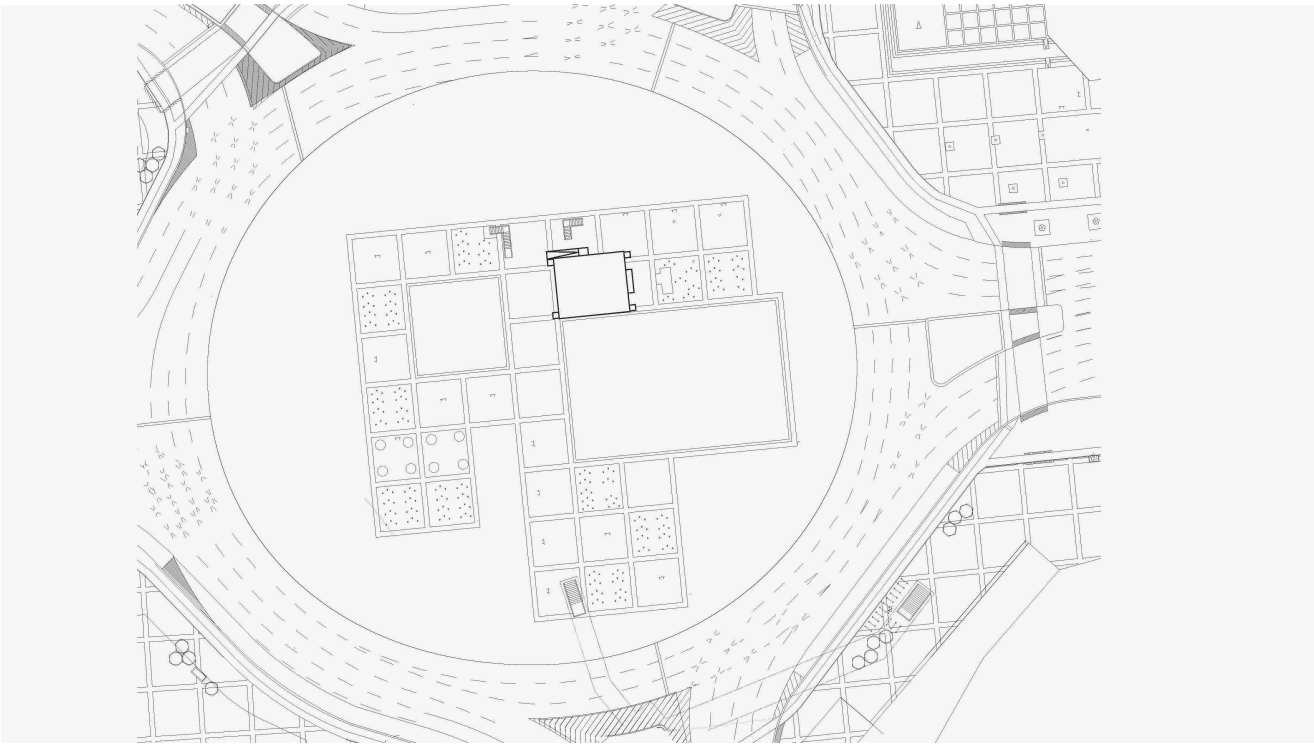
We accept stories of progress in terms of growth. The great story of one's own life is to grow, usually reaching certain stages of life, one after the other. Also, the cycle of life, decay and death are part of a linear narrative, as well as a handing over to following generations.
Cycles in this context are events of everyday life; the everyday is reassuring but ambivalent and can be perceived as claustrophobic. This corresponds to the human destiny in which most people set themselves up in the end, including the finiteness of physicality.

We are accustomed to the classical tragedy, a schema of storytelling which is the basis of the very common form of narration that is experienced in literature, theater and pop-culture. The specificity of the tragedy format, based on the ancient schema of the Greek tragedy, is the moment of catharsis. Basically, the idea behind it is to come to terms with one's own human destiny, through the spectacle and the emotional experience of the tragic story. The audience experiences a kind of purification and inner clarification from their state of excitement. Catharsis comes to mind, despite all fear, hope or shuddering in the inevitable ending and not in the question of what would come afterwards. In addition, the usual happy ending is finite, with no real perspective, only in the final formula of fairy tales, again, is a supposed eternity proposed.

But a story that is unfinished, referring to repetition is conventionally not related to an idea of a purifying catharsis. Who wants to experience such a story? The audience stays agitated and would most probably ask for a cesura, for the ending. This touches upon questions, which form part of further examination: Do we accept stories of circulation (without a lethal cesura)? Do we otherwise miss the moment of catharsis?

The cycle is largely identified, on the one hand, with repetition and tendentially the absurdity of stagnation, as in a Sisyphian task where the protagonist was punished for his fraud in order to escape his death, or the punishment of Prometheus, whereby it had been the emancipatory impulse, in terms of enlightenment itself, which was punished. On the other hand, the cycle of life is something tremendously overpowering, something transcendent,

07 *baubausTWINS*, elevations, 2019. Graphic: zukunftsgeraeusche.



08 BHR OX *baubaus reuse*, layout plan, location Ernst-Reuter-Platz, Berlin 2019. Graphic: zukunftsgeraeusche.

projected on the final end or, pragmatically, a hindrance to the actual progress of one's own life. Repetition, with the notion of monotony, is reserved for everyday life. Personal achievements and creativity are aiming at the new — or at least the unique.

Material and values

This leads to another modern question or dichotomy; also related to the concept of the ready-made, originating from the relationship between the industrial typecast and the artistic manufactured product, concerning the relationship of model and series which, in the circular context, has its equivalence between the old and the new, the used and the reused. Relevant to this comparison is the fact how qualities and values are behaving or transferred in between.

The debate about typification of design and products towards the artistically individual production, begun in 1914 to 1919 with the historic *Werkbundstreit*[12] as an early reflection on the era of industrial production, pointed to a fundamental problem, essentially expressed in opposing theses by Hermann Muthesius (1861-1927) and Henry Van de Velde (1863-1957). The controversy focused on whether standardization aimed at achieving high-quality mass production (primarily for export) would lose or prevent the quality of style development and innovation. Conversely, Hermann Muthesius saw typification as the only way to re-establish a generally valid "safe taste" in design. Henry Van der Velde worried that only in individual creation and addressing an initially exclusive target group, a new quality of design could be developed. Without going into detail, it is interesting to note a reply by Karl Ernst Osthaus (1874-1921),[13] who compares the pairing of "type" and "art" with Artur Schopenhauer's duality of "idea" and "concept", claiming an abstract concept as essence of typification to be a parasitic imitation.

This devaluation of typification in a traditional idea stands in relation to the analysis of Jean Baudrillard (1929-2007). In *The System of Things,*[14] Jean Baudrillard examines the relationship between model and series. First, he distinguishes the "pre-industrial style object" from the "industrial model".[15] Essentially, the objects of style were decoupled from the profane objects by a transcendental separation due to a rigid social order. With model and series, it behaves differently as, at first, they stand in a direct relationship to one another, whereby the series references the model. At the same time, this reference scale starts to flow. The accessibility depends on purchasing power and purchasing choices, with the product's attraction being determined by "secondary functions"[16] and a perceived freedom of choice or decision based on a supposed individualization of the object. Whereby this "secondary reality"[17] also rapidly increases the cosmos of things. As a result of these "psychosocial dynamics",[18] the threat is a loss of the pursuit of the higher-value model as a stimulation of consumer behavior, which, according to Jean Baudrillard, is compensated by the fact that the actual value ratio is reversed. For this dynamic of "marginal differences"[19] not to succumb, there are various ways to counteract: "The object must not escape its death".[20] Besides, the change of fashion and the speculation on the fast-changing interest of the consumer (could be called planned ideal obsolescence), it is the planned material obsolescence, combined with material inferiority and "secondary elements", which make things "more fragile and transient",[21] and reduces the actual qualities. Essential to this is that "the serial object is condemned to have no duration",[22] whereby the relevant transfer of value does not take place between the model and the series, but between the things that are frequently deceasing.

What does the value of industrial products imply for *modern reuse* and the relationship between new, used and reused? To concretize the relationship of heritage and leftovers, the concept of spolia and reused material are similarly comparable.

At first, the term reuse opens a qualitative dimension of reuse and reusability: used material, secondhand goods, become reused. A reused object becomes a reusable object as soon as it is maintained within the cycle. Most used products that are reused will not exceed the status of secondhand and will be disposed after the first reuse at the latest.

The situation is, in principle, different with buildings – that are reusable buildings - if they do not fall victim to radical urban redevelopment, regardless of whether they had just been occupied by several generations of tenants or they had been adaptively reused.

Similarly, this applies to the characteristics of spolia but which are more diverse. Analogous to ready-mades, they are in a transcendent intermediate state and, in principle, are also meant to be for repeated reusability. As modular, reusable building materials they broadly date from antiquity. Unlike an object to be protected, in the sense of classical monument protection, its preservation is of the utmost importance even though it is, at the same time, an *a priori* disposable quantity. In their role as transmitters of meaning and value, however, they have an established position – model like – in relation to the profane structure with which they are in a normative tense relationship, often transferring some kind of tradition or legitimacy to a building; or embodying a kind of submission.

Reuse as a method and cultural practice operates in this field of tension between marginalization and de-marginalization. The reused element first benefits from qualities of the artwork again as Walter Benjamin (1892-1940) classically emphasized in 1936 in relation to its reproduction: its "presence in time and space", its "unique existence", which "determined the history to which it was subject throughout the time of its existence".[23] This corresponds to the tendency of the de-marginalization, the uniqueness and authenticity that comes to the used element through its history. On the other hand, this is counterproductive because it necessarily needs to be adaptable material.

At first, values of things are widely based on its materiality. This legitimization of material value depends on the relationship of the visible surface to the actual or projected core (support); a duality which in modern industrial production is disintegrating. On the other hand, value is created by connotations, whereby tradition, "image"

09 *baubausTWINS*, the structure is open to all sides and creates a different spatial impression and access from every direction, Ostrava, Czech Republic 2019. Photo: zukunftsgeraeusche/rkh.

or meaning contrast with a certain necessary degree of neutralization, which it must experience against its narrower attribution.

The generation and acceptance of values operates on this fine line. The relevant relationship – in comparison to the floating transitions between model and series – will be, in the end, not crucial between the new and the reused, but within the ongoing reuse as a cultural practice.

To complete this, talking again about urban transformation in this context, we are facing another form of dichotomy. On the one hand, at the level of the ideal, the theoretical arguments, ideas or messages discuss important developments and future concepts which are ephemeral. On the other hand, the built substance, haptic material and concrete practice, consisting of physical entities and actions, tend to be definite and final compared to the virtual and freely floating discourse.

The built environment, seen as the anthropogenic material storage (focusing on individual entities, elements, building or involved materials), is firstly brought to physical presence by intention, more or less. But from a certain stage of life, from the dynamics of the development over time, it unavoidably tends to become "independent" from its creators who, in parallel, lose the connection with their meaning and, in consequence, connected values (obsolescence).

This is especially true since humans are obviously in a relationship, in which its material opposite is acting as something more and more self-dependent and mutually self-conditional. What is not only evident by the fact that the material opposite is both at the same time: the built environment and an actor in it. But which is also critically evident by the causalities and interdependencies between global and local side-effects in our globalized world of globalized risks (Beck).[24] Whether one likes it or not. It is inevitably the case for a circular society and technically, economically, ecologically, socially – all together – a challenge in a holistic cultural way.

Seen in the urban scale, the built environment is developing between parallelly existing intended typologies and emerging topologies, between intended or imagined and self-conditional narratives. Both together are the material-haptic world, into which we are born, which surrounds or will encircle us more and more. Or compared with Baudrillard:

> *The psycho-sociological dynamics... [here: "...of the model and of the series..."] ...are based on the individual desires and the system of the differentiations mentioned, and both together form the actual cultural system.*[25]

This means a very basic decision is, how we maintain our relationship to the build environment, how much we are reflecting the long-term consequences and side-effects of our behavior and if we make a difference between our discursive positions and desires and our physical actions. This relates to a common difference between theory and practice of human behavior which is, indeed, a distinctive motive of an urban modernist society, in terms of the ambivalence between the individual freedom, and which makes it possible to behave differently in different societal systems, and the consistency of collective consequences.

Actionist epilog

If we (re)use architecture or built substance like this, as a method, we need to analogize: discourse becomes material, material becomes discourse. Material is seen as ephemeral. Ephemeral is OK. Ephemeral is circulation and circulation is OK.

As a result, existing fabric and its elements act as built arguments that open the discourse about material and

values in a different approach to the built environment. It opens categories and methodologies beside the existing, such as: of permanence and durability or decline, of protection and musealization, of the conventional understanding of temporary presences, of structures and entities, of preservation or process or usage, of value-added chains and redevelopment. All without a distinctive or final decision being made. For this, on a project basis, the core criterion difference is the act being parallel to the discourse. In practice, on site, whereby the physical example is not to be understood as a model but as a medium.

Modernism is often about leftovers: of history, of faith in the future, of faith in technology and in progress, of identification, of certainties, of structural changes. Placeless and superior typologies turned to complex environments and milieus. How we treat modern heritage shows how we are capable of future development, that is, of never being completed.

Notes

1 BHR OX *bauhaus reuse* on Ernst-Reuter-Platz is a project by zukunftsgeraeusche, in cooperation with the Berlin district of Charlottenburg-Wilmersdorf and a pilot-platform for the Campus Charlottenburg initiative in cooperation with TU Berlin, UdK Berlin and numerous project partners, Berlin, 2019 and ongoing, www.bauhaus-reuse.de
2 Bruno Latour, *Eine neue Soziologie für eine neue Gesellschaft*, Frankfurt am Main, Suhrkamp, 2007.
3 *Fortschritt durch Rückbau?*, Bauwelt, 24, Stadtbauwelt 86, Berlin, Bertelsmann, 28 June 1985.
4 Rudolf Schwarz, "Bilde Künstler, rede nicht", in Alfons Leitl (Ed.), *Baukunst und Werkform*, Heft 1, Januar, Frankfurt am Main, Frankfurter Hefte, IV. Jahrgang 1953, in Ulrich Conrads; Magdalena Droste; Winfried Nerdinger; Hilde Strohl (Eds.), *Die Bauhaus-Debatte 1953. Dokumenten einer verdrängten Kontroverse*, Bauwelt Fundamente 100; Braunschweig/Wiesbaden, Vieweg & Sohn, 1994, 44 et seq.
5 Wilhelm Girnus, "Stellungnahme des, Neun Deutschland", in Andreas Schätzke, *Zwischen Bauhaus und Stalinallee*, Basel, Birkhäuser, 2017, 153.
6 First experimental project with prefabricated large panels in former GDR located in Engelhardstraße 11-13, Berlin-Johannisthal. But which, by the way, were not the first building with prefabricated panels, already built with the Splanemann-Siedlung in Berlin-Friedrichsfelde from 1926-1930.
7 Charles Jencks, *The Language of Post-Modern Architecture*, New York, Rizzoli, 1977.
8 Ibid., Bauwelt; Jean-Patrik Fortin, "Das Unternehmen, Banlieus 98".
9 Le Corbusier, Urbanism ("Urbanisme"), 1925, in Hans Hildebrandt (Translation), 1929.
10 *Bestandsverpflanzung* is a project by zukunftsgeraeusche, in cooperation with numerous project partners, Munich 2008-2009, www.bestandsverpflanzung.de.
11 Built 1969 on the occasion the Olympic Games 1972 in Munich, consisting of originally 800 row house bungalows, planned by Werner Wirsing (1919-2017) for the female athletes and further use for student housing; constructed with prefab concrete elements, produced onsite.
12 Anna-Christa Funk, *Karl Ernst Osthaus gegen Hermann Muthesius. Der Werkbundstreit 1914 im Spiegel der im Karl Ernst Osthaus Archiv erhaltenen Briefe*, Hagen, Karl Ernst Osthaus Museum, 1978.
13 Karl Ernst Osthaus, "Rede auf der Werkbundtagung Köln 1914", in Hermann Muthesius, *Die Werkbund-Arbeit der Zukunft mit Aussprachen darüber von van de Velde, Behrens, Osthaus*, Jena, 1914, 64- 68, in Karl Ernst Osthaus Archiv, Hagen, Karl Ernst Osthaus Museum, www.keom02.de/KEOM%202001/archive/dm/z100b.html.
14 Jean Baudrillard, *Das System der Dinge. Über unser Verhältnis zu den alltäglichen Gegenständen*, Paris Gallimard, 1968 (2007).
15 Ibid., 172.
16 Ibid., 175.
17 Ibid., 178.
18 Ibid., 175.
19 Ibid., 178.
20 Ibid., 182.
21 Ibid., 181.
22 Ibid., 187.
23 Walter Benjamin, *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* (Edition from 1939), Frankfurt am Main, Suhrkamp, 2007.
24 Beck, Ulrich, Risikogesellschaft. Auf dem Weg in eine andere Moderne, Frankfurt am Main, Suhrkamp, 1986.
25 Ibid., Baudrillard, 175.

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Teaching the Laboratory of the Techniques and Preservation of Modern Architecture (TSAM) at the École Polytechnique Fédérale de Lausanne

BY FRANZ GRAF

More than a decade ago the TSAM addressed the question of teaching the preservation of modern and contemporary buildings as a new discipline, specifically and radically different from that of new architecture, both in terms of theoretical courses and the contemporary architecture project. It has established a methodology and a practice based on its research that embrace the whole of polytechnic or university education, whether basic or advanced. Finally, the TSAM affirms the richness and the educational power of preservation and its project, and, beyond the subjective feelings and formalistic emotions, base them on an objective and multidisciplinary argumentation combining fine observation of materiality, essential theoretical knowledge and thoughtful creativity.

Projects dealing with existing buildings and structures are a major issue in the development of the city in the 21st century and the quality of the environment of its users. The preservation project and the project dealing with the existing are part of an established cultural discipline that expands the contemporary architectural project.[1] Projects dealing with the existing built environment are by no means a new phenomenon. But what makes it a contemporary attitude is the type of theoretical and practical questions about the architectural object regardless its scales, as well as the close look at the materiality of the building that gives birth to the project. The Laboratory of the Techniques and Preservation of Modern Architecture (TSAM),[2] founded in 2007, produces and develops knowledge of techniques and the preservation of modern and contemporary architecture. This knowledge is multidisciplinary and calls for historical reflection as well as material techniques and their implementation as economic and environmental data. It also involves the exercise of specific project strategies (maintenance, preservation, restoration, rehabilitation, restructuring, reuse and extension) combining theoretical knowledge and technical know-how. TSAM's main objectives are teaching, research and the development of services related to its skills. This essay will be mainly about teaching.

The "Preservation" orientation, under my direction at the EPFL since 2012, organizes this scientific competence, both at the level of studio teaching as well as lecture courses at the Bachelor's and Master's level as well as Master's projects and PhD work.

Seventy percent of the activities of architectural practices in Switzerland concern projects on existing buildings. The course "Designing in the built [environment]: tools and methods", under the responsibility of Giulia Marino, seeks to give students the basic theoretical and practical tools to undertake projects on existing structures, on the current ubiquitous built heritage but also on that with a monumental character. This course is in the last semester of the Bachelor's degree, hence it should be considered a basic educational course in the teaching of architecture.

