

CHAPTER ONE

Merz Modeling Materials and the German *Architekturmodelle*

In 1920, Kurt Schwitters announced that with a small assemblage titled *Haus Merz*, he had extended his Merz art to architecture.¹ With its gable roof, tower, and spire, *Haus Merz* appeared as a small cathedral, which could be construed as a model for a planned or existing structure. However, Schwitters never provided an explanation for the role *Haus Merz* was to play as architecture. Instead, the use of found objects to describe the design of a building or building part in miniature was an approach that Schwitters ascribed to a second small assemblage he produced two years later, called *Schloss und Kathedrale mit Hofbrunnen*.² Compared to early twentieth century German architects who cut and transformed materials into *Architekturmodelle* (architectural models) after predetermined designs, Schwitters assembled found objects as already formed parts of buildings to inspire new ones. By using materials in this way, Schwitters' two models challenged the conventional understanding of an architectural model as a scale illustration of an architectural idea. Instead, Schwitters' assemblages explored another application for the use of a model in the design practices of architects in which the materials and method for making a model acts as an aid to the architect in their discovery of new architectural ideas. This chapter will examine the materials Schwitters' used to construct *Haus Merz* and

1. In his article, "Merz" Schwitters claimed that *Haus Merz* was his "first piece of architecture" and that he had created it because he was busying himself with "various branches of art." See: Kurt Schwitters, "Merz," *Der Ararat* 2, no. 1, (January 1921): 3-9. Reproduced in Kurt Schwitters, *Das Literarische Werk*, ed. Friedhelm Lach, vol. 5 (Köln: DuMont, 1981), 74-82. Hereafter references made to Lach's compendium of Schwitters' writings will be abbreviated as follows: *LW*, followed by a volume number and pagination. This English translation is by Ralph Manheim in *LW*, vol. 5, 407.

2. In an article having the same title as his assemblage, *Schloss und Kathedrale mit Hofbrunnen*, Schwitters presented the assemblage as a "Merzentwurf" (Merz design) "welche die Architektur nachbilden kann" (which architecture can copy). See Kurt Schwitters, "Schloss und Kathedrale mit Hofbrunnen," *Frühlicht* 1, no. 3 (Spring, 1922): 87. Reproduced in Bruno Taut, *Frühlicht 1920-1922: eine Folge für die Verwirklichung des neuen Bagedankens* (Berlin: Ullstein, 1963), 166-7. Hereafter references made to "*Schloss und Kathedrale mit Hofbrunnen*," will refer to this reproduction. (All translations by author unless otherwise noted).

Schloss und Kathedrale mit Hofbrunnen as architectural models and the application he expected them to receive in the German architectural culture.

Kurt Schwitters' *Architekturmodelle*

Schwitters identifies *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen* as products of his Merz use of found objects to create art, but as three-dimensional representations of architecture, they are *Architekturmodelle*. In his article “Merz,” Schwitters himself explained that he created *Haus Merz* during a time when he had extended his Merz use of found objects into three-dimensions and created *Lustgalgen* (Lust Gallows) and *Kultpumpe* (Cult Pump), as *Merzplastiken* (Merz sculptures) while *Haus Merz* was his “first piece of Merz architecture.”³ Clearly though, as “architecture,” *Haus Merz*’s diminutive size indicated that Schwitters intended it as a model. Schwitters later presentation of *Schloss und Kathedrale mit Hofbrunnen* as an example for the use of found objects in the design of architecture makes the identification of his small architectural assemblages as models clear. Nevertheless, despite their scale and Schwitters’ naming of his two assemblages as “architecture,” leading scholars of his Merz *oeuvre* have not come to terms with their identification as models. Those who mention *Haus Merz* refer to it as a “sculpture” of “a model church” or an “assemblage representing a church edifice or cathedral,” but not an architectural model.⁴ Similarly, *Schloss und Kathedrale mit Hofbrunnen* is described as a “sculpture” (or model) that is “inconceivable as architecture” and instead labeled as a kind of “concept” or “intellectual model” for the principles of construction in

3. Schwitters, “Merz,” *LW*, vol. 5, 79. This English translation is by Ralph Manheim in *LW*, vol. 5, 407.

4. See: John Elderfield, *Kurt Schwitters* (London: Thames and Hudson, 1985), 113-4; Elizabeth Burns Gamard, *Kurt Schwitters' Merzbau* (New York: Princeton Architectural Press, 2000), 74-76; Dorothea Dietrich, *The Collages of Kurt Schwitters: Tradition and Innovation* (Cambridge, UK: Cambridge University Press, 1993), 170; Werner Schmalenbach, *Kurt Schwitters* (London: Thames and Hudson, 1967), 129 and 184.

