Glass architecture

Bruno Taut's Glass Pavilion, which the architect designed for the 1914 German Werkbund Exhibition, is one of the idealistic icons of Expressionist architecture. Commissioned by Germany's glass industry, the smallish circular building with its faceted cupola, glass brick wall, and open interior conveyed on a modest scale the mystical properties of glass that author Paul Scheerbart espoused in his seminal tract, *Glasarchitektur* (Glass Architecture) published by Herwarth Walden's *Der Sturm* press the same year. The pavilion façade was actually inscribed with Scheerbart's polemical aphorisms on the virtues of glass: among them “Light wants crystal”: “Without a glass palace, life becomes a burden,” and “Building in brick only does harm.”

Scheerbart met Taut in 1913 when he sought to organize a “Society of Glass Architecture.” Taut had already received the commission to design the Glass Pavilion, which he ended up dedicating to Scheerbart just as Scheerbart dedicated *Glasarchitektur* to him. Though Scheerbart died in 1915, the year after the Werkbund Exhibition, his book was eagerly consumed by utopian German architects who sought to renew their nation's culture after the destruction of World War I. As Walter Gropius wrote to the artist Herman Finsterlin, “You absolutely must read Paul Scheerbarth [sic]...in [his] works you will find much wisdom and beauty.”

Taut was actually the architect most responsible for keeping Scheerbart's vision alive after the war. He published several books, including *Alpine Architecture* (1919) and *The Dissolution of Cities* (1920), which translated Scheerbart's fervent espousal of glass architecture into projects for utopian towns, including the construction of glass temples in the mountains. In 1919 Taut also started a correspondence among a group of his colleagues called the Glass Chain which obliged each member to share ideas about the future of architecture. Around the same time, he inaugurated a journal, *Frülicht* (Early Light), which published some of the Glass Chain correspondence among other idealistic articles about architecture. In 1921 Taut was appointed city architect of Magdeburg, a position which committed him to a much more pragmatic approach to building than Scheerbart's glass fantasies allowed. Others in the Glass Chain also moved on to practical work. By the time Germany adopted the Dawes Plan in 1924, architects were more inclined to address the nation's need for low-cost housing than to concern themselves with the magical properties of glass.
It is unclear whether or not Scheerbart influenced Mies van der Rohe, whose models for steel and glass towers in the early 1920s were allied with the rationalist tendencies of the G group. Certainly Mies’s early Weimar experiments paved the way for the subsequent explosion of glass curtain wall office and apartment buildings. Though his spartan aesthetic left no room for the extravagant use of colored glass that Scheerbart promoted, his structures and those of others responsible for modernism’s corporate style after World War II came closer to realizing Scheerbart’s vision than the utopian projects of Taut and other Expressionist architects.

Scheerbart’s novel
The same year that Scheerbart published *Glasarchitektur*, he also brought out a novel, *Das graue Tuch und zehn prozent Weiss; Ein Damen Roman*, which has now been admirably translated into English as *The Gray Cloth and Ten Percent White: A Ladies Novel* by John A. Stuart, professor of architecture at Florida International University. Stuart also wrote an extensive contextual introduction and produced several lovely pastel drawings as visual complements to Scheerbart’s text. From Stuart, we learn that *The Gray Cloth* was the last of Scheerbart’s novels. It is also the first to be translated into English. Scheerbart was a prolific writer who produced a good number of novels and theater pieces as well as myriad essays, stories, and reviews, many of them on architectural topics, for Berlin’s daily press. He also participated in the city’s lively café life. As a writer, Scheerbart was known for his ironic style, which one might compare with that of Karl Krauss or Adolf Loos, who were writing around the same time in Vienna.

From the time of his first novel, *Das Paradies: Die Heimat der Kunst* (Paradise; Homeland of Art), published in 1893, Scheerbart was preoccupied with glass architecture, which is a major theme of *The Gray Cloth*. The novel is set in the middle of the twentieth century, a time when new technologies as envisioned by the author enable people to travel around the world, build large structures of glass, and communicate with each other by telegraph. His protagonist is Edgar Krug, an immensely successful Swiss architect and a proponent of buildings made of colored glass. Krug circumnavigates the globe in his own dirigible-like airship, attending to his many projects.

