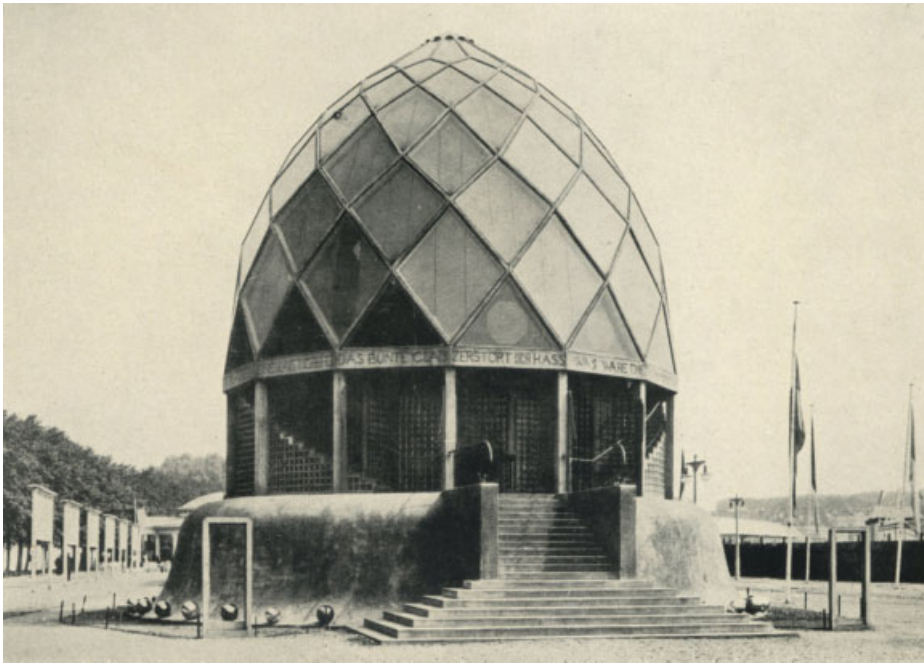


# 5

# GLASS HOUSE AT COLOGNE

Bruno Taut

*Markus Breitschmid*



Bruno Taut, Glass House at Cologne, 1914.

*The Companions to the History of Architecture, Volume IV, Twentieth-Century Architecture.*

Edited by David Leatherbarrow and Alexander Eisenschmidt.

© 2017 John Wiley & Sons, Inc. Published 2017 by John Wiley & Sons, Inc.

Das Glashaus hat keinen anderen Zweck, als schön zu sein.<sup>1</sup>

Part of the prestige of the Glass House rests upon the renown of the man who designed it, Bruno Taut (1880–1938), an architect with a particularly ambitious vision for the future of architecture. Yet Taut's reputation derives in no small degree from the Glass House itself – an early work of his career – and the high place it continues to hold in the history of modern architecture.

The most obvious and exceptional fact about the Glass House is implied in its seemingly lapidary name. The Glass House is the first among the many buildings known simply by the material with which it was built, an attribute also given, for example, to houses by Ludwig Mies van der Rohe and Philip Johnson. This is even more noteworthy as considerable parts of what made Taut's Glass House buildable were not actually made of glass, a fact keenly emphasized by the architect himself, who called it “my ‘Glass House,’ the lightest possible concrete structure.”<sup>2</sup> While the building's reinforced concrete construction, particularly its highly complex polyhedral lamellar dome structure, was a technical masterpiece in and of itself, and in respect to its engineering ingenuity more than equal to the application of the various kinds of glass,<sup>3</sup> it is nonetheless the use of glass that led to this building becoming one of the most iconic structures of twentieth-century modernism. Self-aware of its importance, one of the mottoes Taut incised into the concrete of the Glass House was “Das Glas bringt uns die neue Zeit - Backsteinkultur tut uns nur leid.” He had invited the poet Paul Scheerbart to provide aphorisms to be incorporated into the building and Scheerbart supplied Taut with 16, of which six were eventually used.<sup>4</sup>