Schwitters' larger Merz architecture.⁵

In the case of *Haus Merz*, the hesitation about its identification as a model of architecture may be attributed to its materials and a lack of clarity about the application that Schwitters had intended for it. Indeed, shortly after the creation of *Haus Merz*, Schwitters did introduce it as his “first piece of Merz architecture.”⁶ However, this statement was the only description Schwitters made of the small assemblage and its intended role in his Merz *oeuvre*. By contrast, it was Schwitters' friend, the art critic Christoph Spengemann, who published a commentary on the assemblage in 1920 and identified *Haus Merz* as a “cathedral” that he explained was not created to present the “*Zweckform*” (purpose form) of one, but only its “*künstlerischen Sinn*” (artistic sense).⁷ Spengemann also described how the nave of *Haus Merz* was filled with “*Rädern*” (gears) while the tower clock was created using a trouser button, and that the entire assemblage had been sold to an American artist friend of Schwitters who planned to construct a precise visual copy of it at a larger scale.⁸ This account of its provenance is questionable since Schwitters exhibited *Haus Merz* at the *Der Sturm* gallery in April 1921 and its current whereabouts are unknown.⁹ Nevertheless, from the photograph of *Haus Merz* that Spengemann included in his article, it was an open metal structure filled with an assembly of gears that had a gable roof and stood next to a tower-like object on a rough wooden base inscribed with a title,

5. Elderfield, *Kurt Schwitters*, 115; Gamard, *Kurt Schwitters' Merzbau*, 25; Dietrich, *The Collages of Kurt Schwitters*, 170-2; Dietmar Elger, “Die Merzbauten von Kurt Schwitters,” *Der Architekt* 8 (August 1994): 455.

6. For this claim, see Schwitters, “Merz,” in *LW*, vol. 5, 79. This English translation by Ralph Manheim in *Ibid.*, 407.

7. Spengemann, “Merz - die offizielle Kunst,” *Der Zweemann*, no. 8, 9, 10 (June-August, 1920): 40-1.

8. *Ibid.* 41.

9. Elderfield, *Kurt Schwitters*, 396, n. 63.

date and signature: “Haus Merz 20. K.S.”¹⁰ In this way, *Haus Merz* had the appearance of the small gable-roofed structures with towers that Schwitters drew in his *Stempelzeichnungen* (Stamp Drawings) from the same period and in *Kirche Bäumt Dorf* (Church Rises Against Village) from 1919, identified as a “*Kirche*” (Church). Measurements taken by the author from an elevation drawing of *Haus Merz* indicate that the tower had the same proportions as a common #5 Anker Stone Building Block (7.5 cm x 2.5 cm x 2.5 cm), making the tower clock only 1.4 cm in diameter, and the spire 4.5 cm tall (See Appendix B). These are the approximate sizes of what scholars have frequently identified as a trouser button and a small spinning top.¹¹ Consequently, it can be reasoned that, as a cathedral, the choice and selection of man-made objects for the assemblage was based on Schwitters’ decision that they could lose their original identities and take on the forms and motifs associated with one. However, as an architectural model, the materials Schwitters found and assembled in *Haus Merz* were not made to represent buildings or their parts, while the gears in its nave would leave little room for people to congregate in it.

10. Elderfield observed that the first reproduction was made in Spengemann’s “Merz - die offizielle Kunst.” See Ibid.; Schmalenbach claimed that a number of other early reproductions were made in *Der Zweemann*, *Der Ararat* and Lazló Moholy-Nagy’s *Das Buch neuer Künstler*. See: *Der Zweemann* 1, 2, (1920); *Der Ararat* 2, 1 (1921); Lazló Moholy-Nagy, *Das Buch neuer Künstler* (Vienna: Steindruckerei “Elbemühl” IX, 1922) after Schmalenbach, *Kurt Schwitters*, 129, n. 159.

11. The identities of the objects that Schwitters assembled in *Haus Merz* have received a considerable amount of disagreement amongst scholars. Spengemann, who actually saw *Haus Merz*, has identified the button specifically as a “*Hosenknopf*” (trouser button) and the metal parts in the nave as “*Rädern*” (gears). Despite Spengemann’s account though, Gamard, claimed that the button comes from an “article of clothing,” while Spengemann’s “gears” are identified by Elderfield and Dietrich as “cog-wheels” that Elderfield suggested were “probably the mechanism of a watch.” By contrast, Gamard called the wheels “gears” and suggested that they had been extracted from a “children’s toy.” Concerning the other objects assembled in *Haus Merz*, Elderfield and Dietrich openly identified the spire as a spinning top while Gamard referred to it as part of the tower “made up of simple children’s blocks.” Conversely, while Elderfield did not call attention to the base of the assemblage, Dietrich and Gamard referred to it as “rough” or “rough-hewn” and “wooden.” See Spengemann, “Merz - die offizielle Kunst,” 41; Elderfield, *Kurt Schwitters*, 113-4; Gamard, *Kurt Schwitters’ Merzbau*, 74; Dietrich, *The Collages of Kurt Schwitters*, 170.

This uncertainty about the application of *Haus Merz* as architecture was an important factor in a conception Schwitters was exploring during the same period of time about his Merz art and architecture as having the same aims. In “*Merz - die offizielle Kunst*,” Spengemann recounted an example of this attitude towards *Haus Merz* when a critic claimed it to be a product of “*Verrücktheiten*” (madness) and Schwitters took the assemblage to a tax office to obtain an official account for it as either “material, toy, or art.”¹² By naming *Haus Merz* “architecture” in his article “Merz” and then as “art” with the tax office can be explained by Schwitters identification of his “Merz architecture” as an “art” that he created while exploring the application of his Merz *oeuvre* in the “*verschiedenen Kunstarten*” (various branches of art).¹³ For Schwitters, the ultimate goal of these explorations was to develop an artistic form that merged all genres, including architecture, into a single artistic unity he called a *Merzgesamtkunstwerk* (Merz total art work).