Indeed, the project in the existing environment is a very broad discipline that calls for many forms of knowledge, a hybrid scientific rigour and prospective imagination. The cultures of history and those of technology intersect and are layered in a creative process that rests on an investigation of the building and continues throughout the process of conception. This intellectual journey is based on the meticulous knowledge of the built work, its observation and physical analysis, by the intersection of history and technology, and the synthesis of the most diverse skills, both theoretical and operational. The principal objective of the course is to identify this complex process. First of all, it is necessary to explain the cultural reasons and the fields of application of the project of preservation and restoration, in support of some theoretical and legislative concepts, as well as by an introduction to the knowledge of the current tools of inventory and prior definition of the heritage value of buildings. This historical-critical introduction continues by taking into account the methodological issues of the preservation project, from the first phase of knowledge and analysis, to the development of the most appropriate project strategy, then its management and implementation.

Hence the essential tools of the project in existing structures are approached systematically. An understanding of the constructional specifics of the built heritage and their

On the previous page:
Le Corbusier, Unité d'habitation, Marseille, 1945. Analytic model made by Atelier Graf, 2015, Alain, 2015.

evolution — structure, materials, implementation methods, etc. — is the unifying thread of education. On the basis of this thorough material survey, the main themes of the project in existing buildings are subject to a targeted review. This deals in particular with the extended diagnosis of the state of preservation, including the level of structural disorders, the various techniques of intervention — preservation, repair, consolidation, etc. — passing through the crucial question of upgrading buildings, as well as their adaptation in terms of use, safety, comfort, etc.

Due to the very nature of the largely multidisciplinary preservation project, synergies with other subject courses are envisaged — building physics, the survey and figurative techniques, structure and materials, etc. In the same way, specific contributions are organized from EPFL courses conveying specific skills in physical-chemical phenomena and the behavior of buildings.

The Master's course on "Theories and Techniques of the preservation project", held by Franz Graf and Giulia Marino, serves a twofold purpose. The first is to trace the development of the construction systems that marked the architecture of the 20th century, by addressing key concepts such as new materials, transformations of the modern building site by the introduction of industrialized processes, or the devices for the artificial control of comfort. This multidisciplinary knowledge calls for historical reflection and an understanding of the techniques of materials and their installation, as well as economic and environmental data. The critical history and the material analysis of building in the 20th century, by its constructional specificity, requires us to develop specially devised preservation strategies, studied with a specific know-how with reference to an established theoretical competence.

The second objective of the course is the adoption of project tools that take into account the challenges of our modern heritage. By studying events that have proved particularly formative for the discipline, the course deals with the theoretical and practical foundations of the project in existing buildings — from the monumental heritage to the most ordinary architecture — as well as techniques of restoration and conservation of buildings.

The concepts of the history of the theories of preservation that developed in the 19th and 20th centuries are addressed all through the semester, not only to explore the foundations of the discipline, but also to stimulate students to adopt a critical and coherent attitude to the project in existing buildings.

The content of the course is wholly based on research conducted in the TSAM laboratory by Franz Graf and Giulia Marino as well as into restoration of the monumental heritage of the 20th century,[3] comparisons between the heritage and energy issues on the large scale of the years 1945–1975[4] or on the buildings of the International Organzations in Geneva.[5]

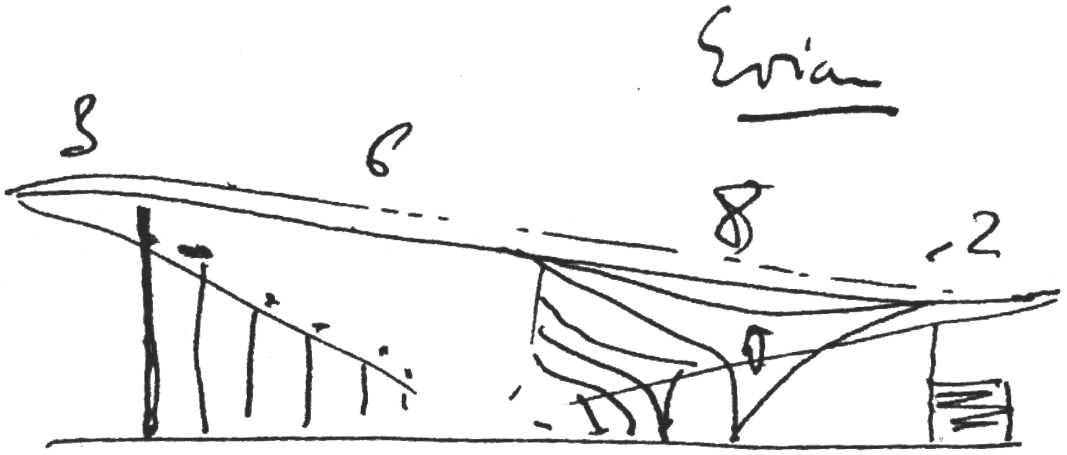
The Master's course in "The project of comfort in 20th century architecture", under the responsibility of Giulia Marino, seeks to restore the centrality of the networks of utilities, identifying both the cultural reasons and the material issues of the "project of comfort" within the "architectural project". The course lies at the crossroads of the disciplines of construction, history and preservation. Its content is the outcome of the notable thesis work by the lecturer.[6] The notion of physiological-hygrothermal comfort, as well as lighting and acoustic well-being, is to be noted among the major imperatives of the architectural production of the 20th century and is still strikingly timely.

Innovative materials and techniques, but also unprecedented industrial systems and processes: while the 20th century's "constructional revolution" is widely recognized in the history of architecture, the equipment to ensure comfort, which is fully a part of it, remains a subject often overlooked, not to say simply ignored. And yet… Skilfully coloured sheathes that participate in the expression of "brutalist" interiors… Hot water pipes incorporated in the thickness of the floor supporting open-plan layouts... Heaters and radiators that are transfigured into partitions or then disappear into the interstices of the envelopes... Concealed, incorporated, or later exposed, even literally displayed, these networks of heating, ventilation and air conditioning, which are paradoxically bulky yet often invisible, deserve new consideration as truly structuring elements, not — and quite wrongly — as mere fitted or accessory components.

The hypotheses of the pioneers — from James Marston Fitch (1909–2000) to Reyner Banham (1922–1988) — remain strikingly relevant. To grasp the implications of the "climate project" within the "architectural project", through a transversal reading located at the crossroads of the perceptible and the material, opens up extremely significant interpretational approaches to modern and contemporary architecture. Structured around a few founding themes of this major production — from the industrialization of building to the notions of lightness and transparency — this panorama also makes it possible to identify the cultural reasons for "climate design" and artificial control of the interior environment, a practice that runs all through the 20th century and influences very directly both architectural design and its material implementation, these two factors being inseparable.

The new paradigms of energy saving demonstrate the timeliness of the notion of material well-being in its new meaning of "total comfort". They will be treated in relation to the crucial question of the adaptation of the existing building to current standards by targeted interventions in the technical installations.

With respect to the teaching of the three sections of the Faculty of the Natural, Architectural and Constructed Environment (ENAC) of the EPFL, namely Architecture, Civil Engineering and Environmental Sciences, the seminar "Strategies and techniques for reuse of 20th century architecture", under the responsibility of Franz Graf and Giulia Marino, calls for specific themes and know-how, entailing an interdisciplinary approach that touches on the different areas that characterize the faculty. This project intends to develop these themes with reference to the specifics of each field, the environmental impact of a reconversion project



01 Maurice Novarina, Jean Prouvé, Serge Ketoff, Buvette d'Evian, 1954, sketch by Jean Prouvé, Archives départementales de Haute-Savoie.

and the structural diagnosis of a building, including the definition of its heritage value. Each student develops a problem related to his or her academic skills and scientific interests, chosen from a list drawn up by the lecturers or proposed personally by the student. The research topics — with reference to the specifics of 20th century buildings — will concern, for example, the pathologies of a building material or its use and the measures for its repair/preservation (reinforced concrete, light alloys, plastics, etc.), the detection of the presence of toxic materials in a building (asbestos, PCB, radon, etc.), and the procedures for sanitising and managing waste on the construction site, or architectural analysis – constructional and spatial – of an object with a view to defining the possibilities of reconversion, etc.

The laboratory organizes "international study days" that link its research activity and its application to its teaching for students at the TSAM as well as for EPFL students. They include "Industrialized and Prefabricated Architecture: knowledge and preservation" in June 2011, "Comfort devices in 20th-century architecture: knowledge and preservation strategies" in September 2012, "The restoration of major engineering works of the 20th century" in May 2013, and "Restoring technical structures — the work of Jean Prouvé" in September 2018. All of them are the subject of important publications in this field.[7]

With the same purpose, and in collaboration with **docomomo** Switzerland, the laboratory offers lecture series, such as "Project, history and construction. A new look at the recent heritage"[8] with outstanding guest architects, historians, theorists and practitioners, such as Ana Tostões, Françoise Lacaton and Frédéric Druot, Martin Boesch, François Botton, Laurent Stalder, Paul Chemetov, Frank Escher and Ravi GuneWardena, Gilles Ragot, Eduardo Prieto, Richard Klein, Jurg Conzett, Joseph Abram...

The workshop on "Theory and criticism of the project" in the third year teaches the project of preservation of modern and contemporary architecture. It is under the responsibility of Franz Graf and the teaching team is made up of Yvan Delemontey and Theo Bellmann. Giulia Marino, Stefan Rutishauser, Christian Bischoff and Michael Wyss have also taken part in it. This specific discipline calls for a series of rational and technical investigations that will both produce knowledge about the object of study and define potential uses and methods of intervention. Inseparable from the project, the fullest possible documentation of the work is established by using historical research and graphic and photographic surveys, from its constructional process and its materiality to its sensory and sensuous aspects. Its heritage value is determined by situating the structure in its historical, architectural and urban context, in the work of the actors who designed and built it, and an economic and social resource. The analysis of its functional and distribution capabilities, its constitution and physical characteristics dictate its potential for use, from maintenance to restructuring.

Hence the preservation project is defined as a twofold and inseparable project of conservation and innovation.

In organizational terms, the studio's work is divided into two fundamental phases which correspond to the intermediate and final critiques: "Survey, Diagnosis and Repair" and "Project of Intervention". The first concerns the survey and diagnosis of the works on site. The initial weeks of the semester are devoted to an exhaustive knowledge of the subject of the workshop. The observations made during the on-site visits and in the verification and the finalization phase of the survey are the subject of consultations with the EPFL experts selected by the students. At the end of this first phase, the program of the intervention project (renovation, rehabilitation, extension, etc.) is unveiled to the students. The work, until this point collective, develops into individual projects. Issues raised during the phase of the objects' comprehension need to find a coherent and appropriate response in the preservation project. Organized successively, these two stages are inseparable from each other, with the knowledge accumulated during the survey of the existing inevitably nurturing the project of renewal. Lectures on themes inherent in the work of the studio are planned throughout the semester and seek to provide

02 Marco Zanuso, Fabrica Olivetti Argentina, 1956, perspective view, from *La progettazione integrata per l'edilizia industrializzata*, ITEC, Torino, 1977.

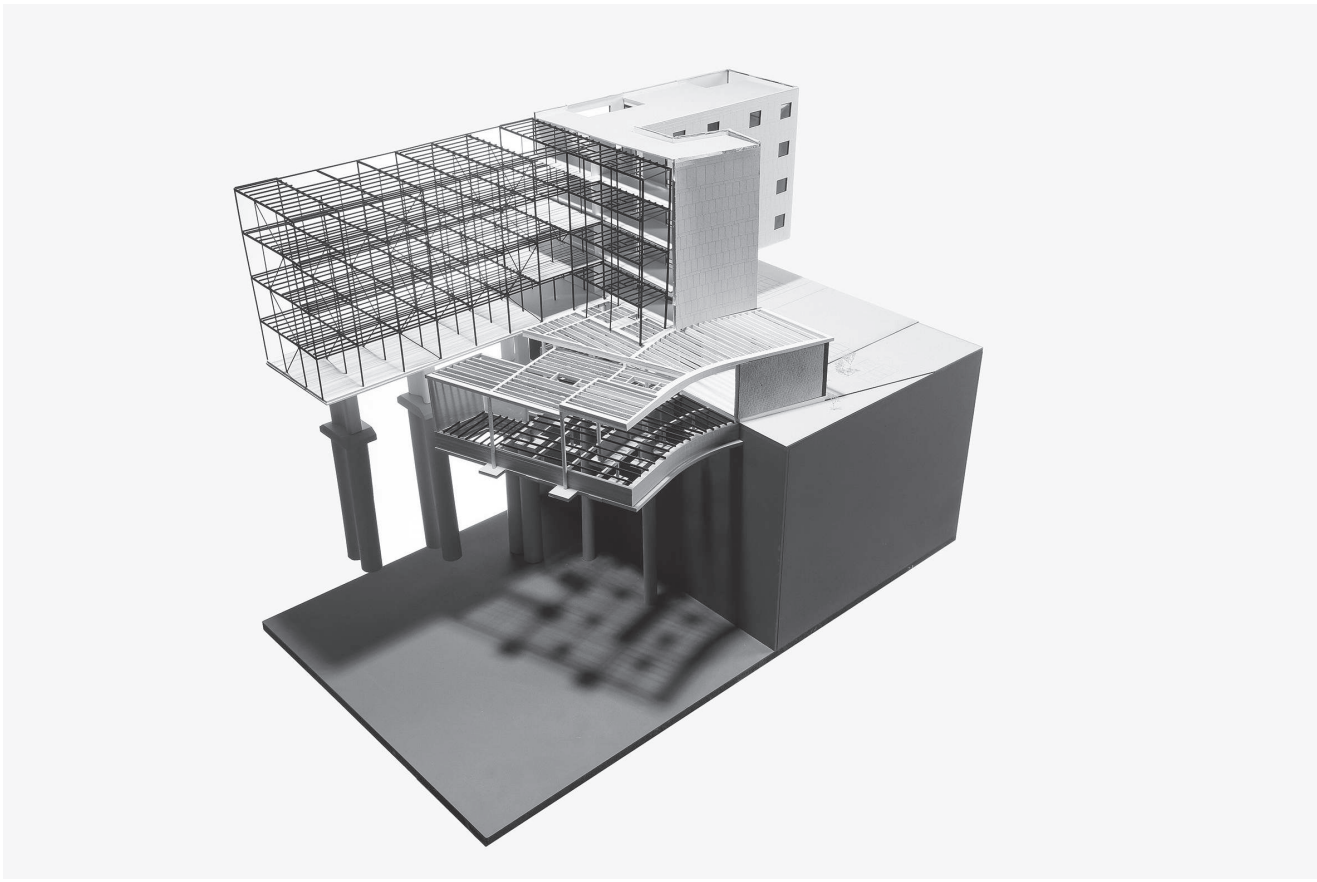
students with theoretical contributions of the highest order. In the same way, field trips are organized in order to study architecture and architects in direct contact with the current issues of intervention in the existing. These phases of the work always prove to be very rich for the students and are, therefore, essential to their formation.

The studio intends to convey to students the theoretical and practical elements of of this project discipline's development, this "knowledge in action". The object or complex of study and the subject of the project will be a part of the city and the region in the post-war period, and it is a heritage of recognized quality, either monumental or widespread. In this way the studio project has dealt with industrial objects to be reclaimed, like the Aïre water treatment plant in Geneva by Georges Brera in the academic year 2007–2008; Olivetti's Ivrea power station by Eduardo Vittoria in 2008–2009 or the headquarters of the main roads department at Vernets by François Maurice in 2009–2010; university and research centers such as CERN in Geneva by Rudolf and Peter Steiger in 2010–2011, the campus of the École Polytechnique Fédérale in Lausanne in 2011–2012 or the Federal Agricultural Research Station in Changins by Heidi and Peter Wenger in 2019–2020; abandoned masterpieces such as the Palazzo del Lavoro in Turin by Pier-Luigi Nervi in 2012–2013 or the Franziskushaus convent at Dulliken by Otto Glaus in 2018–2019. From 2012 to 2018, in collaboration with the Le Corbusier Foundation, the workshop focused its attention on his work, and the projects concerned the Frugès housing estate at Pessac, the Swiss and the Brazilian Pavilion at the *Cité Universitaire de Paris*, the Cabanon at Roquebrune Cap-Martin, the Claude and Duval Factory, the *Unités d'habitation* (Marseille, Rezé, Briey-en-Forêt, Berlin, Firminy), the *Chapel Notre-Dame du Haut* in Ronchamp and the *Maison de l'Homme* in Zurich. This has made it possible to create an unprecedented body of knowledge about the materiality of the work and its restitution in the form of models and analytical axonometric projections, to participate in the questions that arise about all these great buildings and to follow the restoration and work in progress closely.

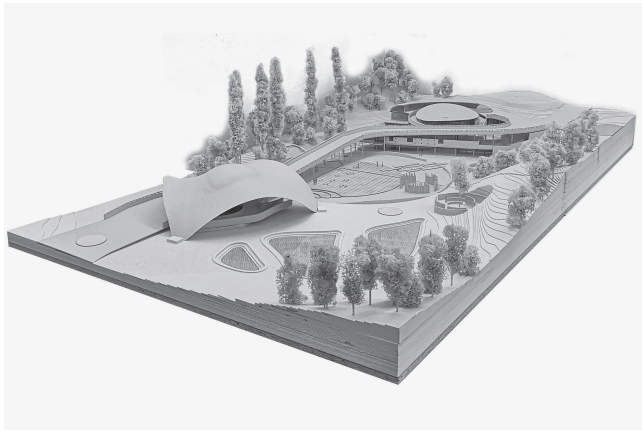
In the Master's course, the studio in "Preservation Orientation" deals with the methodological foundations of the discipline: a significant choice in relation to the physical and material state of the object, its potential in the development of the project, a knowledge of it through the survey, in-depth historical investigation, analysis of an imminent problem or implementation of a preventive action, development of possible intervention strategies while retaining the spatial, material, distributional and even poetic qualities of the object. It is expected that, unlike the third-year workshop, the object — and its issues — could be on a different scale, dealing with the landscape, industrial or railway wastelands, urban or rural mountain complexes, etc. It may also be open to another historical period than the second half of the 20th century and/or bring the project of the new to a more independent development based on considerations of current production and the use of buildings as a resource. Thus the guest teachers Andreas Vass and Erich Hubmann in 2012–2013 proposed a workshop on the reuse of the unintentional monuments of the flak towers from WWII built around the center of Vienna, and the following year Daniel Bossard and Merixell Vaquer developed a project comparing utopia and the existing built environment, defining the city and, in particular, the Zurich periphery as a desperate attempt to achieve a complete urbanity between a Romantic rurality and endless suburbs. In 2014–2015, the theme of Denis Eliet and Laurent Lehmann's studio was the rehabilitation and reclamation of all the *Grandes Terres* built by Marcel Lods and Jean-Jacques Honegger between 1951 and 1961, while João Pedro Falcão de Campos took as his topic the rehabilitation and extension of schools at *Teixeira de Pascoais* in Lisbon built by Ruy d'Athouguia in 1952–1956 and of one of those in Lancy built by Paul Waltenspuhl in the post-war period.