## **A Strange Building at the Werkbund Exhibition**

The Glass House was part of the first Deutsche Werkbund-Ausstellung held in Cologne in 1914. The Deutscher Werkbund, a German association of artists, architects, designers, and industrialists, organized the exhibition in Cologne with the initial purpose of establishing a partnership between product manufacturers and design professionals that would improve the competitiveness of German companies on the global market. As Frederic Schwartz explains in his work on the Werkbund, the organization was formed around 1907 to facilitate cooperation between producers, tradesmen, and art professionals. Schwarz writes: “It drew support from groups within and outside of government who saw the artistic reform of German production and trade as a source of national prestige and economic prosperity; and it spoke also to the many groups, so characteristic of Wilhelmine Germany, who furthered cultural reform of all kinds.”<sup>5</sup> Thus, the Werkbund was as much an art and manufacturing collaborative as a state-sponsored program intended to integrate traditional crafts and industrial mass-production techniques, in order to put Germany on a competitive footing with Great Britain and the United States.

The exhibition was held at the Rheinpark, a large open green area opposite Cologne's city center. The Hohenzollernbrücke, crossing the Rhine, essentially connected the famed Gothic Cathedral located in the old town with the entrance to the exhibition situated on the other side of the river. The exhibition had come to the city mainly due to the initiative of Konrad Adenauer, later the German Chancellor, but by 1914 a 36-year-old aspiring inventor, Werkbund member, and local politician. The luxurious sum of five million Goldmarks was spent on the event.<sup>6</sup> Planning began in earnest in 1912, but construction work started only in early 1914. The exhibition was opened to the public on May 15, 1914, with the construction of the Glass House still incomplete. Scheduled to last until the end of October, the exhibition was prematurely shut down on August 5, in reaction to the outbreak of World War I a day earlier.<sup>7</sup>

The encounter with the Glass House must have been strange for visitors to the exhibition grounds. It was as if the earth had miraculously opened, releasing a building's base made of concrete that arched upward with a soft curvature in a shape not unlike the utopian and enormous mega-structure rising out of the Alps that Taut later drew in *Alpine Architecture*.<sup>8</sup> Obviously the Cologne site was not Alpine, yet a row of large mirrored glass spheres suggested that these spheres, too, were brought up from the underworld to the light; that an eruption had come to an inadvertent stop where the globes found their ultimate position – all of this the result of mighty geological forces at play.

Rising immediately from the bulge-like concrete ring was a tambour frame, supported by slim concrete pillars, with partial glass insets in the configuration of a 14-sided prism. A gently curved and slightly pinnacled rhomboid cupola was built on top of the tambour. The glass facets of the cupola, with their mirroring surface, took on a greenish-yellowish coloration in bad weather. Somewhat unhappily, this appearance gave rise to one of the building's nicknames, Spargelkopf, meaning asparagus tip. In clear weather, though, the glass facets mirrored the crystalline transparency of ether, as well as the lively movements of clouds, the play of the wind with the leaves of the adjacent trees, and, sometimes, the fleeting reflection of an airplane. At night-time, the body of the building – illuminated with thousands of watts from the interior – was transformed into a sparkling and radiating jewel – a designation one assumes Taut would have preferred.<sup>9</sup>

The circumstances of how the Glass House became a part of the Werkbund exhibition are unclear. It was not part of the original building program for the exhibition. As a consequence, Taut did not receive an actual building commission from the exhibition's board of directors but was assigned a specific location on the terrain of the exhibition area, not unlike other manufacturer-sponsored pavilions. This meant also that the office of the exhibition organizers did not carry the building cost. Rather, what became the Glass House was given a small financial allowance that covered only a fraction of the expenses. Despite the meager support, Taut valued these concessions because they afforded him a venue for his Glass House, a building he had drawn up previously, long before he hoped for