Compared to the paucity of information that Schwitters gave about his intentions for *Haus Merz*, he did explain that *Schloss und Kathedrale mit Hofbrunnen* was an example for the use of found objects in the design practices of architects. Schwitters included the extant photograph of this assemblage in an article having the same title for the 1922 issue of Bruno Taut’s architectural journal *Frühlicht*. In this context Schwitters’ called his second Merz model a “*Merzentwurf für die Architektur*” that used found objects to “*ein Architekt seine Phantasie auffrischen*” (refresh an architect’s imagination).¹⁴ As Schwitters explained:

The *Merzentwurf für die Architektur* [Merz design for architecture] uses any material with architectural feeling, in order to obtain an effect, which architecture can

12. “*Er fragte, ob diese absolute Architektur als Material, als Spielzeug oder als Kunst gelte*” (He asked whether this absolute architecture was considered material, toy or art). Spengemann, “*Merz - die offizielle Kunst*,” 41.

13. Schwitters, “Merz,” in *LW*, vol. 5, 79.

14. Schwitters, “*Schloss und Kathedrale mit Hofbrunnen*,” 166-7.

copy/recreate. The use of *beliebiger Materialien* [arbitrary materials] means an enriching of the *Phantasie* [imagination]. The *Phantasie* [imagination] works in this case rhythmically with rhythms already given. The transfer of the *Entwurf* [design] onto representative material as well as onto constructive possibilities is a question of working through it. The *Entwurf* [design] gives the *Anregung* [stimulation].¹⁵

Like *Haus Merz, Schloss und Kathedrale mit Hofbrunnen* is also missing. From the photograph of the assemblage, it appears to consist of three objects, a cork surrounded by a rough decaying organic mass set vertically next to a smooth horizontal object. Schwitters did claim in the opening paragraph of “*Schloss und Kathedrale mit Hofbrunnen*” that these items are “a medicine cork, a beech log and pine stump on a diagonal board so that the whole gives the impression of a castle-like arrangement at a mountain slope.”¹⁶ Of the three objects, a hole in the medicine cork and the general configuration of the assemblage makes it easy to identify as the courtyard well. Conversely, a visual similarity between the decaying pine stump and the image of a tall castle Schwitters collaged onto a postcard of *Das Kreisen* (The Circling) during the same year seems to provide a clue to its identity (fig. 7). Contradictory to this claim though, Schwitters acknowledged that it was “the points of the pine stump, which represents the Gothic cathedral.”¹⁷

15. “Der Merzentwurf fuer die Architektur verwendet jedes beliebige Material nach architektonischem Gefühl, um eine Wirkung zu erzielen, welche die Architektur nachbilden kann. Die Verwendung beliebiger Materialien bedeutet eine Bereicherung der Phantasie. Die Phantasie arbeitet in diesem Falle rhythmisch mit schon gegebenen Rhythmen. Das Transportieren des Entwurfs auf darstellendes Material sowie auf konstruktive Möglichkeiten ist Sache der Durcharbeitung. Der Entwurf gibt die Anregung.” Ibid., 166.

16. “Hätte meine Frau gesagt, dass ich als erwachsener Kunstmaler einen Arzneikork, einen Buchen- und einen Kiefernstumpf auf ein schräges Brett genagelt hätte, damit das Ganze den Eindruck einer schlossartigen Anlage am Bergabhang mache, und damit ein Architekt seine Phantasie auffrischen könnte, so würde der Schaffner wahrscheinlich gesagt haben, das hätte er sich auch gedacht, aber das zeuge von einer krankhaft gesteigerten Phantasie.” (If my wife had said that I, as an adult painter of art, nailed a medicine cork, a beech log and pine stump on a diagonal board so that the whole gives the impression of a castle-like arrangement at a mountain slope to refresh an architect’s imagination, the conductor would have probably said, that is what he imagined, but that it looked like an imagination enhanced morbidly.) Ibid.

17. “Als meine Frau den Entwurf vom Photographen abholte, musste sie ihn offen tragen, weil die Spitzen des Kiefernstumpfes, der den gotischen Dom darstellt, schon sehr mürbe sind.” (As my wife fetched the design from the photographer, she had to carry it openly, because the points of the pine stump, which represents the Gothic cathedral, are already very rotten.) Ibid.

The lack of visual correspondence between Schwitters' *Schloss und Kathedrale mit Hofbrunnen* and a conventional castle, cathedral, and courtyard well in miniature suggests that, for Schwitters, the use of a found object in the design of architecture wasn't necessarily based upon whether or not it illustrated architecture in appearance. Rather, because "arbitrary materials" were found as medicine corks, beech logs or pine stumps, they hindered the architect from constructing preconceived architectural forms and would instead encourage what Schwitters described in "*Schloss und Kathedrale mit Hofbrunnen*" as the "enriching of the [architect's] imagination" to discover new ones.

