

COPY AND REPLICATION



SILVIO ROMANO

COPY OF A COPY OF A COPY

ABSTRACT

It is self-evident, that copying has always been involved in the production of artefacts. But how does the process of copying take place? Who or what device copies and with what degree of accuracy? In that respect i'm interested in how copies alter through time, especially when the process of copying is repeated countless times. What changes from one step to the other? What gets lost? What is added?

This essay will describe and question how copies were made in distinct epochs. Thereby its focus will lay on the western point of view on iterative copying in art and architecture, and go through some selected significant works in history, starting in the early centuries of the Common era and reaching all the way up to a contemporary discourse.

COPIES AS HANDMADE REPRODUCTIONS -
FROM THE ANCIENT ERA TO THE RENAISSANCE

Starting from about 400 CE the entire tradition of the Byzantine icon was based on the idea that a copy of an image, if done accurately, was another translation of the truthful moment of the primal depiction of the real life model. Images therefore naturally took the form of copies and a painting or its copy was seen as just one of the phases that a body can take. Correspondingly the Italian philosopher Giulio Camillo described later in the 16th century: „there is the form of the physical body, which could then be translated into subtler form in a painting, and to still subtler form in the reflection of a mirror.“ The idea was still the same one as in the antiquity, and it fundamentally affected the way images were understood. Images were not merely artistic representations or seen as artworks themselves, but were understood as translations of the physical form of a person into another medium, to honor and capture a magical moment the person stands for. Therefore, the painting was considered an auratic window through which the viewer could interact with the holy subjects within.

These portrayal then started to travel and be spread into different contexts through handmade reproduction. This happened for example in 1440, when a Flemish prelate returned to Cambrai after his stay in Rome, having taken along a painting of Virgin and Child on gold ground, which in the new cathedral, praised as painted by Saint Luke, became a frequented pilgrimage site. This custom grew out of a creed that Saint Luke had painted the true Virgin with the infant Jesus in her hands. That is why images associated with him had enormous authority. The painting was later detected as a copy itself painted in a Byzantine manner by an Italian painter just about 100 years earlier. However, in the meantime numerous copies had again been generated.

Fifteen copies were commissioned and produced alone in the 1450s by the Netherlandish artists Petrus Christus and Hayne of Brussels. Like the Cambrai Madonna itself, these copies are not all repainted in an exact manner: there had been no effort to avoid a normal 15th-century painting style in the bodies and facial features, and they introduced even gentle changes, such as in the gaze of the Virgin. Other paintings, such as one by Rogier van der Weyden, show even freer adaptations of the model.

The lineaments transferred to the new painting actually transmitted foremost the essence of the depicted person.

While misspelled words, adjustments or skipped words in literature-copies implied a mistake of the copyist, in paintings or sculptures there were no decisive rules on how to copy. The only crucial condition was an earnest transmission of the essential content. That is why premodern copies often differ from the exact image.

Today Virgin and Child is one of the most copied motives, which became part of almost every culture and keeps being reproduced, used and adapted until this day.

Such form of copying started to become more complex in the 15th century, as the created artworks began to go beyond religious and magical representations. Yet representing a certain tradition or ritual, also paintings of unsacred people and landscapes began to receive artistical attention. That self-contained and freed choice on what to portray enhanced the aspect that works of art became more and more authored performances.

Whereas in the Roman antiquity countless replications of important Greek statues were made, it wasn't mainly significant who produced them, as long as the accuracy regarding the technical skills were fine enough to see the replica as a legitimate representation of the original. Sometimes the copyist even signed his own name on the sculpture to claim the credits for the technical execution of his work.

But there was no need to call this fraud, because images naturally took the form of copies. While the Romans, known as the great lawmakers, had legislation about the forgery of documents or the forgery of currency, art forgery wasn't enshrined. Just with the advent of the cult of art, through museums, galleries and art trades, which hence formed an art market, works of art became unrepeatable authored performances and forgery became an issue right in the middle of it.

Forgery thus only appeared when art got appreciated as an originally produced work, represented as a unique piece of art by an author. In the former copy culture, without the conception of art as a singular event, forgery had no function.



Icon of the Virgin Eleousa,
Venice, mid-14th century



The Cambrai Madonna (Notre-
Dame du Grice) ca. 1340



Virgin And Child by Hayne of
Brussels, ca. 1455



From left to right and up to down:
 Marcantonio Raimondi 1515, after Raphaels The Judgement of Paris
 Édouard Manet 1863, Le déjeuner sur l'herbe
 Tizian 1510-1520, Concert in the open air
 Pablo Picasso 1960, Le déjeuner sur l'herbe d'après Manet

When talking about forgery, a distinction needs to be made between precise copies like the replications of the greek statues, the partially adapted copying like the virgin and child transmitting mainly the essential content to represent a ritual, and finally a newer 'creative' form of copies, where particular inspiring elements, sometimes even from different sources, are taken to be transformed into a new arrangement.

Whereas in the exact reproduction of an artwork clear regulations were established to identify forgery, with the 'creative' copies distinctions appear blurry and are often controversially discussed. In fact all the three occurrences of copying can infringe on copyright. But to do so, the same intention of the original work needs to be provably traced back and pointed out in the imitating copy. This process becomes way less verifiable, since in creative copies any element can be reused for own purposes. The term 'creative' copies describes just the adaptive type of copying reusing found image-material, but is not saying that byzantine painters were less creative. The border between the two ways of copying is rather fluent, where the creative copy in comparison just shows a substantially transformed form of copying with a bigger degree of abstraction and deviation, which can arrive really far from the original.

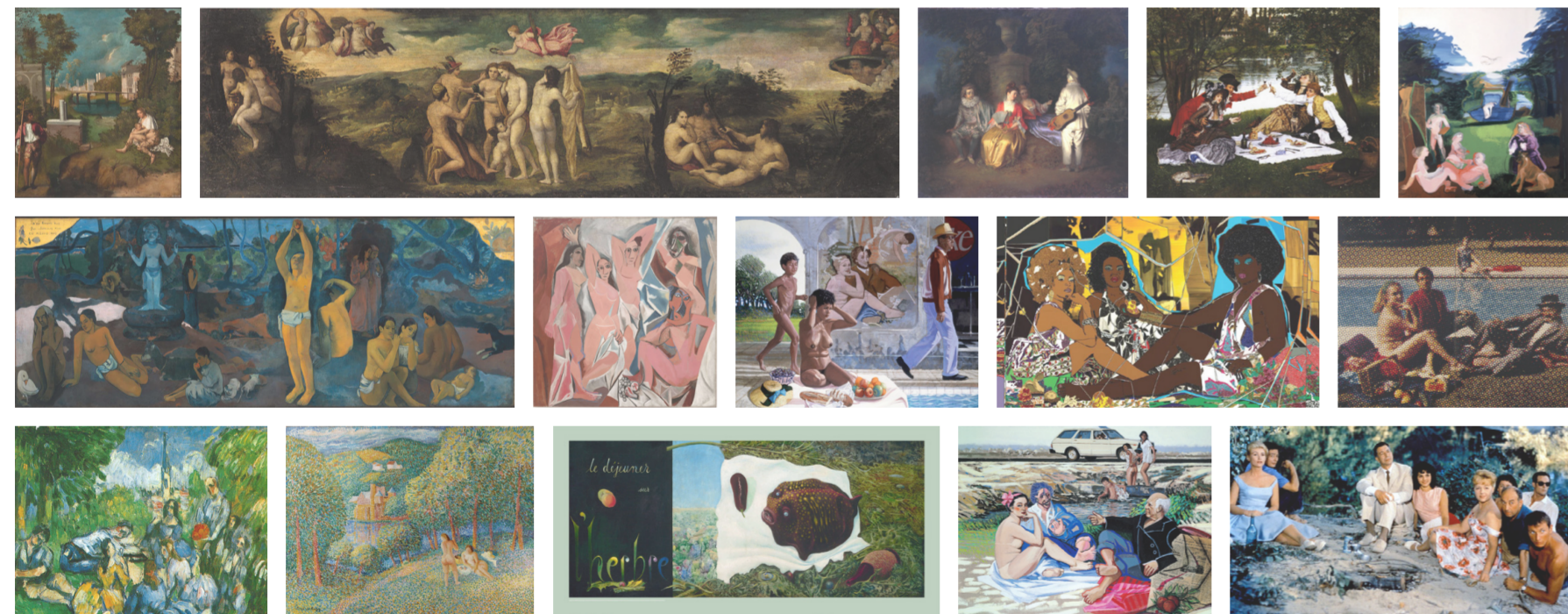
CREATIVE COPIES - FROM THE RENAISSANCE TO THE MECHANICAL REPRODUCTION

This creative copying shows kind of the opposite of the exact reproduction. The goal is an own singular work just partly composed out of found elements which can emerge in a subtle and at first glance unrecognizable manner within the new context.

Along with the incarnated authorship and a freed motive, similar work from other artists quickly became wakeup-calls for forgery. However, in spite of disputed cases, copying remained omnipresent in arts. Especially because of the master-student relationship and many established art schools, copying constitutes an important role in art education and was substantial regarding the handover of skill and notion of art. There is a broad consensus that copying is an essential element of creative work. The world famous artist Pablo Picasso is often quoted for saying: "Good artists copy, great artists steal." Whether Picasso did indeed say that is open to some debate, but it still became a valuable insight to develop a better understanding of creative thinking. He stated that a good artist simply copies another person's art. A great artist selectively takes (steals) elements from multiple sources and then creatively combines their influences to create something that is uniquely their own. Like this, chains of perpetual referring works result in an inexorable continuum.

Many paintings have a long background and previous paragons, and become precedents themselves for many following artists. An example is the Déjeuner sur l'herbe painted in 1862 by Édouard Manet. Its model seems to obviously be the Judgement of Paris from Marcantonio Raimondi done in 1515, which itself is an engraved copy of a Raphaels work.

Manet was sassily reworking the well known work of Raphael, turning the mythological scene from one of the most celebrated engravings of the Renaissance into a painting of rather vulgar Parisian holidaymakers. Finally the contentious canvas got extremely known and brought about innumerable following adaptations which were certainly inspired by it. Similar to the Virgin and child this continuing resummptions started to grow exponentially.



From left to right and up to down:
 Giorgione, 1508, The Tempest
 Raphael, 1508, The Judgement of Paris
 Antoine Watteau, 1713, La Partie Carrée
 James Tissot, 1870, La Partie Carrée
 Herman Braun-Vega, 1970, Les invités sur l'herbe
 Paul Gauguin, 1889, Where do we come from?
 Pablo Picasso, 1907, Les Demeiselles d'Avignon
 Herman Braun-Vega, 1970, Picnic en el patio
 Mickalene Thomas, 2010, Les trois femmes noires
 Alain Jacquet, 1964, Le déjeuner sur l'herbe
 Paul Cezanne, 1877, Le déjeuner sur l'herbe
 Pierre de Belay, 1939, Le déjeuner sur l'herbe
 Max Ernst, 1944, Das Frühstück im Grünen
 Herman Braun-Vega, 1970, Cita en la playa
 Jean Renoir, 1959, Le déjeuner sur l'herbe

THE RISING EXHIBITION VALUE OF AN ART WORK -
FROM THE MECHANICAL REPRODUCTION TO THE DIGITALIZATION

An important precondition for the increasing velocity of art dispersion was the suitability for exhibition of the artwork. Like Walter Benjamin, a German philosopher, cultural critic and writer stated in his essay *The Work of Art in the Age of Mechanical Reproduction*: „It is easier to exhibit a portrait-bust that can be sent here and there than to exhibit the statue of a divinity that has its fixed place in the interior of a temple. The same holds for the painting as against the mosaic or fresco that preceded it“¹

What might sound banal at first had a fundamental effect on how art copies evolved. The fitness for exhibition became crucial in art, whereby the all-changing milestone was the advent of mechanical reproductions. Suddenly in the 19th century automation entered the art field, in particular with photography and film becoming the frontrunners.

