



Material, Immaterial, The Phenomenological Space

*Riegler Riewe Architekten
Silesian Museum Katowice*

Contents

Defining Material Technique	Pt. 1
Material, Immaterial, The Phenomenological Space	4
Jean Nouvel	6
Steven Holl	8
David Chipperfield	10
Current Context	Pt. 2
Poland /Katowice	12
Site	14
Describing	Pt. 3
Elevation Detail	16
Perspective-Section Detail	18
Composite Detail	20
Section and Plan Detail	22
Material	24
Immaterial	26
Phenomenological	28
Conclusion	30

City Is In The Details
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Defining Material Technique

Material Immaterial, The Phenomenological Space

Adolf Loos, in *Ornament and Crime*, suggests that ornament is not organically linked nor is it an expression of our culture, thus, if used, is wasteful and negligent to modern society.¹ I believe in an alternative where modernity has taken the most apparent gesture of large monoliths providing ornament that is directly 'connected to us', has 'human connections', and 'connects with the world order'.² This is where the current use of the detail, and its layers, subtly sculpts the building to capture materiality at its most pure as ornament, its texture and implicit capabilities. This paper begins to describe, through Riegler Riewe Architekten's (RRA) work on the Silesian Museum (SM), material, immaterial, and the phenomenological space.

Type: Cultural Museum completed in 2013

Location: Silesia, Katowice, Poland

Structure: masonry, steel/aluminum, in-situ/pre-cast concrete

Façade: bricks and glass

Interior finish: concrete and glass

*Total area: 25 000 sq. meters*³

In school recent contemporary architecture, in my opinion, is seldom discussed and challenged. The likes of architects such as Jean Nouvel, Steven Holl, and David Chipperfield are of great importance in a multitude of techniques and methodologies. Linking elements to their architecture emerge by way of material choices and their textural relationship to tectonics and cultural significance. Similarly, the SM draws on the sites historic past via illustration through materiality and technological approach, as seen in fig. 2, *The Faciavista*.

For this study the SM's glass facades is argued with ideas of material, immaterial, and the approach and properties that create the phenomenological space.

¹ Adolf Loos, *Adolf Loos: Ornament and Crime*, Trans. Michael Mitchell (Innsbruck: Ariadne Press, 1930), 22.

² Ibid., 22.

³ "Meet the New Silesian Museum," *katowicethecity.com*, last modified March 30, 2011, <http://www.katowicethecity.com/meet-the-new-silesian-museum/>.



Jean Nouvel

Glass in Nouvel's work is not about the inherent transparency but rather, its capability of textural qualities.

*"For me, the work with light is one way to talk about the most important questions of the 20th century, about the nature of the human condition, of an understanding of the world that is linked to the essence of materiality."*⁴

In further readings of Nouvel's work, he describes the purpose of glass as way of immaterial, not material; ethereal and spiritual. The glass takes on interpretive physical qualities giving the appearance of solid through surface effects, refraction and reflection.⁵

⁴Stuart Harrison and Simon Knott, "Light Fantastic: An Interview With Jean Nouvel," *Architectural Review Australia* 108 (2009): 31.

⁵Conway Lloyd Morgan, *Jean Nouvel: The Elements Of Architecture* (New York: Universe Publishing, 1998), 25.



fig. 4

Steven Holl

Materiality, within Holl's ideals, shapes the experience of our built environment, the city.

*"It's crucial to find a third space outside the dialectic. 'iconic' architecture tends to value external form at the expense of interior spatial experience and urban connection. Yet these latter qualities are the most important. If, after creating these, we arrive at distinctive form-great."*⁶

Later discussions with Holl discuss the importance of human experience through phenomenology. Materials provide 'porosity', 'porosity' then creates dialogue that conceives architecture that borders art, as seen in the SM's outwardly temporal elements.⁷

⁶ Luke Fowler and Chris Johanson, "Art and Architecture: A Roundtable," *ArtForum International* (2012): 206.

⁷ *Ibid.*, 205.



David Chipperfield

To Chipperfield, material quality adds depth to simple-form buildings, which inherently provides an underlying meaning.

“Materiality no longer carries the weight of stone; we now consider materiality as just a cladding or skin to a building. But cladding has no limits and no demands save a surface to clad; this has given us a technical freedom to explore but it has also brought with it a challenge.”⁸

Environmental systems, in modern day, begin to drive how we design structures for the future. This generates forces that place significance on the way we read buildings through texture and representation. This can be understood by the weight, feeling, and touch qualities of material and the layers that makeup the detail.⁹

⁸ Manuel Cresciani, *Tectonic Theories and Practices of David Chipperfield*, Course Module from Laurence Elsdon: Architectural History and Theory (PDF), April 2012. <https://studiole.uk/docs/architecture/theories-and-practices-of-david-chipperfield.pdf>, 13.