Despite Schwitters' explanation that an architect was to copy a *Merzentwurf* in the representative materials as well as use it to explore the constructive possibilities of a planned construction, he refrained from using the designation '*Modell*' to name it.¹⁸ Rather, by calling *Schloss und Kathedrale mit Hofbrunnen* a *Merzentwurf* instead of a '*Merzmodell*' or a '*Merzarchitekturmodell*,' Schwitters intentionally differentiated the application of a *Merzentwürfe* from normative modeling practices. As with other terms Schwitters used to describe his Merz activities, "*Merzentwurf*" was an invented word in which he added the term "Merz" to the German word "*Entwurf*" (design). Schwitters would typically attach the term "Merz" to *Kunstwerk* (artwork), *Malerei* (painting) or *Zeichnung* (drawing) to designate an object as a type of art created using his Merz method of assembling found objects. As an architectural model, it is likely that Schwitters' use of the German word "*Entwurf*" instead of "*Modell*" (model) in reference to *Schloss und Kathedrale mit Hofbrunnen* may be attributed to the application of the word "*Entwurfsmodell*" to name a particular type of architectural model as a "design model." In this instance, Schwitters' use of the word "*Entwurf*" may also be explained as an effort to distinguish it from the models of academic painters that he defined in "Merz" as

18. Schwitters, "Schloss und Kathedrale mit Hofbrunnen," 166.

three-dimensional objects to be copied with “*photographischer Genauigkeit*” (photographic accuracy).¹⁹ Compared to this use of models that “diminish the artistic creation,” Schwitters explained that a *Merzentwurf* used “any material according to an architectural feeling, in order to obtain an effect, which architecture can copy/recreate. The use of arbitrary materials means an enriching of the imagination.”²⁰

Even though Schwitters does not use the German word “*Modell*” to identify *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*, as three-dimensional representations of buildings, they are architectural models. This attribution is confirmed by a broad application of the term in two early twentieth century encyclopedias on architecture: Günther Wasmuth’s *Lexikon der Baukunst* (Encyclopedia of Architecture) from 1929 and the later incomplete encyclopedia of art from Otto Schmitt, the 1937 *Reallexikon zur Deutschen Kunstgeschichte* (Encyclopedia of German Art History).²¹ During the early part of the twentieth century Wasmuth published his four-volume encyclopedia as a set of reference books for historians and practicing architects about the profession.²² In his encyclopedia, Wasmuth defined “*Modell*” in the building arts as “a

19. Schwitters explained how to “paint after nature” is to “transfer three-dimensional corporeality to a two-dimensional surface” by copying a model with “*photographischer Genauigkeit*” (photographic accuracy). After explaining how one learns this method he claimed “*Das ist Akademie!*” (That is academy!). Schwitters, “Merz,” in *LW*, vol. 5, 75.

20. “*Ich musste es, um zu zeigen, dass es Geduldsarbeit ist, gelernt werden kann, wesentlich auf Kontrollieren und Abstimmen beruht und die künstlerische Arbeit des Schaffens verkümmern lässt.*” (I had to do it in order to show that it is patience work that can be learned, that it is based upon controlling and coordinating and diminishes the artistic creation.). Ibid.; Schwitters, “Schloss und Kathedrale mit Hofbrunnen,” 166.

21. *Wasmuths Lexikon der Baukunst*, ed. Günther Wasmuth, Leo Adler, Georg Kowalczyk, vol. 3 (Berlin: Ernst Wasmuth, 1931), 628. s.v., “Modell.”; Ludwig H. Heydenreich, “*Architekturmodell*,” in Otto Schmitt, *Reallexikon zur Deutschen Kunstgeschichte* (Stuttgart: J.B. Metzlersche Verlagsbuchhandlung, 1937), 918-940.

22. Günther Wasmuth explained in the introduction to his four-volume lexicon, that there had not been a reference book on architecture produced for some time and he created it to allow the user to “*schnell und sicher über alle wichtigen Fragen seines Berufsorientiert*” (quick and certain orient themselves over all important questions of their profession). *Wasmuths Lexikon der Baukunst*, 5.

three-dimensional representation of a building” constructed out of a variety of materials.”²³ Eight years later, Ludwig Heydenreich repeated almost verbatim the same definition in his

“*Architekturmodell*” entry for Schmitt’s *Reallexikon zur Deutschen Kunstgeschichte*.²⁴

However, Heydenreich used the term “*Architekturmodell*” instead of “*Modell*” and separated Wasmuth’s definition of the term into a historical classification of types.²⁵ These included:

1. *Entwurfsmodelle* (design models) put together to illustrate a planned building or building part; that after the fifteenth century are created at a scale to the planned construction.²⁶

2. *Modelle nach gebauten Architekturen* (models after built architectures) that were created as *Kontrollmodelle* (control models) for late repairs or building additions;

23. “*Modell, vom ital. modello = Vorbild, Musterbild, ist die dreidimensionale Darstellung eines Bauwerkes, Werk- oder Konstruktionsteiles usw. in Holz, Ton, Wachs, Kork, Papier oder Sondermassen*” (*Modell*, from Italian *modello* = *Vorbild, Musterbild*, is a three-dimensional representation of a building, structure- or part of structure etc. in wood, clay, cork, paper or special masses). Ibid.