The narrative
The novel opens in one of Krug’s buildings, a large exhibition hall of steel and colored glass in Chicago where an organ concert is taking place. The organ “roared with such a stormy rhythm that all the seated visitors involuntarily sprang up and stared at the dazzling color magic.”(4) When Krug is introduced to the organist Clara Weber she is wearing a simple gray dress with ten percent white trim. Krug is enraptured with this outfit because he believes that only gray clothing with no
more than ten percent white added, is compatible with his colored glass architecture. Clara’s outfit so endears Krug to her that the two move quickly to a marriage contract, which obligates Clara to dress only in gray with no more than ten percent white trim or accessories.

Clara’s seeming submissiveness to Krug’s will, however, is countered by her powerful organ playing. She is, in fact, introduced to the reader through the potent rhythms of her music, which induce the audience to stand up and respond to the colored glass walls around them. Throughout the book Clara is encouraged by her American friend Amanda Schmidt to reject the decision to dress as Krug wishes. Amanda is an artist who sells one of her sculptures to Krug at the beginning of the book. In the piece that Krug buys, a head which might be a lion’s or a human’s, is attached to a fish’s body while the side fin covers the entire fish’s body like a cloak. The replacement of a fish’s head with that of a lion or human, thus combining either brute force or refined intelligence with the flowing movement of the fish’s body, suggests an empowerment of Amanda as an artist and a woman.

Patriarchy

Though the examples of Clara’s organ playing and Amanda’s art introduce both women as strong figures, male power is quickly reasserted when Krug’s airship takes off, whisking him and Clara to the Fiji Islands, where he must attend to one of his projects, a convalescent home for retired air chauffeurs which is being built by an Englishman, Mr. Webster. Beginning with this project, Krug travels in his airship from one place to another as he is called to make important decisions and attend to crises. Though the male force that Krug embodies is now front and center, Scheerbart keeps the female voice alive through telegraph messages back and forth between Clara and Amanda. Clara is confined to the airship and laments that her agreement to dress only in gray is now making her long for colors.

Meanwhile Edgar Krug is embroiled in a dispute with the builder, Mr. Webster, about how much color can be included in the convalescent home. Webster argues that the chauffeurs are against the colors Krug proposes and want only single-colored glass plates. Here Scheerbart pits Krug’s vision against the realities of his clients’ desires. In his discussion of the convalescent home, Scheerbart conveys an impressive knowledge of building techniques. Krug and Webster have a technical discussion of how to position the building’s windscreens to enhance a view of the sea.

Krug enlists Clara to introduce the prospect of adding color to the project. Initially he calls Webster’s attention to her gray outfit as evidence of his taste for simplicity but he then invites Clara to suggest several bright colors for the glass windscreens. Webster finally agrees to use them.
Once again, we find a contrast between Clara’s gray garb and her discursive power to influence a response to colored glass architecture. Meanwhile, Clara receives a telegram from Amanda which exhorts her to question her marriage to Krug whom she thinks will turn Clara into a “sandwich lady.” (21) The telegram becomes part of a secret dialogue among women that speculates about Krug’s desire for power and the female response to it.

Female forces

Scheerbart then shifts his ground and reintroduces female power through a group of women artists in the painter-colony of Makartland, a territory at the South Pole. The colony recalls the German turn-of-the-century artist’s colony, Worpswede, near Bremen where at least one important woman artist, Paula Modersohn-Becker, worked. Scheerbart’s colony consists of twenty female painters, ten of whom are married to male artists and ten of whom are unmarried daughters. One of the women is a seamstress who tries to subvert the dress clause in Clara’s marriage contract by making her clothing that continually interprets the ten percent white in new ways.