⁹ Ibid., 13.



fig. 6



fig. 7

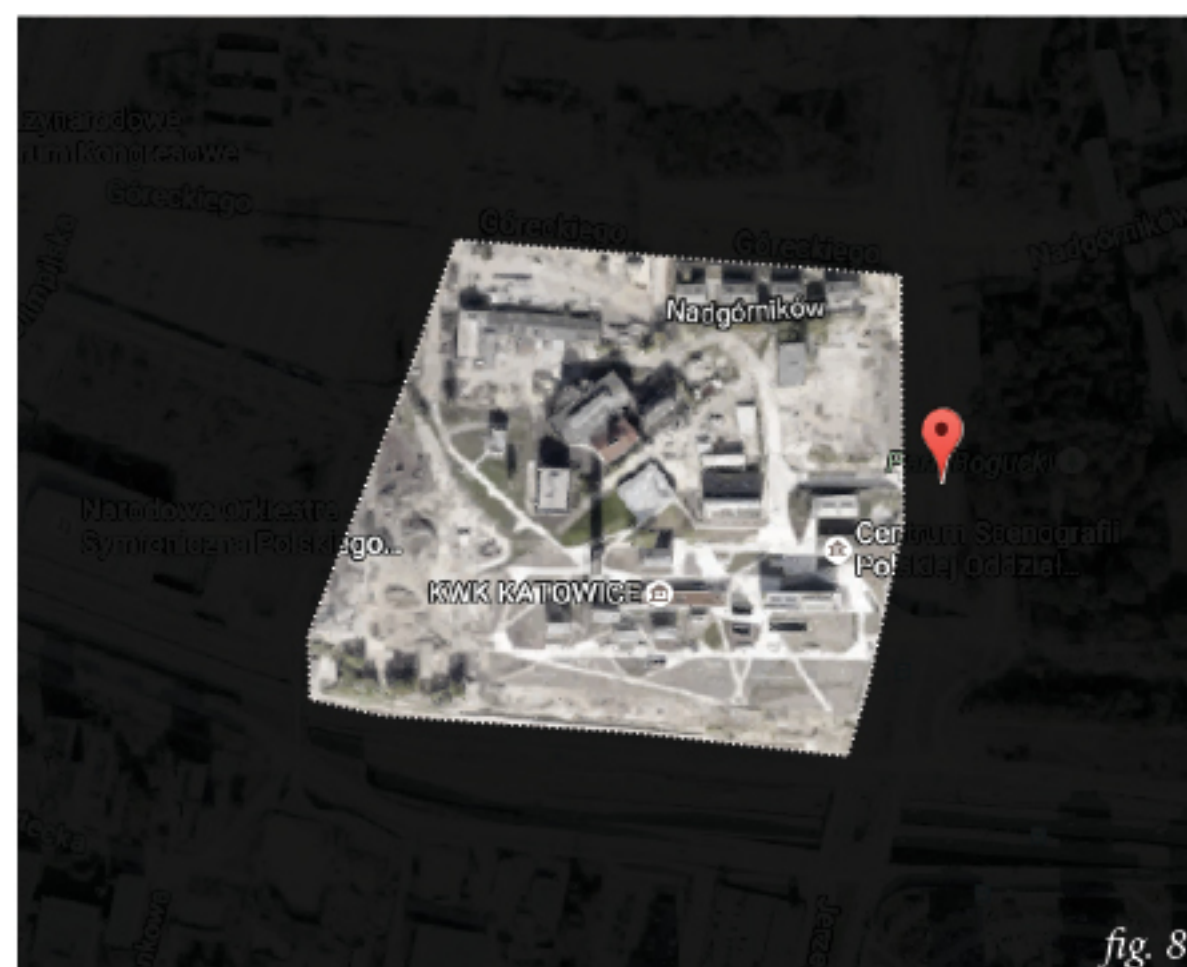


fig. 8

Current Context

Poland / Katowice

After its establishment in 1924, the SM's newest addition builds on the inherent cultural significance and proximity to the city center of the Warszawa mine, the site of the museums addition. RRA's design uses the coal-mining history to submerge the building to create faint objects for the wanderer of the site. Additionally, dimensions of the external building blocks, or light boxes, relate to the adjacent buildings through texture of materials such as glass, steel, and concrete respectively.¹⁰ Particularly, the outward assemblage of light boxes and landscape become intrinsically linked to the existing historic buildings creating a sense of identity for the new museum.¹¹

With moderate climatic pressures, ranging from an average low of -2 C and high of 20 C and a moderate level of precipitation,¹² the site affords the design the use of creative technologies with built in symbology so to not deviate from the initial design idea. Basing the buildings design criteria on an "expansive museum with diverse offerings", the form follows the previous function of the site submerging the program underground generating an intervention that is almost invisible to the outside.¹³

¹⁰ "Silesian Museum, Katowice, Poland," *rieglerriewee.co.at*, Accessed on October 22, 2016, www.rieglerriewee.co.at/projects/ec_kato/e.html.

¹¹ J. Liese, "Museum in Katowice: Riegler Riewe Architekten, Graz," *Detail* 55.1 (2015): 64.

¹² GAISMA, *gaimas.com*, Accessed on October 22, 2016, www.gaisma.com/en/location/katowice.html.

¹³ J. Liese, "Museum in Katowice: Riegler Riewe Architekten, Graz," *Detail* 55.1 (2015): 64.