24. Ludwig Heydenreich gave a similar definition of an architectural model to the one found in Wasmuth’s Lexikon and added “plastic” as a description of the three-dimensional representation: “*Ein Architekturmodell ist die plastisch-dreidimensionale Darstellung eines Bauwerkes*” (An architectural model is a plastic three-dimensional representation of a building construction). See: Heydenreich, 921. s.v. “*Architekturmodell*.”

25. Heydenreich opened his lexicon entry with a definition of the term “*Architekturmodell*” followed by a categorization of its different types stating: “*Das A. [Architekturmodell] ist von jeher zu verschiedensten Zwecken verwendet worden; systematisch sind vor allem zu unterscheiden: a) die eigentlichen Entwurfsmodelle (Gesamt- und Teilmodelle), hergestellt zur Veranschaulichung eines geplanten Baus oder Bauteils; - b) Modelle nach gebauten Architekturen mit sehr unterschiedlicher Bedeutung, nämlich: 1. Kontrollmodelle, in Bauhütten oder Architektenwerkstätten von einem bestehenden Bauwerk oder Werkteil nachgefertigte Modelle, die als Mittel zur Veranschaulichung der Konstruktion (z.B. für spätere Reparaturen oder Bauerweiterungen) dienen; 2. Lehrmodelle, eine Abart der Kontrollmodelle, hergestellt als Mustertypen zu vorwiegend didaktischen Zwecken in technischen-konstruktiver oder formal-künstlerischer Hinsicht; 3. Erinnerungsmodelle von zum Abbruch bestimmten Bauten; 4. Stadtmodelle, ein Sonderform des A.: plastische Stadtpläne, die oft fortifikatorisch-strategischen Zwecken dienen (Ex-voto Stadtmodelle, mehr oder minder getreue Nachbildungen von gebauten Architekturen, vorwiegend Sakralbauten, die als Votivegeschenke dargebracht oder als Attribute dem Bilde entweder des Stifters oder des hl. Schutzpatrons beigegeben werden (meist in der Hand gehalten); - c) Idealmodelle (Phantasiemodelle), die in der profanen und sakralen Kunst vorkommen, z.B. in der Form von Tabernakeln und Baldachinen, als Kultgerät (Ziborien, Monstranzen, Reliquiare) oder als reine Phantasiebildungen des Kunstgewerbes.*” With my inclusion of “[*Architekturmodell*]” to explain the meaning of Heydenreich’s abbreviation for “A.” Ibid., 921-22.

26. Heydenreich suggests that during the fifteenth century, the architectural model became a representation of the “*mathematisch-rationalen Gesamtplanung*” (mathematical-rational entire planning) of planned constructions. Ibid., 924.

Lehrmodelle (teaching models) as samples for teaching technical and formal principles; *Erinnerungsmodelle* (memory models) for buildings intended to be destroyed; *Stadtmodelle* (city models) for fortification and strategic purposes; *Votiv- und Stiftermodelle* (votive and donor models) for more or less faithful reproductions of predominantly sacred buildings that serve as an attribute in the representations of either the founder or the protecting holy patron.

3. *Idealmodelle* (Ideal models) were three-dimensional objects made to look like buildings in sacred architecture including tabernacles, baldachins, and smaller religious objects (monstrances and reliquaries), while imaginative formations of architecture that act as pure decoration pieces in the *Kunstgewerbe* (arts and crafts) he also referred to as *Phantasiemodelle* (fantasy or imaginative models).

Even today, Heydenreich's classification is frequently referenced in literature on the construction and use of architectural models and is broad enough to include almost any model created during the early twentieth century. However, Schwitters' models challenge the completeness of the above categories and suggest that he had another intention for his three-dimensional representations of architecture in his *Merz oeuvre*.

Based upon Heydenreich's classification of architectural models, there is no indication from the descriptions Schwitters or his critics published about them that he created *Haus Merz* or *Schloss und Kathedrale mit Hofbrunnen* as *Modell nach gebauten Architekturen* or as *Idealmodell* for sacred architecture. If as Spengemann claimed, *Haus Merz* was a scale model for a larger structure, it is an *Entwurfmodell*. Although Spengemann's account cannot be confirmed, Schwitters did present *Schloss und Kathedrale mit Hofbrunnen* as an example of an *Entwurfmodell* that he explained was to be transposed onto the "representative material as well

as constructive possibilities” of a planned architecture.²⁷ However, compared to Heydenreich’s definition of *Entwurfsmodelle*, Schwitters used found objects as a modeling material not to create scale representations of architecture with “photographic accuracy” but to aid in the imagination of new architectural ideas. During the years immediately following the end of World War I, many German architects were also speculating on the making of a new German architecture and constructed models of their proposed designs. The following sections will look for precedents in the early twentieth century German architectural culture that informed Schwitters of the applications that his Merz assemblage of found objects would have received.

