A Tale of Three Stones

Keith Peiffer
Oklahoma State University, Stillwater, Oklahoma

ABSTRACT: *Architects are often disconnected from the labor, sources, and processes used to produce the materials they select. In his recent book Unless, Kiel Moe confronts this disconnect by demonstrating the vast "terrestrial" nature (environmental, social, economic, political) of building through his description of Mies van der Rohe's Seagram Building. This paper builds on Moe's argument through considering another project by Mies: the Barcelona Pavilion. The Pavilion is a compelling case study for considering terrestrial building because of its complicated history: it was temporarily constructed for the International Exposition in Barcelona in 1929 and painstakingly reconstructed in 1986. This process, particularly the reconstruction, placed a unique emphasis on the material selections.*
This paper considers the selection of the stone used for cladding the wall at the heart of the Pavilion in three different iterations: the original, the reconstruction, and a speculative, contemporary version designed by the author. Given that a full terrestrial account of the Barcelona Pavilion would merit another book-length project like Moe's, this paper focuses instead on what this material selection reveals about the discipline's often unstated values. An unyielding commitment to luxurious, unique materials, privileging aesthetic and experiential considerations, provides a significant barrier to answering Moe's call to realize the terrestrial impact of our building practices and address their significant contribution to climate change.

KEYWORDS: Barcelona Pavilion, terrestrial, contingency, literal

INTRODUCTION

The impact of the coronavirus pandemic in causing product shortages has highlighted the interconnectedness and extensive range of our supply chains. While this general reality has become part of the public's consciousness to a greater degree, we simply cannot access the specific origin stories of even the most basic consumer goods. This is even more complex for architecture, a conglomeration of thousands of individual products, so we are completely ignorant of much of the materials, labor, sources, and processes used in its construction.
Kiel Moe's recent book Unless seeks to address this disconnect and demystify the vast, "terrestrial" nature (environmental, social, economic, political) of building through his description of Mies van der Rohe's Seagram Building. Moe is not simply calling out the inefficiencies, wastefulness, and contradictions of one building; rather, through providing a fresh look at an incredibly well-known building, he reveals the widespread lack of emphasis on construction ecology in existing scholarship about the Seagram Building. In lieu of continued preoccupations with architecture's autonomy and "parochial" theoretical discourse, Moe calls for more "radically literal" (Moe 2020, 44) descriptions of buildings, "deep discussions of—and enchantment with—architecture's formation" (44). In Unless, this discussion spans an overwhelming scale, from the geological formation of what is now Manhattan to the plight of laborers in the Chuquicamata copper mines in Chile. Even so, Moe admits that a full terrestrial account of the (or any) building is impossible (Moe 2020).

Of course, the Seagram Building has occupied a hallowed place in the canon of architectural history. Given the reality of climate change in our current moment, however, Moe calls the discipline to account for massive blind spots in assigning masterpiece status. He discusses the global impact of the building, emphasizing "how nature and society mix specifically through the procedures and processes of architecture" (Moe 2020, 30). Moe argues that it is no longer tenable for us to award and laud a project for exhibiting narrowly defined design excellence without considering the massive amount of resources used in its production (Moe 2020).

Along the way, Moe's literal, terrestrial account methodically unravels accepted understandings of the Seagram Building, noting inherent contradictions between the building itself and the story created around the building. Despite claims of its being a "monument to standardization" (Moe 2020, 279), Moe reveals the Seagram Building as "a trophy" of "idiosyncratic manual craftsmanship" (280). Even its distinctive "bronze" envelope isn't actually bronze; it's brass hand-oiled with a special dye. Moe's deep research into the material realities of the Seagram Building corrects several inaccuracies in other scholars' descriptions of the building that use its details towards different ends.

Moe's passionate appeals in Unless do not need to be seen as "cancelling" a masterpiece, but rather as a call to take seriously the power of the stories that the discipline tells itself about past significant works. A more complete, literal description would correct the factual inaccuracies in previous scholarly interpretations, as well as acknowledge the ecological impact of the work. Responding to Unless's call for re-evaluating the discipline's values, this paper will use Moe's terrestrial framework to discuss another project by Mies: the

Barcelona Pavilion. In some ways, the Pavilion is an even more compelling case study for considering terrestrial building because of its complicated history: it was temporarily constructed for the International Exposition in Barcelona in 1929 and painstakingly reconstructed in 1986. The reconstruction offered a second chance to execute the "same" building, and analyzing the decisions made during the process can be instructive for the discipline today.