#### 4 The Early Twentieth Century

participation in the exhibition. While Taut did not yet have the *renommée* to be awarded an outright commission for one of the major exhibition buildings, he did receive support from Karl Ernst Osthaus, a vehement but isolated advocate of the most recent artistic avant-garde movements among the board of directors of the exhibition. Taut also received backing from his former professor, Theodor Fischer, the architect of the main hall of the exhibition. Taut's reputation among leading architects had grown on the basis of two noted exhibition pavilions he had built: the Träger-Verkaufskontor in Berlin (1910) and his Monument des Eisens in Leipzig (1913).<sup>10</sup>

The Glass House was not, however, a typical fit in the ensemble of manufacturer-sponsored pavilions. There was no single company or industrial association – for example, the association for glass manufacturers – that commissioned the building as its exhibition pavilion. Rather, Taut himself acted as owner, with all the associated risks and obligations that came with ownership. The requisition for in-kind donations for materials and other services, as well as partial financial support for the Glass House, was Taut's responsibility. Because he was only modestly successful on these fronts, Taut faced the painful consequences of being the work's main sponsor: 20,000 Goldmarks out of his own pocket. Therefore, the Glass House was partly a Werkbund building, partly an advertisement pavilion for the glass manufacturing industry, and, largely, Taut's very own house in glass.<sup>11</sup> Ownership – and all that it cost – was the price to be paid for the absolute artistic liberty that Taut enjoyed. However, paying for his own building would not be the last insult that Taut had to endure for his architectural vision. In July of 1916, in the middle of World War I, he received a letter from the Cologne City Administration demanding that he, the building's owner, take responsibility for the demolition of the remaining concrete skeleton, now a relic of the former jewel of the exhibition, at an estimated cost of a further 5,000 Reichsmark. Osthaus' unconventional proposal to use the Glass House as a training object for test blasting techniques by the engineering battalion that now occupied the former exhibition area was denied by the commanding officer and Taut was stuck with the financial obligations for the demolition of his own masterpiece.<sup>12</sup>

While the architectural merit of Taut's building was recognized even before the construction was finished, the ownership status and the subsequent financial difficulties caused the Glass House to be incorporated into the planning of the exhibition at a very late date. Approval for the project was secured only four months before the planned opening of the exhibition. Construction began around mid-February. According to Taut's own report, the complex concrete structure was erected in a mere five weeks in March. Despite the swift speed of construction, the Glass House was not on course to be completed for the official exhibition opening.<sup>13</sup> Paul Westheim reported in a preview published in the *Kölner Tagblatt* four weeks before the opening date of the exhibition that one of the “artistically very interesting” buildings, referring to Taut's Glass House, was unfortunately not completed

beyond the “early stages.”<sup>14</sup> It was only during the first week of July, for the event of the 7<sup>th</sup> Annual Convention of the Werkbund held in Cologne, that the Glass House was fully realized.<sup>15</sup> As the war began on August 4 and the exhibition closed prematurely the next day, we can surmise that the Glass House was on display for no more than one month.

Given the project’s late entry into the exhibition planning process, it is no surprise that the site on which the building came to stand was also peculiar. The core area of the exhibition, which included the Haupthalle by Theodor Fischer, the Festhalle by Peter Behrens, the so-called Österreichisches Haus by Josef Hoffmann, the Werkbund theater by Henry van de Velde, the model factory and office building by Walter Gropius and Adolf Meyer, and an exhibition building devoted to paint by Hermann Muthesius, was about 600 meters or more than a third of a mile away from the site of the Glass House.

While it stood far away from the main buildings, Taut’s pavilion did, however, receive a constant flow of pedestrians and visitors because it was situated immediately behind the entrance gate and main ticket stand. The visitors arrived either by the public light rail lines, for which a station was built at the entrance gate of the exhibition, or by other vehicular means. Once there, they would pass the entrance gate and see the Glass House as the exhibition’s very first building. It stood at the beginning of a slightly bent, elongated approach of about 300 meters, which led toward the portal building that served as the ceremonial entrance to the core of the exhibition. The result of the building’s position was that visitors were able to see, and most likely visit, what became one of the main attractions of the entire exhibition, the Glass House, long before they approached the central buildings. While the Glass House was one of the earliest impressions of any visitor to the exhibition, it also stood at the margins of the exhibition, which was further emphasized by the fact that the ground on which the visitors would have walked toward and around the Glass House was muddy on rainy days and dusty on sunny days.<sup>16</sup>

