MEDIATOR OF TRANSCENDENCE: The Kolumba Museum in Cologne

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INTRODUCTION

Atelier Zumthor's buildings have been variously described by critics and scholars as having "atmosphere," a "sense of presence,"[1] "evoking mystery," fostering experiences of the "spiritual", of "transcendence,"[2] even of the "sacred,"[3] and "lead[ing] towards the holy".[4] This paper aims to investigate how architecture can foster such experiences. It focusses on Kolumba, the museum of the archdiocese of Cologne (1997-2007). This museum is unique among the projects of Atelier Zumthor because it lies in the middle-ground between religious and secular architecture.

The aim of the Kolumba museum, as expressed by Catholic priest, theologian and jury member Norbert Feldhoff, was to foster an experience with a religious dimension through the encounter with art. At the launching of the museum competition in 1997, he said that the building should help visitors to "perceive the wholly other through art," "ultimately to find traces of God in this world."[5] According to museum director Stefan Kraus, Kolumba aims to "be like a 'sacred building with the dimensions of a museum.'"[6] The term "sacred architecture" has traditionally referred to buildings for religious worship. What might the term mean, then, when applied to a museum? What characteristics give this building its sacred quality? Further, from the perspective of architectural practice and pedagogy, how are buildings with this quality designed?

The notion of sacredness as it pertains to the Kolumba museum is explored in two sections, followed by a provisional conclusion. The first section establishes a theoretical framework, tying together notions of sacred space, atmosphere, and transcendence. It also argues for the relevance of examining the design process to understand how such spaces can be realized. Based on this theoretical framework, the second section examines the Kolumba museum. It describes three architectural factors that contribute to the perceived sacredness of the building: (1) traces of history, (2) light and shadow, and (3) interiority and purity. Each factor is accompanied by examples of drawings or models that contributed to its design. Subsequently, a factor that is programmatic rather than physical is discussed, namely curation. Finally, examples of recent visitor experiences suggest how the museum can be understood as sacred.

THEORETICAL FRAMEWORK: SACRED SPACE AND THE DESIGN PROCESS

Sacred Space, Transcendence, and Atmosphere

The perception of sacredness in spaces that are not explicitly religious is described by Finnish architect Juhani Pallasmaa as a "spirituality" that is "a personal and individual existential experience which obtains its aura and impact through the inherent nature of human experience itself." Such a spiritual experience can be elicited by a strong spatial atmosphere, expressive from, materiality, or "transcendent illumination."[7]

This non-explicitly religious spiritual experience is contextualized by Belgian theologian and Jesuit priest Bert Daelemans. Writing from a Roman Catholic perspective, he defines sacred space as one that mediates transcendence or the divine mystery, but is not holy in itself.[8] He proposes a conceptualization of sacred space as having three dimensions. The first dimension is synaesthetic space, pertaining to space, light and atmosphere, involving the whole body, and being pre-reflective. This dimension constitutes an "implicit" sacredness, where the intuited mystery is still anonymous. The second dimension is kerygmatic space, pertaining to words and symbols, and giving the mystery a Christian name and face. The third is eucharistic space, which is the enactment of the space by the worshipping community.[9] The second and third dimensions are more explicitly sacred, in the sense that they explicitly refer to the symbols and practices of institutional religion. It is the first, implicitly sacred dimension that the Kolumba museum seems most strongly to exhibit.

If, as Daelemans posits, a space is sacred when it mediates transcendence, it is perhaps useful to clarify the meaning of "transcendence." The literal meaning of the term derives from the Latin *transcendens* and denotes existence beyond the physical world of experience. According to Karl Rahner, human beings have a "transcendental nature."[10] They are questioners, moving towards the infinite, towards that which is beyond limits, towards mystery.[11] Transcendence is that "beyond" towards which they tend. The object of this beyond depends on one's beliefs; it could refer to the transcendence of God, or the perception of being part of a larger whole, such as history, the environment, or the universe. It is transcendence in this broad sense that implicitly sacred space mediates.

This broader sense of sacred space is described by architectural scholar Alberto Pérez-Gómez as having to do with atmosphere. For him, the spiritual function of architecture is the creation of *pre-reflective* atmospheres that can give rise to *reflective* poetic images.[12] Such reflective poetic images are the content of spiritual experience, and incite "imaginative empathic projection," which for Pérez-Gómez is a kind of "transcendence," an awareness of being part of the environment, and an encounter with "the divine in all things."[13] By being engaged in the shared mood brought about by atmosphere, "every individual perceives himself or herself as part of a larger whole," even though this whole may not be intellectually understood.[14]

Atmosphere could thus be said to be a primary factor of implicitly sacred space, or space that mediates transcendence. According to Gernot Böhme, atmosphere is that which relates the

objective environment with one's "bodily feeling in that environment."[15] For Peter Zumthor, it is a first impression of architecture that elicits a spontaneous emotional response.[16] Atmosphere engages one to enter a dialogue with architecture, fostering an openness to encountering transcendence. A certain *kind* of atmosphere can foster such an encounter: one of mystery, or of the sublime, characterized by semi-darkness, stillness, and emptiness.[17]

A further significant aspect of sacred space is articulated by the comparative religions scholar Lindsay Jones (1954-2020), who argues that the sacredness of a place or building is situational and relational, not objective, permanent, or absolute.[18] The perception of sacredness varies with situations that bring people and buildings together, which he calls "ritual-architectural events."[19] The capacity of architecture to mediate transcendence would therefore depend on the individual, the situation, and the building itself.

The characteristics and relative importance of the built (physical) and situational factors identified by Jones have been the subject of recent scholarly debate.[20] Physical architectural factors include, for instance, Le Corbusier's notion of "ineffable space" created by purity of form, craftsmanship, and handling of light.[21] For Pallasmaa, natural light can be experienced as a gift; the sense of spirituality also derives from form, scale, materials, colour, silence and shadow.[22] American architect and scholar Thomas Barrie also places importance on orienting elements, paths sequences and geometry.[23] Eventful or situational factors, on the other hand, include ceremony and narrative, as well as sacred memory.[24] They also include what American architect and scholar Julio Bermudez calls the "pilgrimage" effect, where travelling great distances fosters a state of awe.[25] Ritual is also a significant eventful factor, for instance liturgical celebration in churches.[26]

Representation Practices in the Design Process

The design process is hypothesized here to be inseparable from, and largely to determine, the qualities of the built result, as Paul Emmons has explained.[27] The design of buildings that evoke a certain experience depends on the architect's ability to project themselves imaginatively into the future building and site. Emmons writes that it is through drawing that this projection is accomplished.[28] Marco Frascari also explains that "[w]e only perceive that to which we attend," which in turn depends on how we draw.[29] Physical models also enable imaginative projection. For example, American architect and educator Christopher Bardt discusses the notion of "material empathy," through which designers "feel into" a material. Although architects do not work directly on their buildings, certain materials can be effective surrogates and transmit haptic material empathy at a distance, such as the charcoal and clay that Le Corbusier used in the drawings and models for Ronchamp.[30] Given the agency of drawings and models – as well as the materials and tools used to make them – in determining the design outcome, it seems pertinent to examine their role in the design of architectural atmospheres capable of mediating transcendence.

My examination of the design process for the Kolumba museum is part of an ongoing doctoral research project, which is still at an early stage; the presented findings and conclusions are thus provisional. For a complete examination of the design process, one would need to consider how

the site was surveyed, how various representation practices worked together, and the collaboration process with the client, to name just a few aspects. In the following sections, I focus on a small selection of drawings and models, and on aspects of the design process that emerged in interviews with museum director Stefan Kraus and with design collaborators.