Given that an extensive terrestrial account of the Barcelona Pavilion would merit another book-length effort, this paper has deliberately narrowed its focus to material selection, and one material in particular. Perhaps most notably, the reconstruction architects, in what they described as "the most novelesque episode in the entire process of reconstructing the Pavilion" (de Sola-Morales, Cirici, and Ramos 1993, 33), went to great lengths to find a suitable source for the onyx doré, the precious stone used for cladding the wall at the heart of the Pavilion. Their extensive search ultimately led to an abandoned mine in Algeria. This paper considers the selection of this particular stone for the Barcelona Pavilion in three different iterations: the original, the reconstruction, and a speculative, contemporary version designed by this author.

While so much has been written about the Barcelona Pavilion, focusing on a terrestrial account of the Barcelona Pavilion can provide insights into the discipline's myopic focus. To do so, the author purposely relied only on existing scholarship to construct an account of the material selection of the onyx doré. The following narratives piece together relevant fragments from a survey of many sources discussing the building (both the original and the reconstruction) over the last 94 years. Placing the material selection at the center adds another narrative arc for the Barcelona Pavilion; a story of waste, excess, opportunism, pragmatic capitulation, compromise, and somewhat arbitrary decisions begins to emerge, a far cry from the idealized canonical interpretations. This, then, is a tale of three stones.

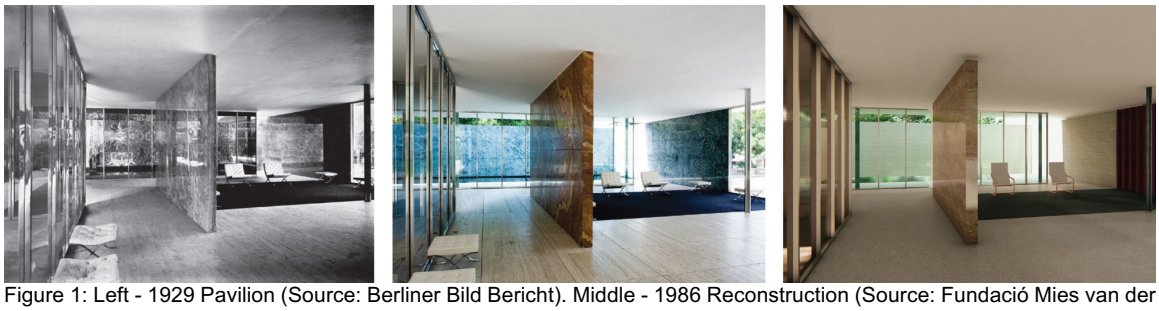

Figure 1: Left - 1929 Pavilion (Source: Berliner Bild Bericht). Middle - 1986 Reconstruction (Source: Fundació Mies van der Rohe). Right - 2021 Re-design (Source: Author)

1. STONE 1

In the midst of designing the German exhibitions for the 1929 International Exposition, Mies van der Rohe and Lilly Reich were contracted to design a German pavilion, a key opportunity to provide an image of the young Weimar Republic.[1] The very process for this important commission was incredibly rushed. Initially, there were no plans for a German pavilion, but realizing that other nations like France were going to be building national pavilions, Germany decided to do so as well with only nine months remaining before the expo's start. While design appeared to begin after Mies and Lilly's visit to Barcelona on September 19th, the final site was confirmed in late November. A contract was signed on November 12, 1929, with the opening set for May 29, 1929, leaving only six months to design and build the pavilion.