Site

In addition to the museum, work commenced with the revitalization of two existing buildings of the coal mine, a restaurant and a Polish Scenography Center. Furthermore, the Warszawa mineshaft was restored with a sightseeing platform atop.¹⁴

The light boxes that makeup the above ground construction are used to illuminate and glow to the interior and exterior spectators. RRA designed the exterior structures with the intent not to shade any of the adjacent historic buildings while maintaining key visual elements above ground for the public.¹⁵

Purposely, SM's glass detail deploys materials to create a facade that is ornamental in nature to the contemporary building. As we know, without Silesia's moderate climate the detail and design would not be possible. This allows an investment to push the boundaries of technology to become epistemological mechanisms. In addition, these aspects of technological and cultural heritage begin to manifest within the installation of the building.¹⁶

Over the past 15 to 20 years architecture has gone through phases of testing form responsive to 'media' and 'globalization', this can be understood through architectural educations implementation of programs that utilize parametric design tools.¹⁷ Nouvel asks the question: "can we domesticate the visible components - clouds, plant-life, living organisms of every size - with signs, reflections, new plantings? How does one create a vibration that evokes a hidden depth, a soul?"¹⁸

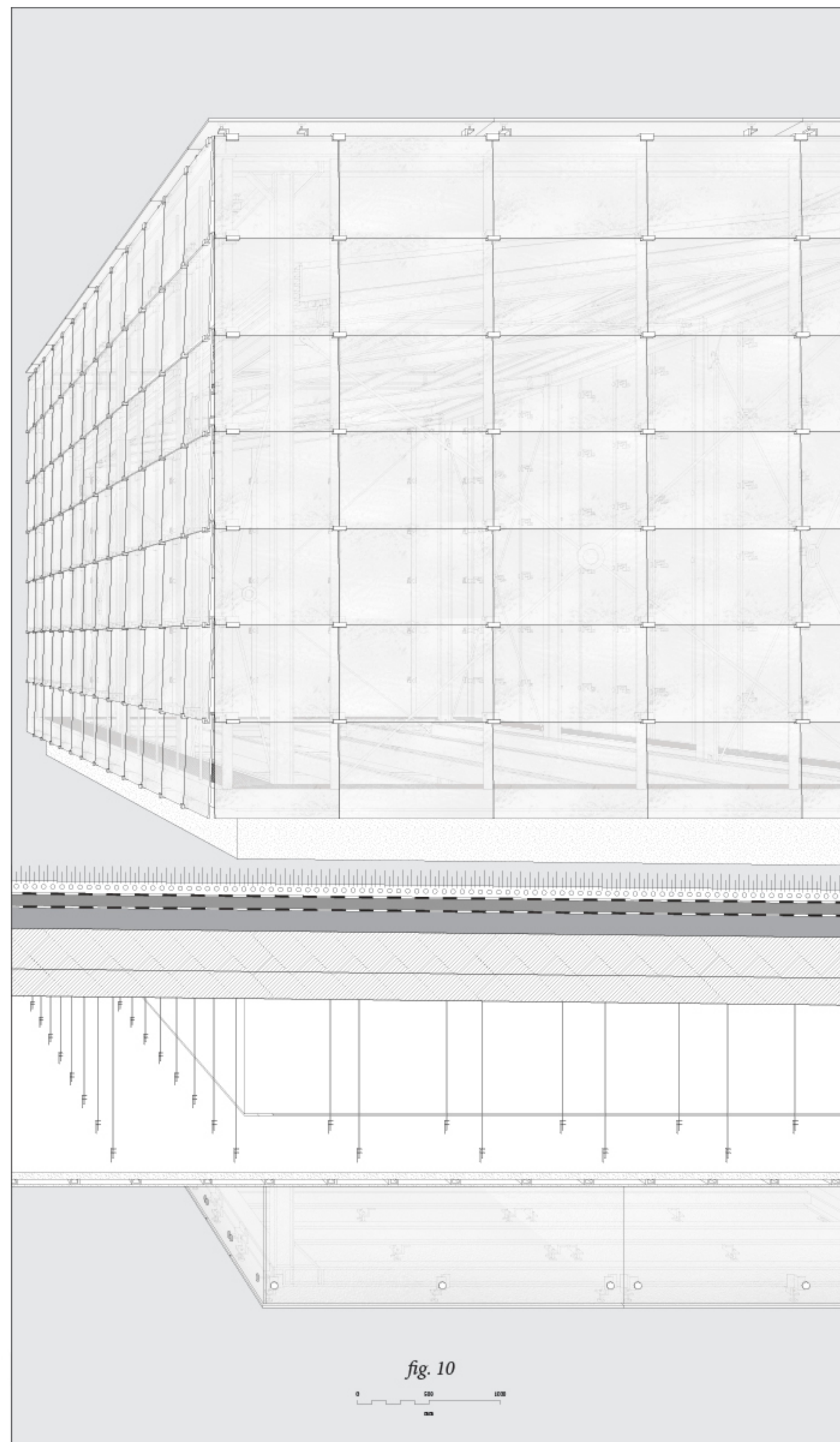
¹⁴ "Meet the New Silesian Museum," *katowicethecity.com*, Last modified March 30, 2011. <http://www.katowicethecity.com/meet-the-new-silesian-museum/>.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Luke Fowler and Chris Johanson, "Art and Architecture: A Roundtable," *ArtForum International* (2012): 11.

¹⁸ Marco Casamonti, *Jean Nouvel*, trans. Clarice Zdanski (Milan: Motta, 2009), 90.



Describing

Elevation

When we think of modern glazing assemblies, highly sealed and mundane panels come to mind. This provides a special reading of the glass as a symbolic and gestural cladding material seen not as a sealed unitary item but one to provide an imprint or reading into the sites historical past while melding the light boxes into there surrounding context.¹⁹ Modern materials re-represent the sites history from the use of a similar technique to how we clad houses with shingles.