THE KOLUMBA MUSEUM

In the following analysis of the Kolumba museum, I will describe three architectural qualities related to transcendence: (1) traces of history, (2) light and shadow, and (3) interiority and purity (in the sense of minimalism and material honesty). For each quality, I will also present Atelier Zumthor's models and drawings that contributed to its design. Then, I will describe how the situational or "eventful" factor of curation might influence the capacity of the museum to mediate an experience of transcendence.

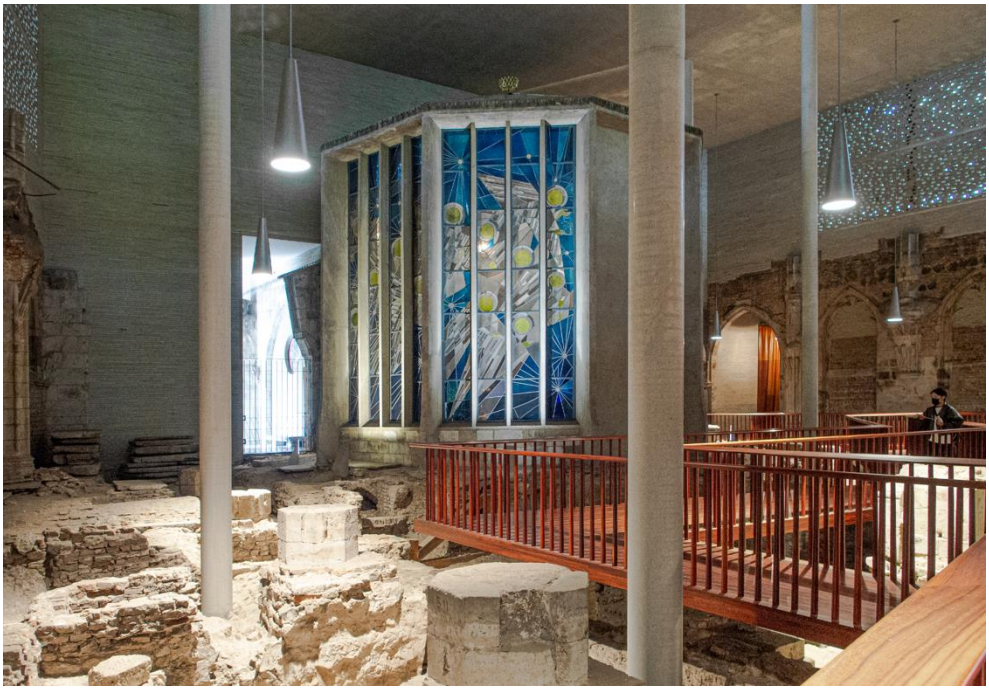
Traces of History

The relation between an experience of transcendence and physical traces of history has been described by architectural scholar Rumiko Handa, who writes that the "incomplete, imperfect, and impermanent" pieces of architecture, such as ruins and physical traces of the past, invite viewers "to contemplate their own existence, including the transient nature of existence in time's continuum."[31]

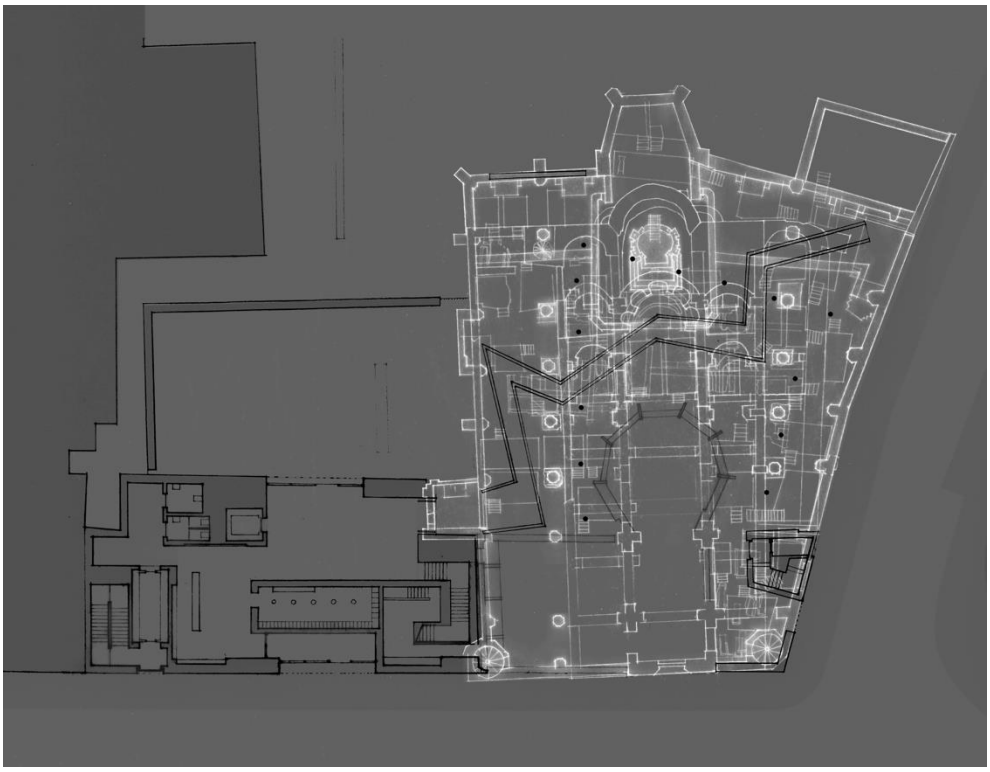
For Peter Zumthor, the notion that one is a small part of a larger totality is related to the awareness of living in a world constructed by people – made evident by historical traces – almost all of whom are no longer there.[32] He integrates traces of the past into new buildings and says that he wants his architecture "to be linked to layers of life and time."[33]

The Kolumba museum is built on top of the ruins of the St. Kolumba church – which was almost completely destroyed during the Second World War – and also contains a chapel. It was from among the ruins of St. Kolumba that one of the first post-war buildings arose: the *Madonna in den Trümmern* (Madonna in the Ruins) chapel. One of the pillars in St. Kolumba had been adorned with a statue of the Madonna holding the infant Jesus, and this statue survived the bombing almost completely unscathed. Soon after the war, the Cologne architect Gottfried Böhm was tasked with the design of a chapel for this statue. Excavations were also carried out at the site, revealing remnants of multiple churches dating back to the seventh century. The new museum follows the footprint of St. Kolumba, integrating the fragments of the destroyed church and enclosing the chapel within it.

Left: Kolumba museum exterior. Photo by Maurice Tjon a Tham (2013), used with permission.
Right: Detail of south wall. Photo by author (2022).



Chapel and archaeological site. Photo by author (2022).



Analytical drawing by the author showing historical layers. Pre-war layers are white, with older layers having more transparency. Post-war layers are black. The drawing is based on a plan by Atelier Zumthor and on archaeological drawings. (Source of archeological drawings: Seiler, Sven. Kolumba Ausgrabung*. Kolumba, Band 56. Köln: Kolumba, 2018.)*

Programmatically, the chapel and museum are independent. The chapel is entered from the south side of the building, and cannot be accessed from inside the museum. However, as Kraus explains, the museum and chapel are connected in other ways: the museum visitor discovers the chapel, and vice versa. Perhaps, the museum is also a good, yet very different, place to pray. He suggests:

> *Is one place a sacred space, and the other one secular? What does it mean? Is it just a sacred place because it is a chapel? Or is it sacred because you really feel that it has a sacrality that you do not find in other places?*[34]