The teaching of preservation in the Master's courses continued in 2016–2017 under the direction of Frank Escher and Ravi GuneWardena centered on California architecture of the 1950s, including John Lautner's Chemisphere House, the Charles & Ray Eames House and the Bubeshko Apartments by Rudolph Maria Schindler, while in

03 Le Corbusier, Pavillon Suisse de la Cité Universitaire, Paris, 1930. Analytic model made by Atelier Graf, 2017, Alain Herzog, 2017.



04 Le Corbusier, Chapelle Notre Dame du Haut, Ronchamp, 1950. Analytic model made by Atelier Graf, 2016, Alain Herzog, 2016.



05 Michel Magnin, Jardin d'enfants Nestlé à la Vallée de la Jeunesse, Lausanne, 1964, picture of model from the diploma project for the restoration, Darine Dandan et Anouar M'himdat, 2019.

2017–2018, Anne Lacaton and Frédéric Druot dealt with the fabric in rapid development around the Renens train station to demonstrate that use, reuse and transformation are today a part of creation and invention in architecture and urbanism. In 2018–2019, the Linazasoro studio perfectly conducted a highly conclusive teaching experiment, in the first semester on the reclamation of the poblado de Fuencarral in Madrid (1956–1960), confronting without *pathos*, but with all the means proper to the discipline, the decay of our diffuse urban environment, and in the second on the recovery of a major project by Hans Döllgast on the Alte Basilika Sankt Bonif in Munich after WWII. This was radically tackled in the project and made it possible to understand its complexity and refinement, offering a new reading of various projects and stratifications and new materials to the few architects still concerned with a largely unrecognised work. In the year 2019–2020, two architects from Grisons, Ramun Capaul and Gordian Blumenthal, will focus on the village of Lumbrein to understand the evolution of an alpine village and its architecture as well as its potential for reasoned development.

In this way, year after year, the contributions of the most experienced European and Californian architects and teachers in the field enrich what we can now consider as a large-scale think tank on Preservation and its interpretations.

The TSAM laboratory supervises the diploma work, named the "Master Project" at the EPFL, for a total of 66 students since its establishment. Developed over two semesters, the first concerning a theoretical statement and the second a project, they fit strictly into the issues of Preservation in the broad sense of exploring the themes and places of change. As an example, last July, one of them proposed the restoration of the sculptural Brazilian Nestlé kindergarten built by Michel Magnin at Vallée de la Jeunesse in Lausanne for Expo 64 and today derelict. Another developed a plan for the densification and transformation of the Marta Brunet district on the outskirts of Santiago de Chile, both of which have received the highest appreciation for the quality of the work done.

The TSAM also supervises thesis work. This year it supervised theses on "*The vestiges of Operation Million in the work of Georges Candilis*" and "*Modern schools in Angola, 1961-1975. Design with climate and heritage*" in co-supervision with the IST-Lisbon.

To conclude, we will say that more than a decade ago the TSAM addressed the question of teaching the preservation of modern and contemporary buildings as a new discipline, specifically and radically different from that of new architecture, both in terms of theoretical courses and the contemporary architecture project. It has established a methodology and a practice based on its research that embraces the whole of polytechnic or university education, whether basic or advanced. Finally, the TSAM affirms the richness and the educational power of preservation and its project, and, beyond the subjective feelings and formalistic emotions, base them on an objective and multidisciplinary argumentation combining fine observation of materiality, essential theoretical knowledge and thoughtful creativity.

Notes

1 Franz Graf, *Histoire matérielle du bâti et projet de sauvegarde – Devenir de l'architecture moderne et contemporaine*, Lausanne, PPUR, 2014.
2 https://www.epfl.ch/labs/tsam/.
3 https://www.epfl.ch/labs/tsam/page-28043-fr-html/%20le-patrimoine-monumental-du-xxe-siecle/.
4 https://www.epfl.ch/labs/tsam/page-28043-fr-html/patrimoine-et-energie-la-grande-echelle-1945-75/.
5 https://www.epfl.ch/labs/tsam/page-28043-fr-html/the-buildings-of-the-international-organisations-in-geneva-an-outstanding-heritage/.
6 Giulia Marino, "Some Like It Hot! Le confort physiologique et ses dispositifs dans l'architecture du XXe siècle histoire et devenir d'un enjeu majeur" This work was awarded the EPFL thesis prize 2016.
7 Franz Graf and Yvan Delemontey (Eds.), *Understanding and Conserving Industrialised and Prefabricated Architecture*, Lausanne, PPUR, 2012.
Franz Graf and Giulia Marino (Eds.), *Building Environment and Interior Comfort in 20th-Century Architecture: Understanding Issues and Developing Conservation Strategies*, Lausanne, PPUR, 2016.
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8 See conferences **docomomo**-TSAM 2016-2018, www.**docomomo**.ch.

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Franz Graf

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Education for Adaptive Reuse — The TU Delft Heritage and Architecture Experience

BY NICHOLAS CLARKE, HIELKJE ZIJLSTRA AND WESSEL DE JONGE

The Section for Heritage and Architecture of the Faculty of Architecture and the Built Environment at the Delft University of Technology specializes in architectural education for adaptive reuse of heritage buildings, with a specific focus on the built heritage of the 20th century. Our approach combines architectural design and technological knowledge with an approach that places values as central informants. Here we present our approach, explore the past and project a future evolution of our educational methodology. Finally, we reflect on the lasting relevance of the tangible and intangible heritage of the recent past as aim and source of our educational practice.

Introduction

Educating future architects for the preservation and adaptive reuse of, especially, the built legacy of the 20th century, is different in essence from what Franz Graf (1954–) calls the "chronological process of genesis" in which "new construction begins with programmatic goals and ends with a finished object...". In contrast, adaptive reuse requires that "...we start from the existing object in order to arrive at a mode of existence that is in keeping with that object".[1]

This challenge of education for preservation and adaptive reuse, especially for the built legacy of the 20th century, has been explored at various International **docomomo** conferences, the last being the "Educating for Preservation and Reuse" session of **docomomo** 2018 held in Ljubljana, Slovenia. Despite decades of exploration, the challenge remains:

> *After three decades since the founding of* **docomomo***, education continues to be an essential matter when thinking about the future of modern heritage, but today it requires a critical reflection on the conceptual and methodological changes we need to face in the present context of complexity.*[2]

The challenge of educating for the preservation and adaptive reuse of the built legacy of the 20th century is compounded by the integrated nature of these buildings: conceived as composed of inseparable components. To add to the complexity, technology itself was often chosen for what it represented. These buildings therefore often have a preprogramed message that goes beyond architectural form. Understanding the way that technology is integrated with architecture is often essential to discovering this essence. The built legacy of the Modern Movement presents us with an architecture of matter intertwined with meaning for which an integrated approach is needed.

In education this calls for incrementally developing the capabilities of students within the strictures and limitations of an institutional program. The adaptive reuse of built heritage requires an understanding of both the ideas that generated the built fabric as well as the values that have accrued over time. At the same time students need to be able to make sometimes difficult decisions regarding where and how to intervene in the physical built fabric and spatial structures. These decisions need to be taken in a complex environment where the focus on sustainability and energy use reduction is becoming increasingly urgent, with the danger that if the built heritage cannot answer to ever-increasing demands, they will be sacrificed for new construction.

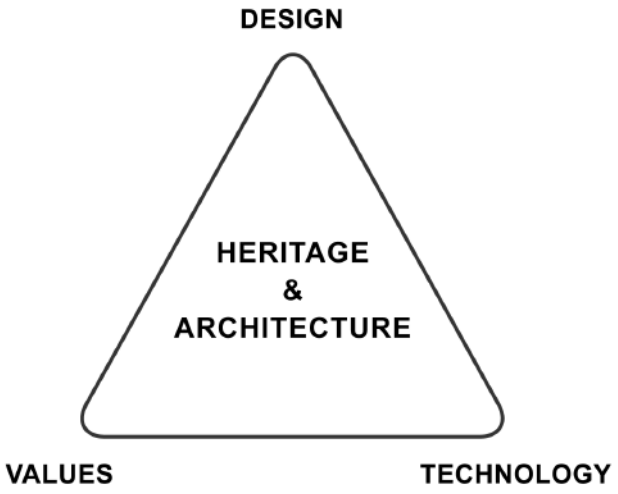
The Section for Heritage and Architecture (HA) of the Faculty of Architecture and the Built Environment, Delft University of Technology has taken on the challenge for education for adaptive reuse and maintains a continued focus on the challenge of preservation and adaptive reuse of Modern architecture. In this article we will outline the history of the development of our educational program, the process we have evolved, outline its main steps and features and reflect on the lacunae that need to be addressed.

The Section for Heritage and Architecture (HA)

> *Conservation requires the ability to observe, analyze and synthesize.*[3]

Current conservation education at the TU Delft flows from long tradition. It evolved from addressing traditional architectural restoration practice (the maintenance of the status quo through the classical restoration and maintenance

01 Students investigating the unique windows of the former US Embassy in The Hague, the Netherlands, by Marcel Breuer (1959). These kinds of engagement often challenge students' pre-existing positions on, for instance, material authenticity and present the dilemmas of preservation and re-use. © Nicholas Clarke.



02 The Heritage and Architecture Triangle: three chairs of Heritage and Design, Heritage and Values and Heritage and Technology together form the section for Heritage and Architecture. © HA, TU Delft.

perspectives), to one of addressing conservation through adaptive reuse as a valid and proven method. This gradual shift has also focused our attention more and more on the built legacy of the 20th century.

An important milestone in this process was the creation of ®MIT in 2006. ®MIT continued to teach restoration, but addressed research and education in Modification, Intervention and Transformation of the built environment. These areas defined the field of enquiry of three aspects according to levels of scale: *Modification* focused on the use of materials and technology, *Intervention* on adaptive reuse and redesign of a building, and *Transformation* investigated the urban structure. These scale aspects structured design education: students were expected to undertake analyses of a building, its urban context and its technology. This analysis included the history of the design and the architect/s associated with the building, as well as changes that were made or occurred over time. The past and present served to inform the student's choice for a new program for the building, providing a springboard into the future. The investigation into values was implicit to this process, but experience soon highlighted the need to make values an explicit part of both investigation and education. The transition from ®MIT to HA in 2014 maintained the wide focus on scale levels, but restructured in three domains that together form HA: Heritage and Values, Heritage and Technology and Heritage and Design. These three chairs collaborate both in education and research, forming an integral focus on both the tangible and intangible.

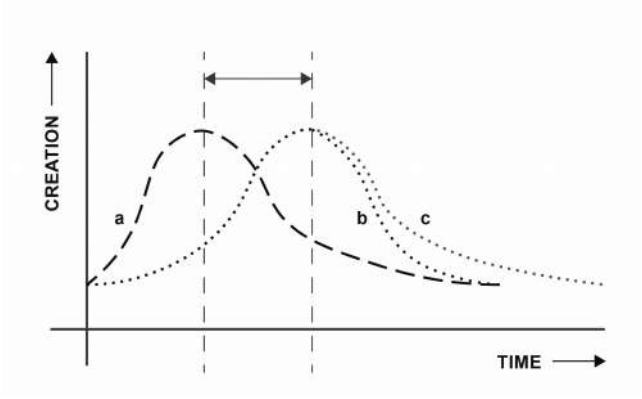
At HA we now expect our students to develop design proposals based in an understanding of the building, its technology and values. Further, the design should also result from the application of technology and present an active response to values. The HA approach is underpinned by the urgency of adaptive reuse, not only as an economically viable strategy, but as an essential strategy to limit environmental impact, nurture social resilience and contribute to the triple bottom line of sustainability. Education at HA is embedded in broader social thematic because "…architectural heritage education is essential to understanding sustainability, the social context and sense of place in building design".[4] HA does not shy away from demographic challenges presented by changing inhabitant profiles of, for instance, social housing in the Netherlands, and changing conceptions of value, space, time and reality. But the complexity of adaptive reuse within a real-world socio-economic and environmental scenario can prove to be too challenging for students. As educators we need to be able to guide students through their first and repeat adaptive reuse exercises that serve as a basis of their architectural education. We have over time developed an educational program as well as a methodology to assist students, who are novices, to demystify the process of analyses for valuation and adaptive reuse design and guide them in their design decision-making.

The HA Method

The HA educational process aims to increase in complexity over time and stimulate individual independent growth. With this in mind, an education matrix was developed collaboratively by the three HA chairs, progressing from group work to individual exploration.

HA focuses on Masters-degree education. The Masters education spans two academic years, the first year dedicated to the MSc 1 and MSc 2 as distinct courses. The MSc 3 and MSc 4 together form the graduation project. In all these courses, HA presents students with a choice of at least two studios, of which one always focuses on the built legacy of the 20th century. We always select sites for investigation where a real-world question exists, often in collaboration with outside institutions or property owners. In the MSc 1 many of our students are introduced to built heritage as a theme for the first time. Many are international students for whom this is their first course at the TU Delft. We, therefore, select not overly complex buildings for them to study and modulate. They are also assisted by the presentation of a predefined brief and delimitations [20 weeks]. The MSc 2 is based on (group) research. It focuses on specific topics and typologies, for instance obsolete churches, industrial heritage or ideas such as the mid-20th century Dutch Neighborhood idea or the problem of depopulation, for which individual designs are developed [10 weeks]. Cases selected for the foundation courses (MSc 1 and MSc 2) are chosen to include pre-existing valuation reports or building-archaeological reports to expose students to values so that concept and form as first responses as a designer also include other values as an informant.

In the MSc 3/4 individual graduation project, more complex situation study sites are selected. This can take the form of a complex urban location or a more difficult adaptive reuse problem for which students need to develop a proposal that balances conservation with adaptive reuse. MSc 3/4 students are required to develop their own appropriate briefs, based on the analysis of the urban context,



03 A comparison of the "creative curve" when designing (a) new buildings and (c) adaptive reuse design aimed at preservation, which often causes a certain level of delay in the design decision-making. In case the end date is fixed, there will be more time pressure on the phase after decision-making in order to complete the design development (b). © HA, TU Delft.

the building and its values, as well as the socio-cultural and economic and environmental context of the project. The education process develops from independent analysis on the basis of separate realms (Architecture, Building Technology and Values) to, at the MSc 3/4 level, integrating these into a single position on the inseparable values presented by the physical fabric, intangible qualities and associations of the case at hand. The final aim is a design based in a defined transformation framework that, in turn, is supported by critical analysis, synthesis and reflection, often through scenario-based iterative testing of design ideas. Student proposals are often presented to owners/municipal authorities, monuments care officials and communities, who provide real-world feedback to their hypothetical proposals. Communication is essential, also to present the evidence-based choices and logical argumentation that led to the proposed reuse interventions.

A challenge we face in our educational practice is that the HA courses form part of the larger Architecture track of the Faculty of Architecture. Students are free to migrate between the various Master courses, which means that not all students participate in all the HA courses in sequence. Often students enter the HA MSc 3/4 without having undergone any of the HA MSc 1 or MSc 2 courses (or having participated in the BSc 5/minor course presented by HA in the faculty-wide bachelor degree). This freedom enriches our design studios because students bring with them knowledge from different disciplines, but conversely provides HA with a dilemma in terms of educational continuity. It mandates a back to basics position at the start of each of the MSc 1, MSc 2 and MSc 3/4 and challenges staff to assist students to develop defendable evidence-based positions and cohesive design proposal in, in for instance the MSc 3/4, a period of 40 weeks. Group work at the start of each course has proven to be especially useful to bridge this gap.

The HA process

At the 2018 **docomomo** "Educating for Preservation and Reuse" conference session, Wessel de Jonge (1957–) stated that: "One of the major challenges in educating professionals in modern conservation is the interpretation of the cultural values of structures that have been erected in the recent past, whether icons or ordinary buildings".[5] Modern conservation is short for the conservation of the heritage of the Modern Movement and the 20th century in general.

HA initiated a didactic experiment in our MSc 3/4 graduation studios in 2016 to test a process designed to assist students, including those without any background in heritage theory and practice, through a process that leads them from analysis to synthesis to evaluation to reflective criticism. Our position is that a successful adaptive reuse design aimed at preservation often asks for a certain level of delay in the design decision-making until in-depth analysis of the original design ideas, the spatial structure, the technological nature and state, the evolution/changes imposed by people etc[6] and the heritage values of the existing building have been undertaken.

The process – described in Marieke Kuipers and Wessel De Jonge[7] and further explored in Nicholas Clarke et al,[8] — aims at connecting matter and meaning; the physical urban and built structures encompassing inseparable components, with the socio-cultural, historical and economic values in a structured graphical process.

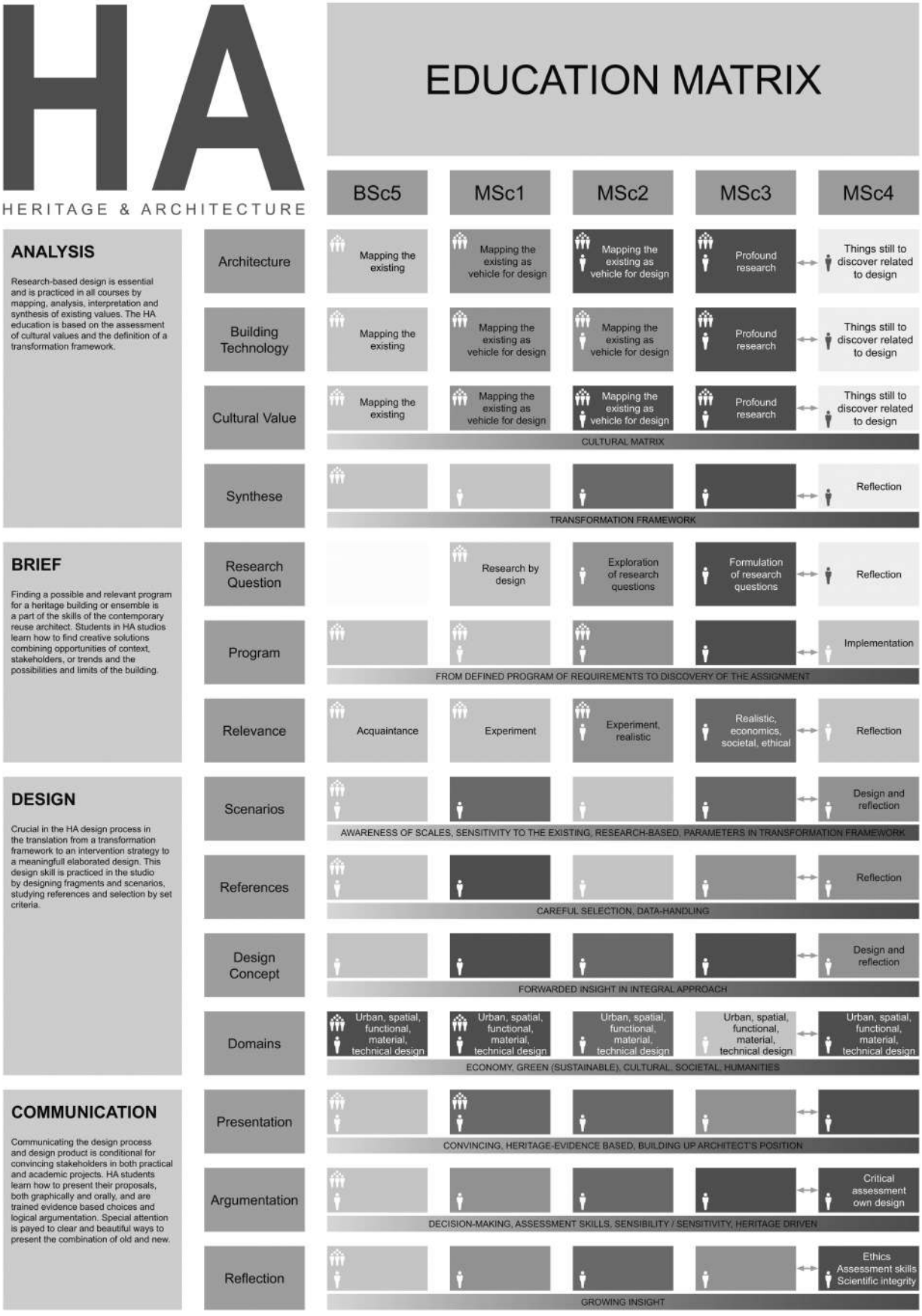
This process can be described in the following five steps, but is in fact a constantly self-enriching iterative process:

- Step 1: Collection of data including observation of the building, its technology and context as well as their histories.
- Step 2: Compilation of the construction history of a heritage site, including by means of so-called Chrono-mapping.
- Step 3: Identification and classification of the site-specific heritage features in relationship to value found by means of Heritage Value Mapping using the HV Matrix.
- Step 4. Assessment of the identified features on three levels of significance.
- Step 5. Based on outcomes of steps 1 to 4 above, distilling a position statement in the form of a Transformation Framework, addressing opportunities for possible interventions and obligations for conservation and restoration, and identifying crucial dilemmas for the continuation of the heritage building.