A Plasticine model was used for early studies and a series of surviving sketches and floor plans document the harried evolution of the design. Most notably documenting the selection of the materials is a curious, seemingly unfinished perspective drawing. This drawing, attributed to both Mies and a member of his design team, Sergius Ruegenberg,[2] shows the interior space that was designated as the "throne room." Here King Alfonso XIII and Queen Victoria Eugenia of Spain would sign a golden book in a ceremony to open the pavilion (de Sola-Morales, Cirici, and Ramos 1993). During the design process, Mies remarked that a wall must mark this location (Cohen 2007). The surface of this wall is a blank plane, completely unrendered, while the other materials in the view are rendered in graphite with a high level of detail. The drawing depicts the unique textures of the green Tinian and Alpine marbles, shadows emphasizing the slender cruciform columns, and the combinations of reflections between glass, travertine, water, and a sculpture.

This "free-standing wall," as Mies referred to it, carried significant conceptual weight in the evolution of the design. Facing the significant limitations of a very tight schedule, Mies recalled the process for sourcing this material:

We had very little time. It was deep in the winter. You cannot move marble from the quarry in the winter because it is still wet inside and it would freeze to pieces. You had to find a piece of material which is dry. We had to go and look around in huge depots. There I found an onyx block (Neumann 2020, 75).[3]
Mies found this onyx block approximately 300 kilometers from his office in Berlin at a stone supplier in Hamburg in the winter of 1928. Unsatisfied with other samples he urged the supplier's staff, "Come on boys, don't you have something else, something truly beautiful?" (Filler 1986, 219). The onyx doré they presented in response was considered "one of the world's rarest and costliest marbles" (Hosey 2020, 240) and popular accounts indicate that this particular specimen came from a quarry in the Atlas Mountains of Morocco (de Sola-Morales, Cirici, and Ramos 1993). It was intended to be used for decorative vases on a Norddeutsche Lloyd oceanliner (Conroy 1979 and Cohen 2007).

Mies was the son of a stonemason, receiving training and working as a mason himself in his youth. He was immediately smitten with the onyx and wanted to assess its coloration and veining more clearly. Mies seemed to relish the opportunity to demonstrate his expertise as he later recalled the process at the marble distributor:
[He directed the staff] Give me a hammer and I will show you how we used to do this at home. They finally brought me a hammer and were very curious if I would really strike a corner off the block. I hit it very hard and off came a slice, the size of my hand, very thin, and I said go and quickly polish it, so I can see it. We then decided to use it, figured out the quantities, and then bought the material (Neumann 2020, 81).
Clearly satisfied with this "truly beautiful" material, he impulsively purchased it using his own funds.

With the stone now sourced, Mies adjusted the design of the pavilion to accommodate it. The previously un-rendered surface in the perspective would now bear this beautiful material. Based on the limitations of the stone, Mies set the overall height of the pavilion at twice the height of the onyx block: 3.1 meters. It's worth noting that for a pavilion that faced tight budget constraints, requiring some of the outer walls to even receive a faux finish on their back sides in lieu of stone cladding, the onyx alone represented 20% of the entire construction cost of the building (de Sola-Morales, Cirici, and Ramos 1993).

Given the specific veining of the material, Mies choose to deviate from the double diamond bookmatching used elsewhere and simply used a random match. Each side of the wall was made of four massive slabs, 235cm by 155cm and 3cm thick, with two solid caps on each end. To emphasize the freestanding nature of the wall and to allow for disassembly after its temporary use, the stone was mounted to a steel frame with open butt joints between them. Although the building is an image of a roof plane supported by the eight columns, additional structural support was integrated into the walls as well.

While many have speculated later that the distinctive golden tone of the onyx was intentionally paired with a black velour carpet and a red velvet curtain to represent the three colors of the German flag, this is not likely. The colors are not experienced in the correct order, and politically, there was a lack of consensus about whether to use the original German flag or the newly introduced flag of the Weimar Republic; this reality resulted in both flags being flown in front of the pavilion, causing confusion for many visitors (Neumann 2020).