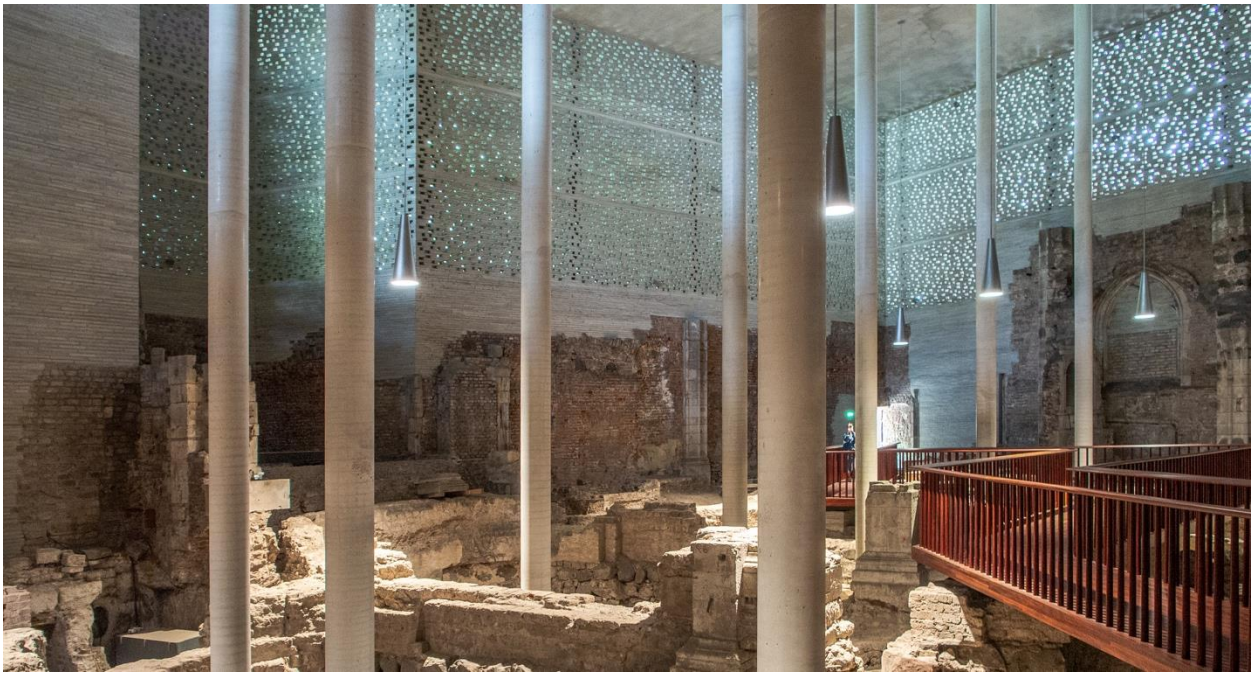
The connection with the chapel and historical fragments is expressed in the competition concept sketch. It shows a simple volume materialized as horizontal layers that rise from the historical fragments. Out of ca.170 competition entries, only a handful took this approach. It departs from typical monument preservation, which tends to create separations between historical monuments and new additions.

Concept sketch by Peter Zumthor. (Source: Zumthor, Peter, and Hèlene Binet. Peter Zumthor Works: Buildings and Projects 1979-1997*. Baden: Lars Müller, 1998, 287.) Courtesy Atelier Zumthor.*

Light and Shadow

A second quality that contributes to the capacity of architecture to mediate transcendence is the interaction of natural light and shadow. Louis Kahn (1901-1974) has spoken of light as "the giver of all presences, and material as spent light."[35] It is, for him, "the source of all being."[36] For Pallasmaa, "[l]light and silence are […] initiators and mediators of sacred and spiritual experiences." The interaction of light and shadow "connects architectural spaces with the dynamics of the physical and natural world, the seasons, and hours of the day." Light is experienced as a gift, and through it, "we grasp our unity with the sublime grandeur of the universe."[37]

The atmospheric effect of light and shadow in the Kolumba museum is especially powerful in the archaeological site and in the upper floor galleries. The former is surrounded with a brick "filter wall," a two-layered brick wall with openings for natural light and humidity. The myriad small openings of light, which shimmer with the movement of trees and clouds, contrast with the overall dark interior.



Archaeological site. Photo by author (2022).

The lighting effect of the filter wall around the archeological site was studied early in the project through a 1:10 model. The archdiocese had asked for a demonstration to see how the large archaeological space would affect the atmosphere of the chapel. This scale was used because, at 1:10, the representation of lighting is accurate. There were two openings in the underside of the model that one could step into: one in the chapel, and one in the archaeological space. The model was installed outside, next to the Atelier. It passed the test.[38]

1:10 model of the chapel and archaeological site, built by Atelier Zumthor, exhibited in 2008 in Lisbon. Photo by Flickr user "sushi lover." https://flic.kr/p/5zDMER Used with permission from Atelier Zumthor.

The filter wall was designed through a series of cardboard models, some of which are shown below. Four of these models show a very regular pattern of bricks; it is only with the (presumably) later model, second from the left, that a much more irregular brick pattern was designed.

Models of the filter wall displayed in Bregenz. Photo by author (2022). Used with permission from Atelier Zumthor.

A larger cardboard model of this irregular brick pattern was then photographed in natural light. This photo was an important image for expressing the intended atmosphere of the space.[39] It was featured prominently in the 2001 exhibition “Peter Zumthor – Workshop” at the former location of the diocesan museum.

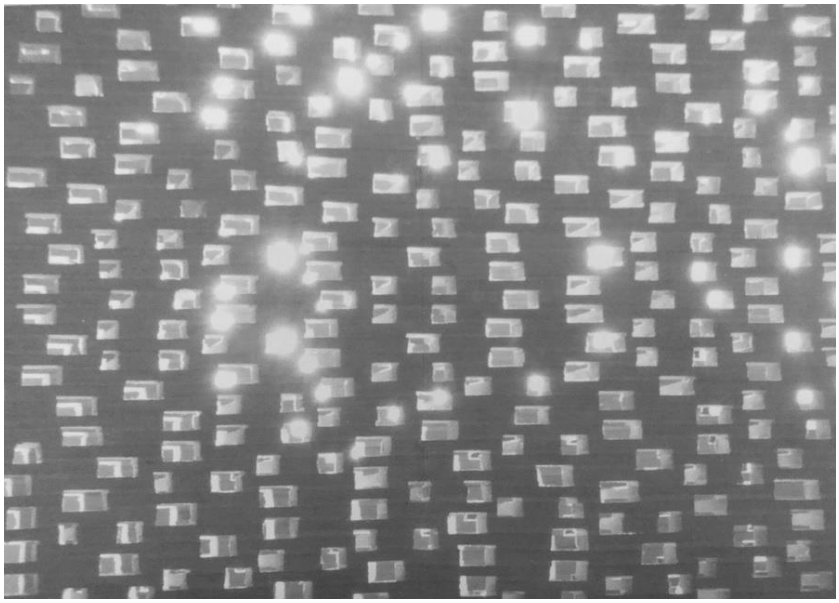
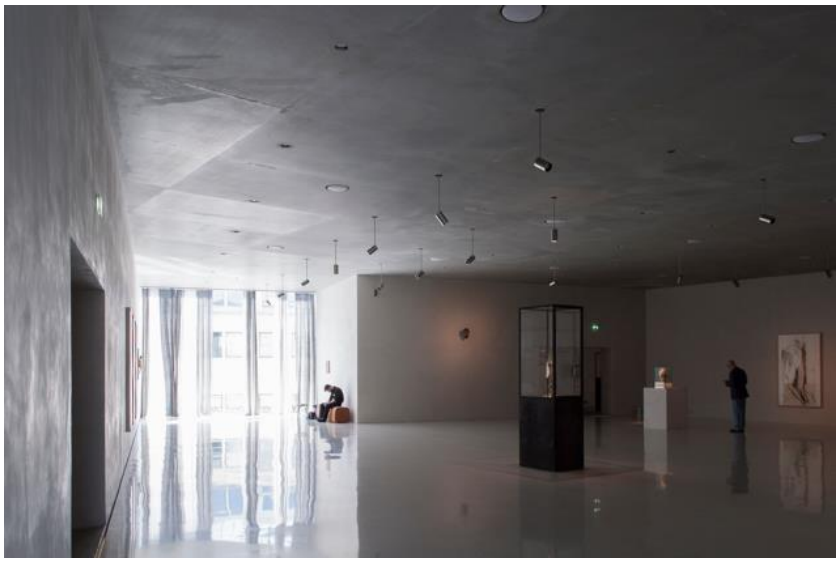