We have developed three tools or products as milestones to assist students: Chrono-mapping, the HV Matrix, and the Transformation Framework.

Chrono-mapping presents the evolution of a building or place over time in a graphic format. We do not prescribe a format for chrono-mapping, but students are given examples as guidance and inspiration. We only ask that the product be visual, show time layers and where relevant, indicate "lost" elements. Students themselves define the time intervals/layers. At this stage no judgment is made on building elements of any of the layers. Chrono-mapping simply presents the evolution of the building.

The HV Matrix is the second seemingly simple analysis and evaluation tool. The analysis adopts Stewart Brand's shearing layers model[9] for the tangible (shearing) layers of



04 The HA education matrix. The horizontal sections represent the main steps required to respond to the design assignments, which increase in complexity with each phase of the curriculum. The intensity of the color red symbolizes the main focus within the context of the respective course indicating, for instance, the shift from Analysis and Brief in MSc 1 towards Design and Communication in MSc 4. Individual or group work is also indicated. © HA, TU Delft.

a building. However, we have extended Stewart Brand's model to include the physical Surroundings/Setting and the resultant Spirit of Place, thereby accommodating the breadth and depth of scale levels prescribed by the ICOMOS *Approaches to the Conservation of Twentieth-Century Cultural Heritage*.[10] Though a simple matrix, these are brought into direct relation with intangible values. In first trials these values were prescribed, but after testing, students are now first introduced to values in the built environment theoretically, after which they are given the opportunity to develop their own values sets appropriate to the building. Students are expected to populate (where values exist) the matrix through drawing — an essential method for architectural understanding[11] — naming and describing the elements, spaces or qualities of the building or the context, that embody values. It goes without saying that values can be represented in multiple layers and vice versa.

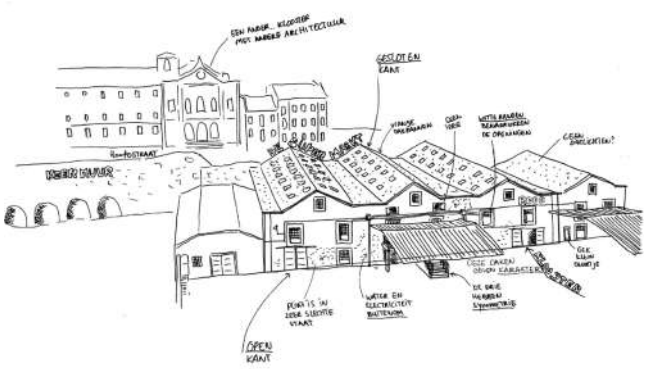
In practice, the HV Matrix is initially filled-out by student groups. This leads to peer debate, reflection and, ultimately, learning. After reaching a conclusion of which values are present and, importantly, what architectural or spatial elements or qualities are essential to their preservation, students then debate the weighting of the values: which are the most important, and which are less so. For this a simple stoplight method is used: (red — most important: to be safeguarded/developed) to green (can accept modulation or possibly be sacrificed). During the process of development of an own brief, individual students re-visit the HV Matrix and further refine it to come to a personal positioning regarding the values of the building.

Importantly, from the HV Matrix going forward, an integrated statement on the values leads to outlining a Transformation Framework, which includes opportunities and obligations as well as central dilemmas when relating the transformation framework and its limitations to the proposed adaptive reuse program. This Transformation Framework, a drawn representation using self-created simplifications/reduction drawings, photos, hatching and text, goes beyond the concept of "limits of acceptable change" defined by the ICOMOS International Committee on 20th Century Heritage[12] and present a vision to the future. Often issues relating to energy use reduction provide for technical dilemmas in dealing with valuable fabric.

Only now can solving the problem of adaptive reuse be addressed through a method of scenario design, iteratively tested against the Transformation Framework as a method of researching appropriate solutions and suggestions. In theory, students in the MSc 3/4 should complete the process up to the definition of the Transformation Framework within the first 15 weeks of the 40-week graduation project timeframe: in practice, it evolves throughout the longer process of investigation, since the design process is essentially cyclical by nature.

Case study: The Manutenção Militar Complex, Lisbon

One of the first HA graduation studios in which the above outlined process was tested, continued on from 2016 Lisbon



05 Sketch of a portion of the Manutenção Militar complex, Lisbon, with which the student captures unique qualities and characteristics of the multi-layered heritage buildings. Floor Hoogenboezem, 2017. © TU Delft.

International ***docomomo*** *Conference* student workshop: *The Adaptive Reuse of the Lisbon riverside area: the MMC case study.* This workshop explored perspectives on the adaptive reuse of the large Manutenção Militar complex; a multi-layered factory complex that originated as a medieval convent and saw expansive development as a foodstuff factory for the military during the 20th century.

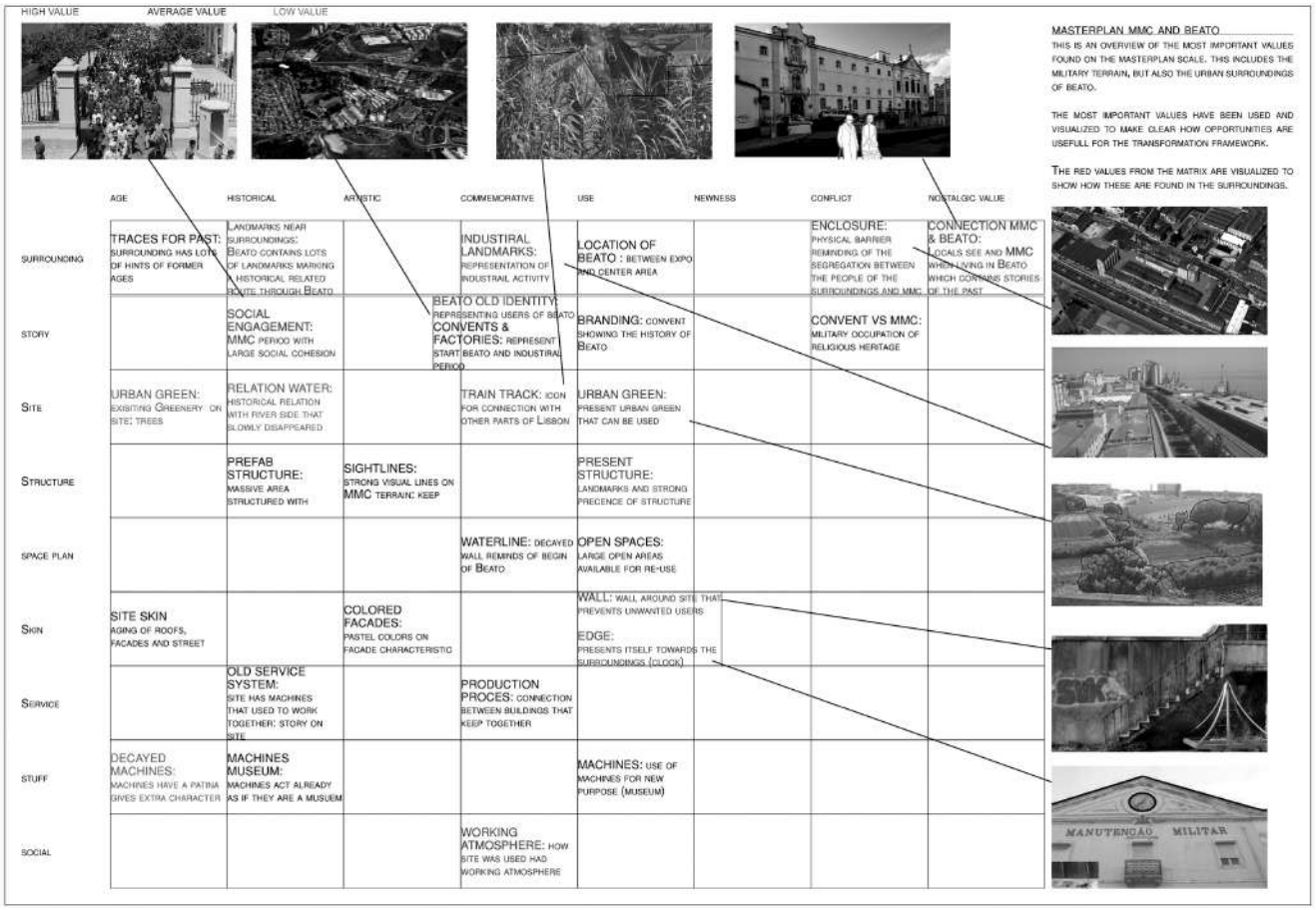
TU Delft MSc 3/4 students who participated in the **docomomo** student workshop continued with this case as their graduation project. Based on desktop research and on-site observation, the Chrono-mapping made the time layers of the former factory complex explicit. However, through application of the HV Matrix to the complex as a whole, as well as to individual buildings, students soon came to the conclusion that the oldest layers were not necessarily the most valuable, that the intangible traditions associated with the complex provided the key to its future and that, especially, age-value presents a dilemma when seen through the lens of maintenance of fabric. The process discovered great capacity for adaptive reuse and for change without sacrificing the key values of the factory.

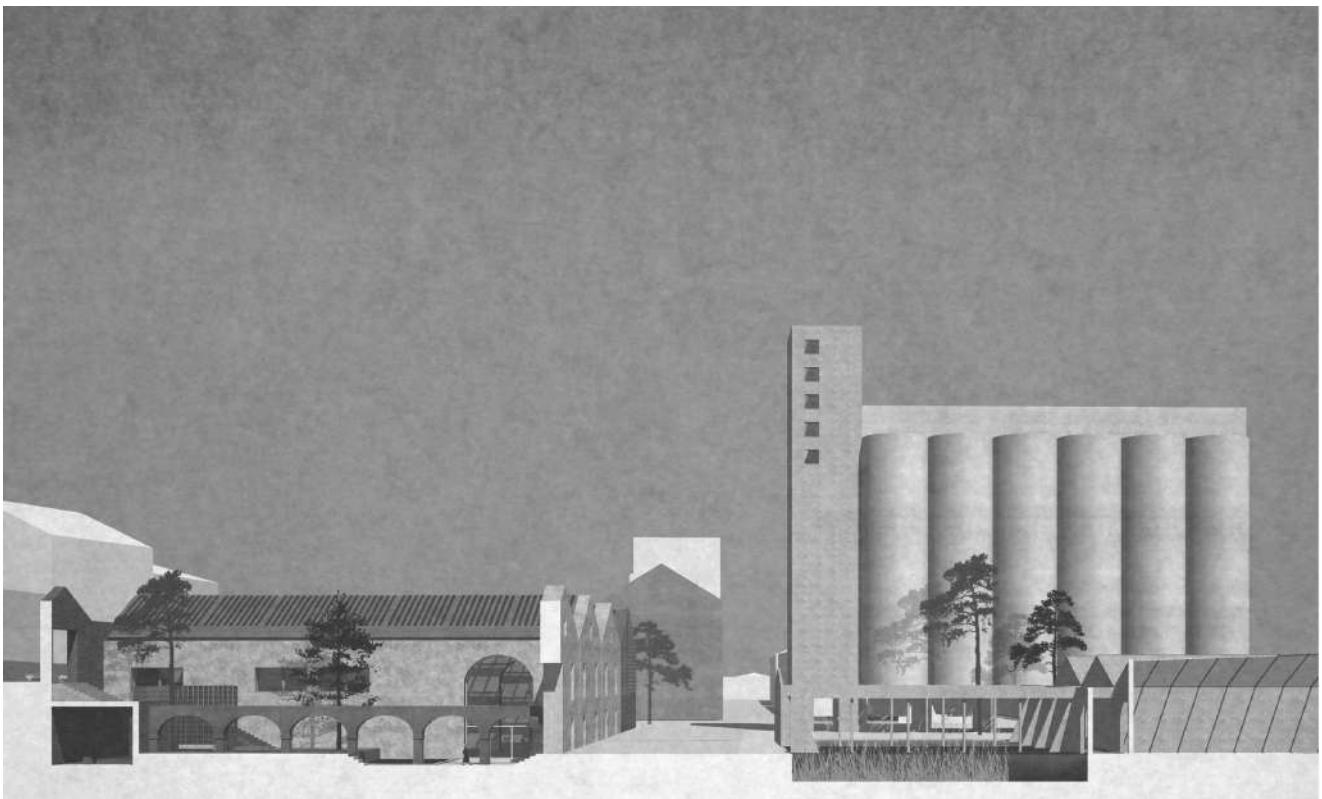
Lessons learnt from the TU Delft experience and future action points

Our educational model is constantly evolving. The process we have devised for the MSc 3/4 has proven to be useful, providing students with a foothold and a manageable process in the face of an often-daunting challenge. Students feel the need for an earlier introduction to this method,[13] but due to the open inflow of students into the MSc 1, 2 and 3, this would be ineffective, or call for repetition throughout the education program.

Yet, more integration is required with non-building specific research topics, which could be linked to research being undertaken by the staff of HA. The three HA chairs have collectively and individually developed methods and tools as a result of research projects, but these have not yet found their place in the studio. More can be done to use these methods and tools in our education, and equally, to plug the results of student research back into them. A good example is the Monument Damage and

06 An example of a HV Matrix analysis of the Manutenção Militar Complex, Lisbon. Jochem Hols, 2017. © TU Delft.





07 Intervention proposal for adaptive reuse of the *Manutençao Militar* complex as an educational facility. The extant fabric is reshaped to generate meandered movement through sequences of intimate and open spaces. Floor Hoogenboezem, 2017. © TU Delft.

Conservation System (MDCS)[14] developed by the Heritage and Technology Chair. While the MDCS is used in the MSc 2 to assist students to identify causes of damage, and develop appropriately researched responses, it has not yet found application in the MSc 3/4 graduation course. We now need to find ways in which students can apply the MDCS in the graduation studio and explore ways in which MDCS can be augmented with student observations and documentation in the future. Further integration and collaboration with other Chairs in the Faculty, such as Real Estate or Architectural Engineering, Urbanism/Landscape, and Climate Design and Sustainability can add value to our education processes.

However, this wished-for integration with research, other tools and methods and other architectural fields of enquiry is difficult to achieve because of the limited time and the strictures of the deliverables for the Architecture graduation track, as well as the fact that each entry level brings students to the HA courses with no former experience with assessing heritage. We are actively searching for mechanisms through which more integration between the MSc 1 and 2, and the MSc 3/4 can be achieved in the future.

Conclusions

Our engagement with values as a driver for decision-making has highlighted that values remain fluid and emergent and require constant engagement. This is especially so for the sometimes still unknown qualities of 20th century built heritage, which can attain a high appreciation within a community once discovered. Identification is only the first step: assessing where these values reside is important if we want to safeguard them for the future. We hope to teach students to delay the process of design, first look, listen, analyze and conclude, then develop red-lines before testing possible solutions to the problem of reuse.

The approach we have developed at HA by asking ourselves fundamental questions, while not overtly rooted in the tradition established by the educational program at the Bauhaus, certainly resonates with it. A pertinent principle is that of learning through doing; not by copying, but by engaging a problem through an iterative process. This also echoes the early Bauhaus education perspective developed by Johannes Itten (1888–1967), which was based on craftsmanship. The Bauhaus in its early years advocated bespoke designs, emerging from a unity of art and technology

08 Former US Embassy in The Hague, the Netherlands, by Marcel Breuer (1959). © W. Willers/TU Delft.

in response to a clearly defined purpose and based on careful analysis and testing. This unity of art and technology produced matter that carried meaning. HA goes beyond acknowledging this unity; we engage and activate it.

The integral nature of 20th century built legacy internationally challenges us to develop methods to assess holistically and value the integrated technologies employed in buildings as an essential component of architectural heritage.

From our experiences, we have learnt and agree with our peers that the "value of modern heritage lies as much in materiality as in its intellectual achievements".[15] Faced with the problem of adaptive reuse, we have attempted to develop an integral approach in which matter and meaning are approached holistically, remains apolitical, but, like the Bauhaus program, has a strong ambition for social relevance.

Notes

1 Franz Graf, "How should we Teach the Conservation of Modern and Contemporary Architecture", in Dirk van de Heuvel, Maarten Mesman, Wido Quist and Bert Lemmers, *The Challenge of Change. Dealing with the Legacy of the Modern Movement. Proceedings for the 10th International* ***docomomo*** *Conference*, Delft, IOS Press, 2010, 287.

2 Gonçalo Moniz et al, "Learning to Reuse Modernity: The Educational Challenge" in Ana Tostões and Nataša Koselj, *Metamorphisis. The Continuity of Change. Proceedings of the 15th International* ***docomomo*** *Conference (15IDC), 28-31 August 2018, Cankarjev Dom, Ljubljana, Slovenia*, Ljubljana, **docomomo**, 2018, 546.

3 ICOMOS, 1993, 1.

4 UIA/UNESCO, *Charter for Architectural Education,* Tokyo, UIA/UNESCO, 2011, 2.

5 Wessel De Jonge, "Educating for Preservation and Reuse", in Ana Tostões and Nataša Koselj, *Metamorphosis. The Continuity of Change. Proceedings of the 15th International* ***docomomo*** *Conference (15IDC), 28-31 August 2018, Cankarjev Dom, Ljubljana, Slovenia*, Ljubljana, **docomomo**, 2018, 530.