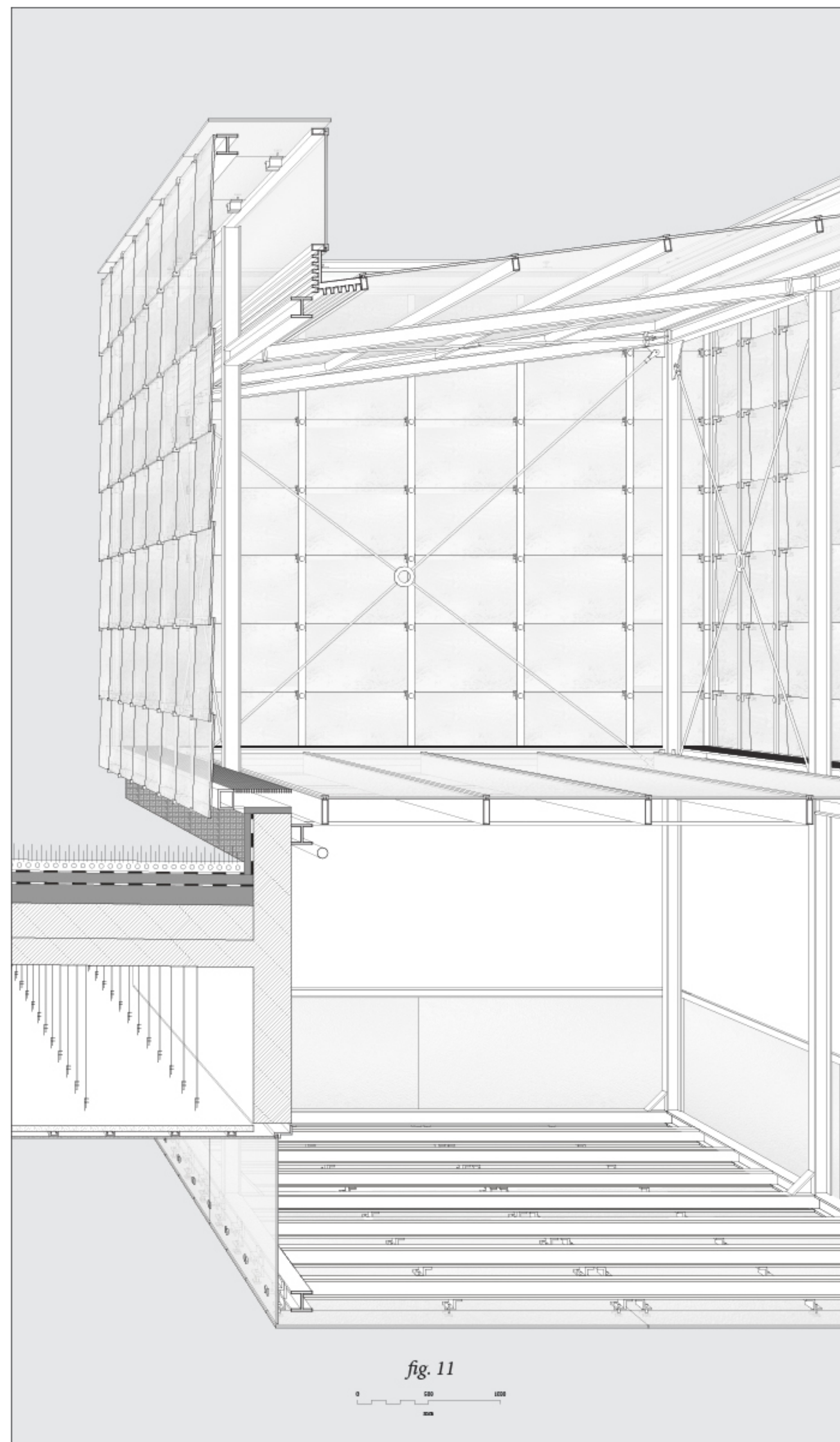
Drawing on the sites historic past, via illustration of materiality and technological approach, glass shingles are employed to form enclosures for the beacons in the landscape allowing structural elements within to be showcased. Dimensionally the materials start to reflect those of the surrounding buildings and tower. In addition, the shingles endeavor to feature the collective and historic use of materials on site.

RRA strives to create meaning through the transparency, dimension and texture of the glass cladding. Glass is used to fizz the intense sun rays when natural light is adequate and appropriate for the museum below ground. Moreover, this makes a recognizable view of different elements, such as people, mechanical units, or other various building elements at grade.²⁰

Viewing and perceiving of the glass cubes varies basing on given lighting conditions day to night and season to season. This is to give guests of the museum connection to the surface located above via the phenomenon of light and its connection to the human condition.

¹⁹ J. Liese, "Museum in Katowice: Riegler Riewe Architekten, Graz," *Detail* 55.1 (2015): 64.

²⁰ "Meet the New Silesian Museum," *katowicethecity.com*, Last modified March 30, 2011. <http://www.katowicethecity.com/meet-the-new-silesian-museum/>.



Perspective-Section

Perception, governed by light, provides direction underground linking the spaces together. These glass cubes create divisions of space underground while making the spaces more comfortable to inhabit.²¹

Glass shingles that compose the facade, which references to the sites historic coal plant, are acid-etched to imitate fossils and crystalline structures. This treatment makes the facade dynamic due to the level of transparency being governed by time of day and intensity and angle of light that hits the textured surfaces.²²

Exterior surfaces are not meant to be smooth but scalar, vertical with a pure overall recognizable shape. The scalar surfaces are composed of many glass shingles allowing the cubes a practical use in controlling heating and cooling with air flowing through the gaps between shingles. This detail allows for the opacity of the shingle to highlight the structure and the other various occupations within the cubes.²³

Internally, the middle surface separates the inside cube with the outside environment. This layer is the strategic barrier allowing the inside to operate as a museum, able to adapt to what may or may not be housed within. With either art, which requires natural light to be not present, or the other that allows light to flow freely into the space (demonstrated in fig. 12). Interior glass surfaces are pure, flat, and frosted. This challenges the perceived relationship to light, space, and location of the museum goer.