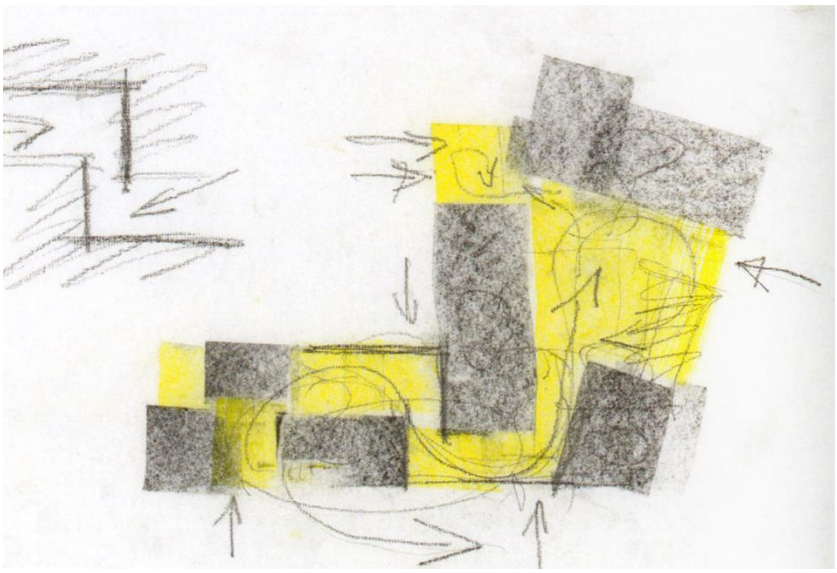
Photo of cardboard model of the filter wall. (Source: booklet published by Kolumba for the 2001 exhibition “Peter Zumthor – Workshop”) Used with permission from Atelier Zumthor.

The upper-level galleries have varying relations of light and shadow, as well as different qualities of natural light: northern, eastern, and southern. The central open space is relatively dark, with large windows on three sides leading to its peripheral spaces. According to Kraus, the open spatial sequences and diverse lighting conditions encourage visitors to pause and orient themselves, and the naturally lit exhibition spaces allow artworks to interact with "living" spaces.[40] He explains that spaces that have both natural light and shadow – as opposed to bright, evenly lit museums – bear a certain resemblance to the comfort of private homes. Certain experiences require darker settings.[41]

An example of this balance between light and shadow is the central space on the upper floor. The design for this space at first had a more open façade, as shown in the sketch below. The drawing shows circulation areas in yellow and enclosed galleries drawn with thick black pastel. The lower-right enclosed gallery has been elongated with pencil markings, making it closer to the built situation. According to Kraus, this change was made because, since the gallery is south-facing, it would be too bright in the afternoon; instead, there needed to be a balance of light and shadow.[42]



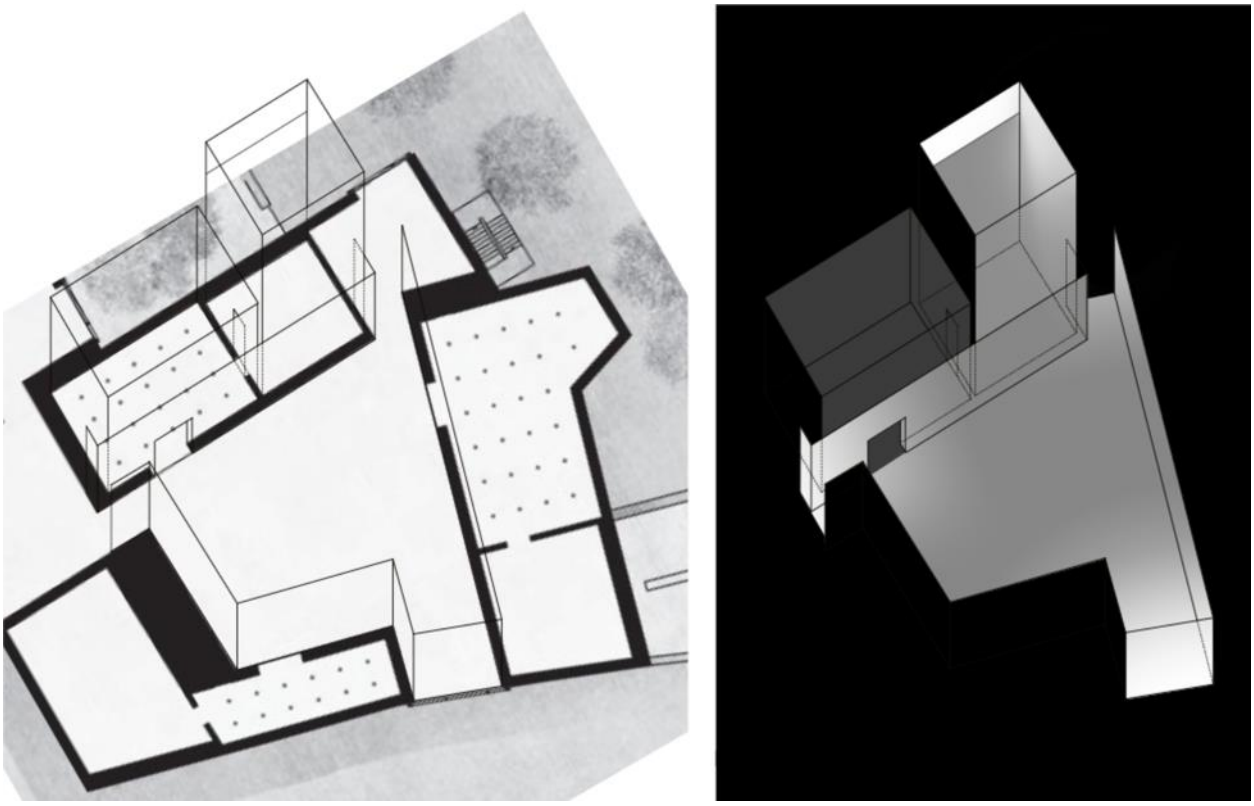
Second-floor central space. Photo by Maurice Tjon a Tham (2013), used with permission.



Sketch of the upper exhibition level by Peter Zumthor (no date), exhibited in 2012 at the Kolumba museum for the exhibition "Denken." (Source: Kraus, Stefan, Ulrike Surmann, Marc Steinmann, and Barbara von Flüe, eds. Auswahl drei*. Werkhefte und Bücher / Kolumba, Band 50. Köln: Kolumba, 2019, 142.) Courtesy Atelier Zumthor.*

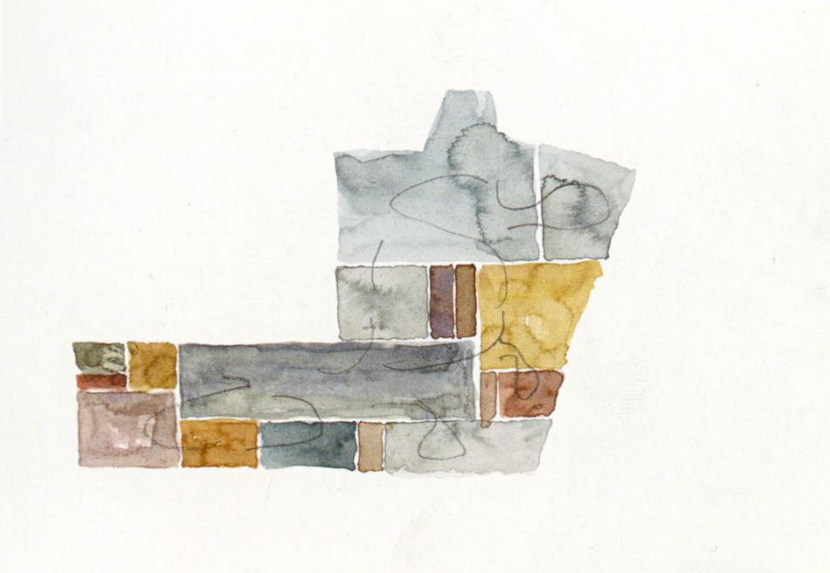
From this central space, there are entrances to three enclosed "cabinet" spaces with dim artificial lighting, each of which leads further into a tall "tower" space with diffused clerestory natural light: one with northern light, one with eastern, and one with southern light. The progression of thresholds and re-orientations gives the tower spaces a sense of interiority. In these tall spaces, through the high windows with frosted glass, light seems to be abstracted to its transcendence source.