6 Gonçalo Moniz et al, op. cit., 832.

7 Marieke Kuipers & Wessel De Jonge, *Designing from Heritage: Strategies for Conservation and Conversion.* Delft, TU Delft - Heritage & Architecture, 2017.

8 Nicholas Clarke, Marieke Kuipers, Sara Stroux, "Embedding built heritage values in architectural design education", *International Journal of Technology and Design Education*, 2019.

9 Stewart Brand, *How Buildings Learn,* London, Penguin, 1994.

10 ICOMOS ISC20C, *Approaches to the Conservation of Twentieth-Century Cultural Heritage,* Paris, ICOMOS, 2017.

11 Inge Kirkeby, "Knowledge in the Making". *Architectural Research Quarterly*, 13(3-4), 2010.

12 ICOMOS ISC20C, op.cit., 5.

13 For more information refer to Nicholas Clarke et al, op. cit., which includes the results of a survey amongst students after their use of this method.

14 See: https://mdcs.monumentenkennis.nl.

15 Andrea Canziani et al, "Learning from Modern Heritage: Methodological Tools for Re-thinking Education in Conservation", in Ana Tostões & Zara Ferreira (Eds.) *Adaptive Reuse: The Modern Movement Towards the Future. 14th International* ***docomomo*** *Conference,* Lisboa, **docomomo** International/Casa da Arquitectura, 2016, 851.

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How did the Bauhaus get its name?

BY DIETRICH NEUMANN

Historians have always assumed that Walter Gropius (1883-1969) invented the name *Das Bauhaus* (somewhat inadequately translated as 'house for building') for the school he founded in Weimar in 1919.[1] Often, critics have noted the brilliance of this "unique creation",[2] as it announced the radical change from the "Grand Ducal Saxon School of Arts and Crafts" to a new institution that was going to be more accessible, grounded and humble. It promised both a new beginning and a connection to builders' guilds of the medieval past.

However, when Walter Gropius founded his school in April 1919, a *Das Baubaus G.m.b.H.* had already existed in Berlin for four years (G.m.b.H. is the German acronym for a company with limited liability). Founder and owner was the prominent architect and developer Albert Gessner (1868 – 1953). In 1909, he had published a substantial volume on apartment houses[3] and had built several large, middle-class apartment blocks himself. His buildings found a very positive reception, in particular due to their sophisticated arrangement, their colorful façades and the spatial sequences inside. Historian and critic Julius Posener (1904-1996) considered Albert Gessner "the most important reformer of the apartment building".[4] His best known housing estate was the "Sophie – Charlottenpark" at the corner of Bismarck- and Grolmanstrasse in Berlin's Charlottenburg section, built 1905-1907 and destroyed in WWII. Julius Gessner himself lived there with his family and his office was located there as well. The unusual corner arrangement at this housing estate was often noted with great admiration – instead of the usual solution with badly lit rooms at the interior angles, Julius Gessner opened the corner up and created a communal garden, shielded from the street on the first floor by a low structure for a cafe. The resulting clash of gables above provides a dramatic, provocative outline. The resulting loss of rentable space was partially remedied by better lit interiors.

Julius Gessner and Walter Gropius knew each other from the *German Werkbund*, that important organization of artists, architects and industrialists, which had been founded in 1907. Julius Gessner had been one of the first members and instrumental in formulating its concept. Five years earlier, he had founded an artist society called *Werkring*, which had the architects Alfred Grenander (1863-1931), August Endell (1871-1925) and Bruno Möhring (1863-1929) among its members, as well as several sculptors and painters. The group participated in numerous exhibitions and countered the predominant *Art Nouveau* style of the time with a simpler an more functional approach to spatial and structural design. This *Werkring* was one of the inspirations for the *German Werkbund* and was absorbed into it at its founding. Both terms *Werkbund* and *Werkring* mean essentially the same thing – an association for the creation of works – implicitly assuming works of craft or design.

Two years after the *Werkbund's* founding, Gessner himself created a new company, called *"Das Werkhaus G.m.b.H."* – an "institution for the creation of furniture, furnishing and works of applied arts."[5] It was quite successful for a number of years, and by 1914 operated four stores in Berlin, which sold furniture, tableware, lamps, metal fittings etc. that Gessner had designed.[6] "The Werkhaus sees its task in lending all furnishings of a building that are commercially available a unified artistic character..." Gessner wrote in one of his sales brochures.[7] Albert Gessner's undertaking was not unique. Since 1879, there had been Hermann Hirschwald's store for applied arts in Berlin - renamed "Hohenzollern Kunstgewerbehaus" in 1892, to acknowledge the crown prince's (of the Hohenzollern dynasty) interest in good design.[8]

At the start of WWI, Albert Gessner (1868-1953) faced economic difficulties and decided to restructure his businesses. He sold his *Werkhaus* to the architects Otto Dochow, Friedrich Greve (1907-1994) and Arthur Hamburger, who ran it for another two years, and then closed it due to the economic hardships of the war. Albert Gessner, meanwhile, tried to attract new customers for large architectural projects. Since architects were not allowed to advertise in Germany,[9] he founded a separate company in 1915, through which he could promote his work. It was clearly meant as a counterpart to his former *Werkhaus* and called *Das Bauhaus G. m. b. H.* Instead of furniture and furnishings, one now could commission or acquire entire buildings. In Berlin's address book of 1915 advertised: "Execution of houses of all kinds, from the smallest vacation home to the richest residential palace, as well as entire housing estates, designed by Albert Gessner and other artists. Managing Director: architect Richard Friebel".[10] This *Baubaus* was located at the above mentioned "Sophie – Charlottenpark", housing estate at Grolmannstrasse 1/2, in close vicinity to Albert Gessner's apartment. It is mentioned in all Berlin address books from 1915 to 1920.[11] Albert Gessner closed his *Baubaus G.m.b.H.* in 1920 – there was little building activity, due to a major economic crisis after the war and the Versailles Treaty. Albert Gessner himself noted that his architectural career lost its dynamic in the following years. He became engaged in local politics, accepted a professorship at the Charlottenburg University and was elected into the Academy of Arts Albert Gessner feared that German architecture was losing its local relevance under the onslaught of internationalism. Ludwig Mies van der Rohe, Walter Gropius, Erich Mendelsohn (1887-1953) and other modernists had, in 1926, founded an association called *Der Ring*. In opposition, Albert Gessner formed a group called *Der Block* (the meaning of ring and block is very similar in English) in 1928, together with conservative architects Paul Schultze–Naumburg (1869-1949), Paul Bonatz (1877-1951), Paul Schmitthenner (1884-1972) and others, who were vehemently opposed to the ideas of the Dessau Bauhaus and argued for a conservative regional architecture. Paul Schultze-Naumburg was a key figure in the expulsion of the Bauhaus from Dessau. Albert Gessner enthusiastically joined the NSDAP in 1932, and the Nazis closed the Berlin Bauhaus in 1933.

It is certainly possible that Walter Gropius found the name *Baubaus* independently and did not know about Albert Gessner's enterprise. After all, during the war Walter Gropius was rarely in Berlin, as he used his occasional furloughs from the front to visit his wife Alma and their daughter Manon in Vienna. New compound words employing the word *Bau-* were not uncommon at the time: In 1910 the weekly architecture magazine *Bauwelt* (building world) began to appear, in 1918 the magazine *Baugilde* (building guild) followed, and in 1919 Martin Wagner (1885-1957) founded, simultaneous with the *Bauhaus*, a socialist building society, called *Bauhütte* (literally: building hut — the


Das Bauhaus G. m. b. H.,
Charlottenburg, Grolmanstr. 1. 2
Tel. Steinplatz 9220.
Ausführung von Häusern aller Art, vom kleinsten Ferienhaus bis zur reichsten Schloßanlage, Miethäuser u. Industriebauten, auch ganze Siedelungen nach Entwürfen von Albert Geßner und anderen Künstlern.

01 Berlin address book, 1915.

02 The location of the first *Baubaus*: Albert Gessner's housing estate at the corner of Bismarck and Grolman streets in Berlin Charlottenburg.

term that had long been used for medieval church building guilds).

On the other hand, Albert Gessner was prominent and frequented the same circles as Walter Gropius. His *Werkhaus* had been well known in Berlin, and his economic troubles and the founding of his *Bauhaus* were probably subject of architects' gossip at the time. Walter Gropius might have simply seen Albert Gessner's advertising in the Berlin phone book, or walked by Albert Gessner's housing estate, where the *Bauhaus* was located, in an area which was familiar to him since childhood.[12]

And, of course, adopting an existing name would have fit into Walter Gropius *modus operandi*, as he would, "throughout his life, adopt - rather nonchalantly - the ideas of others."[13] Magdalena Droste (1948-) has convincingly demonstrated that his Bauhaus Manifesto owes much to the ideas of Otto Bartning (1883-1959) and Bruno Taut (1880-1938),[14] und his buildings in Alfeld, Cologne and Dessau profited greatly from congenial collaborators such as Adolf Meyer (1881-1929), Carl Fieger (1893-1960), Ernst Neufert (1900-1986) and others. Without a doubt, it was one of Walter Gropius' strengths to recognize good ideas and outstanding talents and to employ them for his purposes. Thus, in the end, the origin of the word *Bauhaus* might be less crucial than Walter Gropius' brilliant understanding of its enormous potential as a name for his new institution. At first sight, the name was a better fit for Albert Gessner's enterprise than for a school that lacked an architecture department for eight years of its existence, while it employed painters, weavers, potters and furniture makers as teachers. Ultimately, however, the name signaled the school's ambition, purposeful direction and continuity over its 13-year existence. It provided easy, unmistakable name recognition and helped conceal the fact that behind the scenes there was much turbulence and many contradictory trends under its three very different directors.

Neither Albert Gessner nor Walter Gropius ever trademarked the name, and thus it has been used in many different ways over time, be it as the name for a British Gothic Rock Band, a Vancouver restaurant, or, most visibly, for an international chain of building supply stores – a faint reminder of its originally intended purpose.

Notes

1 A shorter version of this essay was published by the German newspaper *Frankfurter Allgemeine Zeitung* on October 8 2019 – unnecessarily sensationalized with the title: "Wie Gropius einen Namen stahl" (How Gropius Stole a Name).
2 Annemarie Jaeggi, "Ein geheimnisvolles Mysterium: Bauhütten Romantik und Freimaurerei am frühen Bauhaus" in: Christoph Wagner (Hrsg.) *Das Baubaus und die Esoterik* (Bielefeld, Kerber Verlag: 2005), 37-45, quote 38.
3 Albert Gessner, *Das Deutsche Miethaus. Ein Beitrag zur Städtekultur der Gegenwart.* (München, Bruckmann Verlag, 1909).
4 Julius Posener, *Berlin auf dem Weg zu einer neuen Architektur* (München: Prestel Verlag, 1979), 323.
5 Claudia Kromrei, *Albert Gessner, Das Städtische Miethaus* (Berlin: Gebrüder Mann Verlag, 2012), 157. Gessner's new term replaced the notion of an association with that of a location.
6 The Berlin address books are available online at: https://digital.zlb.de/viewer/cms/141/ and show the addresses of Gessner's *Werkbaus* branches between 1912 and 1914, as well as his advertisements of the *Baubaus* from 1915-1920.
7 Quoted from Claudia Kromrei, *op.cit*, 158.
8 Ludwig Pietsch, "Das Hohenzollern-Kunstgewerbehaus – Berlin" in: *Deutsche Kunst und Dekoration* — 15 (1904-1905), 169-176. From 1915 to 1921, an interior design store with similar goals called itself "Werkkunst G.m.b.H."
9 Sina Keesser, "The Architects' Ban on Advertising. On the conflicts between Architectural Professional Ideals and Mass Media" in: Andreas Brenneis, Oliver Honer, Sina Keesser, Annette Ripper, Silke Vetter-Schultheiss (Hrsg.), *Tecbnik – Macbt – Raum. Das Topologische Manifest im Kontext Interdisziplinärer Studien* (Wiesbaden: Springer, 2018), 229-250.
10 Berliner Adressbuch 1915, S. 125. Richard Friebel was a Berlin builder, who had worked with Gessner and other Berlin such as Hart and Lesser. (See for example their Trunck department store at Kronenstrasse 10 of 1902 and 1910 and his own cemetery chapel in Michendorf near Potsdam of 1932.
11 Claudia Kromrei, a. a. O., 117. It is a somewhat poetic coincidence that Le Corbusier stopped by Gessner's apartment block on his journey through Germany in 1910. Claudia Kromrei even suggests that the building, of which Le Corbusier made several sketches, had an impact on his later studies for large apartment buildings.
12 Walter Gropius' parents had lived in Rankestrasse 16 (until 1911) and then Lietzenburgersstrasse 13. Walter Gropius' own apartment was located at Nikolsburger Platz 4 in Wilmersdorf, and, from 1914 on, he rented office space at Kaiserin Augustastrasse 69. All these addresses were not far from Grolmanstrasse, where Albert Gessner's *Baubaus* was located.
13 Winfried Nerdinger, *Walter Gropius. Architekt der Moderne 1883-1969* (München: C. H. Beck, 2019) 65.
14 Magdalena Droste, *Baubaus 1919-1933* (Köln: Taschen Verlag, 1991), 17, 18.

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David Chipperfield

On the 4th March 2019, at his Berlin Office, DJ (Ana Tostões, editor, and Michel Melenhorst, guest editor) interviewed David Chipperfield, an internationally renowned architect, founder of David Chipperfield Architects (1985) whose work is recognized with important awards such as the RIBA Stirling Prize, the European Union Prize for Contemporary Architecture (Mies van der Rohe Award) and the Deutscher Architekturpreis.

DJ The lecture you presented at the RMB/**docomomo** Germany conference on the occasion of the Bauhaus 100 Anniversary was very thought-provoking because you addressed what drives **docomomo**; its ambitions, aspirations, purposes and inspirations: the meaning of today's architectural discipline in connection with memory, future and collectivism. We share the belief that buildings deserve to defy time, earn to be used, deserve to be transformed keeping their character and finding its construction system. It is amazing to realize that you approached your very particular education assuming a search for the idea of pre-existence.

DC I was at college in the mid-1970s, at a time when modernism was in many ways collapsing. There was an emotional and intellectual reconsideration of the modern movement taking place and, as a consequence of that, a complementary reinterest in history. In architectural terms, it was called post-modernism, which was a strange title in a way because it wasn't very poetic. It was a rather literal idea compared to post-modernism in literature and philosophy. The mid-1970s was a very interesting period in which the heroes were being re-evaluated. So, the first part of my education was Le Corbusier (1887-1965), Alvar Aalto (1898-1976) and Mies van der Rohe (1886-1969) then, all of the sudden, new heroes were brought to the fore like Gunnar Asplund (1885-1940) and Edwin Lutyens (1869-1944). Everyone was talking about *Beaux-arts* and Charles Rennie Mackintosh (1868-1928), architects that were a little bit unfashionable to the mainstream modernist education from before. There was an understanding of why the collapse of modernism as an ideology was occurring. Suddenly in England, it was very difficult to argue against the criticism that modern buildings were awful. Modernism had not refreshed itself, it was just using up that last energy of what started off as a very visionary series of ideas. Eventually the ideology disappeared and just became a loose style. Moreover, in the hands of developers and bad architects it became an excuse to build something without much thought. So, the rethinking and the re-energising of the architectural debate through a desire to look for something richer was needed. As modernism had lost its physical strength, buildings from the 19th century were being re-evaluated and people like Henri Labrouste (1801–1875) were being studied. The Smithsons gave a lecture at the Architectural Association School of Architecture (AA), on Labrouste, and Henry Russel Hitchcock (1903–1987) came to the *Beaux-arts* Exhibition in London, which previously had been at MoMA.[1] So, you had Henry Russell Hitchcock, who in a way invented the "International Style" at the Museum of Modern Art, in a conference about the *Beaux-arts*. Full circle.

DJ Incredible. It is interesting because in different parts of Europe the situation was not completely the same, for instance in Delft ten years later it was still pretty much modernist, and certain things, like what was going on in Italy, *la Tendenza*, was just not spoken of.

DC I think that modernism was more societally embedded in the Netherlands whereas in England we had so much bad modern developers' architecture in the 1970s and 1980s. If you went to Sheffield, for example, and you asked people what they thought about modern architecture they would say they hated it. Taking into consideration the modernist housing projects, now we have a bit more objective distance to them, both in terms of their architecture and their social weaknesses or strengths, which allows us to think and debate whether these were good options or not. But, I would say that at the time there was a very sentimental emphasis in Britain about a past time, and an architecture which was richer and stronger. And there were two things happening at the same time; a re-interest in history and a re-interest in the city, intellectually allied with the Italian position of Rossi and others. Of course, they were both coming from the same core anxieties. One of those concerns was slightly more emotional and the other was slightly more intellectual ... one was a little bit more humanist and one was more about the fabric of architecture. I think it was a very interesting period. It wasn't only about killing modernism, but it was a critique.

DJ Would you say that, at that time, what society expected of architects was clearer than it is nowadays? If we read the introduction of your 2018 book "David Chipperfield Architects" you

say that one of the challenges in every commission is the fact you have to deal with different participants, locations, contexts, but it is often the need to fulfil the expectations of society that has become extremely difficult because this expectation is so vague and unclear. Do you think there is a big difference between now and then?

DC Well, what I think is that the focus has shifted. Clearly, after the war, there was a programme of rebuilding, reconstructing not just physically but societally, and architects played a very important role in that. So, we were building universities, houses, schools etc. To be an architect in Britain in the 1950s or 1960s meant that you had a societal role.

I would say that back in those days being an architect was a professional vocation like a doctor. You could have a sign on your door saying "architect" and customers would come. I think the role has changed, and society has too. In Britain we had Prince Charles condemning modern architecture and Margaret Thatcher (former British Prime-Minister) saying that there is no such a thing as society. Everything we believed in, as architects, which congregates individual actions into some sort of collective activity, was questioned. Margaret Thatcher said the role of the State is no longer to be of a caretaker, and that the commercial sector knows how to do these things more efficiently. And there was some truth to that. However, when you privatize the world, who builds social housing? As an investor, you would never build social housing because you can't make any money out of it. It is a contradiction to build social housing for profit. So, who does that? Who is going to take a responsible attitude towards the building of schools, or public spaces... The whole idea of responsibility is a societal challenge, and the Anglo-Saxon method was to push the responsibility to the private sector and be reluctant to direct it.

DJ Perhaps one interesting example on how things can change is the project you are doing on Eero Saarinen's US Embassy, in London, which of course was also built at a time of transparency as a need for democracy. And, we all know, that the US government used the Embassies to promote cultural values of the free Western world in Europe but also outside of Europe. Nowadays, many of these Embassies have become completely blocked because of security reasons, and all this transparency disappeared. Now you are working with a new program, a hotel, with a private investor, and you can open up the building again which is quite interesting ...

DC Yes and no. I would say that there is now another issue as private investment brings its own protections and limitations. Yes, we are opening up the building and increasing the publicly accessible area around it, but how truly democratic the rest of the building will become is also questionable as it will be a hotel. However, our ambition is to follow the manner of old grand hotels, which were exclusive places but still had a sense that they were public buildings in the city.