On Monday morning, May 27, 1927, the pavilion remained unfinished but was complete enough to host the opening ceremonies. At the ceremony, King Alfonso XIII remarked that he "… had driven by the pavilion every day for the past week, waiting for it to be finished" (Neumann 2020, 114). He snarkily suggested "the Germans had delayed the opening of the pavilion on purpose, in order to show off their uncanny technical and improvisational skills to a world audience" (114). As originally intended, the pavilion was not meant to be a permanent structure. After unsuccessful attempts to sell the structure, after only ten months the building was disassembled and the stone shipped back to Hamburg in March 1930 to be used in government building projects (129). In late June, Sasha Stone documented the project in 13 photographs, which he sold to Berliner Bild-Bericht.

Contrary to the dominant narrative, the onyx doré at the original Barcelona Pavilion tells an alternate story of opportunism and contingency. The very selection of the stone was driven by the constraints of the schedule and natural forces, limited by the seasonal impact of extracting stone during cold weather. Hardly a predetermined material selection, the type of stone was a result of chance, of Mies being at the supplier at the right time, having the appropriate technical expertise to make an impulse purchase. While the proportions are seen as a critical aspect of the success of the design, Mies chose to adjust the designed height in response to the dimensions of the newfound material. Regardless of its golden tone recalling German colors, the material is spatially displaced; extracted from northern Africa, transported to Hamburg, and installed in Barcelona. It is not a German material; ironically, Mies rejected a German stone because it was not "noble" enough (Hosey 2018). While much has been written about the preciousness of the materials, Mies seems to undermine his own emphasis on the material selection, stating,

I think that the Barcelona Pavilion, if I would have built it in brick, it would be as good a building. I am quite sure it would not have been as successful as marble, but that has nothing to do with the idea (Neumann 2020, 76).
In summary, Lance Hosey described the built reality of the original as “a pasteboard illusion” (Hosey 2018, 233): rushed, over budget, and unfinished.

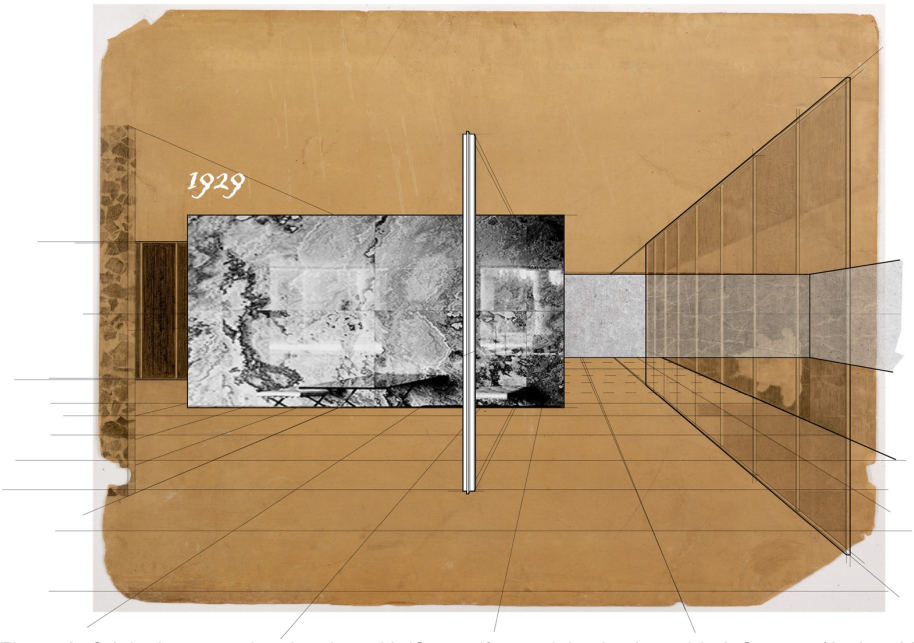

Figure 2: Original perspective drawing with ‘Stone 1’ material selection added. Source: (Author 2021)

2. STONE 2

Of course, the Barcelona Pavilion is such a unique case from a terrestrial perspective because of its reconstruction later in 1986. During the decades after the building’s disassembly, Stone’s photos were published and distributed widely and came to be the primary representations of the building. With few commentators actually visiting the building in person, it primarily existed as a set of images, which were used for subsequent critique, analysis, and interpretation. Many key commentators during this time based their arguments on inaccuracies about the actual construction of the building and historians have rigorously identified these inconsistencies. In one notable example, Philip Johnson touted the building’s “expert craftsmanship” (Hosey 2020, 232), while the process and its execution noted above casts serious doubt on the correspondence with reality of that assessment.