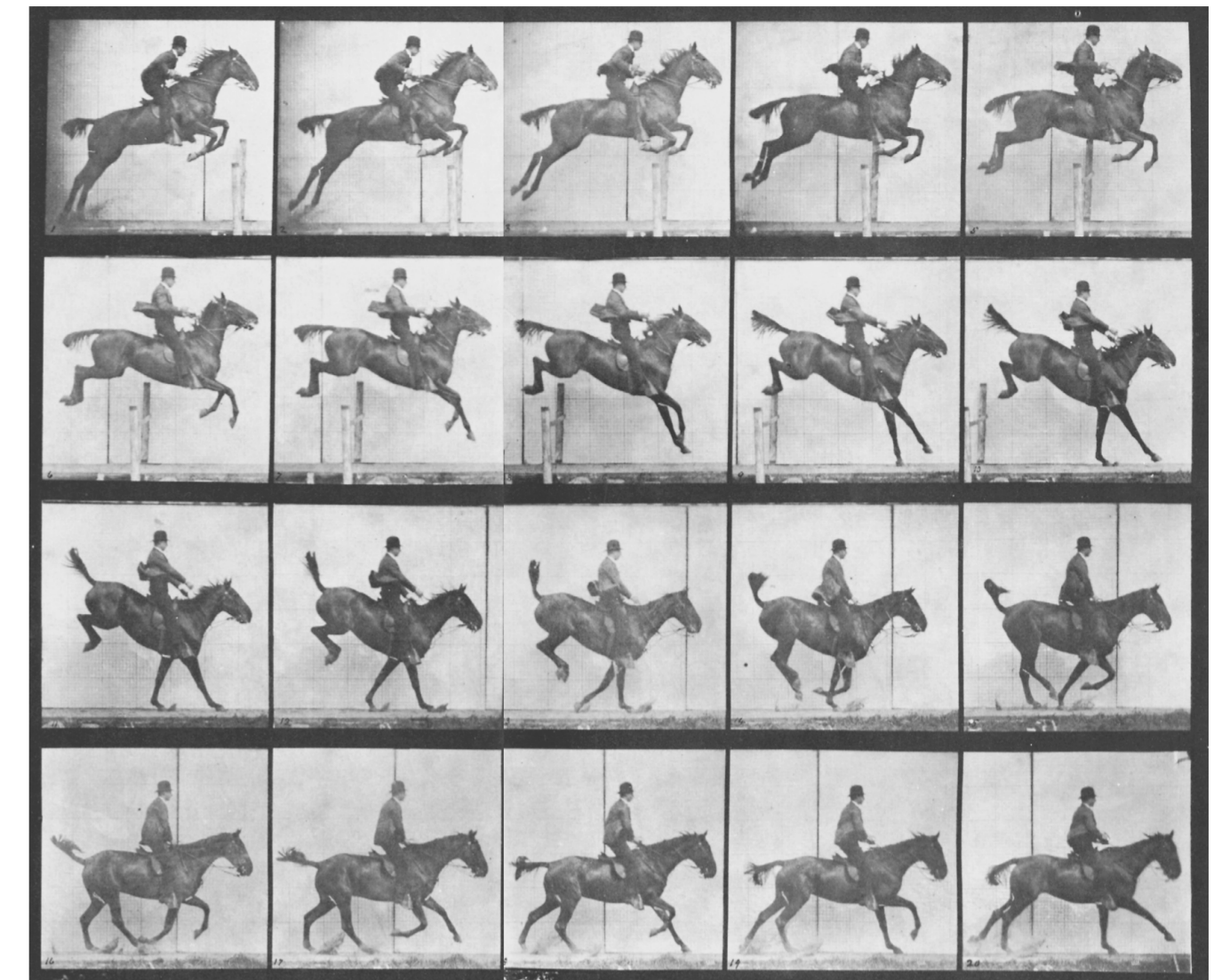
The turn was partially boosted by the advent of photography but the overriding crux of matter was the general appeal of the artwork to the masses, consistent with the rise of socialism. The mass-media reflected the decisive consumers which became the new verdict-makers. Whereas architecture or ancient poetry were already contemplated simultaneously by a large public, paintings could only be viewed by a few. With the photographic reproduction a larger viewership was also opened up also for images, leading to a crisis of physical paintings.

For the first time in the process of pictorial reproduction, photography freed the hand of the important artistic functions which got taken over by the eye looking through the lens. Since the eye perceives faster than a hand can draw, the process got notably accelerated up to the speed of speech.

Whereas before the 19th century the ritual, meaning the magical and religious moment captured in an artwork, has expressed the main significance in art for centuries, now with the new mechanical reproduction and the withdrawal of human presence from the images, the aura falls into oblivion and the exhibition value replaces the ritual value.

Walter Benjamin explains this shift accordingly: „for the first time in world history, mechanical reproduction emancipates the work of art from its parasitical dependence on ritual. To an ever greater degree the work of art reproduced becomes the work of art designed for reproducibility. From a photographic negative, for example, one can make any number of prints; to ask for the ‘authentic’ print makes no sense. But the instant the criterion of authenticity ceases to be applicable to artistic production, the total function of art is reversed.“²

Animals in Motion
by Eadweard Muybridge,
London, 1907



Now the novel medias like photography and film, involving mechanical reproduction, suspended the notion of the authentic and unique work of art. The era of art-making as being an authored and unrepeatable event declines with the recent possibility of reproduction giving birth to various groundbreaking art forms evoking during the following decades. This means Factory-new readymades, media images of Pop-Art and the serial applications of Minimalism and Conceptual Art.

Correspondingly, already in 1936 Walter Benjamin stated that contemporary art can count on greater effectiveness the more it gears itself reproducibility and the less it focuses on the original work.³

With the digital universe, eventually the idea of images without any physical existence was introduced. For the first time virtual instantiations or in other words ‘temporary copies’ present identical information with no degradation from one reproduction to the next. Once and for all, the aura in its traditional context based on its everlasting originality is subverted. But in the altered digital setting a new aura arises in form of an ephemeral counterpart.

1, 2 Walter Benjamin, *The Work of Art in the Age of Mechanical Reproduction*, 1936, p.6,7

³ Walter Benjamin, translated from the original German edition of the essay, *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit*: „Die Kunst der Gegenwart darf auf um so größere Wirksamkeit rechnen, je mehr sie sich auf Reproduzierbarkeit einrichtet, also je weniger sie das Originalwerk in den Mittelpunkt stellt“

DIGITAL AGE AND THE POOR IMAGE -
FROM THE DIGITALIZATION TO THE POST MILLENNIAL

Hito Steyerl, a German filmmaker, moving image artist and contemporary writer describes in her essay *In defense of the poor image* the new aura of digital copies as followed: „The poor image thus constructs anonymous global networks just as it creates a shared history. It builds alliances as it travels, provokes translation or mistranslation, and creates new publics and debates. By losing its visual substance it recovers some of its political punch and creates a new aura around it. This aura is no longer based on the permanence of the ‘original’, but on the transience of the copy. It is no longer anchored within a classical public sphere mediated and supported by the frame of the nation state or corporation, but floats on the surface of temporary and dubious data pools.“⁴

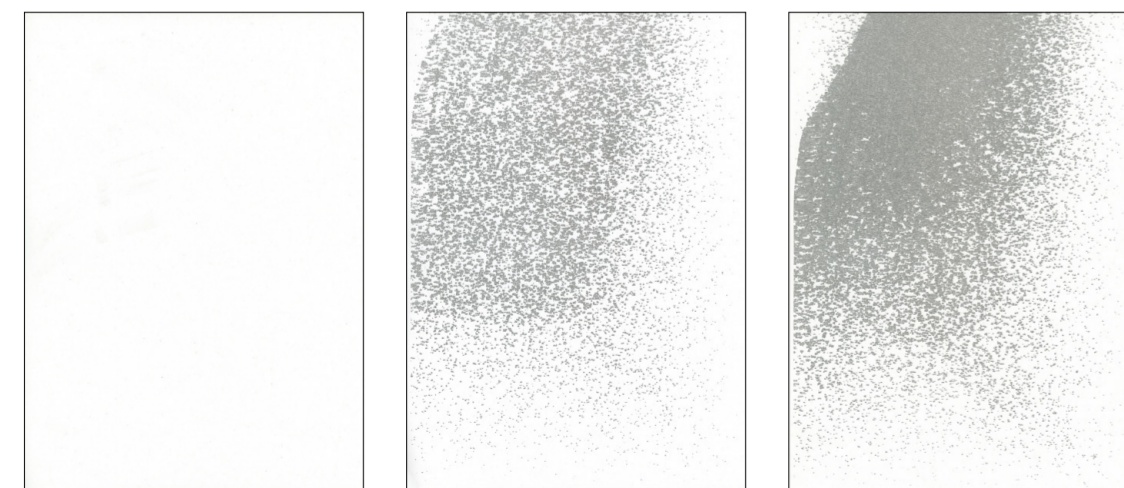
She brings up the vast amount of images floating through the world wide web and from one device to the other. Whereas before rare tapes moved from hand to hand between trusted persons now with online streaming platforms the physical handovers decreased swiftly. Her poor images are described as ‘copies in motion’ that are products of the technical conditions of our time, in which they performatively move along, while becoming poorer and poorer as they migrate through the net.

The poor images represent images that have bad resolution, lack of quality, and that are accessible and thus re-downloaded and re-edited many times: “It is a ghost of an image, a preview, a thumbnail, an errant idea, an itinerant image distributed for free, squeezed through slow digital connections, compressed, reproduced, ripped, remixed, as well as copied and pasted into other channels of distribution.”⁵

Nowadays the described processes run even faster. The outlined essay by Hito Steyerl was written in 2009 shortly after the first iPhone was released in 2007. It was the gradual change from mobile phones provided with buttons, to the touchscreen smartphones.

Until today one could say that the poor image got ‘richer’ again, because more data can be sent in shorter time. Newer devices can handle way bigger data and through sending mechanisms like airdrop, pictures can be sent instantly without the loss of quality. Devices and automatized and digital processes in the interplay with human consumerism are decisively influencing current copies.

The poor image, today, is no longer just a copy in motion, but is transformative in itself. While images circulate on the internet, our present with its digital media possibilities is constantly moving, changing and refreshing itself: „The Web, although certainly a powerful social tool, has seeped so deeply into the foundations of everyday life that it has collapsed understandings of the present in exchange for a constantly refreshing sequence of now’s.“⁶



Flavio Gisler
Fingerprint of a Printer
2017
297 × 420 mm
ETH Zürich

^{4,5} Hito Steyerl, *In defense of the poor image*, 2009

REPRODUCTIONS IN CONTEMPORARY ART
THE POST-MILLENNIAL AND THE PRESENT

Having reached the here and now where identical copies in terms of their digital data can be spread in milliseconds, their display is nonetheless depending on different devices each representing the data with a slight tolerance. Today's reproduction devices are still not able to really reproduce identical products. When for example a digital laser-printer copies a blank sheet of paper, the output will still contain really tiny deviation due to imperfections of the device or the impact of unintended occurrences like dust particles on the glass surface. Whereas an AI printer would understand that it is just a white paper and reprint it without any ink, a common printer executes a mechanical process working with reflections which automatically prints even the smallest errors. By repeating that process several times these faults become more and more visible. This exact process was done in the art-project of *The fingerprint of a printer* by Flavio Gisler in 2017, where he recopied a initially blank sheet of paper 500 times, displaying the ‘error’ on alleged ‘identical’ reproductions, and showing its beauty, arisen due to its uncontrollable autonomous process.

Andy Warhol
Marilyn Diptych
1962
acrylic on canvas
2054 × 1448 mm
(Tate)



Sturtevant
Warhol Diptych
1973/200
acrylic on canvas
3200 × 2139 × mm
Pinault Collection



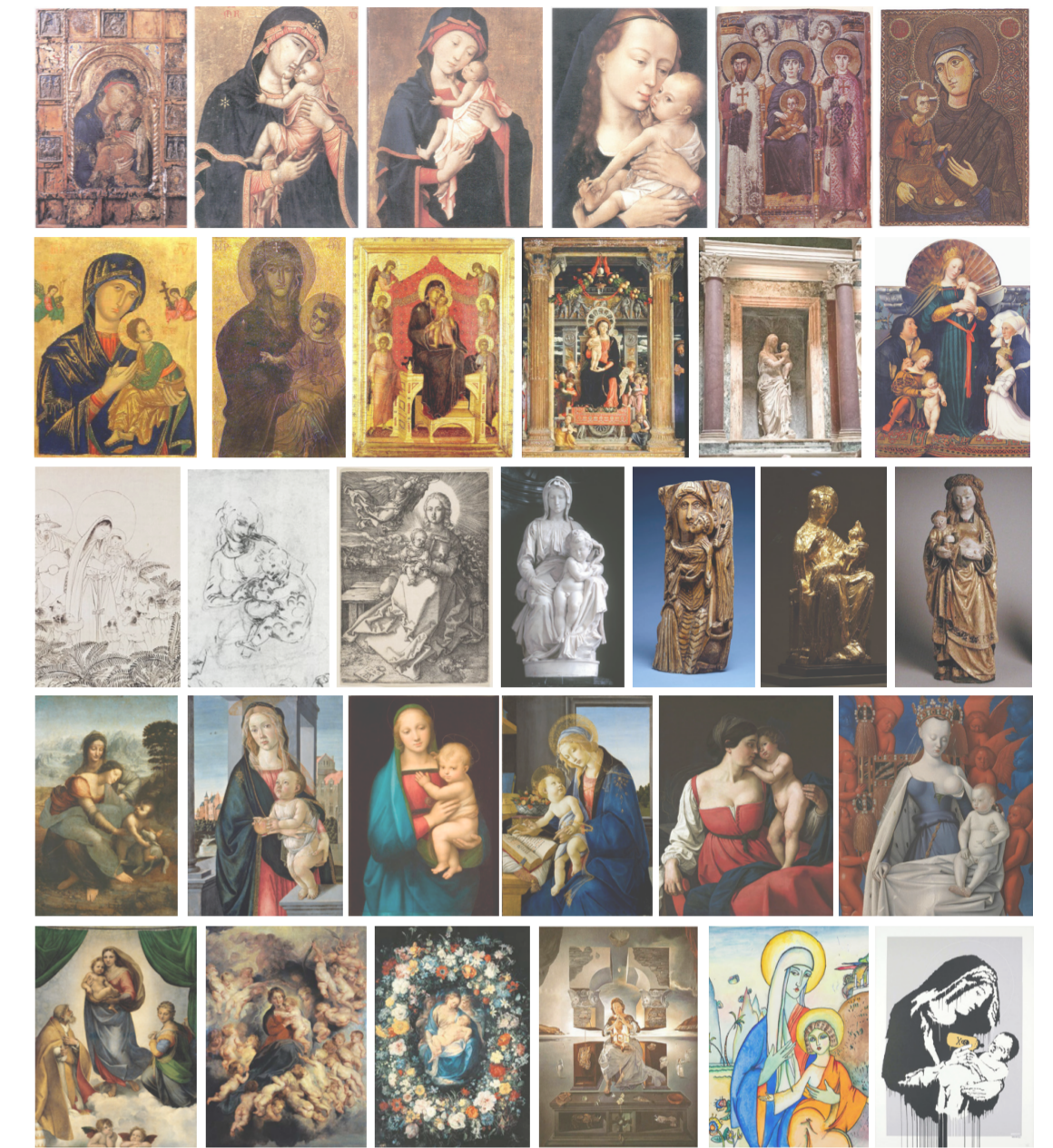
⁶ Vanessa Kowalski, *Buying time in the middle of nowhere*, (Master's thesis, Aalto University, Espoo, Finland), 2018, p. 26

Such suspense within identical copies also fascinate the artist known as Sturtevant. The exhibition Sturtevant: Double Trouble at first looks like a group show of some famous figures of the last century: Beuys and Warhol, Lichtenstein and Haring. In fact they are all works by Sturtevant, who recreated her 'colleagues' paintings and sculptures with the exact techniques they used. Marcel Duchamp's Fresh Widow of 1920 now lays in sevenfold execution by Sturtevant at the MoMA all lined up in a row and all looking exactly like the 'original' Duchamp, which is itself a readymade, that the Museum displays upstairs.