Merz Architectural Models and the German *Entwurfsmodelle*, 1920–1923

As *Entwurfsmodelle* produced in Germany between 1920 and 1922, Schwitters’ *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen* confronted a German architectural model-making culture that had its own histories, use of materials, and methods of construction. A survey of architectural models created by German architects between 1500 and 1900 presents a tradition of constructing three-dimensional illustrations of buildings using a variety of materials including plaster, cork, wood, and to a lesser degree, paper.²⁸ Beginning with Adolf Ducher’s earliest preserved model for the planning of the *Luginsland–Turm* (Luginsland Tower) from 1514, *Entwurfsmodelle* in Germany had the intention to assist the client in deciding what to build and also to cultivate the architect’s process of finding and inventing, searching and investigating (fig. 8).²⁹ However, an examination of architectural journals published in Europe and North

27. Schwitters, “Schloss und Kathedrale mit Hofbrunnen,” 166.

28. Hans Reuther, “Wesen und Wandel des deutschen Architekturmodells,” in Ekhart Berckenhagen and Hans Reuther, *Deutsche Architekturmodelle: Projekthilfe zwischen 1500 und 1900* (Berlin: Deutscher Verlag für Kunstwissenschaft, 1994), 12; and Hans Reuther, “Ueber Materialien und Arten,” in *Ibid.*, 15-18.

America between 1920 and 1922 finds that in England and the United States, the limitations of perspective drawings³⁰ and the value of making models to test or “work out” ideas using card and folded paper in three-dimensions were frequently discussed (figs. 9–11).³¹ Conversely, there were very few articles published in Germany on the drafting room practices of architects. Rather, most architectural discourse in Germany after the end of World War I concerned itself with what to build for a new post-war German architecture than how to conceive it.³² Nevertheless, these discussions led to several architectural exhibitions and a series of design proposals wherein many

29. Reuther, “Wesen und Wandel des deutschen Architekturmodells,” 11-12.

30. This critique of orthogonal drawings and perspective in particular frequently occurs as an introduction to the value and use of models to visualize a design from many angles. See: Berthold Audsley, “Miniatures and Their Value in Architectural Practice,” *The Brickbuilder* 23 (September, 1914): 213; Edwin S. Parker, “The Model for Architectural Representation,” *The Architectural Forum* 30 (1919): 119; William Boring, “Use of Models in the Study of Architecture,” *Architecture* 45 (1922): 200 and a shorter article with the same title in: *Architect and Engineer* 60 (1920): 100; Harvey William, *Models of Buildings How to Make and Use Them* (London: The Architectural Press, 1927): 1; Philip McDonnell admits the advantages of perspective but also its limitations to depict buildings that have salient projections, unusual heights, curved lines or oblique angles. See Philip McDonnell, “Models and Their Making,” *The American Architect* 107 (May 1915): 277.

31. For the value of using models to study and develop their ideas, see Parker, 119-120; Boring, 200-202; Audsley, 213; McDonnell, 277; William, 2-4, Eugene Clute, “Models, Their Making and Their Use,” in *Drafting Room Practice* (New York: Pencil Points Press, 1928), 57. That preliminary study models should be plain and simple see: William, 26, 31; Parker, 121 and Audsley, 213-14. The architect is recommended to draw the model on a sheet of paper, cut it, fold it and then add on additional layers including columns, cornices and moldings. Clute, 50 – 59, 63; McDonnell, 278-279; William, 26-40; Parker, 121; Percival Marshall, *Wonderful Models* (New York: Spoon and Chamberlain, 1928), 177. On account of its untidiness, plaster is considered undesirable to use in the drafting room. See: Royal Rook, “Model Making in the Drafting Room,” *The American Architect*, 114, 2227, (August, 1918): 247 and Audsley, 214. Both McDonnell and Clute discuss the value of plaster models although both consider these to be made by modelers and not directly by the architect. See: McDonnell, 282 and Clute, 56-62. In regards to paper Marshall argued how “The best work is done by ‘building up,’ that is, making the model with individual flat pieces, reinforced at the corners, with strips or webs of card, the parts usually being erected on a baseboard as illustrated . . . Small moldings and cornices can be built up with superimposed layers of card, or small parts added in plastic wood and carved or filed to shape.” See: Marshall, 177.

32. Chapter two of this dissertation described how after Germany’s defeat in the World War and the abdication of Kaiser Wilhelm II in 1918, many artists and architects joined the *Novembergruppe* and later the *Arbeitsrat für Kunst* to help forge a new German architecture. These individuals rallied themselves around Bruno Taut’s “*Architektur-Programm*” (Program for Architecture) from 1918, Walter Gropius’s 1919 pamphlet for an *Exhibition of Unknown Architects* and his Programme of the Staatliches Bauhaus Weimar from the same year. In these instances, ideas and projects were proposed about what the new architecture should be like but not the kinds of drawings or models one should create to conceive it. Bruno Taut, “A Program for Architecture,” (1918). Reproduced and translated in: *Programs and Manifestoes on 20th Century Architecture*, trans. Michael Bullock, ed. Ulrich Conrads, 19th printing (Cambridge, MA: The MIT Press, 2002), 41-3; Walter Gropius, Bruno Taut and Adolf Behne, “New Ideas on Architecture,” (1919). Reproduced and translated in: *Ibid.*, 46-8; Walter Gropius, “Programme of the Staatliches Bauhaus Weimar,” (1919). Reproduced and translated in: *Ibid.*, 49-53.

early twentieth century architects exhibited *Entwurfsmodelle* as illustrations of planned or proposed constructions. Compared to these normative practices, Schwitters belonged to a small group of architects who experimented with the role that different modeling materials and methods could play as inspiration for new architectural designs.