Another ultimately telling peculiarity of the site was the fact that the Glass House stood close to the new amusement park. The Werkbund was forced to accept the presence of an amusement park on the grounds of its exhibition because of the financial benefits it would bring to the entire endeavor.<sup>17</sup> Its proximity to the Glass House is noteworthy, for Taut’s pavilion was the only one in the exhibition that seemed to embrace themes of movement and dynamism, topics that were vividly on display in the amusement park. These themes had, of course, already penetrated the discourse of modern architecture, particularly the artistic and architectural circles of the Italian Futurists, for whom movement, and its engine, modern technology, were keys to the modern world. It was not only Filippo Tommaso Marinetti, however, who pointed to the increasing mechanization of modern life. In fact, the electrification and automation of daily life was well underway by this time. Venues such as the world’s fairs in Paris (1900) and St. Louis (1904) had made ample use of these new possibilities. Yet, little of this existed on the Cologne

site. One sharp-tongued critic described the Werkbund exhibition as “nearly officiated boredom” and “well-mannered yawning caused by these ephemeral creations.”<sup>18</sup> Such criticism would have been understood as an evaluation of the architectural quality of most of the buildings. Yet, it could have been equally applicable to the exhibition’s apparent indifference to technological innovation, as there was no manifestation of the sought-after *Qualitätsarbeit*, no elevators, escalators, electric conveyer belts, or other mechanized innovations to be seen there. One would not have guessed that the organizers were members of an association of industrial manufacturers. Even the machines in Gropius’ model factory were never in motion because the architect objected to the noise such practical demonstrations would cause. While the amusement park did not contain anything that could not be enjoyed at the Berlin Lunapark or at Coney Island in New York, there was an electrical escalator, from which visitors could appreciate the new potentials for movement and dynamism.<sup>19</sup> The Glass House embraced these technological possibilities, but in its own way. The peculiar location on the exhibition grounds was, perhaps, not that unsuitable after all.

### An “Overwhelmingly Beautiful” House

Despite the fact that the Glass House was accessible to the public for a mere month, the building is well documented and allows for detailed descriptions.<sup>20</sup> Given its pivotal position in architecture history, many historians have weighed in. Ian Boyd Whyte described the interior of the pavilion as follows:

The lower floor housed a water cascade while the upper level depended for its effect on the “Luxfer” prisms and coloured glass which made up the inner layer of the glazing. The natural effects of light on glass were heightened by the inclusion of a mechanical kaleidoscope, built in to the back of the pavilion.<sup>21</sup>

Dennis Sharp describes it thus:

The total effect was by all accounts startling both from the outside, which shone at night like a jewel, and from the inside where the effect was heightened by the play of coloured light from the mechanical kaleidoscope. In a sense Taut’s Glass House was an early prototype of the multi-media – or psychedelic – pavilions that are now commonly found at international exhibitions. ... The main space of the exhibition pavilion rose through two floors and the lower part, in which the water basin was situated, contained a number of glass mosaics and cartoons let into the glass wall surfaces.<sup>22</sup>

In comparison to these elaborate accounts, the architect’s own assessment is useful, and even surprising. In his influential *Modern Architecture* of 1929, Taut aimed

not so much for a detailed description but to present it as a key building in the development and possibilities of modern architecture:

Two other protagonists of the next generation gave proof of the new art of architecture at this [the Cologne] exhibition. One was the “Industry” building by Walter Gropius and Adolf Meyer ... The other was perhaps my “Glass House,” the lightest possible concrete structure, destined to demonstrate the use of glass in all its varied aesthetic charm, the variegated shining glass prisms of its glass envelopments, its glass ceilings, glass floors, glass tiles, and the cascade, lit up from beneath, and a giant kaleidoscope, which was intended to illustrate by its illumination at night all that glass might achieve towards the heightening of intensity in our lives. The dome was of network construction without draw-beams – a forerunner of the post-war wood, and the recent steel and concrete – further improved upon “Lamellen” construction.<sup>23</sup>