Sturtevant's 'copies' are in fact studies of the differences that can arise through repetition. That's one reason why her art does not amount to a copyright violation. Like mentioned already, to infringe on copyright, the later work must have the same intention as the original. Sturtevant's replicas have quite different goals, and in any case require a degree of confusion in order to function. The possibility of originality endures, but only through replication.

It was a commonplace in the mid-20th Century to insist that mechanical reproduction spelled the end of originality and the aura, that the death of the author was upon us and that authorial invention was a fraud. But for all the sway of these ideas inside the academy, anyone who has pushed through the Louvre to see the Mona Lisa, or for that matter, waited in line to see Jeff Koons' impeccable sculptures, can tell you that the exact opposite has happened in real life. Mechanical reproduction has made 'original' works of art even more desirable, with many works achieving cult-like devotion. Another observation is the towering prices for art today, notably for photography and other easily reproducible artworks. Artists make art out of whatever materials they need and never in a vacuum; then the system and the market do what they will. As Sturtevant once said: "What is currently compelling is our pervasive cybernetic mode, which plunks copyright into mythology, makes origins a romantic notion, and pushes creativity outside the self. Remake, reuse, reassemble, recombine – that's the way to go."⁷

Collection of
Virgin and Child



BIBLIOGRAPHY

- Benjamin Walter, *The Work of Art in the Age of Mechanical Reproduction*, 1936
 Benjamin Walter, *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit*, 1935
 Nagel Alexander, *The copy and its evil twin: thirteen notes on forgery*, 2004
 Pon Lisa, *copy copia cut and paste - copying and the italian renaissance print*, 2004
 Sturtevant, *Image Over Image*, 2012
 Schmidt Helena, Chapter 12: *What Is the Poor Image Rich in?*, from *Post-Digital, Post-Internet Art and Education* by Tavin Kevin, 2021
 Steyerl Hito, *In defense of the poor image*, 2009

WEBSITES

- Farago Janson, *Good artists copy, great artists steal*, 2004
 (www.bbc.com/culture/article/20141112-great-artists-steal, 26.09.022)
 Feßler Anne Katrin, *Elaine Sturtevant: Das Original als Readymade*, 2015
 (<https://www.derstandard.at/story.05.10.22>)

⁷ Sturtevant states in the press release for her exhibition, "Sturtevant: Image Over Image", Moderna Museet, Stockholm, Sweden, 2012

REFLECTING ARCHITECTURE

INPUT AND OUTPUT

Whereas the previous essay focused on copies as accurate reflections of their precursors forming a 'line of reproductions' the following grammar of ornament will literally focus on reflections.

In order to better understand the creation of reflections, this chapter will examine different kinds of glass facades. By capturing always the same object and its mirror image from the same angle (at its brightest possible facade segment), the goal is to make the various glass surfaces and their reflections comparable.

Correlating to the essay, I'm interested in the change of an object generated by its replication.

Nevertheless the grammar of ornaments is seen as an independent chapter and was also developed on its own, originating from the building site.



BUILDING STOCK,

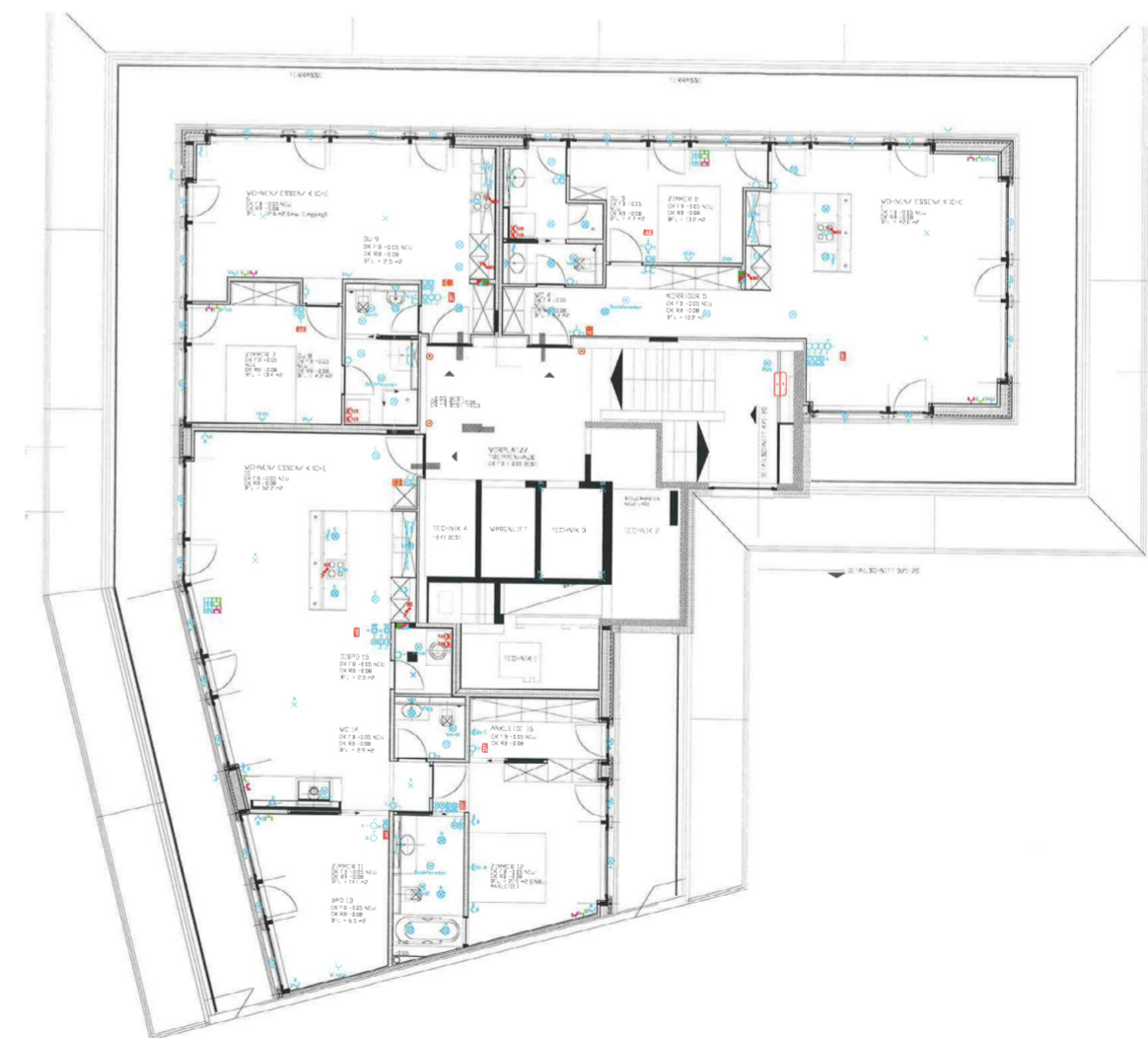
The building, which will be the starting point and site for my project, was constructed in 1955 by the architects Alfred Sauter and Arnold Dirler. The building lays in city center of Zürich in the district Aussersihl at Zweierstrasse between the county court and the Trainstation of Wiedikon.

Whereas in the ground level with a garage and a belonging salesroom, cars and their individual components were in the center of attention, in the upper levels diverse office-spaces were located.

58 years after the construction, in 2013 the building was renovated by Andreas



Archive building site pictures from 1956



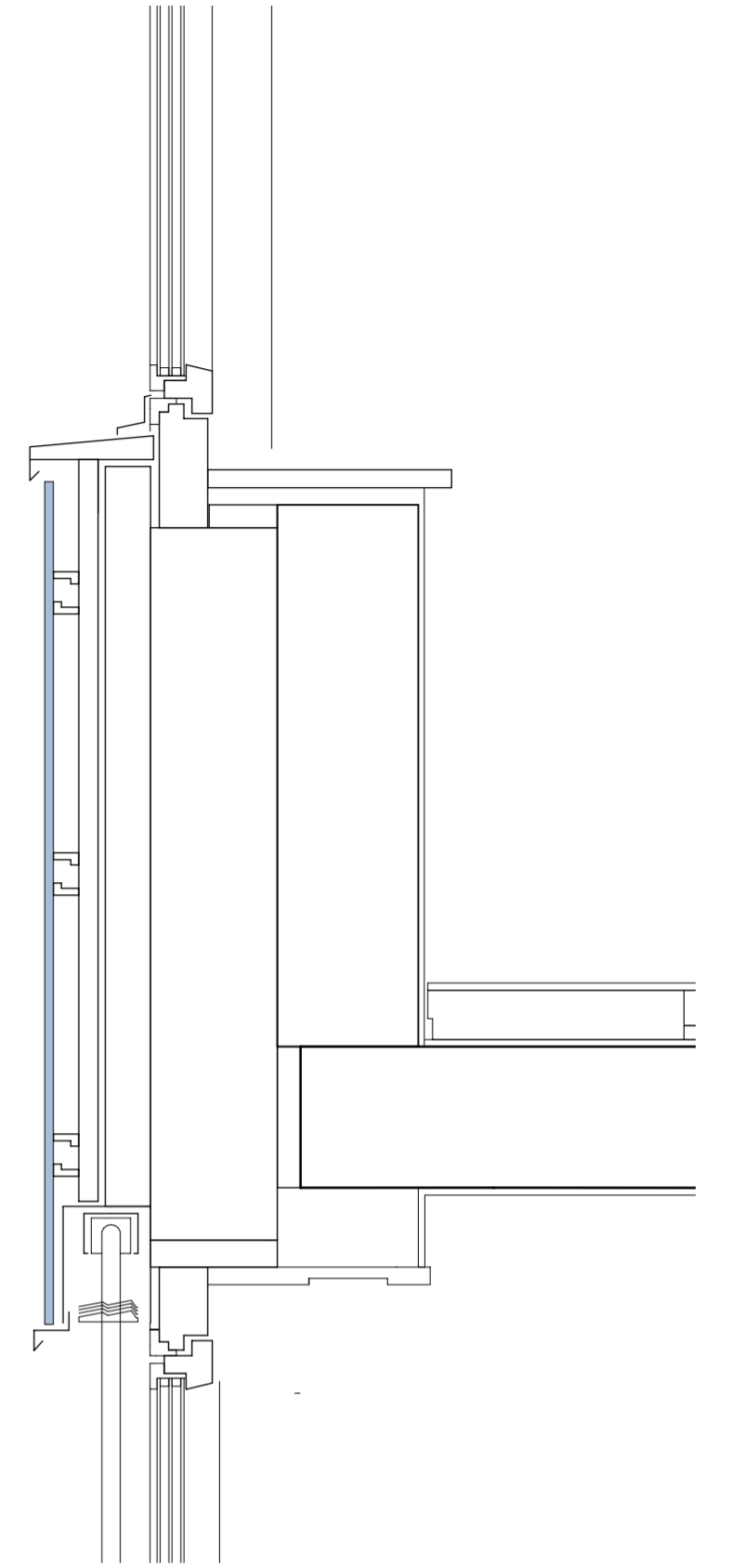
Floorplan, 6th level



Img. 1

ZWEIERSTRASSE 35

This building is an office building from 1955, built by Alfred Sauter and Arnold Dirlir, featuring the only glass facade in the close area apart from the Dienstleistungszentrum Werd nearby built from the same architects.