When it was determined that the building would be reconstructed, the team of architects Ignasi de Sola-Morales, Cristian Cirici, and Fernando Ramos had an incredibly challenging task in deciding how to execute the reconstruction. Inherent to the process was an opportunity for the project to recalibrate and reconsider some decisions in executing the work.

In response to the significance of the project, and likely anticipating critique, the designers clearly outlined their approach to the reconstruction. They believed their role was not to simply rebuild the structure as it was built in 1929, but rather “…to carry through to its conclusion an idea with regard to which we had an abundance of information and the support of an architectural logic that was beyond all doubt” (de Sola-Morales i Rubio, Cirici, and Ramos 1993, 32). The reconstruction team explicitly chose to focus on what they believed was the original architectural idea, not an exact reproduction of a building they saw as tainted by its contingencies and limitations. In their assessment, these contingencies meant that “the physical execution of the building, for reasons of economy, haste or simple technological limitations, did not always come up to the level of its ideal character before, during and after its construction” (de Sola-Morales i Rubio, Cirici, and Ramos 1993, 29). To be fair, they also addressed the need for the building to now serve as a permanent structure, which required more robust solutions for technical issues (Circi, Ramos, and de Sola-Morales i Rubio 1986).

Regarding the material selection, the design team assessed that the original’s contribution was not in the newness of its materials, but their application: “the audacious manner of their combination and the technically radical way they were used for large surfaces and simple, elemental geometric forms” (de Sola-Morales i Rubio, Cirici, and Ramos 1993, 14). This ethos would guide their process in sourcing materials for the

reconstruction. For the onyx doré especially, the designers portrayed an almost nostalgic, whimsical attitude about the process to source a replacement. They seemed to assume without question that their task was to produce an exact replica of the onyx doré, arguably the most important material of the whole pavilion. However, stone is a natural material and replicating the exact texture, color, and veining of the original was utterly impossible.

Recognizing this limitation, they concluded,
…our task as reconstructors was equally divided between a faithful adherence to the colour, texture and shine of the material and our creative capacity to act as architects interpreting what was, in our judgment, Mies' intention at the moment of choosing the material, the cut and the finish. This tension between imitation and invention was what marked out our work as being not a mere process of restitution but a genuine project (de Sola-Morales i Rubio, Cirici, and Ramos 1993, 33).

Although it was purchased from a supplier in Hamburg, the original stone was believed to be from a quarry in Morocco. In "the most novelesque episode in the entire process of reconstructing the Pavilion," finding an exact match for the size, proportions, and physical characteristics of the stone were viewed as an absolute requirement, such that no suitable replacements were available. Holding to this inflexibility, the team searched onyx quarries in Israel, Egypt, Brazil, Pakistan, and Morocco. The fruitlessness of their search "…led [them] to the conclusion that the onyx used by Mies must have come, virtually beyond all doubt, from one of the quarries in the Oran region of Algeria" (de Sola-Morales i Rubio, Cirici, and Ramos 1993, 13). During their extensive travels, Fernando Ramos and marble expert Jordi Marques discovered a large block of onyx at an entrance to the abandoned quarry of Bou-Hanifia and convinced the owners to reopen it and extract the material (de Sola-Morales i Rubio, Cirici, and Ramos 1993). Ultimately, the determination was made that using a material from the same location would have to suffice.

With the material now sourced, the reconstruction team refined the anchor design, working to develop a system of anchors made by Frimeda (a German company) with input from Mecanotubos (a Spanish company). The panels were attached similarly to a steel frame, with the panel locations adjusted to give precise 5mm joints (de Sola-Morales i Rubio, Cirici, and Ramos 1993).