The dramaturgy of the spatial sequences is equally revealing. As Angelika Thiekötter suggests: “Alles fließt, alles bewegt sich” (“Everything flows, everything is in motion),” and there was more than one way that fluid movements brought the building to life and, ultimately, characterized it.<sup>24</sup> Taut’s architectural choreography did not allow for a visitor to freely ramble through the building’s several settings; instead, movement was precisely directed with regard to what visitors were able to see, hear, and touch at any given moment. The influence of late-baroque architecture, particularly of Balthasar Neumann’s magnificent stairs in the *corps de logis* at the castle in Bruchsal, has been noted as a possible point of reference.<sup>25</sup> But a walk through the Glass House could also be compared to a ride on one of the then-popular ghost trains, with the important difference that the sequence of rooms was to evoke more elevated thoughts and feelings.

The three-sided concrete entrance staircase welcomed its visitors with seven steps before the stair narrowed to one flight of 12 more steps, buttressed by two sturdy concrete half walls on each side that led visitors to the entrance platform, where tickets were sold. On that platform, the entry forked. To the right and left were narrow curved flights of stairs that led up one more level to the cupola room. These stairs were pressed between the slim concrete pillars of the outer 14-sided prism and a second concentric inner cylinder. The staircase, following the curvature of the tambour, remained open toward the outside, as the infill between the pillars was left open above the steps, exposed to the hustling and bustling panorama outside.

Gradually the view closed and the visitor entered into a glassy and otherworldly cupola room – rather like plunging into a body of water. Contemporary reports described the view that emerged as “overwhelmingly beautiful.”<sup>26</sup> The domed and double-layered glazed cupola did not allow for a view to the outside but transformed the entering daylight into a soft and hazy transparency, devoid of shadows. Seven large spherical lamps made of milky glass were suspended in a concentric configuration. In the center, suspended lower than the other seven lamps, hung

## 8 The Early Twentieth Century

another large and vertically elongated light fixture that conveyed colored light and filled the cupola room with a warm and fairytale-like *Stimmung*, a spatial mood as far removed from the everyday world as possible.

Taut's dramaturgic principle moved from the exterior to the interior, from the noisy and busy locomotion of everyday life to a dreamlike seclusion of the interior spaces. This turn toward a physical and mental interiority was heightened by the room's inaccessible and empty center, a round opening in the floor beneath the cupola. Through that opening the reflecting water surface of the fountain on the lower floor became visible, including the glittering play of what seemed to be colorful glass beads lying on the ground of the fountain, all illuminated by the suspended central light fixture. Thus, the cupola room assumed a temple-like character.

Next, two narrow, curved, and light-penetrated staircases, fully encased with glass stone blocks – having been imbued with a strange sense of weightlessness – led the visitors downstairs to the cascade room. Here, once again, the atmospheric disposition changed dramatically. The soft, ether-like light of the cupola room gave way to the colorful shine of glass and ceramic ornaments on ceilings, walls, and floors. Further, the concentric disposition of the cupola room upstairs was transfigured into an axial spatial organization. Moreover, a sense of solemnity was metamorphosed into experiences of sound and movement. The round opening of the floor of the cupola room appeared above, as an eye in the shallow dome – Pantheon-like – pointing upward to the pinnacle of the rhomboid cupola. The basin that had appeared as an enclosed circle now turned out to be the spring of a new kind of movement: waters streamed downward on the shimmering seven-step cascade into a lower basin, flanked by shallow staircases on each side that allowed visitors to follow the flow of the water. The cascade's glowing waters gave the room a rich spectrum of light, sound, and motion, which infused the visitor's senses.