Blue glass spandrel panel
rear ventilated backpainted glass
produced in 2013
glass-thickness; 5mm



Img. 2



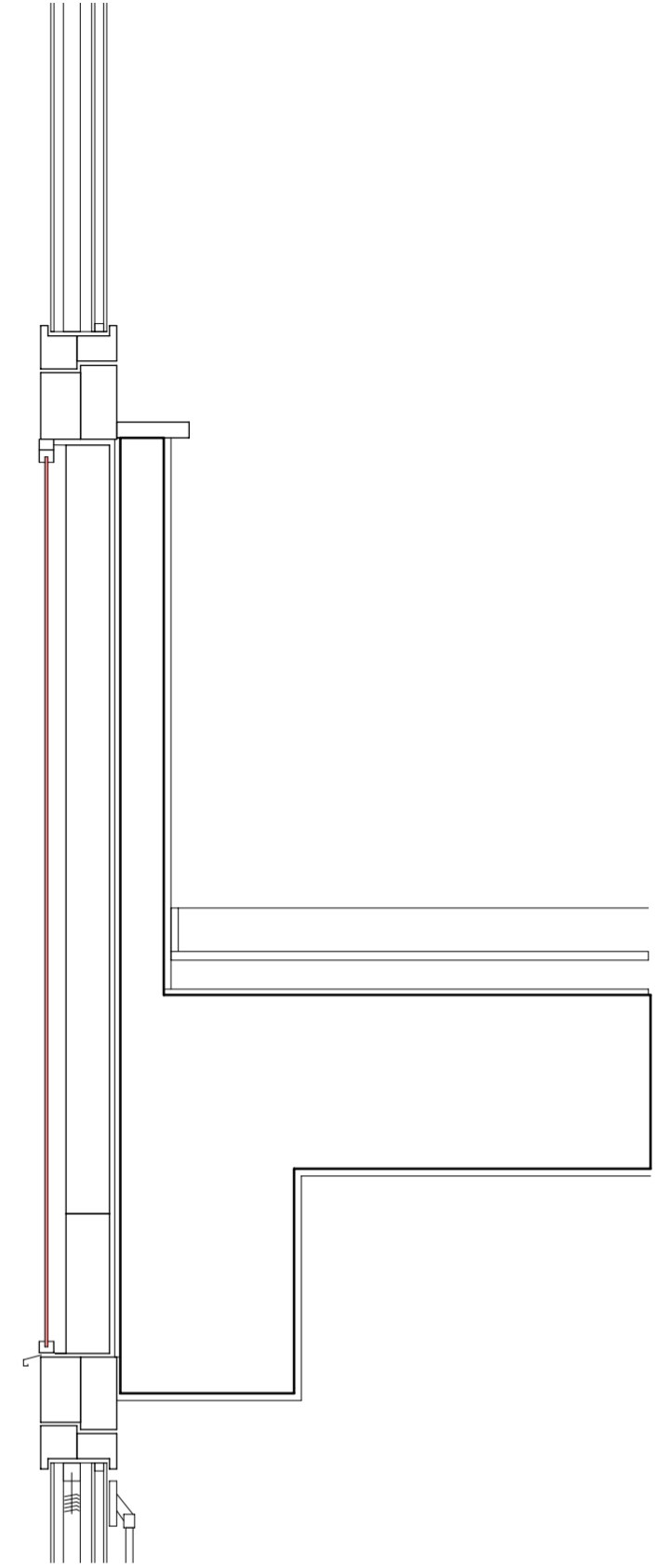


Img. 3

SEEBÄHNLI

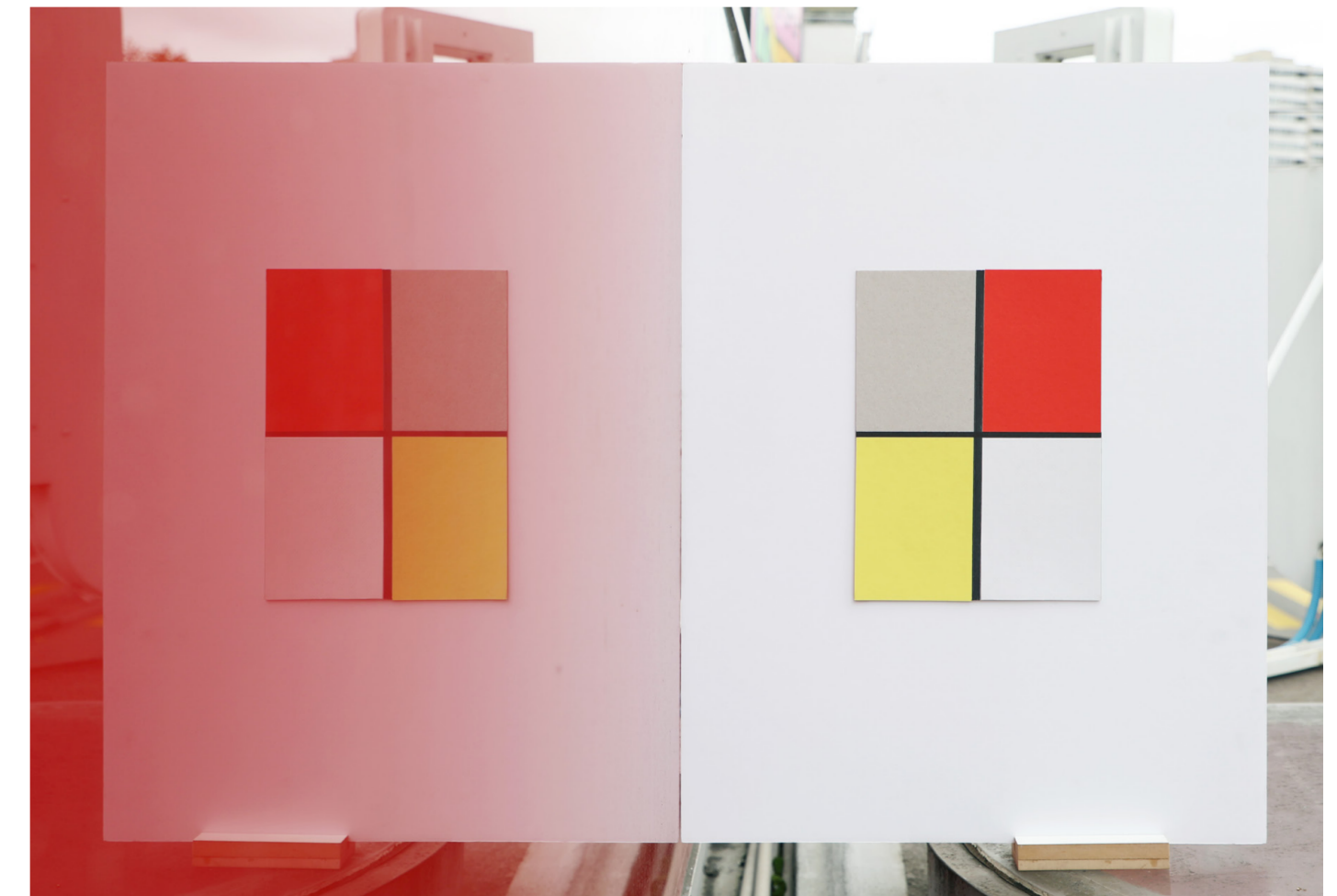
The House „Seebähkli“ was built in 1959 from C. D. Burlet. With its new name, Casa mondiale in 2018 it was reopened after a renovation by Huggenbergerfries Architekten.