Edgar and Clara remain for nine months in Makartland while Edgar builds a glass expansion of the colony. One of the artists, Käte Bandel, befriends Clara and decides to go with her when the couple leaves the South Pole. After they arrive in Australia on their way to Borneo, Käte engages in a dialogue with Krug about the comparative virtues of wood and glass as building materials. Not only does she defend wood but she also claims that the still sea (i.e. nature), when it seems like a sheet of ice, is more beautiful than glass architecture. Her lively explanation gets Edgar so excited that he jumps up and demands two bottles of champagne from the airship steward. When they arrive in Borneo, Käte persuades Clara to appear at a mountain restaurant wearing ten percent plaid (a checked scarf) instead of white. Clara acquiesces and enrages Krug who demands that Käte return to Makartland immediately.

Despite her provocation of Krug, which results in her banishment from the couple’s party, Käte’s vigorous defense of nature’s beauty is nonetheless another example of how Scheerbart uses the woman’s voice to establish an empowering relation to Krug’s architecture. For someone who became known for his persistent promotion of such architecture in real life, Scheerbart shows a surprising dialogic tendency in the novel, where he constantly questions assumptions about the architect’s power and the virtues of his creations. On the one hand, woman is subordinate to the male will, represented by Clara making herself a gray compliment to Krug’s colorful designs; but it also a woman, Käte Bandel, who argues for the superiority of nature over Krug’s architecture.

Scheerbart recognizes female power in another way through his description of the Japanese women whom Edgar and Clara meet when they arrive in Japan from Borneo. These
women, who live in glass buildings within a small mine, “went around in airy costumes that were, naturally, ablaze with very, very bright colors.” (41) Krug does not like these colors because he thinks they overwhelm those of the glass walls. When he tries to praise his wife’s gray clothing, he is met with opposition by the Japanese women. Their spokeswoman, the Marquise of Fi-Boh tells Edgar that his thoughts about contrast might sit well in Europe but they don’t hold up in Japan. She praises his architecture but denigrates his wife’s drab clothing and offers to change it. Krug refuses and leaves the room with his wife. Subsequently they head to north India where Krug is involved with a project in a large zoological park.

Architectural ambitions
With the exception of the exhibition hall in Chicago, Krug’s architectural projects are primarily in underdeveloped countries and territories, some real and some fanciful. Most are in Asia or the Pacific region, while several are in the Middle East and one is at the South Pole. Scheerbart goes out of his way to contrast the grand scope and advanced technology of Krug’s glass architecture with the backward or primitive conditions of the places where it is being considered or built. In the Fiji Islands, the natives “probably sleep in holes and never think about glass architecture.”(16-17) Webster, in a discussion with Krug, advises against laying a rail line there. Considering transportation plans for the islands, Krug sees the advantages of using litters to carry people. This, he says, would give the natives something to do.

In India at the foot of the Himalayas Krug observes a zoological park where the walls that separate the animals are made of brick. Electric carriages run along the walls, moving the visitors from one animal area to another. Despite the sophisticated technology, Krug is unimpressed because the park does not have enough glass. He tells the park directors that foreigners will only visit the zoo if they find great glass architecture there. Then he proposes that they build colored glass roofs in a variety of shapes over the brick walls. The directors agree to enclose only one quarter of the buildings.

THE architects of the INDIAN animal park decide to build a ten-tower organ for Clara, thus amplifying her musical voice which causes the wild animals to stop their roaring. Shortly thereafter the Marquise Fi-Boh arrives from Japan with an entourage of eighty five women bringing bolts of silk cloth. They persuade Clara to dress in the colorful silk. She does so and then plays “wild waltz music“ throughout the night.

At the moment of Clara’s liberation in India, Krug is in Ceylon with Mr. Webster where he is discussing plans for a Center for Air Research, that would require more than one hundred iron and glass ports in the mountains. Krug’s ideas for using glass to build the center are challenged by the
engineers who think glass would be too heavy for the structure. As a replacement they suggest “a wire mesh with a colorful transparent glue spread over it.” (56) They also question Krug’s proposal to use parabolic and elliptical shapes for the hangars.