The earliest venues for new architectural ideas between 1919 and 1923 included the *Arbeitsrat für Kunst's Ausstellung für unbekannte Architekten* (Exhibition for Unknown Architects) during 1919, the four issues of Bruno Taut's architectural journal *Frühlicht*, published from 1920 until 1922, and the 1923 *Bauhaus Ausstellung* (Bauhaus Exhibition) at the Weimar Bauhaus. In three rooms of the J.B. Neumann *Graphisches Kabinett* in Berlin, the *Arbeitsrat's* exhibition drew together architects, graphic artists, and painters who presented drawings of architectural fantasies, watercolor sketches, and plaster models depicting colored glass structures and fantastically shaped buildings.³³ Following this exhibition, Bruno Taut initiated a correspondence with many of its contributors on theoretical ideas of architecture that became known as *Die Briefe der Gläsernen Kette* (The Crystal Chain Letters).³⁴ These letters were in many instances used by Taut as material for *Frühlicht*. Taut's journal published projects, prose, drawings, sketches and models accompanying actual and utopian architectural projects. The *Frühlicht* publications, along with three original photographs of the *Bauhaus Ausstellung*, provide a large sample of the German architectural modeling techniques in practice during the

33. Max Taut, Walter Gropius and Otto Rudolf Salvisberg organized the *Arbeitsrat's Ausstellung für unbekannte Architekten* at the gallery of J.B. Neumann *Graphisches Kabinett* in Berlin during April of 1919. Here architectural design, graphic art, painting, and music were exhibited. For a discussion of the aims and reasons for the works selected for the exhibition see: Marcel Francisocono, *Walter Gropius and the Creation of the Bauhaus* (Chicago, IL: University of Illinois Press, 1971), 145-6; Dennis Sharp, *Modern Architecture and Expressionism* (New York, NY: George Braziller, 1966), 61-67. Behne also published a description of the exhibition and its contents in Adolf Behne, "Unbekannte Architekten" *Sozialistische Monatshefte* 25, no. 10 (April 1919): 422-23.

34. These letters have been reproduced in Iain Boyd Whyte, ed. and trans., *The Crystal Chain Letters: architectural fantasies by Bruno Taut and his circle* (Cambridge, MA: MIT Press, 1985).

period of time that Schwitters developed *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*. One can observe from the models presented in these instances that Schwitters' use of found materials was unconventional compared to a dominant use of plaster and clay.

This preference for plaster and clay as a modeling material is present in the projects published in the four issues of *Frühlicht*. Included in the first issue from the Fall of 1921 are clay models of Taut's *Zitadellenmauer* (Citadel Wall) project and Carl Krayl's *Büro und Geschäftshaus* (Firm Office Building) from 1921 (figs. 12 and 13).³⁵ Likewise, in the second issue from the Winter of 1921–22, Taut published Herman Finsterlin's plaster models of his *Wohnhaus am Starnberger See* (Living House on Starnberger lake) and *Hygiene-Museum* (Hygiene Museum) from 1921 along with photos of the clay site and building models for his 1921 *Gefallenendenkmal für Magdeburg* (War Memorial for Magdeburg) project (figs. 14–17).³⁶ Similarly, the Spring 1922 issue of *Frühlicht* included clay models of Max Taut's *Friedhof Stahnsdorf-Berlin* (Cemetery at Stahnsdorf-Berlin) project from 1921–1922, Max Taut and Peter Behrens *Hochhaus am Kemperplatz* (Skyscraper on Kemperplatz) competition entries from 1922, and Max Taut's *Bürohaus des Allgemeinen Deutschen Gewerkschaftsbundes* (Office Building of the German Trade Union Federation) project (figs. 18–21).³⁷

35. Taut published three views of the clay model for Carl Krayl's *Büro und Geschäftshaus* (Firm Office Building). See: Bruno Taut and Stadtrat Professor Dr. Landsberg, "Büro- und Geschäftshaus auf dem Kaiser-Wilhelm-Platz in Magdeburg." Reproduced in: *Frühlicht 1920-1922*, 83-5; The two photographs of Bruno Taut's *Zitadellenmauer* (Citadel Wall) model were published in an article by Theodor Volbehr titled "Die Zukunft der Zitadelle" (The Citadel of the Future). See: Theodor Volbehr, "Die Zukunft der Zitadelle," in: *Ibid.*, 86.

36. Herman Finsterlin included two photographs of plaster models for his *Wohnhaus am Starnberger See* (Living House on Starnberger lake) and *Hygiene-Museum* (Hygiene Museum) in his article "Innenarchitektur" (Interior Architecture) and Bruno Taut published four photographs of the clay site and building models of his *Gefallenendenkmal für Magdeburg* (War Memorial for Magdeburg) in an article having the same title. Herman Finsterlin, "Innenarchitektur." Reproduced in: *Ibid.*, 108; Bruno Taut, "Gefallenendenkmal für Magdeburg." Reproduced in: *Ibid.*, 110-11.