In the reconstruction, the onyx pieces were arrayed in a distinctive pattern to produce a symmetry about the four panels, reproducing the double diamond bookmatching of the other stone walls evident in the photographs. The design team does not explain their justification for the deviation from the random pattern of the 1929 version, but they were likely inspired by the green Alpine marble configuration (Neumann 2020). This effect, specific to their selected stone and not present in the original pavilion, created a kaleidoscopic effect with the veining and reflections giving a three-dimensional depth to the material and the plane it defines (Quetglas 2001). Interestingly, Martin Filler found it to be "an acceptable—though far from perfect—specimen, less translucent and more purplish" (Filler 1986, 219), critiquing the differences in the stone even though his analysis of the original was based on its black and white photography.

Despite the strength of their convictions that the logic was "beyond all doubt," the designers conceded that the process of the original building was so challenged by schedule and budget constraints that no record (drawings or photographs) definitively showed how the building was intended to be (de Sola-Morales i Rubio, Cirici, and Ramos 1993). It is worth noting that the architects chose to build the idealized, perfected vision of the building that had emerged through the critical response to the project based on the photographs, not the actual construction. This reality reveals the power of the stories that we weave around the buildings we create. While one can certainly argue for the building as an expression of an idea, one can equally present it as a temporary structure complicated by budget and schedule issues resulting in technical and aesthetic failures.

In this regard, it is less significant to determine whether the 1986 building is a reproduction, recreation, replica, fake, simulacra, etc.[4] Instead, it is more instructive to consider how the overall approach to the reconstruction reveals the discipline's often unstated values. Why would the architects go to such great lengths to try to replicate an incredibly rare material that is impossible to replicate exactly? That this decision seems like an uncritical default reveals significant resistance to Moe's argument for a terrestrial account of our beloved icons. Imagine the carbon footprint of this one decision. And consider that in light of the fact that Mies selected the original material as a "ready-made" material from a range of available options, and adjusted the height and proportions of the pavilion to fit it. Without the original onyx, Hosey sums up the pavilion as "a reliquary with the wrong relic" (Hosey 2018, 243).

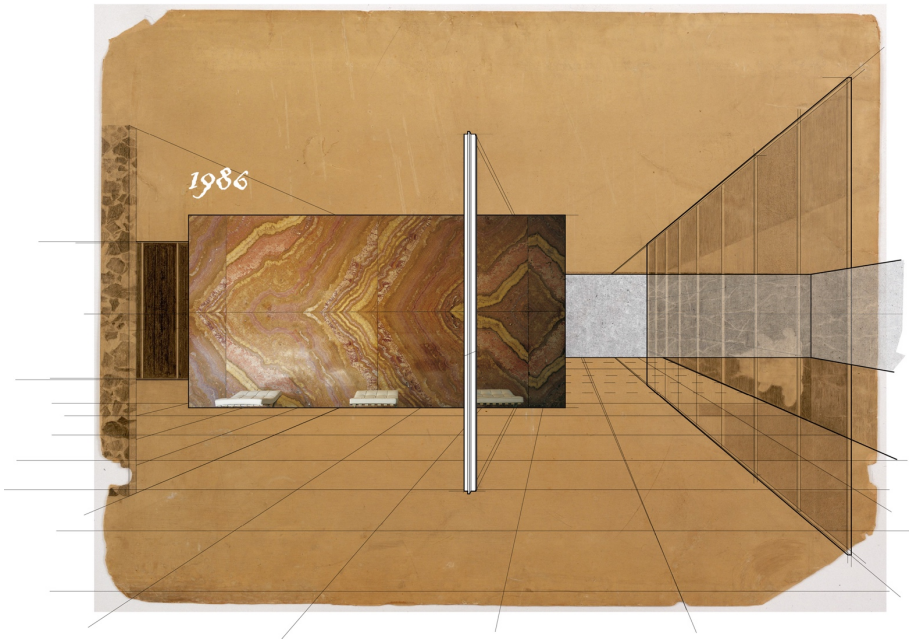

Figure 3: Original perspective drawing with ‘Stone 2’ material selection added. Source: (Author 2021)

3. STONE 3

Since redesigning the Barcelona Pavilion can be an opportunity to recalibrate some of the decisions made in the building’s execution, this author created a speculative design for a third iteration of the pavilion using only standard details and materials in an intentional provocation. As an alternative to the pure, idealized version built in 1986, this re-design embraces the reality of the budget-challenged, improvisational, contingent process of the original. It also takes seriously Mies’s own admission that the success of the design did not rely solely on the selection of ultra-precious materials. For example, custom framing systems were exchanged for aluminum storefront systems, and, like the original, the design was adjusted to incorporate the material and system selections.