DJ In your lecture, you spoke about your worries about certain types of buildings from the 1950s and 1960s, a kind of generic modernism at risk of getting lost. Do you think we can save them and continue to use them by improving them, by changing them?

DC Yes. But the problem is that this rarely happens. Why are we knocking down post-war buildings? We ourselves have been responsible for this. For example, in Essen we knocked down a museum building from 1985. In this case it was a decision by the community, as it was well understood that it didn't work well as a museum. Nevertheless, there still has to be some sort of criteria, you can't become nostalgic about everything. There is still good and bad architecture in every period.

The problem we find with 1960s and 1970s buildings is how to distinguish between good and bad, and how to argue for keeping the bad. I think the only thing we can do is to bring new criteria, which has to do with sustainability. We should shift the emphasis: investors should have to give good reasons why we should demolish pre-existing buildings. One of the most common reasons is the efficiency of the building and one that is always a little bit baffling is the ceiling height but we haven't become bigger or smaller. There has to be better coordination of decisions and resources, which ultimately depends on political intervention. Planning cannot operate on laws of investments or free market. I think that growing awareness of sustainability and environmental issues will help to change this approach. It has to change.

There is another problem in relation to investment. Global money is not particularly worried about reward, it just wants to be planted somewhere. There is money to be invested, and it can be more neatly invested in a new tall building. This is the big danger for London and other cities. It's not logical but the market has rules that we can't even understand.

DJ And how can we act in this process if we are not the investors? How can we, let's say, push things in the direction of sustainability?

01 Eero Saarinen, 30 Grosvenor Square (US embassy), London, UK. © Library of Congress, Prints & Photographs Division, Balthazar Korab Archive at the Library of Congress, [LC-KRB00-425].

02 Mies van der Rohe, Neue Nationalgalerie, Berlin, Germany, 1965–1968; refurbishment by David Chipperfield Architects, 2012–2019.
© Ute Zscharnt for David Chipperfield Architects.

03 Mies van der Rohe, Neue Nationalgalerie, Berlin, Germany, 1965–1968; refurbishment by David Chipperfield Architects, 2012–2019.
© Thomas Bruns, November 2019.

DC The societal issues and the environmental issues that are happening will force us. I was recently on a round table with the Mayor of Oslo and he described the type of city he wanted Olso to be. He didn't talk about urbanism. Instead he talked about clean air, reducing private cars, increasing public transportation, providing more green space, providing better and more affordable housing in the center of the cities. Through this, however, he did describe an urban vision, but in a completely different way to how architects talk about it. We would talk about density, urban and public space but he used political language that is more universally understood. Every politician understands the issue of clean air, the issue of social inequality, of a lack of housing. These are the new words that have gained traction in the last 10 years. No truly credible politician can afford to say "Yes, but that's left-wing stuff, it doesn't mean anything to us".

I also think that quality of life and the quality of a place are the things which we have to start talking about more. For instance, we are sitting in a city, Berlin, that is successful and it is now full of young people who are not coming here because they can earn more money. Berlin has no economy. So, why did they come? The answer is the quality of life. They come because young people like to live here. It is a city whose success is based not on the financial sector, not on commercial, not on manufacturing, not on anything else, but is based on low rent and quality of life. Nowadays, however, we are facing a crisis in Berlin because all of a sudden rent is going up. Interestingly, it is a city that has such an embedded anxiety about investment, to the extent that it even rejects it. Berlin is therefore on the front line of "quality of life" discussions, where the impact of investment is being treated seriously and cautiously in a way that other cities have failed to do.

In terms of **docomomo**, there is another quality in Berlin — it is a city highly sensitized about history. So, even now there are complex discussions about German Democratic Republic (GDR) projects, done during the GDR period, whilst, straight after 1989, there was no interest whatsoever. Now, there is a sort of anxiety because so much has disappeared. This is quite interesting because some of these projects were done as recently as 1974. It's very unusual. In a way, you have the sense that they are reasonably protected now. But what is interesting is that they protect a phase of architecture, on the one hand, but they also protect a social structure because you cannot gentrify these places. You cannot speculate very easily on *Plattenbau* buildings because, whatever you do, they still have low ceilings, and tiny rooms and bad insulation. And no one is going to, all of a sudden, pay two million euros for it. Again, in London, these would be knocked down because there is such a respect for the market, and the people say "it's crazy, in the centre of the city this land has so much value…" But I think that this is something fantastic in Berlin that, in the center of the city, there is a protection of social mixture as much as architectural mixture.

DJ We really do think that reuse, adaptative reuse and rehabilitation is the right way to go.

DC The problem is that in most cases this has been hijacked as part of the tourist industry, or even the heritage industry. Tourism gives a very weird dimension to heritage. What is the point of protecting a whole building if it is just going to be occupied by expensive shops in the ground floor?

DJ If we go back to the 1950s and 1960s housing projects, there were many that were built as large housing estates? Do you see possibilities for repairing, for reuse, for updating them?

DC Absolutely. The concept of just getting rid of that housing is based on what it looks like, and what would sometimes seem to have been badly socially engineered. The architectural ugliness thing is gone a little bit because there is a nostalgia and growing appreciation, especially in a younger generation, and secondly the more often that they try to move people out of these places to "save" them, the more we uncover stories of deep personal attachment.

04 David Chipperfield Architects, Royal Academy of Arts, London, UK, 2008-2018. © Simon Menges.

05 David Chipperfield Architects, Rockbund Art Museum, Shanghai, China, 2006–2011. © Simon Menges.

06 David Chipperfield Architects, Royal Academy of Arts, London, UK, 2008–2018. © Simon Menges.

07 David Chipperfield Architects, Rockbund Project, Shanghai, China, 2006-2011. © Christian Richters.

DJ If you look at Moscow, for instance, they want to knock down ten thousands of the so-called microrayons, multi-story residential buildings constructed in the Soviet era on the outskirts of Moscow. And, what you are describing is happening there: people are saying "I was born here... this is my personal background, these are my memories, it is where my grandmother still lives" you know...

DC Well, I just think we have to understand the rush between hardware and software. The reason that architecture means something to us is not just abstract. The history of architecture as we read about it in books is important, but that is not the whole of architecture. The rest of architecture is not read about, it is experienced on another level. Indeed the reason that it is truly interesting is that it is connected to society.

DJ What could be your advice for architecture students?

DC I think that the next generation has to think of a different way of practice. I do not think that large architecture practices are necessarily the only way to work in the future. I think they have to be more agile and more grounded, connected to structures and real life.

Notes

1 *The Architecture of the École des Beaux-Arts*, the exhibition was directed by Arthur Drexler and it took place at MoMA, in New York, October 29, 1975–January 4, 1976.

David Chipperfield

(b. United Kingdom) Architect and Professor, CBE, RA, RDI, RIBA. David Chipperfield established David Chipperfield Architects in 1985. He was Professor of Architecture at the Staatliche Akademie der Bildenden Künste, Stuttgart from 1995 to 2001 and Norman R. Foster Visiting Professor of Architectural Design at Yale University in 2011. He has since taught and lectured at schools of architecture worldwide. David Chipperfield was appointed Commander of the Order of the British Empire in 2004, appointed a Royal Designer for Industry in 2006, and elected to the Royal Academy in 2008. In 2009 he was awarded the Order of Merit of the Federal Republic of Germany and in 2010 he was knighted for services to architecture in the UK and Germany. He has received the RIBA Royal Gold Medal for Architecture, and the Praemium Imperiale from the Japan Art Association, both given in recognition of a lifetime's work. In 2012 David Chipperfield curated the 13th International Architecture Exhibition of the Venice Biennale.

Wiel Arets

On the 27th August 2019, at his Amsterdam office, DJ (Ana Tostões, editor, and Michel Melenhorst, guest editor) interviewed Wiel Arets, an internationally renowned architect, and the founder of Wiel Arets Architects (1983). He has since taught at several universities worldwide, having also been Dean of the Berlage Institute in Rotterdam (1995–2001) and Dean of the College of Architecture (CoA) at the Illinois Institute of Technology (IIT) in Chicago (2012–2017).

DJ In **docomomo** we are concerned with how to use existing buildings, sites, and neighborhoods, but we also believe that the Modern Movement's ideals remain inspiring for our future. In this perspective, we much admire your work. In your career there are several times when you touch, redo and even demolish a building, and every time there seems to be a different approach. Would you agree with that, or would you say you had the same attitude towards the Antwerp Tower (2017–) and the Glaspaleis (1998–2004), both refurbishment projects that are quite different from one another. So, perhaps you can take us on a tour from the late-1980s, like the Beltgens Fashion Shop in Maastricht you intervened on, to the projects you are working on now, and how you have changed in your own attitude, approach, and design strategies.

WA I'll start with when I was born; my background. I was born in Heerlen. It was a miner's town. So, what I've learned from the Heerlen mining was that as they started to explore for coal, the city grew, in 25 years, into one of the most important cities in the Netherlands. Heerlen became a very entrepreneurial city where they were focused on how to mine and take advantage of the latest technologies in order to develop a new society at the end of the 20th century. In Heerlen, there were three different countries represented in the mines. You could see mines built by Dutch engineers, some by French engineers, and some by German engineers. They were built in concrete, steel, brick, and you could see the landscape they created, above ground. By now the city had neighborhoods with 7-, 8-, 9,000 people, but below them, the miners and engineers had created a network underground, which is incredible. For me, this has to do with building a society, bringing people with a certain attitude to the same place — a multicultural society. There were people from Poland, from Morocco, from Turkey, and from Amsterdam.

When I was younger, I wanted to study physics, not architecture. I wanted to become a physicist and I very much enjoyed topics concerning the mind as well as sports. There was this Dutch magazine called *Kijk*, which means to "look", that had all the newest and latest scientific developments and debates, which I was very interested in. So, once in *Kijk,* there was an article about a mountain, and someone wrote, "Here is a human being and, as a human being, you can walk through that mountain without there being any hole in it". He believed we all are in a certain frequency; "There's a frequency A, a frequency B... And the only thing you need to do is to sync into the right frequency, and you would be able to walk through the mountain without making a hole", and that certainly caught my attention.

For me there were two main aspects of my life, which start here. There is the *ziel* (soul), and the mind; body, and soul. And *ziel* is something you can't define. For me this is extremely important. When we talk about periods such as the Renaissance, the Baroque, Gothic, until the Modern Movement, and today; I still believe that we, intrinsically, talk about these two ideas, of body and soul. For example, before the machine age, there's the mind and the body; god and soul. There's the idea that we won't die, the soul will always be alive, only the body dies. Then in the 20th century we get the machine. The machine makes the statement "god is dead", now the machine doesn't die, the machine can repeat, and "live" on.

Now to answer your question, about my start in architecture... In 1977 I started to study, graduating in 1983. On the 23rd of June I got my diploma from the Technical University of Eindhoven and on the 24th I went to Japan. Every year I undertook an intense trip which I always prepared months in advance, with a lot of literature and much writing. I traveled to Italy, to Paris to study Le Corbusier (1887–1965), and as a 2nd year student, in 1979, I traveled to Russia to see all the Konstantin Melnikov (1890–1974) projects. Before I visited Japan, I prepared for the trip. I wanted to go to Japan to understand who Kazuo Shinohara (1925–2006) was; who Tadao Ando (1941–) was, who Fumihiko Maki (1928–) was. These three were extremely important for me and also three completely different architects. So, I went to Japan and spent about five weeks there. There were two more important trips for me in this period. One was Mexico, which was important for Luis Barragán (1902–1988) and the local 19th and 20th century architecture, as well as for the cultures of the Aztecs, Toltecs, and Olmecs.

The other extremely important moment is when I first discovered Malaparte (1898–1957), the man and the villa. I discovered Malaparte's writings, *Casa come me*, the house as

the story of his life; the Jean-Luc Godard's film "Le Mépris" (1963). I stayed at Villa Malaparte a bit after I started to teach at the Architectural Association School (AA) in 1987. I stayed 10 days there with students from a Masters Unit I was teaching, we were the first ones to visit the house after Jean-Luc Godard (1930–).

Italy for me marked the beginning of all the Classics, such as Cesare Cattaneo's *Giovanni e Giuseppe dialoghi di Architettura*[1] which is similar to Plato's *Politeia*. It is a conversation between the layman and the architects. These are extremely important to me as they are the basis of all the projects that we do; the establishment of a dialogue with the client, with people in the streets, with students, with philosophers;
I always want this debate, this dialogue.

But back to the work... It's always difficult to say which was my first project as there is always some project I never remember. I wanted to create and make, but making for me has to do with creating stories; creating something new; trying to let people go into a different frequency; to pass through *that* mountain I mentioned. Now back to the first project; let's talk about that shop.

DJ The Beltgens Fashion Shop, in Maastricht (1987), which is a re-use project...

WA We built the shop for 18,000 guilders at that time (Dutch guilder, which currently corresponds to 8,168.05 euro), which was an incredibly little amount of money. I never start a project thinking about the money. If we can build it for a certain amount, we do it with that amount. What is important is that I went there and met the owner of the shop and in that meeting we sketched a drawing. I told the client to buy a big piece of Corten Steel and to make the façade with that. There was not enough space for everything in the ground floor so we put the storage area on the floor above, connected to the shopping area by a staircase, giving them a big shop and making the act of getting the clothes from upstairs an event. Since they added the shopfront their sales suddenly tripled.

DJ The spiral staircase of the shop is like a mineshaft. What is interesting here, is that you do something that is not expected. For example, the shop window is very low and the door is elegantly rewarding us with a view between the street and the courtyard.

WA This was an existing building into which we inserted the façade, thus making a new structure. We deliberately lowered the height of the window in the façade to 1,60 m. I went outside the shop with the owner, and we marked it with tape.

So, what I'm trying to say is; Malaparte made his fireplace with glass. He did things because he believed in them. What I learned from him is that, as architects, we have to rewrite the program for our client.

When IIT asked me to consider being Dean, I thought, "I do not want this responsibility", you know. I'd been Dean of the Berlage Institute; that was for me an extremely successful moment in my life. Being part of the AA, the Berlage, Columbia, and Cooper Union was great. I also taught for a year with John Hedjuk (1929–2000), so why should I go do this in Chicago? My ambition was quite simple: Mies van der Rohe (1886–1969) made S. R. Crown Hall and Lake Shore Drive and he was extremely important for Chicago. Much the same as Frits Peutz (1896–1974) was for my hometown Heerlen. He was an architect who was, during the mining era, able to help Heerlen become something new. I wanted to be part of that legacy, of both, by combining my own experiences in Heerlen, with Chicago.

DJ Returning to the issue of body and soul, I think you use it differently from how it is commonly used in heritage – how one relates to a building – there's a completely different notion of what is important; what is essence; what is substance; what is body and what is soul.

WA Hendrik Petrus Berlage (1856–1934), as an architect, was responsible for this whole area of Amsterdam where we are now having this conversation, but he was also the one who elevated the soul in architecture. Soul is something Marcel Duchamp (1887–1968) talks about as being *energeai* — the energy something has. Buildings change and always have a body but sometimes their soul becomes decreased with time. We see this in the work of Adolf Loos (1870–1933); no one is talking about him and his work anymore. So, it's lost a bit of its soul in recent years. Adolf Loos' work, many years ago, was an important body of art, which became loaded over the years with energy; which one could also call *soul*. And who is now talking about that? This is something we should understand when talking about the Modern Movement or the initial development of the Modern Movement, when Hendrik Berlage and so on were talking about Heinrich Wölfflin (1864–1945), Karl Hugo Schmölz (1917–1986), Sigfried Gideon (1888–1968), etc., who were more than art historians as they were philosophers; aesthetic philosophers. All the good architects understand this, or at least used to understand, because they were all reading.

As a first year student, I went into the office of Frits Peutz and found in his archive, not only material from his 560 projects, but I also found a library with a lot of architecture, a lot of literature, a lot of philosophy, and a lot about Egypt, Greece, and Rome.

Actually, I am working on a new book about Frits Peutz and I talk about these issues in it. *Ordenen* (order); because it is something you can't describe. It's the same with my concept of the *Un-Conscious-City* (Actar, 2019). You cannot walk into a city and say, "Ok here's the plan of a city and that's how you perceive the city". No, you perceive the city every single second, in a different way. And a good building, like a good piece of art, a good book, or a good movie, has the quality of something you can't describe. I would call it *the soul*. And, in my opinion, we have to be very careful with this concept. Because people nowadays just believe, they believe in the machine, they believe in the virtual, and they

believe in technology. Every moment that one believes in technology, one becomes lost. You have to make the technology; you have to develop the technology to understand it. It is one of our tools, but it can never replace what we call *the soul*. That's why, at least in my own opinion, we are, at this moment, in a time of a crisis.

DJ A soul crisis?

WA I think it is dangerous to talk about *the soul*, people easily confuse it with the Catholic use of the word. I wrote several articles while studying. One of my earlier articles, "Architecture Freedom" (1989), for example, is in a way saying, "rules and freedom go together; they need one another". I always believe in this. You know, that's why I believe in the idea of the dialogue; I believe in Ceasare Cattaneo's *Giovanni e Giuseppe*, which is a dialogue. For me, Ceasare Cattaneo's house in Cernobbio, is one of his best projects.

I believe in the first, but also the second and third, life of a building. A good building has the potential and possibility for a second life. Compare it to the concept for the Porsche 911; it was a sports car concept so successful that it still is the basis for all 911's and 75% of the Porsches ever made still roll. Whenever we do a new building in the office, we test for its afterlives during the design process. That way the work is open, yet flexible to future change. That's what sustainability means for me. Could a building that's an office become housing? Could housing become an office? Or a restaurant. Yesterday I had a long talk with my client in Antwerp, about the tower we are currently building there; it's called the Antwerp Tower, it is a reuse project, and we are extending it, vertically and horizontally. We are basically constructing a new tower around the existing one. It will be the third tallest building in the city when it's completed next year. The client told me that after they started to make a few decisions themselves during the construction, they again wanted to have the office's opinion and listen to us. That means very much to me that they trust me with my total design opinion for the tower, down to the smallest detail. They were curious about renting the tower to someone, and they wanted my opinion about what to do, and what to allow a renter to do to the building, if they chose to rent it. I asked them why they asked me and they replied that the idea of a renter didn't fit into the narrative I had created for them about the building. That's exactly what I appreciate about them. When we were designing the Utrecht University Library at De Uithof, we were told that the building could have no windows because of daylight, temperature and humidity. We said, we'll go ahead and make windows, because there are people inside. We told them that we could design it so that the humidity and temperature inside stays within a very small range, but we also told them that the building will change from day one. I hope that three times as many people that study there now, will study there in five years, well after the opening of the building. By making the emergency staircases 20 cm wider, which we did, we were allowed to have the building house three times as many people than it was originally supposed to shelter at any given moment. There are 4.2 million books in that library. The building has nine storeys in total, and there is one main staircase. People walk into the building and actually use the monumental staircase, instead of using the adjacent elevators. And they do so for the same reason that people climb stairs in cities; the views from them are interesting.