Second-floor cabinet and tower spaces. Photos by author (2022).



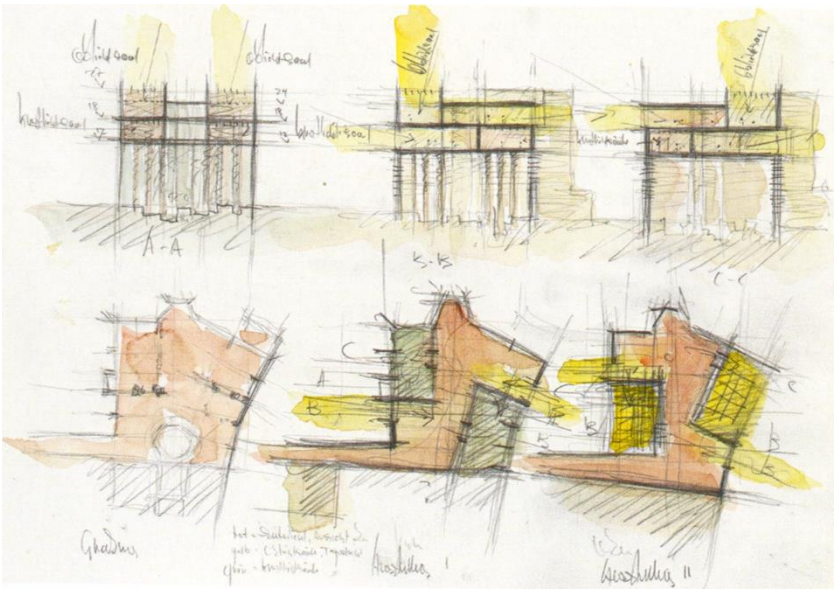
Plan oblique of a portion of the upper floor, drawn by the author on top of the plan by Atelier Zumthor.

In the design drawings, the variety of lighting conditions seem to be represented through colour, as in the watercolour plan below. The colours seem to show a general mood or atmosphere. The curved lines seem to suggest intentions for meandering rather than linear or rigid circulation patterns. At this stage in the design process, the gallery spaces were conceived of as interconnected rooms, rather than the present layout of enclosed galleries spread out in an open interconnected space.



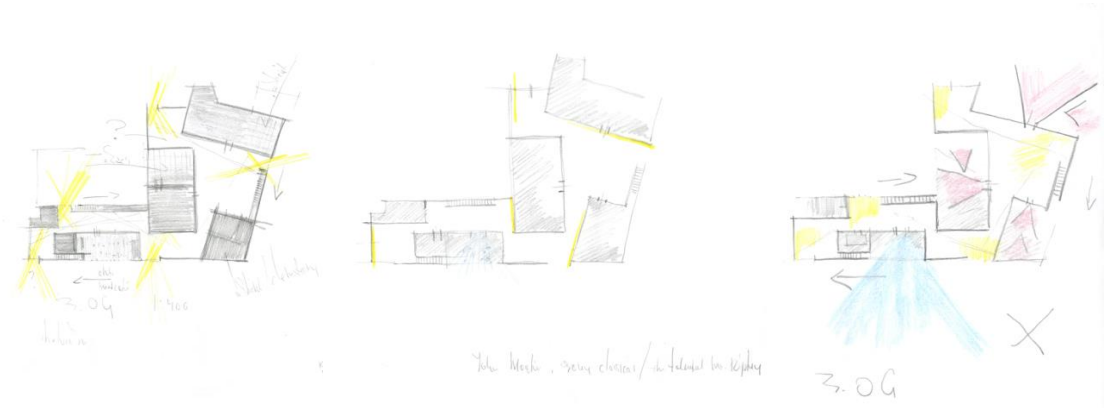
Plan sketch of upper exhibition level by Peter Zumthor (no date), exhibited in 2012 at the Kolumba museum for the exhibition "Denken." (Source: Kraus, Stefan, Ulrike Surmann, Marc Steinmann, and Barbara von Flüe, eds. Auswahl drei*. Werkhefte und Bücher / Kolumba, Band 50. Köln: Kolumba, 2019, 142.) Courtesy Atelier Zumthor.*

A later study of the upper-level galleries, shown below, likewise uses colour to study light qualities. Near the bottom of the page, Zumthor writes a legend for the colours.[43] "Tot [or "rot"] = Seiterlight, Aussicht [oben]" (red = side light, view to exterior), "gelb = Oblichtsaale, Tageslicht" (yellow = skylight room, daylight), "grau [gruen] = Kunstlichtsaale" (grey [or green] = artificial light room). The plans along the bottom show the ground floor, "Ausstellung I" and "Austellung II" (exhibition I and exhibition II). In the sections, he writes "Kunstlichtsaale" next to the lower exhibition levels and "Oblichtsaal" above the skylit upper gallery spaces, with an arrow pointing downwards, presumably indicating the direction of natural light. In short, he colours and names the spaces according to their light qualities.



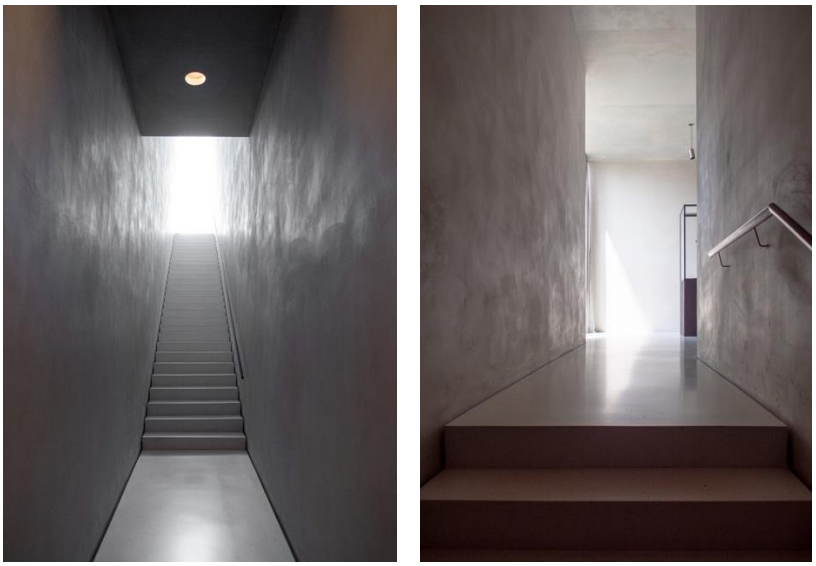
Plan and section sketches of the upper exhibition levels by Peter Zumthor (no date, but likely January 2000), exhibited in 2012 at the Kolumba museum for the exhibition "Denken." (Source: Kraus, Stefan, Ulrike Surmann, Marc Steinmann, and Barbara von Flüe, eds. Auswahl drei*. Werkhefte und Bücher / Kolumba, Band 50. Köln: Kolumba, 2019, 142.) Courtesy Atelier Zumthor.*

In the three plan drawings below, Zumthor appears to be studying the relation between circulation, views, and light on the upper floor. These drawings are traces of Peter Zumthor's original sketches that I was permitted to make when I visited his Atelier in June 2022.[44] He uses yellow for the natural light, blue for the view from what he labels "club / kunstcafé" (but which would become the reading room) to the exterior, and red for interior views. In the first drawing, he labels two rooms "oblicht" (skylight) and one "oblicht / clerestory". In all three drawings, the windows are always placed at corners, so that the walls are washed with natural light. In the first drawing, he seems to be drawing the angle of light both in the morning and evening. The second drawing, instead, shows the length of wall that would be washed with light.