One more spectacle was to come: extending the length of the cascade's axis was a dark recessed alcove into which the variegated patterns of a mechanical kaleidoscope were projected. The endless, rhythmic change of abstract images was the final bewitching act before visitors exited the building through one of the two side doors and faced the everyday world again.<sup>27</sup>

### **Matter-of-Fact Objectivity and Quixotic Utopianism**

Despite the brevity of its public existence, the Glass House made an indelible impression on the world of architecture. Today it still serves as a masterly attempt at the total dissolution of the existing foundations of architecture with respect to the ways it occupies its location, acknowledges its programmatic functions, articulates its expressions, and deploys its materials and construction techniques. The Glass House also largely defined the perception of its architect as perhaps the most important exponent of architectural expressionism. However, Bruno Taut's

influence reaches well beyond his pivotal role for expressionism. He sought nothing less than the “cosmic character of architecture.”<sup>28</sup>

The Glass House embodied a distinct duality that is the hallmark of Taut’s entire body of work. Its aesthetic characteristics consisted of both a matter-of-fact objectivity (the embrace of the newest and most advanced technical possibilities) and a quixotic utopianism (the projection of an otherworldly and fantastic spatial temperament). It embraced all that modernity promised to offer – a potential for objectivity, efficient organization, rationalized ordering systems, clarity, and honesty – but also embodied the side of the modern world that presented the coalescing power necessary for the realization of the sought-after new world – the mystery and almost demonic allure of the intangible.<sup>29</sup> Taut’s cosmology, his vision of a unified totality, provided the entire modernist project with not only a harvest of technological possibilities but also a new and necessarily metaphysical foundation.<sup>30</sup> Although these two seemingly opposed potentials of the time were apparent to Taut early on in his life, his Glass House was a first masterful expression of his vision of a new, and newly unified modern world.

## Notes

1. Bruno Taut, *Glashaus – Bauprojekt* (Cologne: 1914). The translation reads: “The Glass House has no other purpose than to be beautiful.” Taut repeated this statement in his text “Haus des Himmels” (House of Heaven), published in the pamphlet *Frühlicht*, ed. Bruno Taut (1920). The first four sentences of the text read: “A house should be nothing other than beautiful. It should fulfill no other purpose than to be empty, as Meister Eckhart put it: ‘I never want to ask God to be with me. I want to ask him that he makes me empty and pure; because if I were to be empty and pure, God would come to me, as it is his nature to be with me and in me.’ The visitor will be filled with the joy of architecture, which will cleanse all human elements from his soul and make it a receptacle for the divine.”
2. Bruno Taut, *Modern Architecture* (London: The Studio Ltd., 1929), 56.
3. See Joachim Krausse, “Kosmisches Haus in Lichtbauweise. Bruno Tauts Glasbaukuppel,” in *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*, ed. Angelika Thiekötter (Basel: Birkhäuser, 1993), 95–106.
4. Another aphorism, for example, was “Glück ohne Glas – Wie dumm ist das!” (Happiness without glass – how stupid is that!). The translation of the phrase quoted in the main text reads: “Glass brings us a new age – the tradition of brick buildings we are sorry about.” See: Thiekötter, *Kristallisationen, Splitterungen*, 167, 170.
5. Frederic J. Schwartz, *The Werkbund* (New Haven: Yale University Press, 1996), 9.
6. See “‘Wie ein verhaltenes Gähnen...’ – Die Kölner Werkbund-Ausstellung,” in Thiekötter, *Kristallisationen, Splitterungen*, 13.
7. See Bettina Held, “Kleine Glashaus-Chronologie,” in Thiekötter, *Kristallisationen, Splitterungen*, 168–72.