Within this speculative design process, the designer visited the nearby Lowe’s store to select a material for the throne room wall. Directly on axis with the main entry is Kitchen Design Services, showcasing the available material possibilities for countertops: quartz, stone, solid surface, butcher block, and laminate. Within the displays, there are 6” square samples of each option, all pre-polished. Although they sometimes run out of brochures, ample information is available on the web. Instead of a global search to try to match a completely unique color, texture, and veining, this material selection sought to approximate the stone’s finish in the two previous iterations using readily-available options.

Each Lowe’s store offers a limited selection of a private label manufacturer’s total offerings depending on the region it is located in. Upon review of the available options at store #241, the architect selected quartz produced by Allen + Roth due to its consistency and relative approximation of the color and texture of onyx. Fortuitously, these slabs standardly come in the same 3cm thickness utilized in both the original and the 1986 reconstruction. The options are organized by different levels of cost–A through E–clearly outlined in the product display, with the designation clearly labeled on each 6” square sample. The selected option, Brockeye, is in category C so its material cost is estimated at $91/SF. The total material cost for this cladding would be about $35,000, far less than the cost of onyx. There would likely be an upcharge to produce the dimensions of the original slabs since they exceed the standard dimensions for countertop depths. Noting this limitation, additional joints were added to the design of the wall to accommodate the standard.

Global industries and supply chains are optimized to produce this type of predictability and accessibility, of which Mies could only dream in 1929. Yet, many in the discipline of architecture would balk at the suggestion of cladding Mies’s masterpiece with a manufactured stone from Lowe’s commonly used in suburban kitchens across the US. Despite its easy availability, when it comes to determining the source of the material, it gets considerably more difficult. Allen & Roth’s countertops are marketed by Sage Surfaces and sold exclusively at Lowe’s. Sage Surfaces is located in Magnolia, Texas. From there, it is unclear where the countertops are actually manufactured or where the material is sourced from.

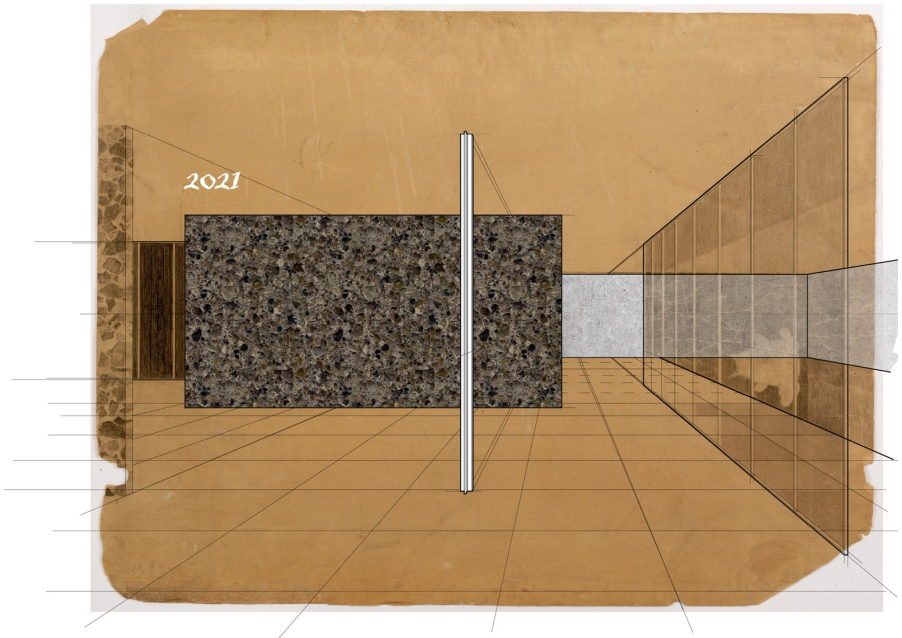

Figure 4: Original perspective drawing with ‘Stone 3’ material selection added. Source: (Author 2021)

4. TERRESTRIAL ACCOUNTS

The existing literature concerning the selection of the onyx material leaves significant gaps from a terrestrial perspective. Despite surveying many key accounts of the building to reconstruct the narratives above, the information and details related to a literal description of the building’s construction ecology are few and far between. This information and these details were simply not emphasized or deemed significant in light of other considerations of the building’s discursive value.