enamelled glass panels 10mm
 rear ventilated 40mm
 2-ply vaxuumisolation,



Img. 4

SILVIO ROMANO



REFLECTING ARCHITECTURE

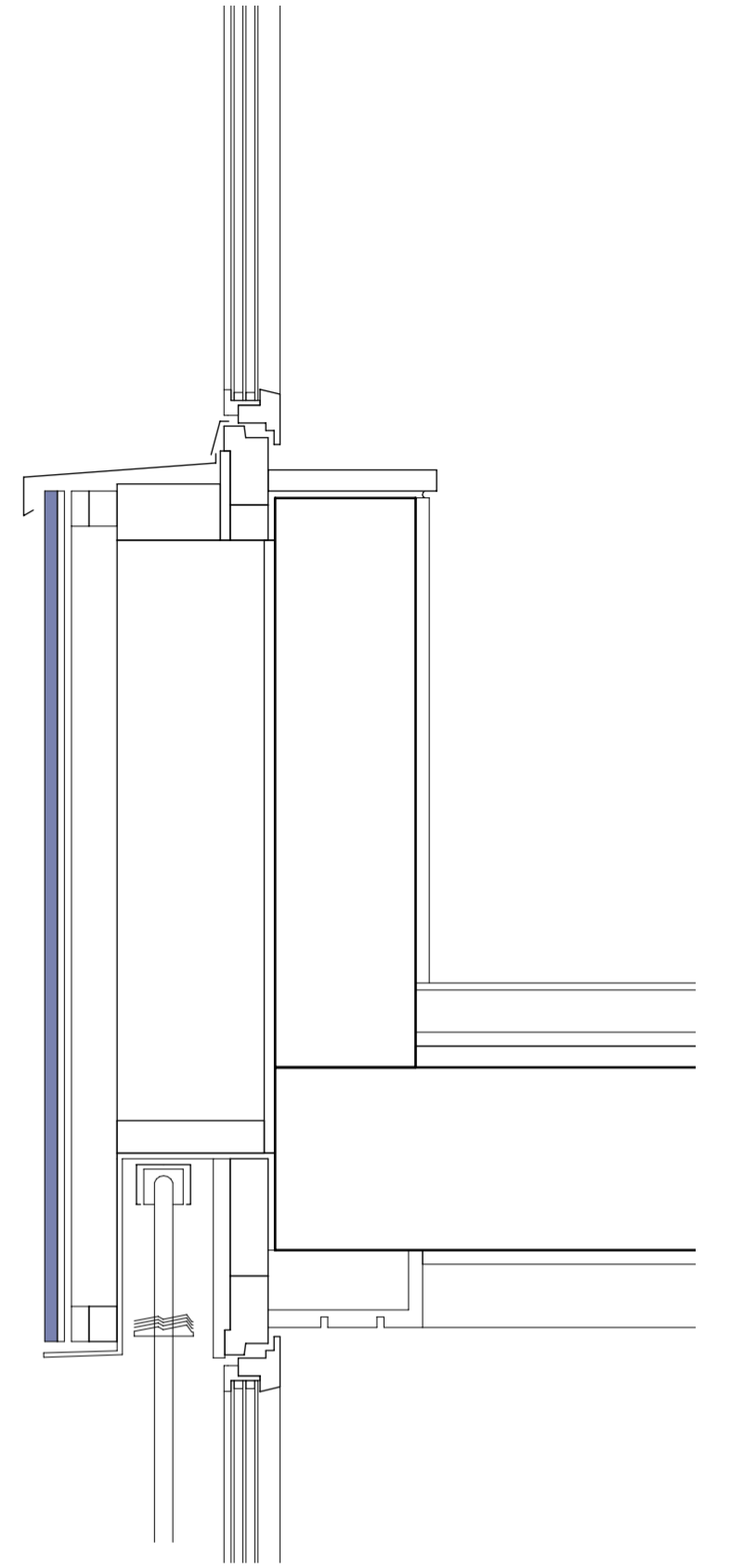


Img. 5

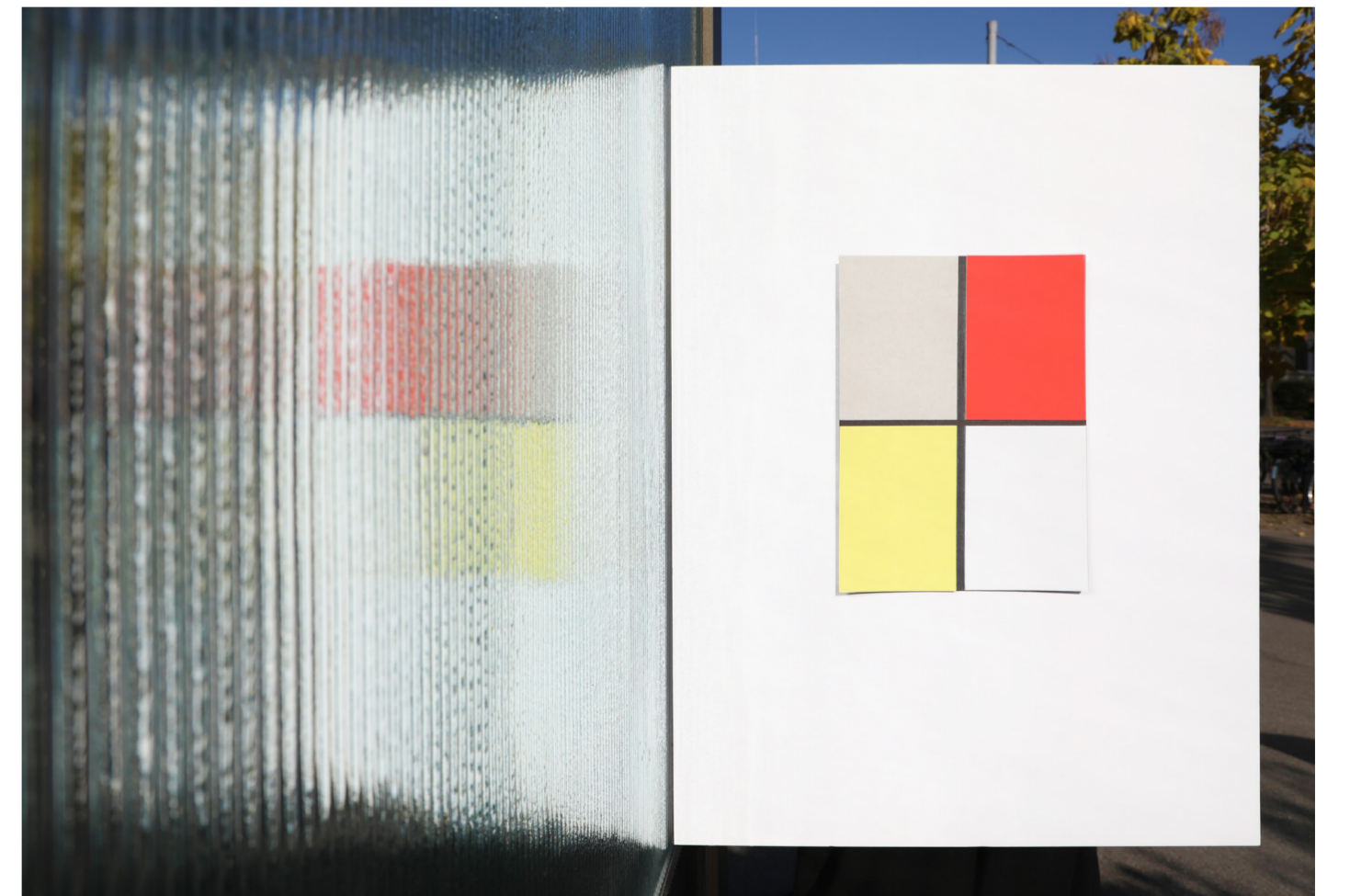
WOHNÜBERBAUUNG GUGGACH

The Buildings are situated near the Bucheggplatz between the Wipkingen and Oerlikon. It was designed by EMI Architects in 2012. The facade was covered with a glass skin. The ambivalent quality of the cast glass, which is backed by dark tones (wine red, aubergine, petrol green), which appears heavy and solid at the same time as being reflective and receptive to the changing light, gives the project its specific effect.

Primasolar glass panel 12 mm,
structured with ESG-H
and 3M-safetyfoil
produced by Lamberts GmbH & Co. rear ventila-
tion 75mm
colored stamisol protectic film
built in 2012



Img. 6



REFLECTING ARCHITECTURE

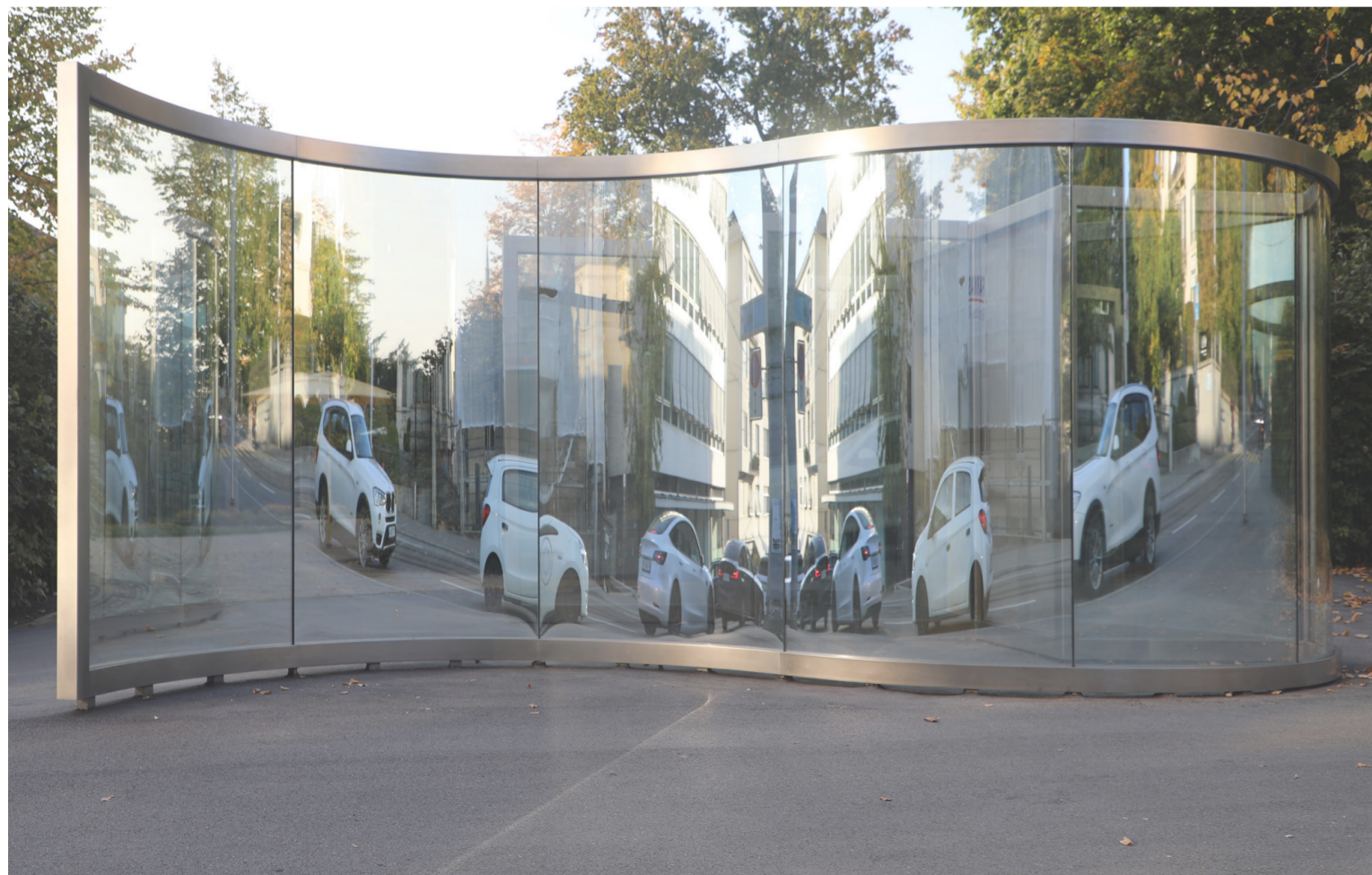
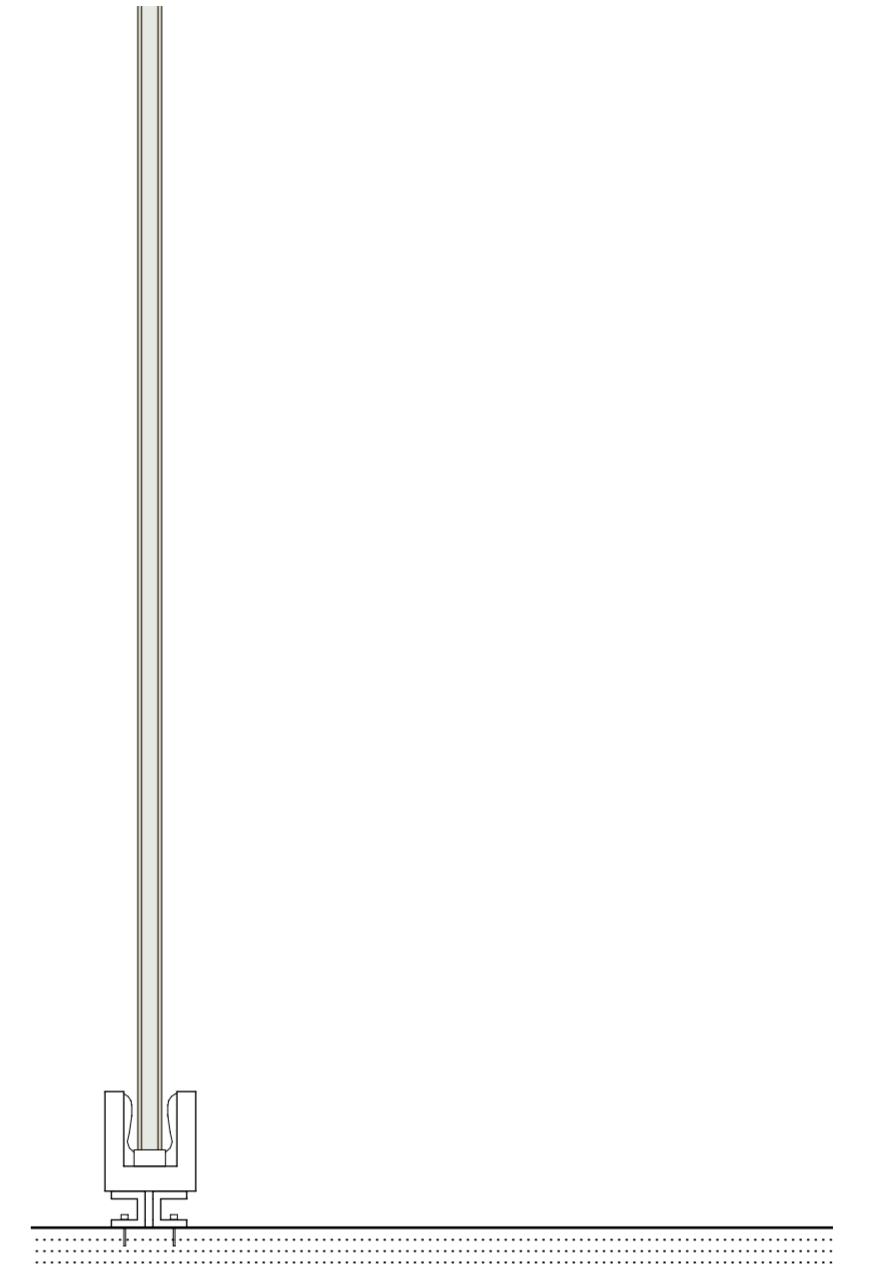


Img. 7

SINE WAVE / ZIG ZAG

The Sculpture was made by Dan Graham using two-way mirrored glass. The mirror glass is semi-transparent, allowing a through view which gets layered by the reflected mirror image. It was made in 2007-08 and is now located behind the Kunsthaus Zürich.

two-way mirrored glass
and with perforated
stainless steel
framed in aluminium



Img. 8

SILVIO ROMANO



REFLECTING ARCHITECTURE

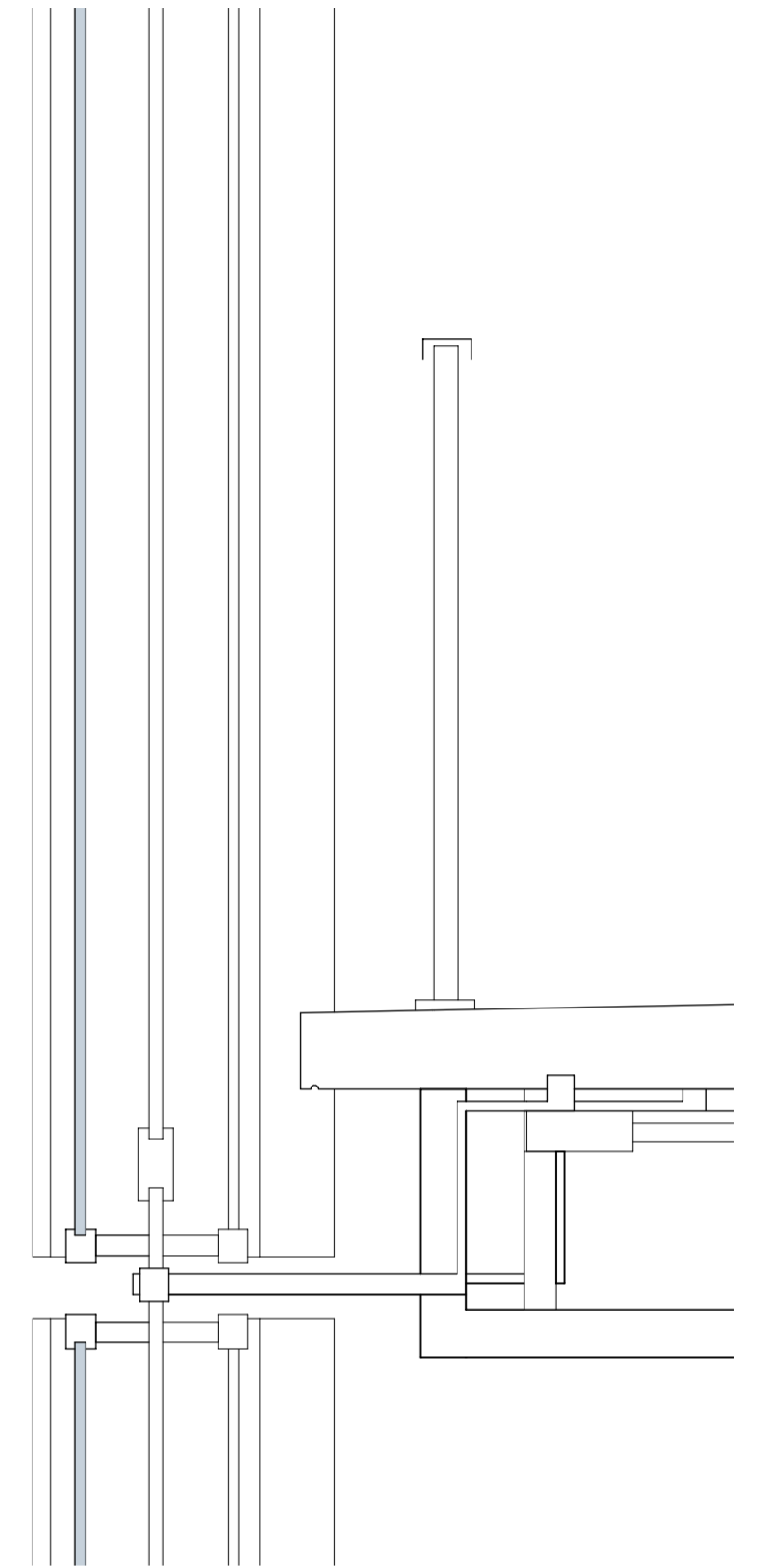


Img. 9

SWISS RE

The house with glass waves results from the interaction of a clearly cut urban volume, the flowing space of stacked decks inside and the structural connection with the neighboring Swiss Re buildings. It was designed in 2021 by Diener Diener, and was built according to the specifications of Minergie-P and Minergie-ECO as well as the US LEED Platinum certificate.