²¹ "Meet the New Silesian Museum," *katowicethecity.com*, Last modified March 30, 2011. <http://www.katowicethecity.com/meet-the-new-silesian-museum/>.

²² Ibid.

²³ Ibid.

*rainscreen cavity - resolution to the idea of
the facade and its immediate climate*

*buffer cavity - heating the glass wall keeping
it clear of moisture buildup*

*retractable screen to block out light during
periods where exhibitions require light to
be not present*

*light projecting through the cavities as
ambient and soft milky light*

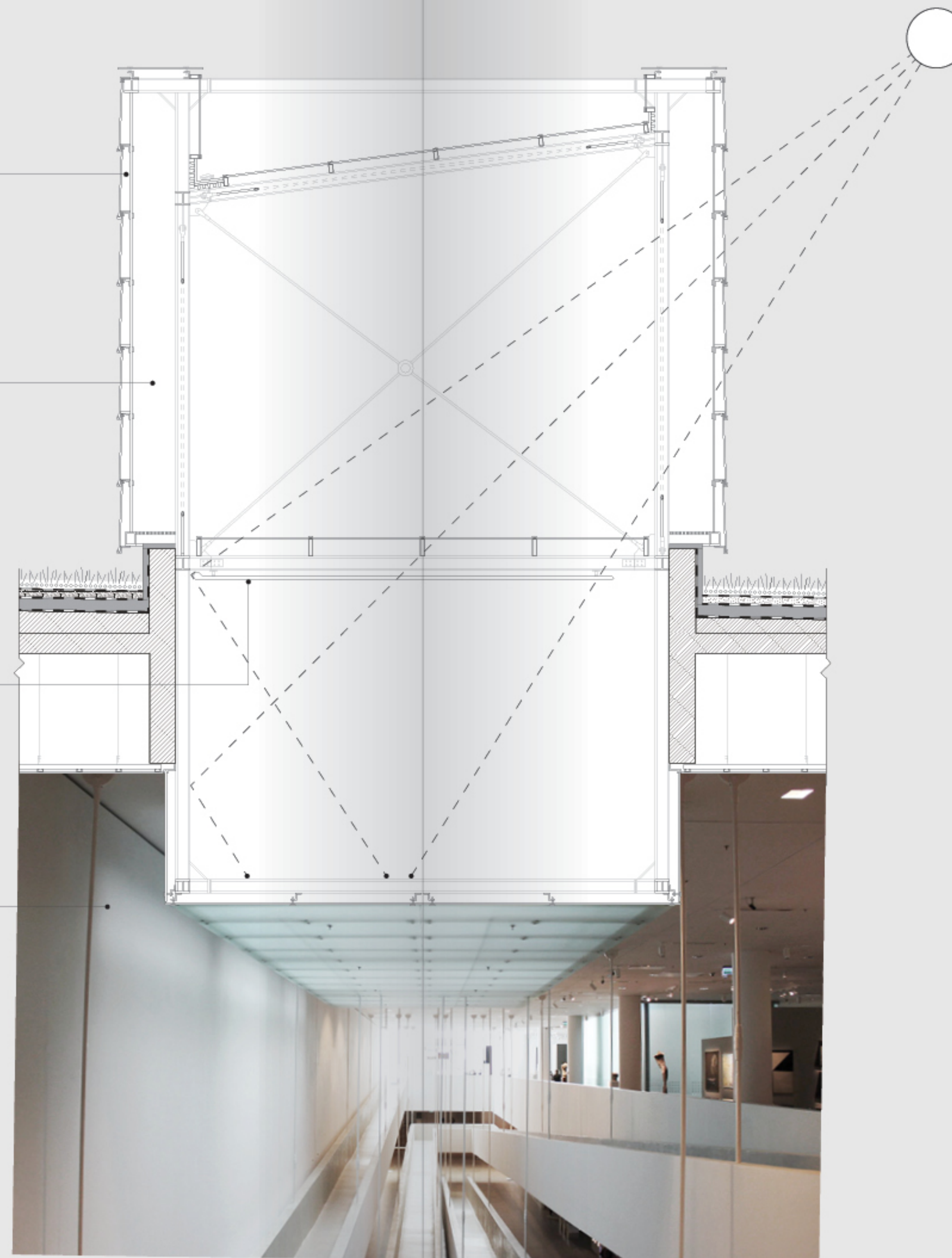


fig. 12

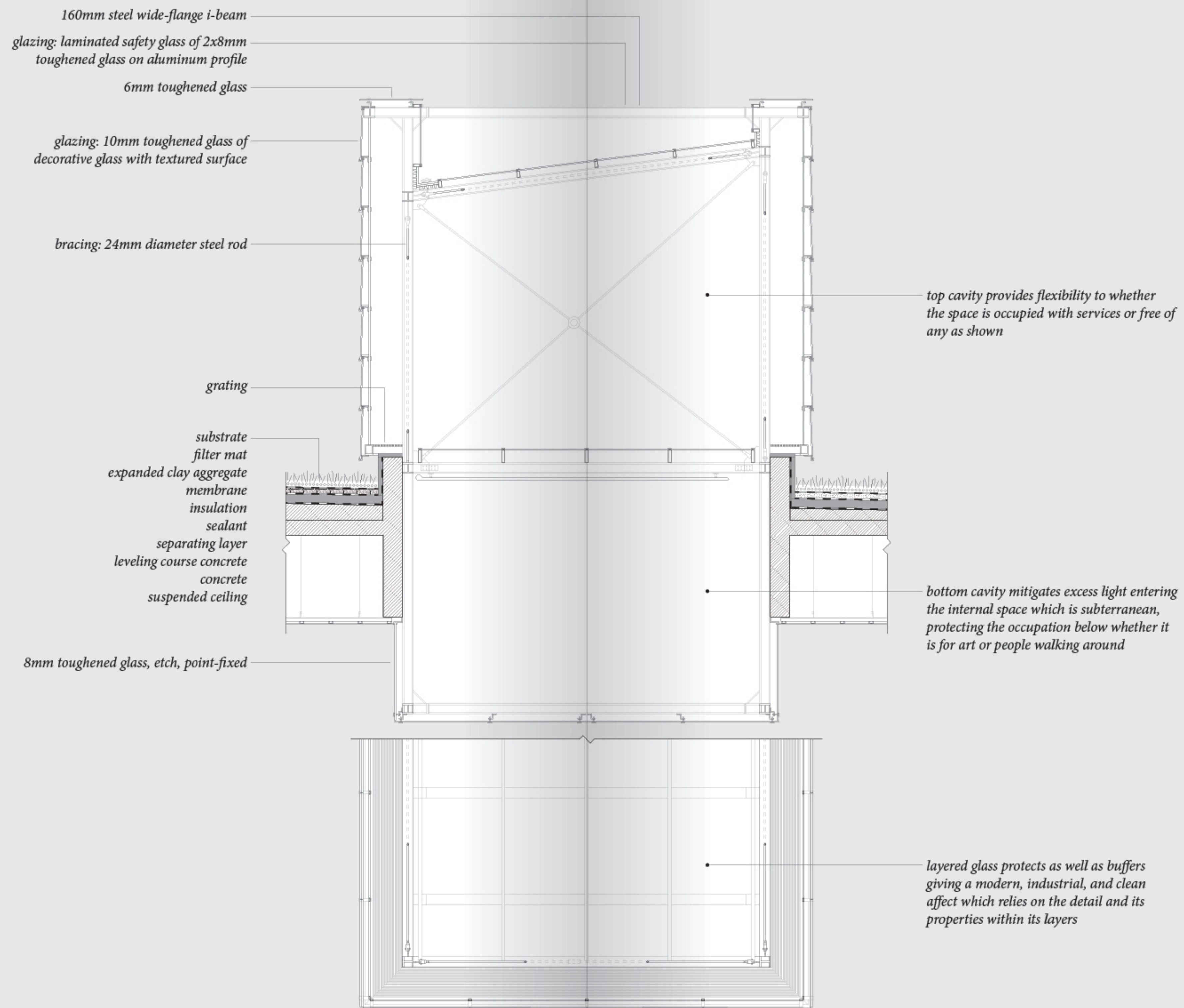


fig. 13



Material

SM's above ground architectural elements are not meant as transparent objects but rather glazed, like those created by Nouvel.²³ The light boxes, composed of acid-etched architectural glass, are produced by Glas Marte GmbH, named ICE-H Glass. Uses include: facades, interior glazing, tempered glass doors, office glass partitions, sliding glass, glass panels, and glass in the bathroom.²⁵

This material allows the above grade elements an 'anonymous quality' that Chipperfield talks about in *David Chipperfield Architects*. He describes this as the "edge between ordinariness and specialness."²⁶ RRA's chosen material allows this quality, which is highlighted in fig. 14, 15, and 16. The material takes on a standardized shape, texture, and transparency while permitting varied light to create a dynamic materiality with light itself always changing what one sees or does not see.²⁷

Glass offers transparency while the irregularity produces a dynamic appearance, different on every piece. Its inherent properties and abilities as a material allow the reader, an ordinary person, the chance to feel while walking the grounds of the site or wandering the interior museum.²⁸ In addition, the chosen glass helps create the dynamic to which the human condition best relates to architecture, through light.

²⁴ Conway Lloyd Morgan, *Jean Nouvel: The Elements of Architecture* (New York: Universe Publishing, 1998), 54.

²⁵ "ICE-H, The Structure Glass Designed the Silesian Museum in Katowice," *glasmarte.com*, Last modified December 3, 2013, <http://www.glasmarte.at/en/company/news/detail/artikel/ice-hR-the-structure-glass-designed-the-silesian-museum-in-katowice/>.

²⁶ Philip Jodidio, *David Chipperfield Architects* (Cologne: Taschen, 2015), 21.

²⁷ Conway Lloyd Morgan, *Jean Nouvel: The Elements of Architecture* (New York: Universe Publishing, 1998), 57.