Krug fails to persuade the engineers in Ceylon of his views and moves on to other projects. In the so-called Kuria Muria Islands he has a rendez-vous with a wealthy Chinese client Li-Tung who makes him dress in red silk for their meeting and presents in his honor a performance of exotic female dancers of all races in colorful veils (Scheerbart mentions Negresses, Indians, and Persians). Li-Tung tells Krug that he wants to build houses that hang from gallows. Krug proposes glass houses that could be raised or lowered using a lever arm and rotated so that the living room is always in the shade.

The projects that engage Krug range from the futuristic as in the Center for Air Research in Ceylon to the archeological as in Babylon, where a group of businessmen want to recreate the ancient city as it was under Nebuchadnezzar. They propose to staff the Babylonian theme park with Bedouins who would dress up as “warriors, court officials, eunuchs, and temple servants.” (72) All visitors would have to dress in Babylonian costume and women would be carried about in litters. Majolica, Scheerbart tells us, was the triumphant material of the new Babylon and Krug can do little with the project except to glass in the ancient king’s barge. Although he has no architectural success in Babylon, Krug agrees there to strike the clause in the marriage contract with Clara that requires her to dress in gray. Nonetheless, Clara says that she will continue to wear gray with ten percent white by her own consent. Now Clara can costume herself as she likes and her desire to remain a quiet compliment to her husband’s architecture becomes an important contrast to Käte Bandel’s more contentious earlier debate with Krug about the aesthetic power of nature versus his buildings.

The succession of events that leads to striking the dress clause from the marriage contract is paralleled by Krug’s continued lack of success with his projects. In Cairo, where he is invited to meet with members of a newly formed pyramid society his suggestion to build small glass hotels on the banks of the Nile is rebuffed and the society members propose instead the construction of large glass obelisks on the tops of the pyramids. Outraged, Krug refuses to mix glass architecture with ancient buildings and he will have nothing to do with the Egyptian project.

When they leave Egypt, Krug reveals to Clara that he is also an archeologist. He explains that antiquity and glass architecture are still compatible and he proposes to demonstrate this compatibility with the design of a new museum for Oriental weapons on Malta. When he and Clara arrive there, Clara is now more outspoken about her views on architecture. She has become Krug’s supporter, telling him that she wears her gray clothes strategically in order to help seduce
his clients into using at least a couple of colors. Meanwhile she continues her dialogues by telegraph with her women friends, Käte and Amanda. At this point, Clara reaffirms Edgar’s views on the gray cloth and replies to Käte that “[it] is better to have a colorful house than colorful clothing.” (86) On Malta, the Oriental weapons are stolen and instead of a museum to house them, a museum of glass architecture is built instead. Despite his recent lack of success, Krug has achieved his due recognition and he and Clara repair to his sumptuous home in Isola Grande, Switzerland.

Realities
In the end, Krug has not altered the world’s reception to glass architecture. His sense of sanguinity about its virtues is countered by the many setbacks he experiences during the course of the novel as he faces difficult clients, contentious engineers, and hesitant builders. The public as described by Mr. Webster and Clara is highly resistant to this form of building and must be persuaded of its merits. Clara becomes a devotee. When Krug ceases to insist that she wear gray, she continues the practice of her own accord despite the contradictory counsel of her women friends. Although Scheerbart ends the novel with this decision, he allows a multitude of other voices to express different positions and does not impose on the reader a simple polemic about either glass architecture or fashion. In fact, the play of voices is central to the novel and makes the meaning of the title more complex. Subtitling the book, “[a] Ladies Novel,” the author offers innumerable images of independent and strong women, particularly artists.

Written at the end of the Wilhelmine era, the novel expresses in many ways prevailing German attitudes of the time: the acceptance of colonialism and the subservience of the darker races, the imperial ambitions of Western capitalists, and the male as a powerful creative force. But Scheerbart also gives unusually strong voices to a diverse group of female characters including several, notably Clara and Amanda, who are extremely successful artists. Although Clara voluntarily dons gray at the end, she has not done so because of patriarchal coercion, nor has she compromised her power as an artist. Scheerbart’s title, The Gray Cloth, can thus direct the reader to an unanticipated theme, the strength of the female voice, which competes vigorously with the architectural discourse that one might have otherwise expected to dominate the novel.