undulated glass curtain wall facade
 2.4 meter wavelength in the first four floors and
 1.2 meter in the last two
 Glass shafts hang from stainless steel brackets
 and are attached to rods in the area of overlap
 with the next shaft



Img. 10

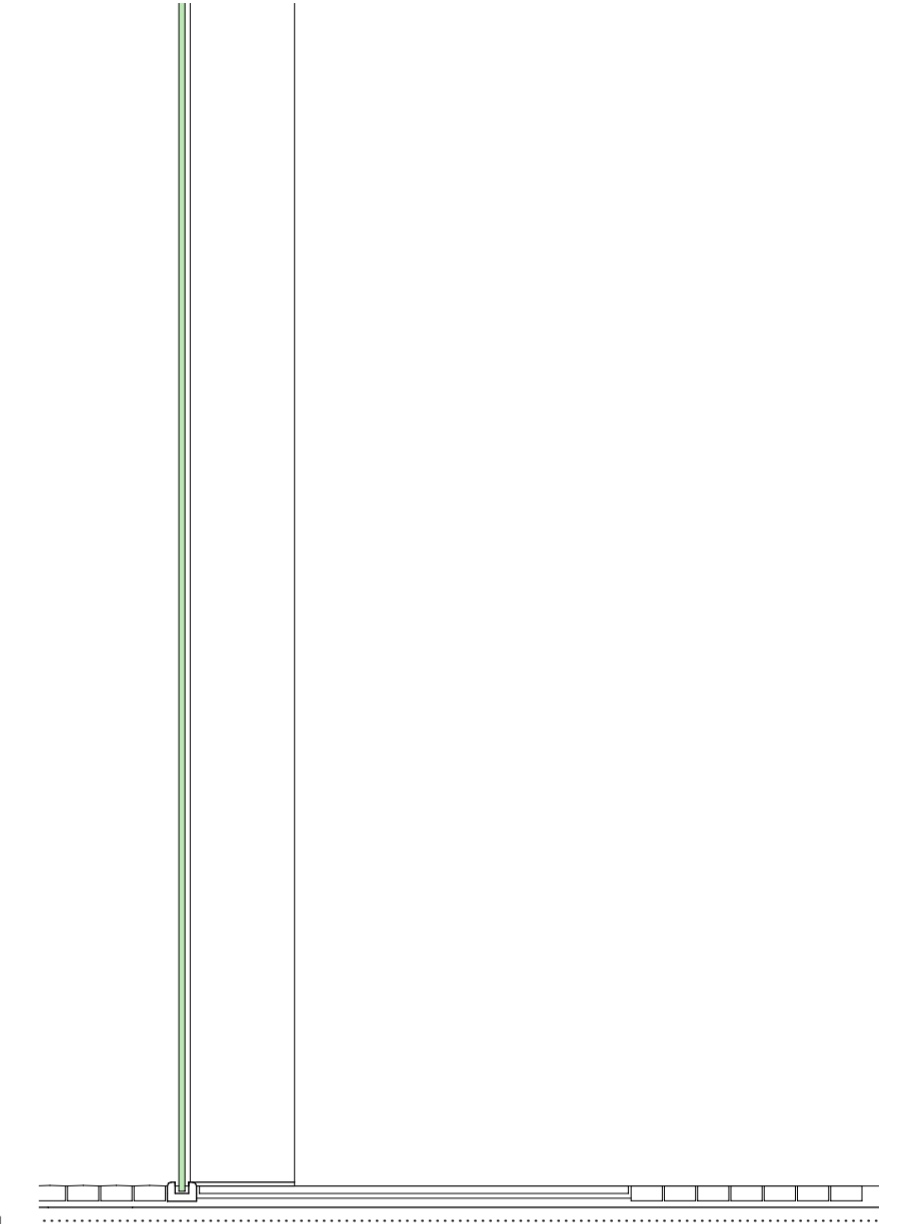




Img. 11

MUSEUM RIETBERG

The extension of the Museum Rietberg was designed by the architects Adolf Krischanitz and Alfred Grazioli. The glass entrance-hall is called „Smaragd“, which means emerald in german. The supporting elements of the new building are glass slats printed with the enlarged crystal lattice of an emerald. This creates lively perspectives and reflections.



glass slats printed with the enlarged crystal lattice of an emerald
bird-friendly approved glass
built in 2006



Img. 12

SILVIO ROMANO



REFLECTING ARCHITECTURE

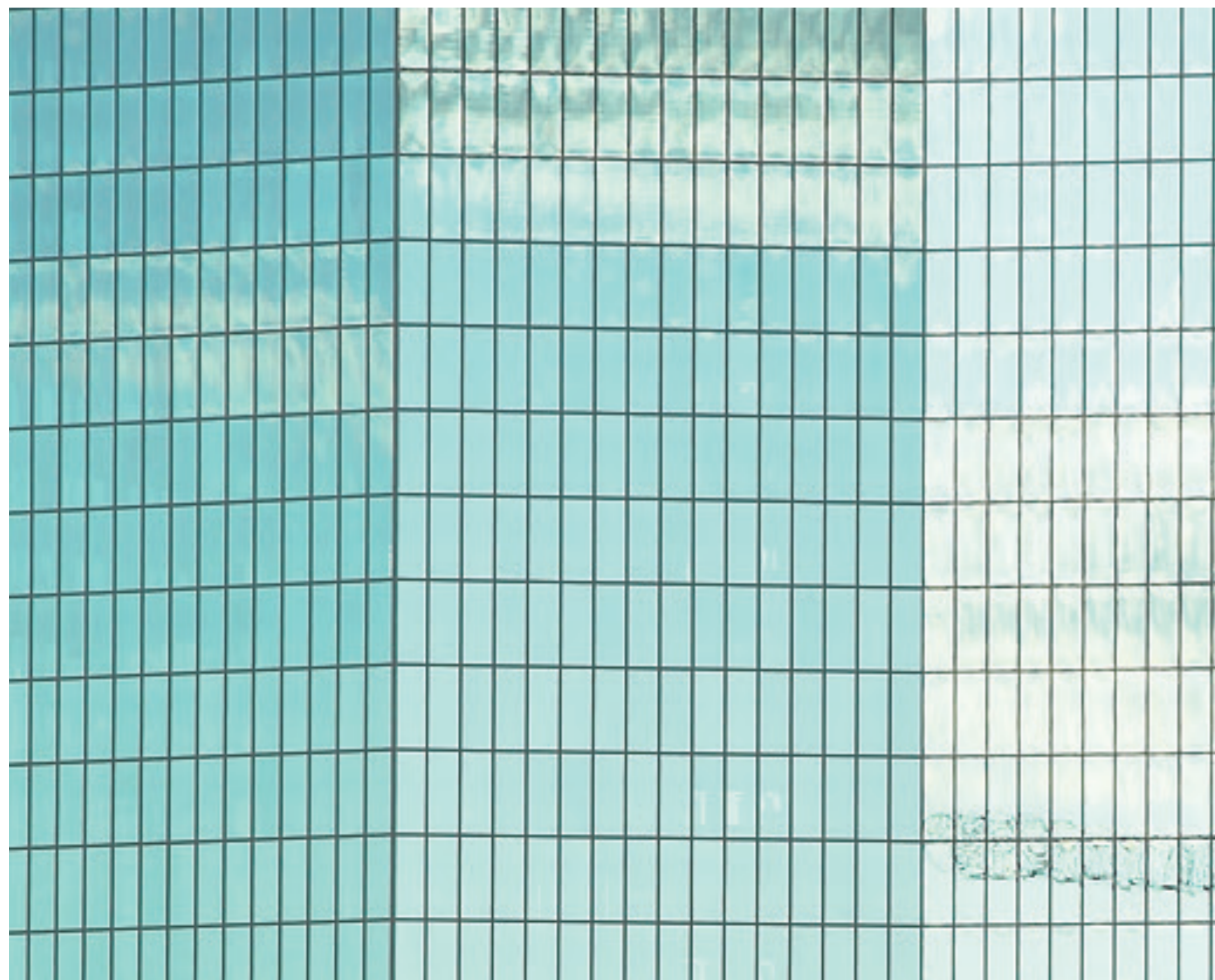
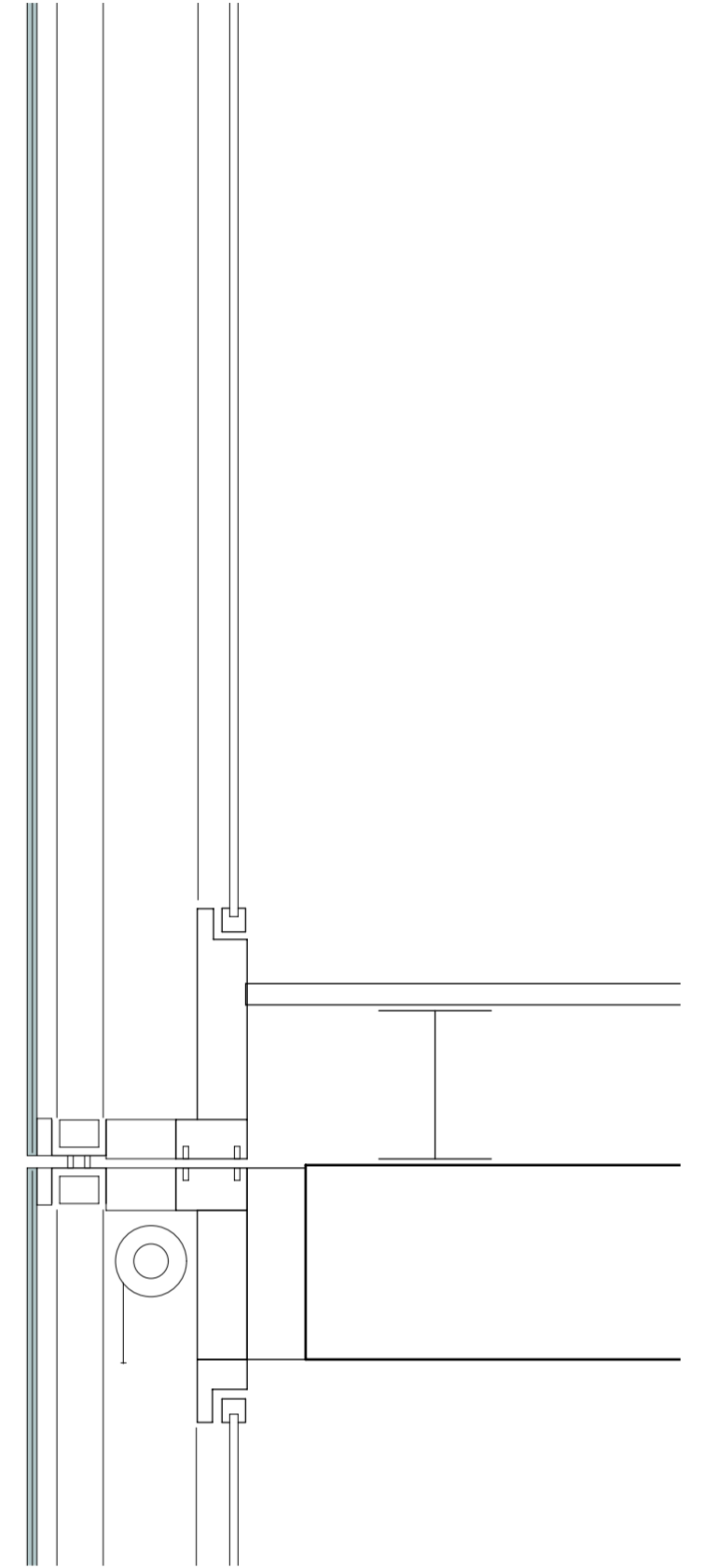