Sketches of upper exhibition level, no date. 1:400 scale. Traced by author from Peter Zumthor's original sketches. Reproduced with the permission of Atelier Zumthor.

The walls washed with natural light seem always to be placed so that they might lead the visitor onwards. For example, at the staircase leading up to the second floor, the light leads one upwards.



Staircase leading up to the second floor. Photos by author (2022).

Interiority and Purity

A third quality that influences the mediation of transcendence through architecture is interiority and purity. According to Belgian architectural scholar Benoît Vandenbulcke, interiority in Zumthor's architecture "confer[s] a sacred expression to spaces."

> *In [Zumthor's] projects, a distance to the outside world is established. His buildings seem to be out of space and out of time. The interaction of the outside world is always mediated. For example, an identifiable entrance system pierces the material thickness of the buildings' skins. Zumthor limits the views to the exterior. This tool allows him to avoid views to the approximate context and narrows the viewing frames to the distant landscape only, even in dense building environments such as the Kolumba museum.*[45]

Vandenbulcke writes that each of Zumthor's projects is a unicellular space isolated from the exterior, as in the Bruder Klaus and Sogn Benedetg chapels. Larger projects, such as the Kolumba museum and thermal baths in Vals, consist of multiple "unicellular" rooms arranged within a common circulatory space. The "cells" have umbilical access (turning, indirect), light-dark contrast, and an absence of views to the exterior.[46] It is an apt description of the tower spaces in the Kolumba museum, with their indirect access through the darker cabinet rooms.

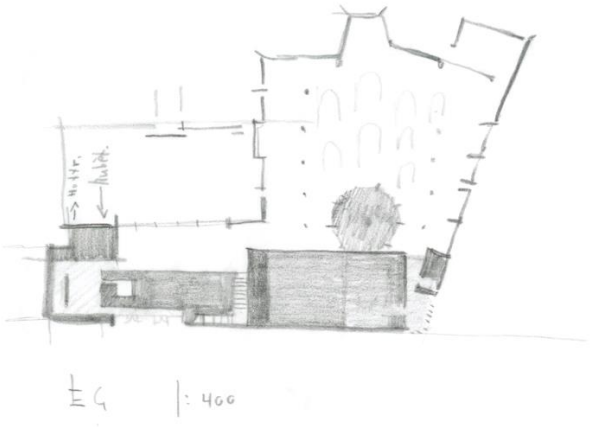
Peter Zumthor also describes this interiority in his architecture. The following citation, although referring to the LACMA project, also seems to apply to Kolumba:

> *[E]xtroverted spaces surroun[d] introverted core galleries. These form a concrete world with an inner autonomy, like the cella of a Greek temple. […] [It is] like the way Mircea Eliade sees the profane and the sacred; the layout of the museum lives from the tension between the free flow of the profane and the anchored serenity of the enclosed spaces.*[47]

At Kolumba, the "introverted core galleries" include not only the bright, tall tower spaces, but also the lower, more dimly lit cabinet rooms, as in the photos below. They appear as separate volumes because of the thick walls and the slight reveal between the white terrazzo floor of the circulation space and the concrete floor of the cabinet space. The cabinet floor is slightly raised above the terrazzo floor (by about 4cm), so that one must step up to enter. These entrances give the cabinet spaces a sense of interiority and privacy.

First-floor circulation space, with two entrances to the cabinet space. Photo by author (2022).

A similarly introverted space is the garderobe on the ground floor. The wood-lined room is entered through a deep opening in the brick wall, making it seem as though it is carved out of a solid block. Its lower ceiling gives it a sense of intimacy and protection.



Left: sketch of the ground floor, no date. Traced by author from Peter Zumthor's original sketch. Reproduced with the permission of Atelier Zumthor. Right: garderobe. Photo by author (2022).

The relation between thresholds, interiority and the sacred is articulated by Lindsay Jones in his description of what he calls a “sanctuary.” He defines it as a mode of relationship between ritual participants and built ritual contexts

> *dedicated to enclosing space, to carving from the generalized pedestrian environment a hermetic refuge of sacrality or a retreat from the mundane, to the cordoning off a zone of purity and perfect order, in short, to distinguishing an inside from the outside.*[48]

Jones further describes the sanctuary mode, citing Jonathan Smith, who writes that “[t]he temple acts as a focusing lens […]. Within the temple, the ordinary […] becomes significant, becomes ‘sacred,’ simply by being there.”[49]

This notion of a sanctuary aptly describes the Kolumba museum. It “cordons off a zone of purity,” not only through its spaces of interiority with strong thresholds, but also through its ascetic design. In the context of this museum, “purity” is expressed by architectural minimalism, “honest” or “raw materials” (terrazzo, concrete, wood, bricks), and a certain abstractness. One example is the window details, which are designed so that the window frames would not be visible from the interior. Three materials come together, without a visible connection between them: terrazzo, concrete, and glass.

Window detail in the open circulation space. Photo by author (2022).

The design of these and other interior details was supported by large 1:10 models, such as the one of the reading room shown below. These models were made of Styrofoam with textures printed on paper and glued on. One purpose of such large models was to design the proportions

of the rooms. For example, Peter Zumthor would look into the model while others were adjusting the ceiling height, and indicate when the position of the ceiling should be fixed. This measurement was then transferred to the drawings.[50]

Zumthor used a similar approach in later projects; drawings would often be made based on physical study models, not the other way around.[51] For instance, a model with walls would be made based on a plan sketch, and this model would be used to determine the placement of doors and windows, which would subsequently be added to CAD drawings. He would use models to test various design aspects such as scale, light, proportions, and construction. Such study models are built to be easily adjusted, providing direct design feedback.[52] While I have not yet found out how extensively the model-to-drawing approach was used for the Kolumba museum, it was at least used to design the proportions of the rooms.

For the Kolumba museum, at the end of the design process, each of the 21 exhibition spaces was built at 1:10 and arranged outside of Zumthor's Atelier for a final review with the client team.[53] According to Kraus, details and proportions can be perceived much better at this scale.

1:10 model of the reading room, exhibited in 2008 in Lisbon. Photo by Flickr user "sushi lover." https://flic.kr/p/5zJ5Kd Used with permission from Atelier Zumthor.

The use of large models seems to be a unique aspect of the design process at Atelier Zumthor. While this scale of models is not unusual, the extent to which Zumthor uses them, and the approach of designing through models first and transferring measurements to drawings second,

are. This method is consistent with what Zumthor calls a “phenomenological” design approach, which is based on intuitive perception.[54]

Another aspect of the design process that contributed to the above-mentioned design qualities of Kolumba is Peter Zumthor’s insistence on finding the best solution, even if significant changes would need to be made. Not only did he work in this way during the design phase, but also during construction. When the raw building was completed, Zumthor was walking through the building with the client team, he realized upon entering the central space on the upper floor that the opening to one of the cabinet spaces should have been placed differently. As a result, they did in fact move the opening.[55] Zumthor has said that he refuses to “cut corners” because of lack of time or money.[56] Part of the reason why it was possible to work this way is likely the type of client. The archdiocese was a wealthy client and had time. Also, the curators shared Zumthor’s concern for perfecting the spatial experience of the museum. They were very involved in the design process, which no doubt contributed to the quality of the result.