²⁸ Philip Jodidio, *David Chipperfield Architects* (Cologne: Taschen, 2015), 21.



fig. 17



fig. 18

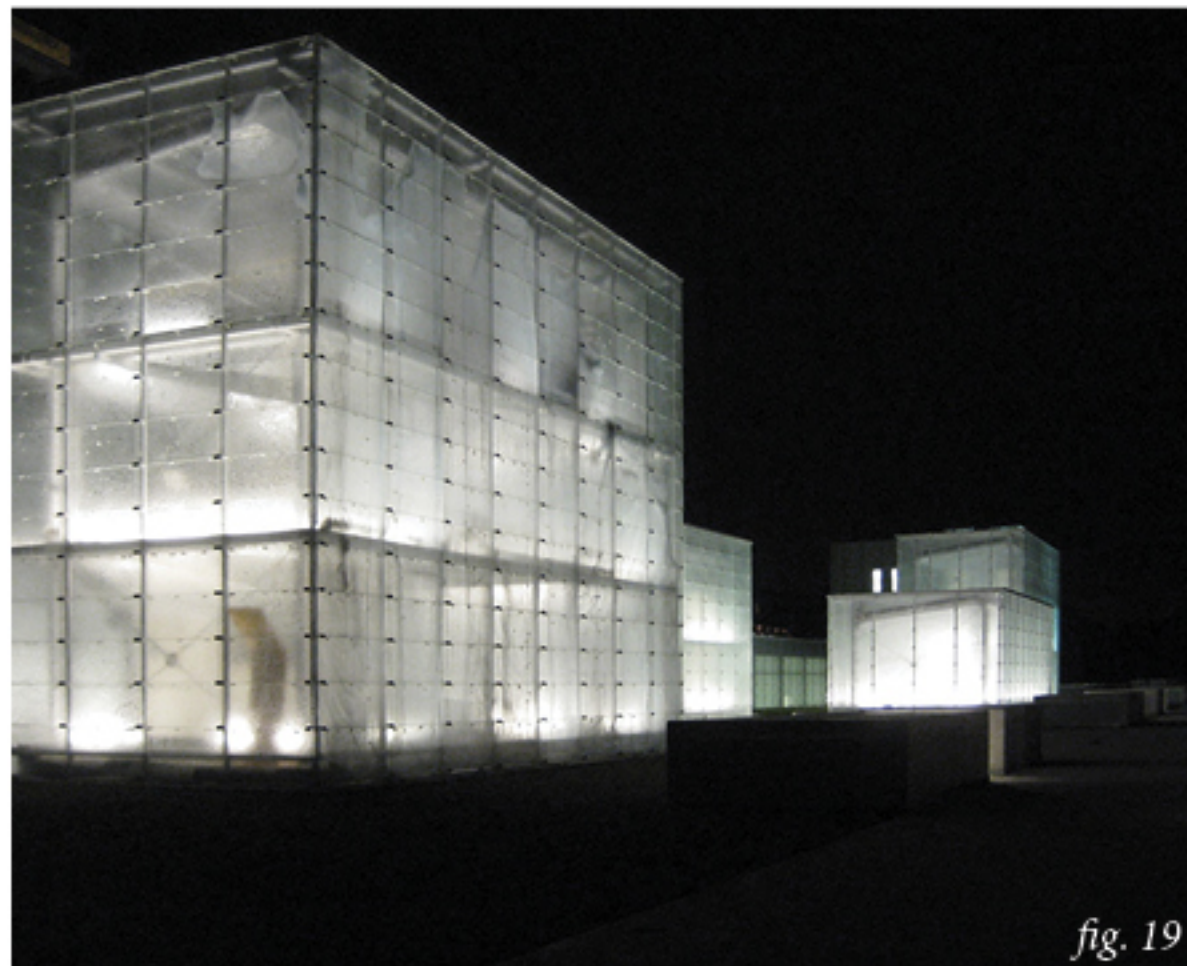


fig. 19

Immaterial

SM's material choice best relates to the physical nature of the surrounding context. Materials create the ideological expression, constantly emphasizing and referencing to the site and surroundings historic past as demonstrated in fig. 17, 18, and 19.²⁹ The crystalline impression creates a frosted appearance suggesting a type of sensuality to the observer generating curiosity.³⁰

Nouvel understands that "light, materials, and color are as important as form and volume in the definition of architectural space". These are all qualities that allows SM's facade to link and symbolize the adjacent context, thus establishing immateriality, of the detail, the material, the surface, the shingle.³¹ Through this immateriality, as dematerialization and a figurative expression, the object begins to emerge as art.³²

The entirety of the design strives to provoke participation, emotion, and curiosity while using the immaterial as protection and highlighter of natural sun light. This causes spaces to have sensual and spiritual condition, which is to me, necessary for successful architecture and habitation of buildings. RRA's design engages formal and a technical innovation in ways to create space that is untypical and one that generates curiosity.

²⁹ Ibid., 11.

³⁰ Marco Casamonti, Jean Nouvel, trans. Clarice Zdanski (Milan: Motta, 2009), 60.

³¹ Conway Lloyd Morgan, *Jean Nouvel: The Elements of Architecture* (New York: Universe Publishing, 1998), 61.

³² Marco Casamonti, *Jean Nouvel*, trans. Clarice Zdanski (Milan: Motta, 2009), 61.



fig. 20



fig. 21



fig. 22

Phenomenological

Merleau-Ponty, a proponent to Holl's ideological principals of design, understood the importance placed on the readers perception of a building. This is stated as "recording of facts and feelings".³¹ The idea of phenomenology allows subjective and objective qualities to appropriately integrate into design without redundancy.