Img. 13

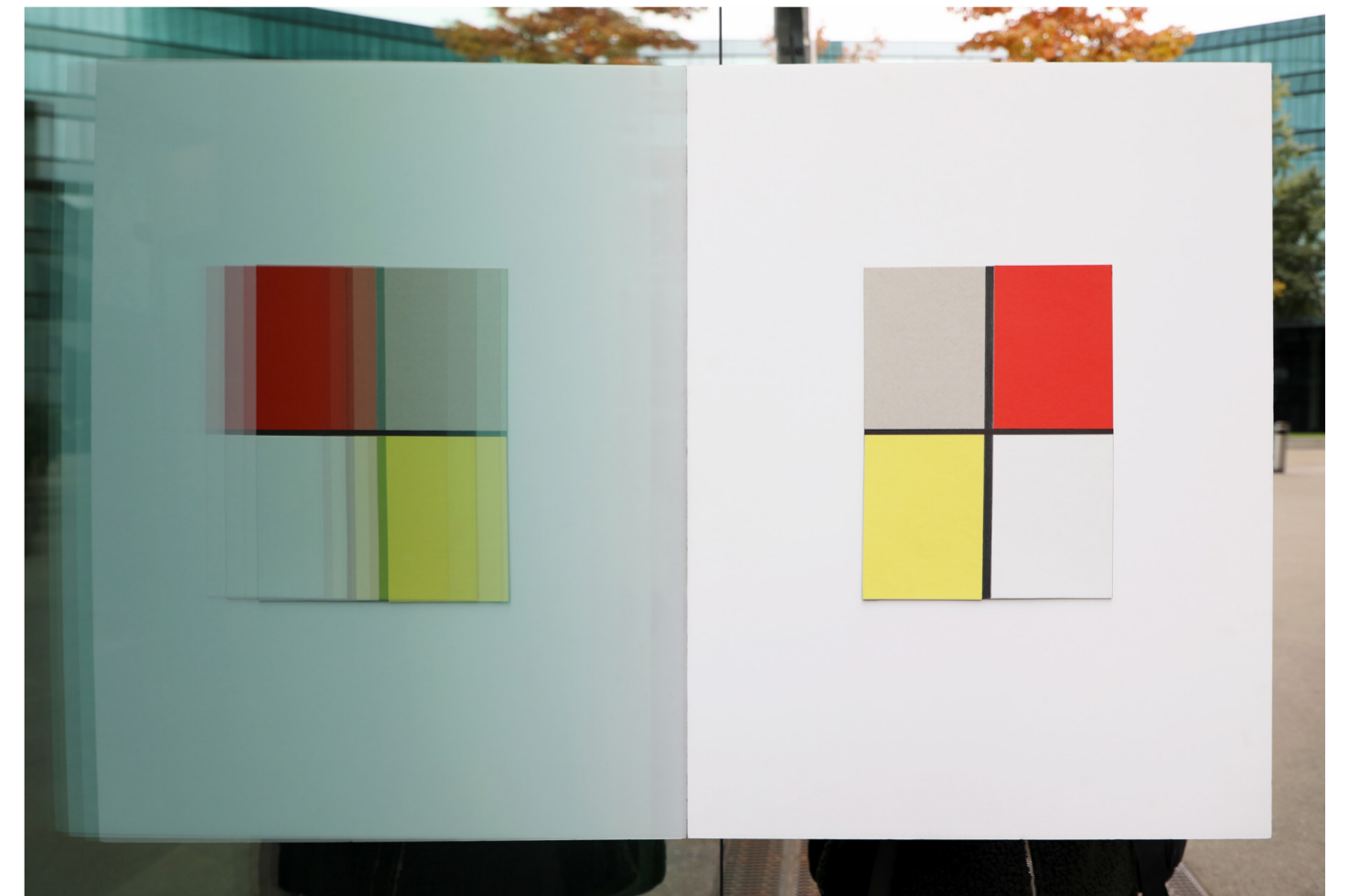
PRIMETOWER

The outstanding architectural building by Gigon/Guyer is a landmark of Zurich-West's growing business district and is tailor-made to meet companies' highest standards. IT has 36 storeys and is 126 metre high.

c.a. 20000 m2 of greenish triple insulating glass from Saint-Gobain in the structure of VSG made of green TVG with edge screen printing (outside) and »ESG-H Planitherm One II« (middle and inside)



Img. 14



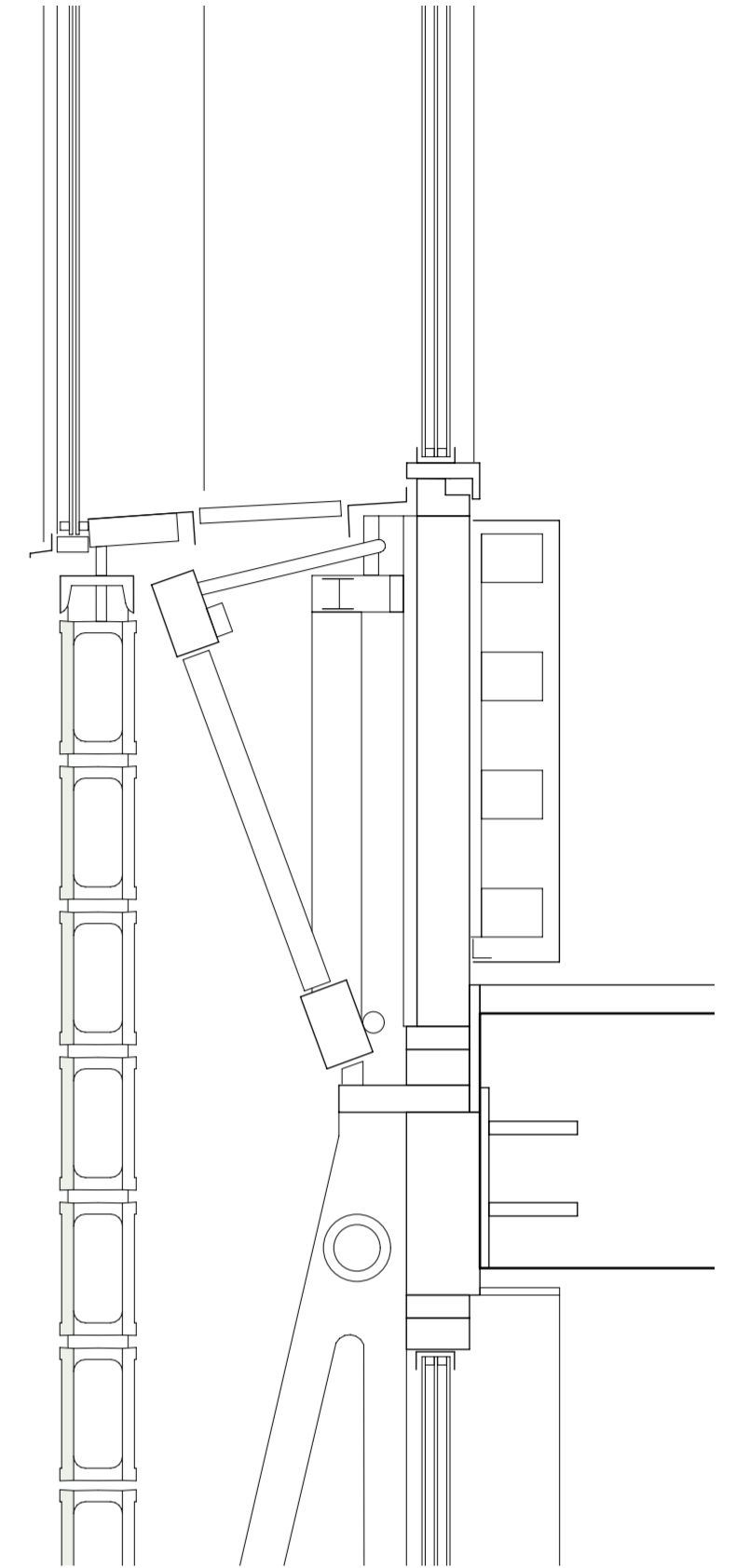


Img. 15

RESEARCH BUILDING GLC, ETHZ

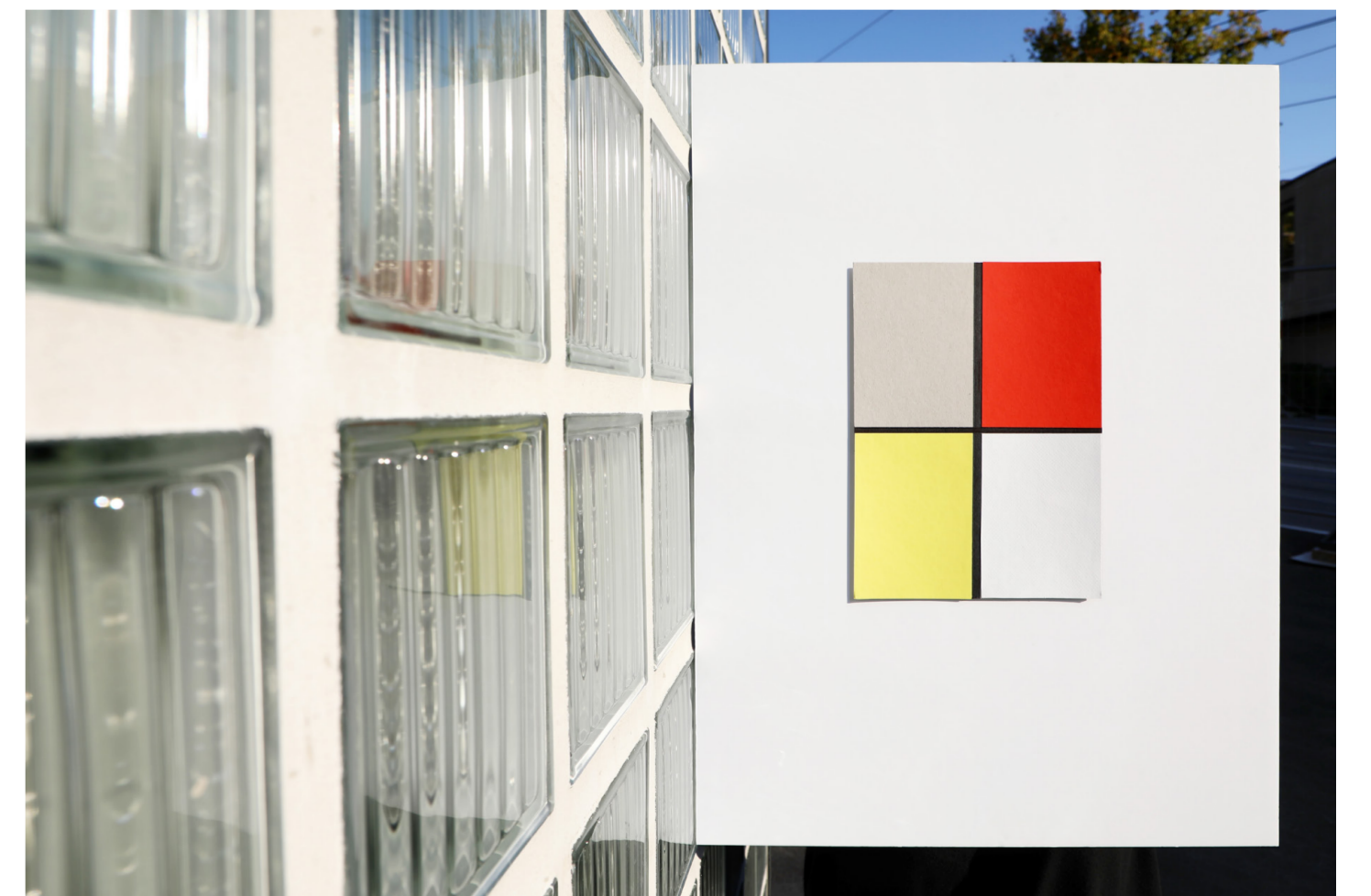
The project «Ammonit» by Boltshauser Architekten was developed from 2010-2022. The glass and stone facades of the new-build follow the long tradition of glass block facades in modernist industrial and university buildings. As a double-skin construction with glass block elements joined in the manner of coffers, the new façade achieves a dignified gravity as well as a three-dimensionality.