## 10 The Early Twentieth Century

8. Bruno Taut, *Alpine Architektur* [Alpine Architecture] (Hagen: Folkwang-Verlag, 1919), sheet no. 19.
9. See “Erste Annäherung,” in: Thiekötter, *Kristallisationen, Splitterungen*, 11.
10. See “ ‘Wie ein verhaltenes Gähnen...’ – Die Kölner Werkbund-Ausstellung,” in: Thiekötter, *Kristallisationen, Splitterungen*, 15.
11. *Ibid.*, 15–6.
12. See Birgit Schulte, “Dekonstruktion,” in Thiekötter, *Kristallisationen, Splitterungen*, 158–9.
13. See Held, “Kleine Glashaus-Chronologie,” 169.
14. See *ibid.*, 170.
15. See *ibid.*, 171.
16. See “Erste Annäherung,” in Thiekötter, *Kristallisationen, Splitterungen*, 11.
17. See “Ach, knallige Welt, du Lunapark...,” in Thiekötter, *Kristallisationen, Splitterungen*, 19.
18. See Eugen Kalkschmidt, “Die Deutsche Werkbund-Ausstellung in Köln,” *Frankfurter Zeitung* 58, no. 159 (10 April 1914) (in “Wie ein verhaltendes Gähnen ...” in: Thiekötter, *Kristallisationen, Splitterungen*, 13).
19. See “Ach, knallige Welt, du Lunapark...,” in: Thiekötter, *Kristallisationen, Splitterungen*, 19.
20. Angelika Thiekötter, ed., *Kristallisationen, Splitterungen: Bruno Tauts Glashaus* (Basel: Birkhäuser, 1993), 183 pages, is entirely devoted to the documentation and description of the Glass House and provides an all-encompassing study of the building. The book and its 44 short chapters written by 13 different authors provided most of the source material and is the basis for this chapter.
21. Ian Boyd Whyte, *Bruno Taut and the Architecture of Activism* (Cambridge: Cambridge University Press, 1982), 33.
22. Sharp, Dennis (ed.). *Glass Architecture by Paul Scheerbarth and Alpine Architecture by Bruno Taut* (New York: Praeger Publishers, 1972), 12–3.
23. Bruno Taut. *Alpine Architektur*, 56.
24. See “Alles fließt, alles bewegt sich ... Ein Rundgang im Glashaus,” in: Thiekötter, *Kristallisationen, Splitterungen*, 26–8.
25. See *ibid.*, 26–7.
26. See Felix Linke, “Die neue Architektur,” *Sozialistische Monatshefte* 2, no. 18 (October 1914): 1134 (in Thiekötter, *Kristallisationen, Splitterungen*, 26).
27. See “Alles fließt, alles bewegt sich ... Ein Rundgang im Glashaus,” in: Thiekötter, *Kristallisationen, Splitterungen*, 26–8.
28. Markus Breitschmid, “The Architect as ‘Molder of the Sensibilities of the General Public’: Bruno Taut and his *Architekturprogramm*,” in *The Art of Social Critique: Painting Mirrors of Social Life*, ed. Shawn Chandler Bingham (Lanham: Lexington Books, 2012), 162. The Glass House should be understood as an exemplary effort of a much larger discourse by Bruno Taut that found form in such theoretical documents as the *Architekturprogramm* [Architecture Program] (1918); *Die Stadtkrone* [The City Crown] (1919); *Alpine Architektur* [Alpine Architecture] (1919); *Die Auflösung der Stadt* [The Dissolution of the City] (1920); *Der Weltbaumeister* [The Builder of the World] (1920); and *Frühlicht* [Light of Dawn] (1920–23). Also of importance, particularly with regard to the subject

- of glass in architecture, is the correspondence of the *Gläserne Kette* (Glass Chain) (1919–20) and Taut's admiration for the work of Paul Scheerbart: Paul Scheerbart, *Glasarchitektur*, (Berlin: Verlag der Sturm, 1914), translated as "Glass Architecture," in Sharp, *Glass Architecture*, 31–74).
29. Taut's embrace of the two sides of modernism is also reflected in an essay titled "Das Ewige und das Lebendige – Zur Philosophie der Architektur" [The Eternal and the Alive – On the Philosophy of Architecture], written by Paul Bommersheim and published by Bruno Taut in his journal *Frühlicht* (Winter 1921/1922), in Bruno Taut, *Frühlicht 1920–1922. Eine Folge für die Verwirklichung des neuen Baugedankens* (Berlin: Ullstein, 1963), 114–6.
  30. An introduction to Bruno Taut's world conception can be found in a letter titled *Mein Weltbild* (My World-Conception), written as part of the correspondence of the *Gläserne Kette* (Glass Chain) circle on October 20, 1920. See Ian Boyd Whyte, ed., *The Crystal Chain Letters* (Cambridge, MA: MIT Press, 1985), 159–64, and Renata Hejduk and Jim Williamson, ed., *The Religious Imagination in Modern and Contemporary Architecture* (New York: Routledge, 2011), 276–9.