As shown in Moe’s efforts with the Seagram Building, extensive research is needed to fill in those gaps. For example, what was the impact of shipping the original onyx along the many steps on its journey from Algeria to Hamburg to Barcelona and back to Hamburg? What about the resources consumed for the design team to travel to remote quarries, to extract the new stone, dress it and transport it to Barcelona for installation? Where did the source material for the manufactured quartz come from and what was the process to produce and distribute it? What about the steel framework and anchoring system? And the labor involved with all of these steps – was it ethical and safe? It is worth reiterating that this discussion is limited here to a single material for the building. Given the model of Moe’s study, we can anticipate the vast resources needed to produce even this small, unconditioned structure. As a discipline, we can then extrapolate that these considerations affect every single building, as indeed, “every building is a terrestrial event” (Moe 2020).

What the Barcelona Pavilion demonstrates even more clearly, however, is the significant disciplinary resistance that is likely in considering architecture as a terrestrial event through its impact on the earth. What is it about the discipline that valorizes perfection at all costs? In the intervening years between the original and the reconstruction, commentators collectively constructed a perfected image of the building from those original black and white images. To do so, even notable figures like Robin Evans, K. Michael Hays, and Philip Johnson made significant factual errors in describing the literal qualities of the building.

These literal descriptions of the Seagram Building and the Barcelona Pavilion show that the myths and fictions the discipline creates around our buildings achieve more agency than the reality of the buildings themselves. Instead of centering the story around creative problem solving that resolved competing formal, technical, budgetary, and schedule demands to produce an iconic building, the Barcelona Pavilion’s canonical accounts deny this contingency. When these details are acknowledged, they are typically minimized. Despite the impending crisis of climate change, if the Barcelona Pavilion were reconstructed today, do we actually expect a different approach to its material selection? Or would its architects go to ridiculous lengths to source the onyx again due to privileging aesthetic and symbolic concerns above the literal and terrestrial realities of material selections? How do we (as a society and as a discipline) decide when one building is significant enough to disregard the extreme wastefulness of its material selection?

While Moe's Unless is timely and compelling, we see in this discussion of the Barcelona Pavilion two critical impediments to incorporating the book's concepts into disciplinary discourse. First, massive amounts of historical research are required to fill in the gaps adequately to create a terrestrial account of the discipline's canon. Second, shifting the entire value system of the discipline away from the rejection of contingency and the privileging the perfect, idealized version of architecture will be even more challenging. These gaps between what the building actually is and what we say it is, reveal many of the inherent contradictions in the discipline. While there are many forces that perpetuate the detrimental environmental impact of our buildings, they can often allow us to shift blame to external forces rather than looking inward. To answer Moe's call seriously, the discipline itself must significantly reassess its values and act on them. This reality has implications for all of us, academics and practitioners alike.

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ENDNOTES

1. Both Hosey and Neumann, among others, emphasize the unique political context for their discussions of the project.
2. For example, Luscombe credits Mies with her extensive analysis of the drawing, while Neumann credits Ruegenberg. Regardless of who actually created it, this drawing's importance is evident through photographs showing its prominent display on the wall behind the team working on the project.
3. While the actual sources of these direct quotations from Mies are other places, I am citing the secondary sources in which they were referenced because this is the way that I first encountered this information. This demonstrates the layered quality of scholarship on the Pavilion with multiple commentators referencing the source material in their own discussion.
4. "The 1986 Pavilion has been described as reconstruction, replica, reproduction, copy, genuine copy, interpretation, reinterpretation, duplicate, facsimile, re-building, re-creation, incarnation, reincarnation, clone, and Phoenix – to mention just a few terms" (Capdevila-Werning 2016, 203).