Glass bricks consist of two pressed glass half shells, fused to form an airtight hollow body, creating a translucent wall. precast wall-element system,



Img. 16

SILVIO ROMANO



REFLECTING ARCHITECTURE

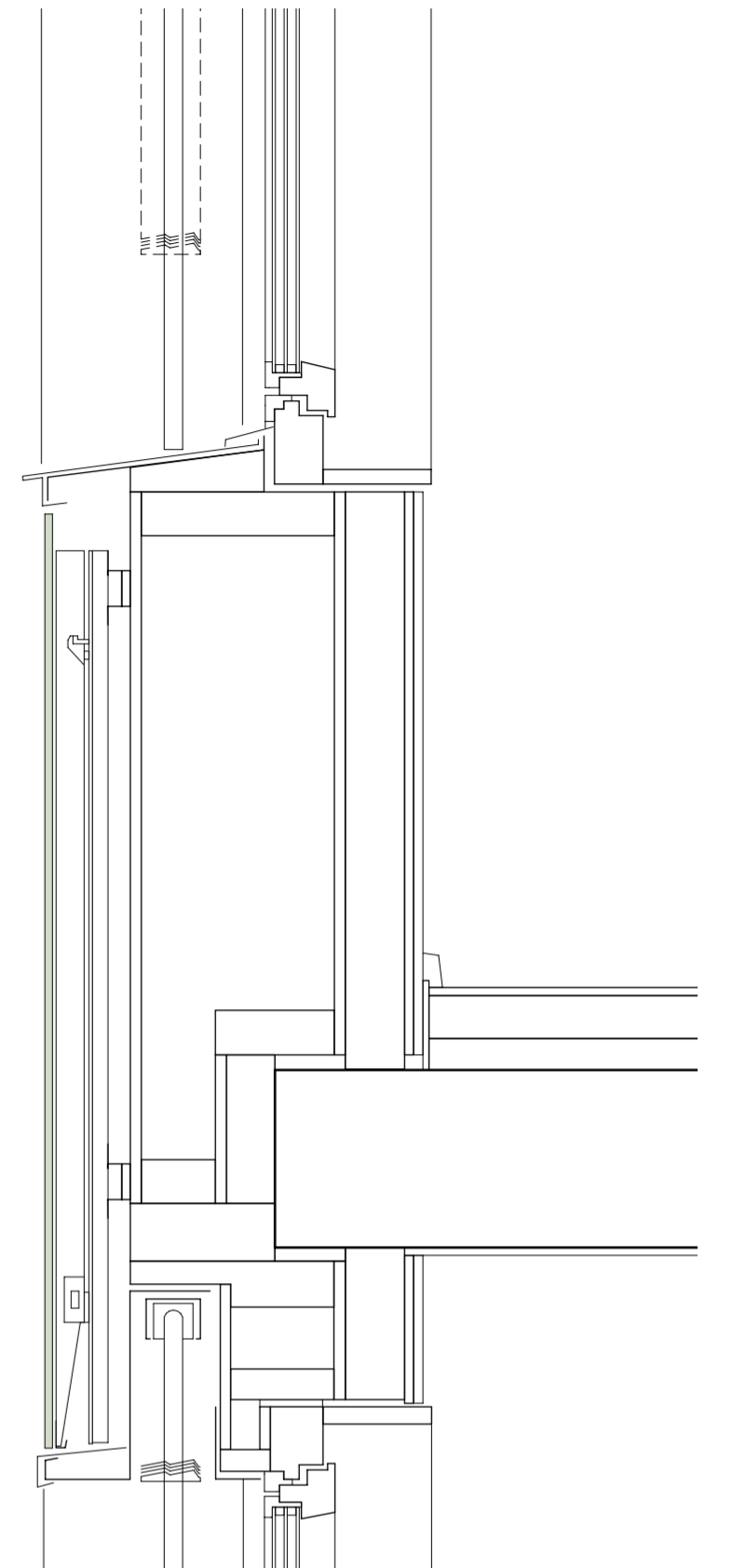


Img. 17

MFH HOFWIESENSTRASSE

In Zurich's urban district 6, a residential building with a new type of glass facade also produces energy. It was built by Viriden and Partners and won the Audience award Prixforix 2018 as well as the facade award Swiss Solar Prize 2017. Facade and roof areas produce so much solar power that the annual energy balance for providing the room climate, lighting and other applications in the 28 residential and office units is positive. Almost a fifth of the electricity production can be fed into the ewz power grid as a surplus, as expected.

active solar facade
with photovoltaic-module
based on amorphous silicate
with a matt surface 8mm



Img. 18

SILVIO ROMANO



REFLECTING ARCHITECTURE



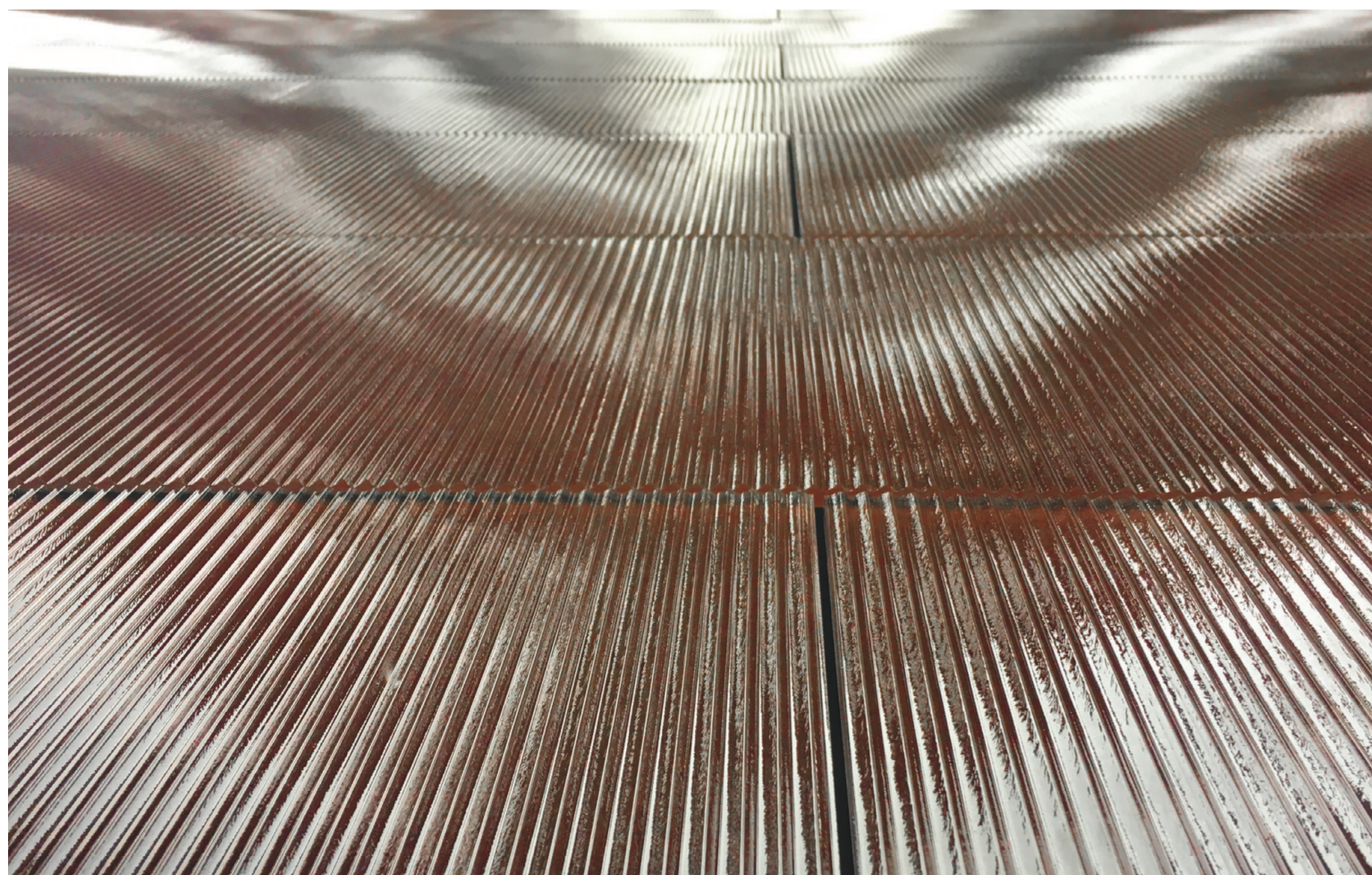
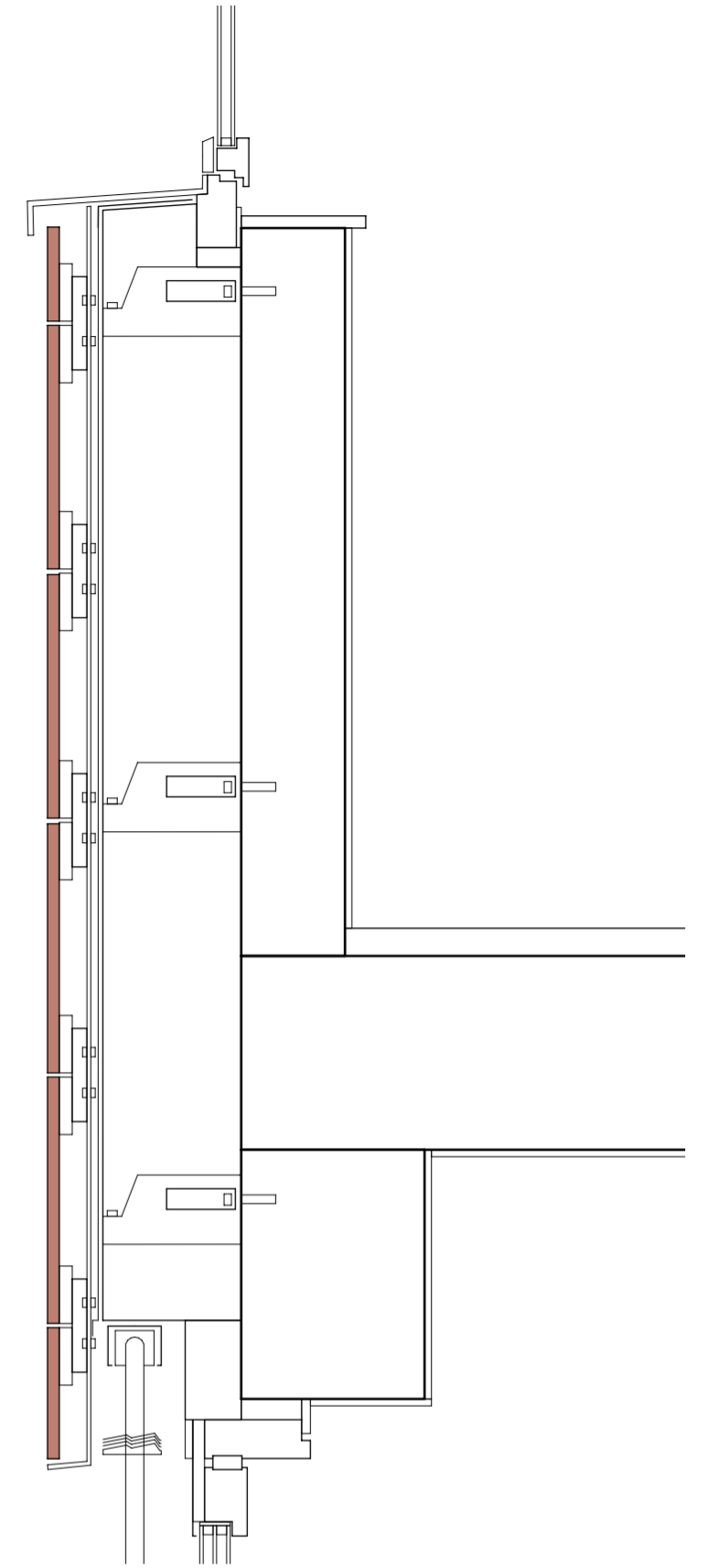
Img. 19

HOUSE SOLARIS

The appartement building is both a residential building and a power plant. It was constructed in 2018 based on a design by the architects Huggenbergerfries.

The facade and the roof consist of invisibly fixed glass with photovoltaic elements in a composite system with structured aubergine-colored cast glass. The interconnection system specially developed for this building shell supplies electricity for twice the consumption of the residential building.

structured cast glass
colored in redish aubergine
invisibly fixed glass elements with
interconnected photovoltaic modules 16mm



Img. 20

SILVIO ROMANO



REFLECTING ARCHITECTURE

IMAGE DIRECTORY

- 1 Own photography shot on 16.09.2022 at 14.30
- 2 Own photography shot on 26.09.2022 at 17.15
- 3 Seebähnli, Foto: Arazebra Andrea Helbling
- 4 Own photography shot on 08.10.2022 at 10.30
- 5 Wohnsiedlung Guggach, Foto: Titelbild Bildagentur
- 6 Guggach copropriétés, Foto: Marcela Grassi
- 7 «Sine Wave/ZigZag», Foto: Franca Candrian/Kunsthaus Zürich
8. Own photography shot on 07.10.2022 at 15.45
9. Bürohaus von Diener & Diener am Mythenquai, Foto: Goran Basic
- 10 Bürohaus von Diener & Diener am Mythenquai, Foto: Goran Basic
- 11 Smaragd, Museum Rietberg, Foto: Museum Rietberg
- 12 Smaragd, Museum Rietberg, Foto: Museum Rietberg
- 13 Prime Tower, Foto: Lorenz Ehrismann
- 14 Prime Tower, Fotos: Thies Wachter
- 15 Forschungsgebäude GLC, Foto: Kuster Frey
- 16 Forschungsgebäude GLC, Foto: Kuster Frey
- 17 Umbau MFH Hofwiesenstrasse 22, Foto: Viridén und Partner AG
- 18 MFH Hofwiesenstrasse, Foto: Viridén und Partner AG
- 19 Haus Solaris, Foto: Beat Bühler
- 20 Haus Solaris, Foto: Beat Bühler

COVER IMAGE

Dall-E, AI generated image, on 08.10.2022

Initial set; „printer copying a blue spandrel panel facade. copy and reflection“