Such concepts are also present in a book about my life and work, titled *Wiel Arets: Autobiographical References.*[2] It was about the new map of the world, as I saw it. The actual title was, "A Wonderful World: A New Map of the World", but Irma Boom, the designer who created the book's fantastic design, thought that it was better titled as it is now. The book emanated from a studio that I had taught at Washington University in St. Louis, together with Robert McCarter (1955–). In a way, she was probably right, because the book is very personal, and deals with a lot of people, places, and things I reference very often. So, the new map of the world relates to the idea that travel is only comfortable for about 72-minutes. I've found through research that 72-minutes is the sort of the point of no return, when, for instance, commuting to school or to work. That's the extent of efficiency of movement. So, there's also a new map of the world, in the idea that travel will soon be so quick that the world's continents will be accessible in 72-minutes, and then the whole idea of the world shrinks, because getting anywhere is, almost always possible in 72-minutes. One day; at least. So, there is travel by foot, water, car, plane, and train; each 72-minutes is different for everyone, based on their own mode of travel. So, for instance, in the program of the 72,000m² Allianz Headquarters we designed in Zürich, there is a staircase similar to that of the library we designed in Utrecht. When I sketch the map of the world, the one introduced in the book I just mentioned; the concept is basically the same as the organization of the library, as well as that of the Allianz Headquarters. The building is really its own world with its own map, and everything is organized around the 72-minute principle, but on a smaller scale. The concept of the new map of the world has to do with the body and the mind, and with the body and the soul. It all has to do with respect.

DJ How do you transfer your ideas when working with existing buildings? One always encounters loose ends and things that don't fit, namely the program seems to never be able to fit 100% into a building, making one realize a completely different result than was first anticipated.

WA When doing refurbishments or renovations, I always go back to the original drawings of the architect. I don't try to make the building perfect, because the imperfection is better than the perfect. Perfection can kill. In my opinion, it's about the identity and the soul, and the soul of someone can often be seen in their face. The moment you try to change anything, one is imbalanced. It's a very dangerous step to attempt to change one's face. In Japan, one is not allowed to show their tattoos in public. It's forbidden. In Japan, they think it's for the better. Tattoos are a kind of marketing. I don't think architecture is marketing.

Architecture has something to do with this body and soul; it has to do with body and mind. The Greeks understood this; the Egyptians understood; the Romans understood; and in the Renaissance they understood. One cannot force a soul; it has layers. It should have layers. For instance, when we designed De Nieuwe Liefde (2007–2011), a cultural center in Amsterdam, we set out to give the building a new life. We changed the interior but the exterior is the same. When first looking at the interior, I found a piece of marble inside, and this particular type of marble was in nearly all houses that were built in Amsterdam in the first decades of the 20th century. No one ever talks about marble in Amsterdam.

DJ It is very interesting how you managed to bring your architecture soul, I mean aspects you can find in many of your new constructions, to this project, combining it with the existing building.

WA If you go to the Borzo Gallery, the Borzo building has been there for ages. I met the architect of the 1932 intervention in the building, Alexander Bodon (1906-1993). He might have been 80 years old when I met him and we had a jury for a new museum extension in Haarlem. I said to our client that I wanted to look at the building through the eyes of what it was before, with the eyes of Alexander Bodon and with what you want I mind. I don't want someone to say, "That's a building by Wiel Arets". I want them to say that it is a building by Alexander Bodon and me. It is the same when we do a new building. It's the same with the B' Tower building we did in Rotterdam, directly adjacent to the Marcel Breuer (1902-1981) building, he had even made sketches for a tower next to his own building. So, it's not only about giving a building new life; one sets out to create a positive virus; an intervention into the skin of the city.

DJ But there is something interesting between this comparison between the Borzo Gallery and the De Nieuwe Liefde. With the Borzo Gallery you can see the original interior again, for the most part. But De Nieuwe Liefde has your own handwriting on its interior.

WA Anything one does, their signature will of course be on it. Bodon left his imprint on the space, and then, so did my office. We are now one of these layers in the building's soul. I didn't want to destroy everything and do something new. No, we stripped the building as much as we could back to its original state, and then looked for how we can put a new layer on top of it, to give the building a new life. Because, the building was, simply, not meant to be a gallery. If I had completely demolished the interior, the building would have been completely different. But I think I should have respect for all the different layers, and now there's the Borzo Gallery. We made some changes, we made a new life, but it is still essentially the same building, which is 500 years old.

DJ But you gave it a new life. You put energy into its own soul.

WA I gave it a new life, yes. But the soul *is* the energy. When one looks at a Rembrandt (1606–1669) painting there's energy to it. A lot of people think it's beautiful. But maybe it's not and it's just in a museum. Make sure to read Duchamp's discussion about the *energeia* of a work of art. For instance, with his snow shovel — *Prelude to a Broken Arm* (1915); the question is: why is it art? The object through its location becomes loaded with energy. You can always go out and buy a snow shovel, with the same materials, but the same energy is not there. The moment one sees a Rembrandt painting, people will experience it as having different amounts of energy. For some just seeing a picture of a painting on a postcard is enough to get them excited; for others it's the actual painting; for others, none of it matters. No difference. They just look and say, "it's beautiful", since they think that they're supposed to like it. That's the effect of marketing.

DJ Is that the theory of the *objet trouvé*?

WA Oh, yes. At the moment we are building two huge towers in Bahrain. They want a sort of icon, with glass around it, with air conditioning and everything. On the site we did something completely different. Bahrain has all this westernization at the moment. Big, big buildings that are all cooled with air conditioning. But it's not really possible for us to do there what is done for instance in America with buildings like skyscrapers, due to their climate. They have a culture that is thousands of years old. They're sophisticated. These cultures like Bahrain can't just be thought of as a *tabula rasa*. So, we first read their history; three months a year it's very warm, but during the others it's possible to be outside, and people lived outside during these months. So, after looking at their history, we made a proposal for a tower with *loggias* in each unit. And on top, there is an outdoor pool for men and women, one on each roof. The façade of each unit has adjustable louvers that can be individually moved, by each owner, depending on the time of the year, to regulate the heat. It's similar to how people in Bahrain used to live. So, it is important to always do research and get to know where one builds, and for whom one is building.

It's the same with the Jellyfish House, in Marbella. What is interesting about the Jellyfish House is that its design is based on an existing building, but one that is not on the site. This whole area has green hedges so that you pass by streets with hedges, two meters high, on both sides of the street, which shield the houses for privacy. It's a very hermetic neighborhood. So, the client wanted to buy a plot that had a house, which looked like a traditional building, and he wanted to be able to see the sea from the house because it was going to be his family's holiday house. However, from the existing house, it wasn't possible to see the sea. You didn't hear the sea, either. So, we found a ladder and put it against the house and climbed onto its roof. And then the neighbor saw us on the roof and, just asked what we were doing up there, and I said, "We're building a pool on top of the house"! The neighbors absolutely loved the idea. Then I told the clients to buy the property, and that we would build for them, a house with a pool on the roof so that

01 Wiel Arets Architects, Beltgens Fashion shop, Maastricht, the Netherlands, façade, 1986-1987. © Hélène Binet.

02 Frits Peutz, Glaspaleis, Heerlen, the Netherlands, 1935; restoration by Wiel Arets Architects, 1998-2004. © Jan Bitter.

03 Wiel Arets Architects, Borzo Gallery, Amsterdam, the Netherlands, façade, 2004-2006. © Jan Bitter.

04 Wiel Arets Architects, Borzo Gallery, Amsterdam, the Netherlands, interior of the gallery, 2004-2006. © Jan Bitter.

when vacationing with their family they could see and hear the sea from the rooftop. We understood that when there's an existing building, it gives us more inspiration and ideas, and because of that existing house, we had the idea for the new house.

When I'm sometimes critical of America, it's not that I'm negative about the country. It's very much interested in the new, and rebuilding. The character of its people is that they easily go from A to B and move from city to city. It's like a nomadic condition. They leave everything behind. While people in Spain or Italy have been there for millennia, and sometimes when one builds in these countries, there is evidence that emerges from thousands of years ago. Both are valid, there is no good or bad. The world, with all its citizens, has millions of species we call people, animals, plants. Just as Alexander von Humboldt (1769-1859) said: "We have to understand our ecosystem". We are part of it. Alexander von Humboldt had inklings that there was something to the idea of the thickness of the world, inside the Earth. What I like about him, is that he was trying to take sections of the world in his book, *Cosmos,*[3] and say whether it's Lima, or Tokyo, or Oslo; he wanted, and I want, to know what that ecosystem and each layer is. There is a balance, an equilibrium, when I change it, the ecosystem, it will change in other parts as well. I recently learned that there are anchovies in the North Sea from May to June, but then they swim to the Atlantic Ocean. I never knew that we had them here; it's the same with eels. They're migrating the whole year. What I'm saying; is that we think we know everything that there is to know these days, but we actually don't. Whether it's a building, or a room, or the world... we know so little.

DJ So, taking this idea of ecosystems, Amsterdam is nowadays a UNESCO heritage site, meaning that things that would naturally happen in its ecosystem, no longer do. Tourists are everywhere, coming to visit the UNESCO site of Amsterdam. If we think about it, Alexander Bodon would not have been able to build his shop today. How do you look at this, or do you consider it just another change to the system?

WA It's quite dangerous to talk about these types of topics in such interviews, due to the chance of misinterpretation. However, let me give it a try...

We have to respect people who are fighting for their beliefs, even if they differ from our own. What I understand is... In the long run, all of this will solve itself. We have tourists in Amsterdam, and tourists in Venice. So, we can be irritated about the idea that there are so few Venetians in Venice, and a disproportionate number of people who are tourists in the city. Some say that they're destroying the city, but you could also say that their presence is part of the deal of tourism. What's very dangerous; is to freeze cities. Freezing something means that it is dead. The moment that people say that they want to protect a city; great! But what are people protecting? Maybe we should protect the fact that there are changes. Life is always in motion... you can't freeze it nor protect it. I was once just a year old, then 25 and 40; and at all these moments in life, I reset my agenda every day; a fresh perspective. That's what a building, a room, an office and people should always do. So, if we freeze a city, it becomes the most boring place on Earth. It's like a museum that's not alive. For instance, we could go to the Dutch village of Volendam just outside of Amsterdam and see women sitting around in clothes that are 'traditional' in that they resemble 19th century Dutch clothing. We only believe that they look like women dressed from that time period, but these women have a different perception because they live in a different time.

This debate is a very difficult debate. They wanted to change Frits Peutz's Town Hall in Heerlen. As soon as I heard about it I went to the city council and I said "don't touch it, leave it". People want to change it because of new legislations and fire regulations. This building was built at a certain time, for a certain use, so perhaps you should reconsider the use and leave the building untouched. I've had this debate with the Borzo Gallery, with the Glaspaleis, and the S. R. Crown Hall in Chicago. At the Glaspaleis, the size of the original windows is bigger than the maximum size produced nowadays. Back then, the glass sheets were fixed in the window frames with a specific technique, called *stopverf* in Dutch. People used this method in the Netherlands until about 30 or 40 years ago. They wanted to change all of that, also because of regulations. I was the first one that said, "Let's keep this original glass in the Glaspaleis". This required using *stopverf* to rebuild them and it also makes it necessary for the windows to be checked every five years or so, but had we not used that material, the building would have surely been damaged.

But back to this debate about UNESCO. I think they are doing a great job. Perhaps, I don't have enough knowledge about what the organization is doing... But it's never just good or bad. The museum is great, as long as it's alive. In museums there are artifacts of previous generations; we keep them as they are. But the moment the artifacts are not connected to the young people, they die. They disappear.

DJ Turning now to the education that is being given to architecture students.

WA I don't believe in education. I believe in story telling. For 3,000 years we had no university. Before that one had to learn by doing and maybe there were better architects than ever at that time. Today the education system is divided into academic and vocational streams and we try to solve this division with the art and technical schools by bringing them into a new system. But we are actually more and more destroying the education system by trying to tell people that when they send their child to a school, and pay 25,000 euros or dollars, that that child will be a good architect. But that's of course not the case. It's simply not a ticket to heaven. Tadao Ando, Kazuo Shinohara, Mies van der Rohe and Le Corbusier were not educated as architects. I've always tried to fight the education system of which I was a part of from within, but in some schools,

like the AA, the students need to fight from within because the school was made for them to explore. Self-education is the only way; the moment you believe that you go and buy a diploma and your professor puts some marks on your work — no. People who make the world interesting are all self-educated people.

Please read *Nowness 1*, and *Nowness Files* (IITAC Press/ Actar, 2013/2019), which were produced during my time at the Illinois Institute of Technology's College of Architecture when I was Dean. The latter spells out the changes that were made under my leadership at the school. On one of my first days I thought, "I might quit", because, when I started, I understood just how big a responsibility the school was; where people believed in Mies van der Rohe, like a saint! The challenge of taking the deanship was to get everyone on board with the changes I wanted to make... Like the city having a biennale, starting a publishing department, making a larger campus plan. I think I was perhaps a bit too ambitious. But with the former Provost and now president Alan Cramb, and John Rowe; we were able to institute many changes. Steven Crown was also very helpful and clever. And the mayor, Rahm Emmanuel, was always supporting us. People literally told me that students of architecture no longer read; and so, we started to publish books as part of the activities I implemented in the school. And we invited so many people to give lectures and to participate in what we called "Cloud Studios". We innovated the curriculum and brought in new degree programs and an end of year exhibition. Failure was part of all this too. The moment one talks about failure, people start getting nervous. Without failure as a philosophical strategy, there is no success. Education systems are, for me, more about the freedom to explore one's own interests within the educational framework; a sort of self-training.

When I taught in Denmark, I told the students there that what we'll do is to go out into the world and come back to the studio in one hour with a book. Some asked which book and I said, whatever you want to bring back. They came back proud of their books. After a week, there was a presentation of the main assignment. Some built models very high and very heavy. I said that each of their models should come to a certain height, but that the models were, also, not allowed to touch the room. Then I said, "see you tomorrow at the opening!". They weren't shocked because they'd been working with me for a week. One student quit after a week because he didn't know what to do. His was the best project at the end. He made a series of hinges, which then became a bridge, and each had a camera lens in it... What was it? The assignment was to make a positive virus for Manhattan... but he still quit, because he expected to come to the school to fill a design brief. I like to make people be aware of what they are doing. Of course, I asked them about the books they chose, and all that. But I wanted them to be conscious of the subconscious choices that they had made, unconsciously.

DJ It seems that you take each student seriously upon their arrival in a school; you just tend to show a different technique than most of the other professors to get them to understand that they are already equipped. It's a sort of self-education but also creating the right circumstances for students: by inviting guests, producing books, encouraging them to explore... Often the students are not taken seriously.

WA People are so quick to label people and situations. You're an architect or an engineer; or you are *this*, or you're *that*. The moment one is able to understand UNESCO, education institutions, etc.; they are all, porous, and they breathe. If a client wants a building from you, they think that they come to you with the statement that they don't know what to do. So, you have to ask them questions and find out what they want to do. I also have to believe that I am willing to learn from the situation, if I choose to work with them. That's why I very much like Paul Valery's *Cahiers*.[4] They are evidence of the permanent exercise that he did every day, which was to just wake up and begin writing–a sort of free writing. Every day he reset his agenda and started with a blank slate. I live my own life, much in the same way. As I've told my children from day one; every day for me is a reset. I wake up and I see a new day and I have to do something. It could be designing a spoon, or it could be to build a kettle, or build a school — one must continually strive to develop something.

Notes

1 C. Cattaneo, *Giovanni e Giuseppe. Dialoghi d'Architettura*, Milano, Libreria Artistica Salto, 1941 [New edition Milano, Jaca Book, 1993].
2 Wiel Arets in Robert McCarter (Ed.), *Wiel Arets: Autobiographical References*, Birkhäuser, Basel, 2012.
3 COSMOS: *A Sketch of the Physical Description of the Universe*, Vol. 1, Translated by E. C. Otte on Project Gutenberg.
4 Paul Valery, *Cahiers (1894-1914)*, Edition published under the direction of Nicole Celeyrette-Pietri and Judith Robinson-Valéry, Vol. I-IX, Collection blanche, Gallimard, 1987.

Wiel Arets

(b. Heerlen, the Netherlands, 1955) Architect and Educator. Arets affirms his critical thinking and intense interest in physics, philosophy, cinema, literature, and the human condition; they inform every level of his life and work. He established Wiel Arets Architects (WAA) in 1983. During his studies at the Technical University of Eindhoven, his MSc thesis explored the idea of "The Architecture of Freedom"; while teaching as the Diplom Unit One Master at the AA London, "Void" was the focus of the research; thereafter, at Columbia University and the Cooper Union New York, his research centered on the theme "Virological Architecture". From 1995–2002, he was Dean of the Berlage Institute, in Amsterdam and Rotterdam. During 2004-2012, as Professor of Building Planning and Design at the Berlin University of the Arts, he focused "Studio Arets" on "A Wonderful World: A New Map of the World" (in Robert McCarter (Editor), Wiel Arets: Autobiographical References, 2012). From 2012-2017, as Dean of the College of Architecture at the Illinois Institute of Technology in Chicago — where his approach was "Nowness"; the school was structured around the idea of "Rethinking Metropolis" — and where he remains a tenured architecture professor. Wiel Arets Architects is organized around the core principle of making; with its globally renowned built oeuvre, which is widely published, it has, from its onset, concentrated on the making of architecture, urbanism, research, books, and industrial design.

A step towards education for reuse

From 6 to 9 September 2016, the major event concerning the discussion on the reuse of Modern Movement buildings and sites occurred in Lisbon: the *14th International* **docomomo** *Conference*. More than 500 people from five continents came together, around keynote and paper sessions, round-tables, tours and workshops, to discuss the subject "Adaptive reuse. The Modern Movement towards the future". It not only gave rise to the most up-to-date scientific result on the topic – the homonymous *proceedings*[1] –, as many other strengths and initiatives were driven from that moment on. The research project *RMB - Reuse of Modernist Buildings* was born from this gathering, in parallel to the first paper session in **docomomo** conferences specifically dedicated to "Education for Reuse".[2]

The premise was simple: it is urgent to introduce the topic of reuse in the basic educational programs training architects. As **docomomo** has been stating in past years, the preservation and transformation of modern architecture and urbanism will be the main field of activity for architects all over the world, and it demands specific knowledge. As reuse – and even rehabilitation – is usually absent from architectural education which is mainly focused on the artistic and technical formation of the architect, a group of **docomomo** members[3] came together to apply for an EU Erasmus+ research project. Its main goal was to draft a joint masters degree course on the reuse of modern buildings.

To that end, the project developed seven main outputs:

- A curriculum, with course descriptions.
- A methodology.
- The infrastructure necessary to implement the master, intended to be virtual utilizing digital tools.
- Teaching material, ranging from traditional texts and PowerPoint presentations, to filmed conferences and audio interviews.
- Scientific papers in the field of investigation undertaken by the project researchers.
- E-learning tools and content.
- A case study handbook, with examples of best practices, working cases and theoretical practices.[4]

Parallel to this production, international conferences with published proceedings[5] and student workshops have been set up. Conferences promoting exchange of knowledge in the field and workshops putting words and thoughts into action. The latter turned out to be the best active products of the main goals and research undertaken for the project. Intended to test the joint master curriculum and methods defined along the way, workshops were opened to students from the RMB university partners, simulating what could happen in the real masters degree course where student exchange between countries should take place every semester.