## Bibliography

- Bommersheim, Paul. "Das Ewige und das Lebendige: Zur Philosophie der Architektur." In *Frühlicht 1920–1922: Eine Folge für die Verwirklichung des neuen Baugedankens*, edited by Bruno Taut, 114–16. Berlin: Ullstein, 1963.
- Breitschmid, Markus. "The Architect as 'Molder of the Sensibilities of the General Public': Bruno Taut and his *Architekturprogramm*." In *The Art of Social Critique: Painting Mirrors of Social Life*, edited by Shawn Chandler Bingham. Lanham: Lexington Books, 2012.
- Hejduk, Renata and Jim Williamson, ed. *The Religious Imagination in Modern and Contemporary Architecture*. New York: Routledge, 2011.
- Held, Bettina. "Kleine Glashaus-Chronologie." In *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*, edited by Angelika Thiekötter, 168–72. Basel: Birkhäuser, 1993.
- Kalkschmidt, Eugen. "Die Deutsche Werkbund-Ausstellung in Köln." *Frankfurter Zeitung* 58, no. 159 (10 April 1914). In *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*, edited by Angelika Thiekötter. Basel: Birkhäuser, 1993.
- Krause, Joachim. "Kosmisches Haus in Lichtbauweise: Bruno Tauts Glasbaukuppel." In *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*, edited by Angelika Thiekötter, 95–106. Basel: Birkhäuser, 1993.
- Linke, Felix. "Die neue Architektur." *Sozialistische Monatshefte* 2, no. 18 (October 1914): 1134. In *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*, edited by Angelika Thiekötter, 26. Basel: Birkhäuser, 1993.
- Scheerbart, Paul. *Glasarchitektur*. Berlin: Verlag der Sturm, 1914. Translated as "Glass Architecture" in *Glass Architecture by Paul Scheerbart and Alpine Architecture by Bruno Taut*, edited by Dennis Sharp, 31–74. New York: Praeger Publishers, 1972.
- Schulte, Birgit. "Dekonstruktion." In *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*, edited by Angelika Thiekötter, 158–9. Basel: Birkhäuser, 1993.
- Schwartz, Frederic J. *The Werkbund*. New Haven: Yale University Press, 1996.

## 12 The Early Twentieth Century

- Sharp, Dennis, ed. *Glass Architecture by Paul Scheerbarth and Alpine Architecture by Bruno Taut*. New York: Praeger Publishers, 1972.
- Taut, Bruno. *Glashaus – Bauprojekt*. Cologne: 1914.
- *Alpine Architektur*. Hagen: Folkwang-Verlag, 1919.
- “Haus des Himmels.” In *Frühlicht 1920–1922: Eine Folge für die Verwirklichung des neuen Baugedankens*. Berlin: Ullstein, 1963.
- *Modern Architecture*. London: The Studio Ltd., 1929.
- ed. *Frühlicht 1920–1922: Eine Folge für die Verwirklichung des neuen Baugedankens*. Berlin: Ullstein, 1963.
- Thiekötter, Angelika, ed. *Kristallisationen, Splitterungen: Bruno Tauts Glashaus*. Basel: Birkhäuser, 1993.
- Whyte, Ian Boyd. *Bruno Taut and the Architecture of Activism*. Cambridge: Cambridge University Press, 1982.
- ed., *The Crystal Chain Letters*. Cambridge, MA: MIT Press, 1985.