Phenomenology conducts itself through the perceivers conscious and spatial emotions via atmospheric qualities of place, the play of light and textile qualities.³² Light, as shown in fig. 20, 21, and 22, induces a dynamic space allowing the wanderer an individual perception of the space, dependent on the singular' movements within creating a unique spatial experience that maximizes sensorial connection.^{33 34}

Ultimately, our relationship to the phenomenological is based on the perception of space in three dimensions. Without the 'spatial', 'volumetric', and 'tectonics' the human occupation would lack tension caused by the perceived space.³⁵

³¹ Valerio Paolo Mosco, *Steven Holl*, trans. Sergio Knipe (Milan: Motta, 2010), 1.

³² Ibid., 22.

³³ Ibid., 25.

³⁴ Holger Reenberg, *Steven Holl: HEART*, trans. Rene Lauritzen and Sibylle Luig (Germany: Hatje Cantz Verlag, 2009), 20, 56.

³⁵ Rik Nys, *Form Matters: David Chipperfield Architects* (Köln: König, 2009), 35.



Conclusion

Loos's beliefs of ornament in civil, modern society border mortification;

“the modern man who holds ornament sacred as a sign of the artistic super-abundance of past ages will immediately recognize the tortured, strained, and morbid quality of modern ornaments.”³⁶

The inventiveness of design heavily relies on its ‘connection to us’, ultimately its ‘human connection’ and its connections ‘with the world order’. To me, this talks directly about the phenomenon of space, light, colour, geometry, and material, which derives the detail and its required layers to alter our perception space.³⁷

Successful architecture has never stopped designing in an ‘erotic nature’, ‘linking to culture’, and ‘providing phenomenon through architectural expression’.³⁸ Or, in other words, architecture as art, as ornament. Ornament at its most purest relies on the expression in modernity, materials texture and implicit capabilities. Ornaments technological aspects will forever adapt, improve, and increase there ability to need and use less material.³⁹

Material, Immaterial and the Phenomenological Space is the start to an argument for later research. While I understand that this only begins to express my thoughts and communication of my ideas. I believe it begins to question ideas of ornament and architecture, specifically, the shift of ornamentality from ‘object’ to ‘material expression’ and how this has relied on the importance of the detail, its layers, and its implications on the city.

³⁶ Adolf Loos, *Adolf Loos: Ornament and Crime*, trans. Michael Mitchell (Innsbruck: Ariadne Press, 1930), 23.

³⁷ Ibid., 24-25.

³⁸ Valerio Paolo Mosco, *Steven Holl*, trans. Sergio Knipe (Milan: Motta, 2010), 20.

³⁹ Conway Lloyd Morgan, *Jean Nouvel: The Elements of Architecture* (New York: Universe Publishing, 1998), 149.

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Figures

Figure 1: Silesian Museum Katowice/Riegler Riewe Architekten. Photo. http://www.archdaily.com/598987/silesian-museum-katowice-riegler-riewe-architekten/54de272be58ece8b5400002e-rra_kat_wk_0030-jpg.

Figure 2: Laminated Glass Panel/Structural ICE-H. Photo. <http://www.bpress.cn/ex/author/algous/page/13340/>.

Figure 3: Jean Nouvel And NAMOC: A Heavy Weight Of Architecture For The Future Largest Museum Of Asia. Photo. <http://urbanattitude.fr/jean-nouvel-namoc-poids-lourd-larchitecture-futur-grand-musee-dasie/>.

Figure 4: Spotlight: Steven Holl. Photo. <http://www.archdaily.com/575852/spotlight-steven-holl>.

Figure 5: David Chipperfield. Photo. <https://www.lafargeholcim-foundation.org/Experts/david-chipperfield>.

Figure 6/7/8: "Katowice." 50°21'66.15" N and 19°04'73.48" E. Google Earth. November 17, 2016.

Figure 9: Muzeum Śląskie – Silesian Museum. Photo. <http://www.dronestagr.am/muzeum-slaskie-silesian-museum/>.

Figure 10: Liese, J. "Museum In Katowice: Riegler Riewe Architekten, Graz." *Detail* 55.1 (2015): 60-68.

Figure 12/20: Muzeum Śląskie. Photo. https://pl.tripadvisor.com/LocationPhotoDirectLink-g274768-d3677452-i215706722-Silesian_Museum-Katowice_Silesia_Province_Southern_Poland.html.

Figure 14: ICE -H, The Structure Glass Designed The Silesian MuseumIn Katowice. Photo. <http://www.glas Marte.at/en/company/news/detail/artikel/ice-hR-the-structure-glass-designed-the-silesian-museum-in-katowice/>.

Figure 15/16/23: An Icy Vista. Photo. http://www.world-architects.com/architecture-news/products/An_Icy_Vista_6435.

Figure 17: Industrial Past Carves Distinct Landscape For New Silesian Museum By Riegler Riewe. Photo. <http://www.designboom.com/architecture/silesian-museum-riegler-riewe-katowice-poland-03-06-2015/>.

Figure 18: Muzeum Śląskie W Katowicach. Photo. <http://news.niezlasztuka.net/miejsce/muzeum-slaskie-katowicach/>.

Figure 19: Silesian Museum Photos. Photo. <http://www.worldhen.com/post.php?id=21927>.

Figure 21: Silesian Museum Katowice / Riegler Riewe Architekten. Photo. http://www.archdaily.com/598987/silesian-museum-katowice-riegler-riewe-architekten/54de27f4e58ece8b54000037-rra_kat_wk_0079-jpg

Figure 22: Silesian Museum. Photo. <http://dw-pl.elcodo.io/kultura-i-sztuka/architektura-i-design/muzeum-zycia/>