Curation

Besides the physical architectural factors that contribute to the implicitly sacred quality of the museum, there are also situational factors, primarily curation. The aim of the curatorial team at Kolumba is to create what Kraus calls an “in-between space”: a space between the artworks themselves, and between artwork and visitor, that invites participation and an individual encounter with art.[57] It is this in-between space that allows for the “aesthetic moment,” the brief initial nonverbal encounter that leaves us speechless, that appeals to sensory perception, and that is predominantly intuitive.[58] In the curators’ view, one cannot know when contemplation of art becomes devotion or experience of transcendence, but by privileging the aesthetic – as opposed to providing explanations – they do not exclude devotion.[59]

The curation of an in-between space begins, according to Kraus, with the entrance. Someone always welcomes visitors, so that the experience is not anonymous.[60] The curators exhibit relatively few artworks in each room, juxtaposing them aesthetically to invite viewers to make their own connections between them.[61] Meaning is thus not given explicitly, but reached through sensual cognition or aesthesis.[62] This aesthetic presentation is facilitated by the absence of written descriptions beside the artworks. Instead, visitors receive a small book with their tickets. The reason is to separate what Kraus calls “primary” and “secondary” perception. He explains that primary perception is of the artwork itself. It is like a walk in the forest, where one does not need a specialist to like or dislike it. Secondary information about the artist, medium, and history of the work is unnecessary unless one has first experienced the primary perception of the artwork. To privilege this primary, individual perception of art, there are no guided tours during opening hours (12:00pm – 5:00pm). There are only four guided tours per day, two before opening and two after closing.[63] The creation of this in-between space is supported by the architecture. The thresholds, spaces of interiority, and plays of light and shadow re-orient visitors and invite a contemplative encounter with art.

Visitor Experiences

The intended experiences described by Kraus find correspondence with recent visitor experiences. One visitor describes the effect of the museum as "[t]eaching wonder and opening one's eyes, ultimately being able to make connections for oneself." Another visitor recounts that "[e]ach visit is a trip to another world. One comes out of the impatient city into an oasis of calm and concentration." Kolumba is "[a] delicate oasis of silence in the city," "a place to 'BE.'" Yet another visitor writes that "[a]ll visits were like a pilgrimage experience – coming to oneself with little stimuli." For another, "art becomes what it is: provocation and stimulation for one's examination of God and the world."[64]

These brief accounts begin to unravel how the Kolumba museum can be understood to mediate transcendence. When a building mediates, it invites visitors to dialogue with something beyond. These experiences also suggest how "experiences of transcendence" can be understood in both religious and secular terms. While from a religious perspective, one might describe the experience as devotion or as an "examination of God and the world," one can also describe it as "Being," "wonder," "another world," or "coming to oneself."

CONCLUSION

What does "sacred space" mean when applied to a secular building such as a museum? How can such architecture be designed? The Kolumba museum seems to exhibit an *implicit* sacredness: one that can mediate an experience of transcendence in a broad sense, and that derives primarily from pre-reflective atmospheres. Architecturally, such atmospheres are shaped by contrasts and variations in natural light, an ascetic interior, thresholds, and spatial proportions, among other qualities. While much research has yet to be done to understand the design process of Kolumba as a whole, it could provisionally be said that the design of such qualities is facilitated by drawings that represent aspects beyond architectural form: using colour to represent intentions for spatial moods and lighting qualities, in combination with sight and circulation lines. These intentions for spatial moods can also be tested through large models. Unlike drawings, which *represent* spatial moods, large immersive models *generate* them.[65] These tools support a phenomenological design approach, especially in the models-to-drawings working process. The architectural qualities arrived at with the help of these representation practices, together with the curation, could be said to give rise to a mode of *presenting* the sacred that Jones calls "sanctuary:" a refuge of purity, acting as a focusing lens, an empty vessel in which objects take on meaning simply by being placed there. This capacity of the building to *present* meaning seems to correspond with what Kraus calls the in-between space; it is a spatial atmosphere that opens visitors to an encounter. Finding oneself in "another world" or in an "oasis of silence," one is more expectant and receptive to perceiving transcendence in the reality that presents itself.

NOTES

[1] Philip Ursprung, 'Presence: The Light Touch of Architecture', in *Sensing Spaces: Architecture Reimagined*, by Kate Goodwin, Philip. Ursprung, and Royal Academy of Arts (London: Royal Academy of Arts, 2014), 48–52.
[2] Bert Daelemans, *Spiritus Loci: A Theological Method for Contemporary Church Architecture*, Studies in Religion and the Arts 9 (Leiden: Brill, 2015), 81–82, https://doi.org/10.1163/9789004285361.
[3] Jerneja Veber, 'Sveto v Arhitekturi = The Sacred in Architecture', *Piranesi* 20, no. 31 (2012): 40–41.
[4] David Friend, 'Intimate Transcendence: Proximity and Depth in Christian Architecture' (Dissertation, Berkeley, California, Graduate Theological Union, 2012), 112.
[5] Norbert Feldhoff, 'Weshalb Jetzt Ein Neues Museum Bauen?', in *Kolumba: Ein Architekturwettbewerb in Köln 1997: Erzbischöfliches Diözesanmuseum*, ed. Joachim M. Plotzek and Erzbischöfliches Diözesanmuseum Köln (Köln: W. EKönig, 1997), 7–9. Translated from the original German.
[6] Stefan Kraus, 'The Aesthetic Moment – An Attempt to Grasp Being Made Speechless; Lecture at the Ash Wednesday for Artists at the Invitation of the Cologne Artists' Union, Maternushaus, February 2009', 2009, https://www.kolumba.de/?language=eng&cat_select=1&category=10&artikle=321&preview=.
[7] Juhani Pallasmaa, 'Light, Silence, and Spirituality in Architecture and Art', in *Transcending Architecture: Contemporary Views on Sacred Space*, ed. Julio Cesar Bermúdez (Washington, D.C: The Catholic University of America Press, 2015), 20.
[8] Daelemans, *Spiritus Loci*, 7, 329.
[9] Daelemans, 56–58, 62–71, 164, 185, 200–201.
[10] Gesa Elsbeth Thiessen, 'Towards a Theological Aesthetics: Karl Rahner's Contribution', in *Theology and Conversation: Towards a Relational Theology*, ed. Jacques Haers and Peter de Mey, Bibliotheca Ephemeridum Theologicarum Lovaniensium 172 (Leuven: Peeters, 2003), 857.
[11] Philip Gleeson, 'Mystery', in *The New Dictionary of Theology*, ed. Joseph A. Komonchak, Mary Collins, and Dermot A. Lane, electronic ed. (Liturgical Press, 2001), 688–92.
[12] Alberto Pérez Gómez, *Attunement: Architectural Meaning after the Crisis of Modern Science* (Cambridge, Mass.: MIT Press, 2016), 217–18.
[13] Pérez Gómez, 228–29.
[14] Pérez Gómez, 28–29.
[15] Gernot Böhme, *The Aesthetics of Atmospheres*, ed. Jean-Paul Thibaud, Ambiances, Atmospheres and Sensory Experiences of Space (London and New York: Routledge, 2017), introductory section 'The aesthetic theory of atmospheres.'
[16] Peter Zumthor, *Atmospheres: Architectural Environments, Surrounding Objects* (Basel: Birkhäuser, 2006), 11.
[17] Daelemans, *Spiritus Loci*, 200–201; Pallasmaa, 'Light, Silence, and Spirituality in Architecture and Art', 21, 23; Julio Bermudez, ed., *Transcending Architecture: Contemporary Views on Sacred Space* (Washington, D.C: The Catholic University of America Press, 2015), 227–28.
[18] Lindsay Jones, *The Hermeneutics of Sacred Architecture: Experience, Interpretation, Comparison*, vol. 2 (Harvard University Press, 2000), 291–92.
[19] Lindsay Jones, *The Hermeneutics of Sacred Architecture: Experience, Interpretation, Comparison*, vol. 1 (Harvard University Press, 2000), xxviii.
[20] I refer especially to recent American symposia, which have resulted in three publications: Karla Britton, ed., *Constructing the Ineffable: Contemporary Sacred Architecture* (New Haven: Yale School of Architecture: Distributed by Yale University Press, 2010); Bermudez, *Transcending Architecture*; Thomas Barrie, Julio Cesar Bermúdez, and Phillip Tabb, eds., *Architecture, Culture, and Spirituality* (2015; repr., Routledge, 2016).
[21] Britton, *Constructing the Ineffable*, 13,18.
[22] Pallasmaa, 'Light, Silence, and Spirituality in Architecture and Art', 20–24, 28–29.
[23] Thomas Barrie, 'The Domestic and the Numinous in Sacred Architecture', in *Transcending Architecture: Contemporary Views on Sacred Space*, ed. Julio Cesar Bermúdez (Washington, D.C: The Catholic University of America Press, 2015), 41.