Housing was the typology given primacy in the four workshops organized. The first one (2017) took place in Marl, Germany, under the theme "An experimental development of new residential and working environments and typologies in large-scale housing projects of the post-war era in Marl". The second one (2018) was held in Coimbra, Portugal, dedicated to "Coimbra modern city today – from functional buildings to community spaces". "Renewals and interrelations for 1960s cooperative houses in Istanbul" was the subject of the third workshop (2018), held in Istanbul, Turkey, while "After the military has gone" was the topic of the fourth and last one (2019), held in Detmold, Germany.

All the workshops were focused on specific case studies from the sites where they were held, so that students could undertake visits, physical and social surveys, understand the surrounding context, and develop their own interpretation of the place. In different ways, all the case studies suffered a change of political, economic, and social paradigm, having become in need of a re-evaluation able to understand if an adaptation to current demands would be possible. Most of them were in bad condition, abandoned or planned for demolition. Architectural design projects, proposing sustainable reuse projects, that might allow contemporary forms of living and dwelling, were the intended result.

The diversity of proposals and the trial of different approaches, methods and tools, necessarily based on interdisciplinary research, ranging from technical to social knowledge, from economics to politics, was symptomatic of the pertinence and urgency of such education for reuse as the basis for a sustainable future of our cities. The strong involvement of inhabitants, institutions and the press in the workshops was the ultimate confirmation of the relevance of architecture and reuse for our society, testifying the relevance of **docomomo**'s efforts. Finally, it proved the importance of empirical knowledge, through the direct contact with case studies – from the object to the city – and of the face-to-face discussion with local entities and our pairs of students, as a complement to the masters degree course which is designed to be assigned online.

01 1st RMB workshop, Marl, Germany, 2017. © RMB

02 2nd RMB workshop, Coimbra, Portugal, 2018. © RMB

03 4th RMB workshop, Detmold, Germany, 2019. © RMB

04 3rd RMB workshop, Istanbul, Turkey, 2018. © RMB

RMB was a 3-year project, having ended last September 2019. In the meantime, the team will continue to work in the accreditation process, so that the planned 2-year masters degree course can be implemented in the future, as one of the few international post-graduate programs on the reuse of modern buildings in the world.

For more information, please visit the website: http://www.rmb-eu.com

Zara Ferreira

Notes

1 Ana Tostões, Zara Ferreira (Ed.), *Adaptive Reuse. The Modern Movement towards the Future*, Lisbon, **docomomo** International & Casa da Arquitectura, 2016.

2 Gonçalo Canto Moniz, Carolina Quiroga, Uta Pottgiesser, "Education for Reuse", in *op. cit.*, 830-867.

3 RMB partners: OWL University of Applied Sciences (applicant), **docomomo** International, Instituto Superior Técnico – University of Lisbon (Portugal), Faculty of Science and Technology – University of Coimbra (Portugal), Universiteit Antwerpen (Belgium) and Istanbul Teknik Üniversitesi (Turkey). Associate partner: TERI – The Energy and Resources Institute (India). Advisory Board: Wessel de Jonge, Alex Dill, Tim Rieniets.

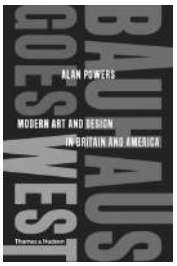
4 Els De Vos, Eva Storgaard and Uta Pottgiesser (Ed.), *Reuse of Modernist Buildings. A Case Study Handbook*, Universiteit Antwerpen and Erasmus+ Project Reuse of Modernist Buildings, 2019.

5 Michel Melenhorst, Uta Pottgiesser, Christine Naumann, Theresa Kellner (Ed.), *Detmold Conference Week 2017. RMB conference 2017*, Detmold, Hochschule OWL, 2017; Michel Melenhorst, Gonçalo Canto Moniz, Paulo Providência (Ed.), *Proceedings of the 2nd RMB Conference Re-use of Modernist Buildings – Design Tools for Sustainable Transformations*, Coimbra, Universidade de Coimbra, 2018; *Proceedings of the 16th* ***docomomo*** *Germany / 3rd RMB Conference*, Berlin, Hochschule OWL (University of Applied Sciences) and **docomomo** Deutschland, 2019.

Bauhaus Imaginista: A School in the World
Author: Marion von Osten, Grant Watson
Publisher: Thames & Hudson Ltd
ISBN: 9780500021934
Language: English
Year: 2019

In the past 100 years, there have been very rare educational institutions that can produce such far-reaching, complex, and even controversial influences as the Bauhaus. Do we still need the Bauhaus nowadays? Do we still need its *zeitgeist*? Having begun in 2016, an exhibition called *Bauhaus Imaginista* will tour around eight places through four continents to answer the question of the relationship between Bauhaus production and the world. This book, also the portrait of the exhibition, focuses on the cultural exchange between the Bauhaus with different geographies at different periods. Marion von Osten and Grant Watson, authors of the book as well as curators of the exhibition, are dedicated to the openness and experimentation of modernism itself, especially the changes that global circulation brings to the idea we have of the Bauhaus. It makes this book, not a classical history writing on how periphery arts borrow lessons from Bauhaus thoughts and then transform them, but one returns to the Bauhaus school itself. Based on mapping, the whole book is divided into four chapters, including "Corresponding with", "Learning From", "Moving Away" and "Still Undead". Together, they historically display how a global network produced the Bauhaus concepts, which were not only applied throughout the world but also at the same time affected by these applications.

Yunlong YU



Bauhaus goes West. Modern Art and Design in Britain and America
Author: Alan Powers
Publisher: Thames and Hudson Ltd
ISBN: 978 0 500 51992 9
Language: English
Year: 2019

Bauhaus Goes West tells the fascinating story of the journey taken by the Bauhaus – both the concept behind the school and some of the individuals who represented it – from Germany to Britain and the United States. It is, therefore, a story of cultural exchange, not only between the Bauhaus émigrés and the countries to which they moved, but also in the other direction, focusing in particular on Britain. Most significantly, perhaps, it considers in detail the presence in the UK during the 1930s of three of the school's most important figures – Walter Gropius (1883-1969), Marcel Breuer (1902-1981) and László Moholy-Nagy (1946-) – using meticulous research to tell, for the first time, the stories of their British experiences in parallel. After considering some of the lesser-known *Bauhäusler* who stayed in Britain for life, the book concludes by returning to the lives of the main protagonists and their continuation of the Bauhaus ideals in America.

Taking as its starting point the cultural connection between Britain and Germany in the early part of the 20th century, *Bauhaus Goes West* offers a timely re-evaluation of the school's influence on and relationship with modern art and design, offering fresh insights and challenging assumptions along the way.

From the publisher

Bauhaus 100 Sites of Modernism
Authors: Werner Durth and Wolfgang Pehnt
Publisher: Hatje Cantz
ISBN: 978 377 5746 144
Language: English
Year: 2019

The Bauhaus is not to be found only in Berlin, Dessau, or Weimar; there are outstanding Bauhaus and modernist sites all over Germany trailblazing architecture that has left a lasting mark on our understanding of life, work, education and living.

Through more than 100 structures, most of which are open to tourists, this volume makes it possible to experience the historical and architectural vestiges of the "New Architecture." Besides the famous buildings, *Bauhaus 100* presents insider tips for sites to visit throughout Germany, along with a wealth of visual material, essays and practical advice. This book is an invitation to rediscover 20th century architecture and track its enduring developments.

From the publisher

Bauhaus Women:
A Global Perspective
Author: Elizabeth Otto and Patrick Rössler
Publisher: Herbert Press
ISBN: 978 1 912217 96 0
Language: English
Year: 2019

This book presents forty-five women, in different ways associated with the Bauhaus between 1919 and 1932, who fought for dreams usually socially predetermined as masculine. At the same time, *Bauhaus Women: A Global Perspective* attempts to understand the importance of these women in global history. Presenting their different native lands and their places of influence, it is possible to dive straight into the art of the continents of Africa, America, Asia and Europe, and Oceania, and the important legacy that these women left in the world.

The publication is significant and relevant in uncovering a substantial part of this school, cataloging and synthesizing each one of them in two to six pages, complemented with personal images and those of their work. With this short book, Bauhaus history is changed and the authors, Elizabeth Otto and Patrick Rössler, take us out of the shadows of a masculinized artistic society, highlighting a hidden part of the radical experiments in Bauhaus art.

First warning: This is not a book from or about women. This is a book for and about the Bauhaus school and art in the world.

Second warning: This is not a book about all the women who studied at the Bauhaus, as the book presents only ten percent of them: 462 women attended the Bauhaus (Weimar, Dessau and Berlin) between 1919 and 1932.

Sílvio Alves

Bauhaus Journal 1926–1931
Facsimile edition
Author: Various authors
Publisher: Lars Müller Publishers in collaboration with Bauhaus-Archiv/ Museum für Gestaltung, Berlin
ISBN: 978 3 03778 588 1
Language: English/German
Year: 2019

One hundred years after the founding of Bauhaus, it's time to revisit the bauhaus journal as a significant written testimony of this iconic movement of modern art. In this journal, published periodically from 1926 to 1931, the most important voices of the movement are heard: masters of the Bauhaus, among others, Josef Albers, Walter Gropius, Wassily Kandinsky, Paul Klee, László Moholy-Nagy, and Oskar Schlemmer, as well as Herbert Bayer, Marcel Breuer, Ludwig Mies van der Rohe, Gerrit Rietveld, and many more.

They address the developments in and around the Bauhaus, the methods and focal points of their own teaching, and current projects of students and masters. At the time primarily addressed to the members of the "circle of friends of the bauhaus", the journal published by Gropius and Moholy-Nagy makes tangible the authentic voice of this mouthpiece of the avant-garde. The facsimile reprint is intended to give new impetus to international discussion and research on the Bauhaus, its theories and designs.

The exact replica of all individual issues is accompanied by a commentary booklet including an overview of the content, an English translation of all texts, and a scholarly essay which places the journal in its historical context.

This facsimile edition is also available in German.

From the publisher

Bauhaus Architecture 1919–1933
Photographs by Hans Engels,
Texts by Axel Tilch
Publisher: Prestel
ISBN: 9783791384818
Language: English
Year: 2018

Bauhaus Architecture 1919-1933 documents 60 extant buildings designed by former Bauhaus members through a series of photographs taken by Hans Engels in 2018.

The publication opens with "A new perspective", a brief introduction which provides a concise overview of the founding principles of the Bauhaus and the circumstances that affected its evolution and, eventually led to its close.

The collection of photographs follows, introducing the 60 cases, displayed in chronological order, from 1921 to 1933, covering only European examples. The selected buildings, ranging from renowned to not-so-well-known projects, vary in typology and just skim the surface of the very prolific body of work that was produced by the masters, the teachers and students, during the short time the school remained open. In the majority, the buildings are presented through exterior photographs, however, in some cases the reader gets a glimpse of the interiors and the remaining charm of the spaces.

The photographs are shown alongside brief descriptions that, in several cases, reveal thoughts and opinions from architects of the time. The writings also allow a confrontation with the current state of the properties and their uses.

This publication intends to briefly register, through a present-day lens, a small part of the built legacy left by the Bauhaus, while imprinting on the reader the need to visit and to know more about this legacy.

Beatriz Agostinho

Bauhaus Travel Book
Author: Bauhaus Kooperation Berlin Dessau Weimar gGmbH
Publisher: Prestel
ISBN: 978 3 7913 8244 9
Language: English
Year: 2017

A comprehensive travel guide dedicated to Germany's Bauhaus architecture, this book takes an in-depth look at over 100 locations that can still be visited today. Established in 1919 in Weimar, the Bauhaus college for design influenced one of the world's most important Modernist movements. Divided into three geographic sections that follow the locations of the school – Weimar (1919–25), Dessau (1925–33), and Berlin (1933) – this unique travel guide leads readers through the most important Bauhaus structures in Germany. Each section features important sites that are given historical background. These entries are illustrated with historic and contemporary photography, and are accompanied by up-to-date tourist information. Throughout the book short essays highlight significant events and figures of the Bauhaus movement. This guidebook is an indispensable reference for anyone traveling to Germany's greatest extant Bauhaus structures.

From the publisher

Detmold Conference Week 2017 RMB Conference 2017 | Facade 2017 | ConstructionLab annual report 2015–2017
Authors: M. Melenhorst, U. Pottgiesser, C. Naumann, T. Kellner. (Eds.)
Publisher: Hochschule OWL (University of Applied Sciences)
ISBN: 978 3 939349 27 3
Language: English
Year: 2017

This publication is the result of the cooperation between ConstructionLab and the Project Consortium of RMB (Reuse of Modernist Buildings) which offered two joint and thematically linked conferences: "RMB – Reuse of Modernist Buildings" [coincident with the 4th RMB Transnational Project Meeting] and "facade2017 – Resilience" [coincident with the 13th European Façade Network Meeting].

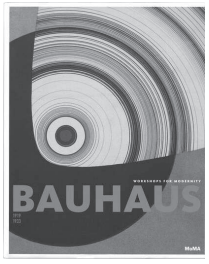
The book gathers the outcomes of two multidisciplinary groups and networks concerning how buildings can respond to climate change with resilience through reuse, as argued by the RMB research group, or through façade performance, as explored by the European Façade Network (EFN).

The "RMB – Reuse of Modernist Buildings" conference proceedings contain the discussion of new design and educational concepts for the reuse of modern postwar buildings from "resilient neighborhoods" to "resilient building skins" and the education for reuse.

At the "facade2017 – Resilience" the focus was on how the building envelope has been affected by the current demands of climate change and safety and security requirements.

Since the Detmold Conference Week in 2017, the RMB has held two more conferences – the *2nd RMB Conference*, in Coimbra, Portugal (2018) and the *3rd RMB and 16th* ***docomomo*** *Germany Conference*, in Berlin, Germany (2019). Similar to this publication, the proceedings of these conferences are available online at http://www.rmb-eu.com/publications/.

Carolina Chaves



BAUHAUS 1919–1933: Workshops for Modernity
Authors: Barry Bergdoll, Leah Dickerman
Publisher: The Museum of Modern Art
ISBN: 9780870707582
Language: English
Year: 2009

The Bauhaus started out as a school and later became a massive cultural "movement" that changed deeply the way we understand artistic education and even the way we experience the world. This catalog, published as a supplement to the homonymous exhibition organized by The Museum of Modern Art (Nov. 8, 2009 – Jan. 25, 2010), curated by Barry Bergdoll and Leah Dickerman, gathers manifestos and workpieces in a well-illustrated manner and succeeds in creating the general image of what "BAUHAUS" means. All the information presented follows a chronological thread that allows the reader to simultaneously understand the social, economic and political context that influenced the events described.

Based on a collaboration with three Bauhaus collections in Germany – the Bauhaus-Archive Berlin, the Klassik Stiftung Weimar and the Stiftung Bauhaus Dessau - the publication is completed with exemplary illustrations, allowing a better understanding of the written content. Moreover, the main characters and their personalities are also examined and depicted so as to relate them to the role each played in the Bauhaus "movement". The final part of the book – "14 years Bauhaus: a chronicle" - resumes the main historical events and facts of the 14 years of the school's existence, arranged according to its academic calendar, re-calling issues such as the number and gender of the students and contemporary political events of the time.

All in all, the publication covers all the great accomplishments and the basic information that one should know about the Bauhaus, outlining the Modern Movement and the struggle the school faced regarding the political context of that time.

Minodora Toma

BAUHAUS Reviewed 1919–1933
Authors: Curated by James Nice, Mastered by Pierre Vale, Layout by Julien Potter
Label: LTM Recordings
ISBN: 978 0 9554335 4 2
Language: English
Year: 2007

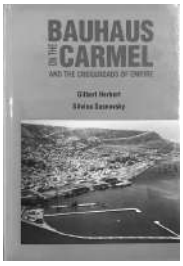
The relevance of the Bauhaus on design and architecture and its vast legacy resulted in an extensive collection of works documenting the intricacies of the school's philosophy and production, but few have taken the immersive approach this record dared to take.

By interpolating recordings of the actual members of the school, such as Walter Gropius, Ludwig Mies van der Rohe and Josef Albers, with roughly contemporary pieces by composers somehow linked to the school, such as Josef Matthias Hauer, Stefan Wolpe, George Antheil, Hans Heinz Stuckenschmidt and Arnold Schoenberg, this CD successfully paints a vivid picture of the spirit of the times in which modernism developed greatly both in design and in music.

While the Bauhaus never formalized a music department, in its ambition to unite all the arts, music permeated the premises and collaborations between composers and teachers of the school weren't unheard of. For example, Josef Matthias Hauer, the composer of the opening piece of this recording, met with Johannes Itten with whom he worked on synesthetic theories in which the correspondence between colors and musical notes was studied. The inclusion of music in a work about the Bauhaus is perfectly justified and hasn't been widely explored apart from a 1976 essay, "Music at the Bauhaus", by Hans Heinz Stuckenschmidt, featured in this compilation with his "Marsch Alexander des Grossen".

By associating seminal speeches by some of the most important members of the Bauhaus, with the music that figuratively and literally echoed throughout the halls of the school, this CD presents us with a tour de force of easy-listening learning experience about one of the most influential moments of the 20th century.

Leandro Arez



Bauhaus on the Carmel and the crossroads of Empire Architecture and Planning in Haifa during the British Mandate
Author: Gilbert Herbert and Silvina Sosnovsky
Publisher: Yad Izak Ben-Zvil
ISBN: 9652171034
Language: English
Year: 1993

Between the two World Wars, during the British Mandate period in Palestine, Haifa became an international focal point. The planning of Haifa and the making of the city, its infrastructure and architecture, received a degree of attention remarkable for its quality and scope. Haifa became a unique exemplar of the most advanced architectural and planning theory practice of the 1920s and 1930s. It is this phenomenon, of the transmission of the avant-garde (from Britain in planning, from Central Europe in architecture) and its implantation on the ancient littoral of the eastern Mediterranean, that makes the story of Haifa of more than local interest.

From the publisher

Bauhaus 1919–1928
Author: Herbert Bayer, Ise Gropius and Walter Gropius
Publisher: Secker & Warburg
ISBN: 436 03685 1
Language: English
Year: 1984

This historic publication, rightfully or not, ended up influencing the world's opinion and general knowledge on the Bauhaus - what it was and what it aspired to achieve.

Bauhaus 1919-1928 is a Museum of Modern Art's monograph devoted to the influence of the Weimar and Dessau Bauhaus under the directorship of Walter Gropius. This publication came out as a supplement to the 1938's MoMA exhibition "*Bauhaus: 1919–1928*" (December 1938 – January 1939). From the book, this "(...) is a point-for-point record of actual programs and projects at the Bauhaus, prepared by Herbert Bayer under the general editorship of Walter Gropius and with the collaboration of a dozen other Bauhaus teachers—including Kandinsky, Klee, Feininger, Schlemmer, Itten, Moholy-Nagy, Albers, and Breuer. Rather than a retrospective history, here is a collection of photographs, articles, and notes prepared on the field of action".

Sandra Vaz Costa