[24] Britton, *Constructing the Ineffable*, 20; Miroslav Volf, 'Architecture, Memory and the Sacred', in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Britton (New Haven: Yale School of Architecture: Distributed by Yale University Press, 2010), 64–65.
[25] Julio Bermudez, 'Phenomenology of the Architectural Extraordinary and Merleau-Ponty's Philosophy', in *Architecture, Culture, and Spirituality*, ed. Thomas Barrie, Julio Cesar Bermúdez, and Phillip Tabb (2015; repr., Routledge, 2016), 45.
[26] R. Kevin Seasoltz, 'The Christian Church Building', in *Transcending Architecture: Contemporary Views on Sacred Space*, ed. Julio Cesar Bermúdez (Washington, D.C: The Catholic University of America Press, 2015), 113–14.
[27] Paul Emmons, *Drawing Imagining Building: Embodiment in Architectural Design Practices*, 2019, 1, https://www.taylorfrancis.com/books/9781315567600.
[28] Emmons, 12.
[29] Marco Frascari, *Eleven Exercises in the Art of Architectural Drawing: Slow Food for the Architect's Imagination* (London and New York: Routledge, 2011), 19.
[30] Christopher Bardt, *Material and Mind* (MIT Press, 2019). Subsections "Language and Empathy" and "Empathy: Feeling at a Distance."
[31] Rumiko Handa, 'Experiencing the Architecture of the Incomplete, Imperfect, and Impermanent', in *Architecture, Culture, and Spirituality*, ed. Thomas Barrie, Julio Cesar Bermúdez, and Phillip Tabb (2015; repr., Routledge, 2016), 209.
[32] Ivica Brnic, *Nahe Ferne: Sakrale Aspekte im Prisma der Profanbauten von Tadao Ando, Louis I. Kahn und Peter Zumthor [Close Distance: Sacred Aspects in the Prism of the Secular Buildings of Tadao Ando, Louis I. Kahn and Peter Zumthor]* (Zürich: Park Books, 2019), 152.
[33] Peter Zumthor and Mari Lending, *A Feeling of History* (Zurich: Scheidegger & Spiess, 2018), 25, 34.
[34] Stefan Kraus, interview by Isabel Potworowski, 6 May 2022.
[35] Louis I. Kahn, *Louis Kahn: Essential Texts*, ed. Robert C. Twombly (New York: W.W. Norton, 2003), 229.
[36] Kahn, 275.
[37] Pallasmaa, 'Light, Silence, and Spirituality in Architecture and Art', 23–24.
[38] Kraus, interview.
[39] Personal conversation (April 11, 2022) with an architect who worked on the Kolumba museum as a draftsman at Atelier Zumthor in 2000-2002.
[40] Stefan Kraus et al., 'Eine Heimat Für Die Kunst', in *Auswahl Eins*, by Erzbischöfliches Diözesanmuseum (Köln: Kolumba, 2007), 7–27; Stefan Kraus, 'Das Thema Christliche Kunst Ist Abgehakt; Überlegungen Zum Verhältnis von Ästhetik Und Seelsorge' (Lecture, Aschermittwoch der Künstler, Katholische Akademie, Freiburg, 1 March 2017), https://www.kolumba.de/?language=ger&cat_select=1&category=10&artikle=769&preview=.
[41] Kraus, interview.
[42] Kraus.
[43] Based on an attempt to interpret Peter Zumthor's handwriting; the words in square brackets indicate guesses at words that are not clearly written.
[44] When I visited Atelier Zumthor in June 2022, I was not permitted to take photos of any drawings, only to trace them. The original medium of each drawing, unless otherwise specified, is black pencil or thin black conte on tracing paper, sometimes with coloured pencils. I reproduced the colours, layout of drawings on the page, and all markings including his writing.
[45] Benoît Vandenbulcke, 'Concretion, Abstraction: The Place of Materials in Architectural Design Processes. Case Study: Peter Zumthor', *ARCC Conference Repository*, 2011, 682, https://doi.org/10.17831/rep:arcc%y375.
[46] Vandenbulcke, 682.
[47] Zumthor and Lending, *A Feeling of History*, 63–64.
[48] Jones, *The Hermeneutics of Sacred Architecture*, 2000, 2:265–66.
[49] Jones, 2:267.
[50] Personal conversation (April 11, 2022) with an architect who worked on the Kolumba museum as a draftsman at Atelier Zumthor in 2000-2002.
[51] Personal conversation (June 12, 2020) with an architect who worked for Atelier Zumthor in 2013-2014.

[52] Ibid.
[53] Kraus, interview.
[54] *Peter Zumthor Interview: Different Kinds of Silence* (Louisiana Channel, Louisiana Museum of Modern Art, 2015), https://channel.louisiana.dk/video/peter-zumthor-different-kinds-silence; Zumthor and Lending, *A Feeling of History*, 30.
[55] Kraus, interview.
[56] Peter Zumthor, Zumthor's 'Holistic' Architecture, interview by Tom Dyckhoff, 2013, https://www.bbc.com/news/av/world-radio-and-tv-21894859/exploring-peter-zumthor-s-holistic-approach-to-design.
[57] Kraus, interview.
[58] Kraus, 'The Aesthetic Moment'.
[59] Kraus, 'Ästhetik Und Seelsorge'.
[60] Kraus, interview.
[61] Kraus, 'The Aesthetic Moment'; Kraus, 'Ästhetik Und Seelsorge'.
[62] Gottfried Korff, 'Ein Museum Im Gegensinn: Versuch Einer Laudatio Auf Das Kuratorenteam von Kolumba; Laudatio Anlässlich Der Verleihung Des Museumspreis 2009 Der Kulturstiftung Hbs an Das Kuratorenteam von Kolumba', https://www.kolumba.de/?language=ger&cat_select=1&category=10&artikle=348&preview=.
[63] Kraus, interview.
[64] 'Resonanzen', Kolumba, 2022, https://www.kolumba.de/?language=ger&cat_select=1&category=1&artikle=864. These visitor experiences, published on the Kolumba museum website, were part of an initiative launched in 2022 to celebrate the fifteen years since the opening of the museum. The public was invited to send their experiences and impressions of Kolumba. Excerpts from these submissions were published online. The cited examples are translated from the original German.
[65] This distinction between representing and generating atmospheres was suggested by Carleton professor Lisa Moffitt.

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