37. In the Winter, 1922 issue of *Frühlicht*, Max Taut published a photo of the clay model for his *Friedhof Stahnsdorf-Berlin* (Cemetery at Stahnsdorf-Berlin) along with a short description of the project titled "*Erbbegrabnis Wissinger*" (Built Tomb Wissinger), while in the third, Spring, 1922 issue, a single photograph of the models for his

Three photos from the 1923 *Bauhaus Ausstellung* at the Weimar Bauhaus reveal that many models in the exhibition were also created using plaster.³⁸ These include the plaster models of Gropius' 1922 *Bauhaus Siedlungshäuser* (Bauhaus Housing), *Einfamilienhaus* (Single Family House) and Farkas Ferenc Molnár's 1922 *Der Rote Würfel* (The Red Cube) in photograph 1 (figs. 22–24).³⁹ Likewise, in photograph 2, Gropius' placed the plaster model of his 1922 *Ausstellungs-und Lagergebäude der Landmaschinenfabrik Gebrüder Kappe & Co.* (Exhibition and Storage Building, Kappe Brothers and Co. Farming Equipment) on display in the middle of an adjoining room (figs. 25 and 26), while the plaster model of his 1922 *Chicago Tribune Tower Competition* is standing on a pedestal to the right of photograph 3 (figs. 27 and 28).⁴⁰

During the years leading to Schwitters' assemblage of *Schloss und Kathedrale mit Hofbrunnen* other models frequently published in literature on the design of German architecture were also constructed out of plaster or clay. These examples include the plaster models of Hans Poelzig's 1921 *Wegkapelle* (literally "Way" or "Road" Chapel) and Eric Mendelsohn's

and Peter Behrens' *Hochhaus am Kemperplatz* (Skyscraper on Kemperplatz) competition entries were included in a short description of the winning entries titled "*Architektonische Lösung: Ecke Bellevue- und Viktoriastrasse am Kemperplatz in Berlin*" (Architectonic Solution: Corner of Bellevue and Viktoriastrasse on Kemperplatz in Berlin). In the fourth Summer 1922 issue of *Frühlicht* is found a single photograph of Max Taut's clay model for the *Bürohaus des Allgemeinen Deutschen Gewerkschaftsbundes* (Office Building of the German Trade Union Federation) project that appears in an article having the same title. For these projects see their reproductions in: *Ibid.*, 113, 159, 162 and 195 respectively.

38. The three photos are found in the Berlin Bauhaus Archive. I have separated them here with the titles: 'Photograph no. 1,' 'Photograph no. 2' and 'Photograph no. 3.' They are listed at the Bauhaus Archive as follows: Photograph no. 1: "Bauhaus-Ausstellung Weimar 1923, Siedlungshäuser von Gropius und Meyer, Landmaschinenwerke Kappe und Co." New prints from the Bauhaus Archive, Berlin: Inventory Number: F 2001/2.45. Original glass negative from Brandenburgisches Landesamt fuer Denkmalpflege und Archäologisches Museum, Berlin, Neg.-Nr.: 64i 18/III 8; Photograph no. 2: "Bauhaus-Ausstellung Weimar 1923, Bauten von Walter Gropius und Fotos von Modellen." New prints from the Bauhaus Archive, Berlin, Inventory Number: F 2001/2.46. Original glass negative from Brandenburgisches Landesamt für Denkmalpflege und Archäologisches Museum, Berlin, Neg.-Nr.: 64i 17/III 7; Photograph no. 3: "Bauhaus-Ausstellung Weimar 1923, u.a. Entwürfe Modell eines Hochhauses aus Glas von Mies van der Rohe (1920/1)." New prints from the Bauhaus Archive, Berlin, Inventory Number: F 2001/2.44. Original glass negative from Brandenburgisches Landesamt für Denkmalpflege und Archäologisches Museum, Berlin, Neg.-Nr.: 64i 16/III 6. Unless otherwise noted these photographs will continue to be identified as 'Photograph 1,' 'Photograph 2' and 'Photograph 3.'

39. Photograph no. 1.

40. The second and third photograph mentioned here are Photograph no. 2 and Photograph no. 3.

Einsteinturm (Einstein Tower) from 1917–1921. Conversely, Walter Determann's *Bauhaus Siedlung* (Bauhaus Settlement), and Wassili Luckhardt's two models of a *Konzerthaus* (Concert Hall) from 1920 used clay (or plasteline) as a mass or built-up on cardboard (figs. 29–33).

These examples indicate a dominant use of plaster and clay for making models to illustrate developed designs. Of the plaster and clay models published in the four issues of *Frühlicht*, the ones created for Carl Krayl's *Büro und Geschäftshaus*, Bruno Taut's *Gefallenendenkmal für Magdeburg*, Max Taut's *Friedhof Stahnsdorf-Berlin* and *Bürohaus des Allgemeinen Deutschen Gewerkschaftsbundes* along with Peter Behrens and Max Taut's *Hochhaus am Kemperplatz* competition entries were all accompanied by detailed scale plans, sections, elevations or perspectives of the projects.⁴¹ Similarly, the plaster models produced for Gropius and Ferenc Molnár's projects in the Bauhaus exhibition of 1923 were also three-dimensional illustrations of measured drawings that can be seen hanging on the wall behind the projects or found published in literature on the architects.⁴² In this regard, scale drawings are also found in publications discussing Determann's *Bauhaus Siedlung* and Mendelsohn's *Einsteinturm* projects while the sharp, precise angles of Poelzig's plaster *Wegkapelle* model suggest it was not carved, but cast in a mold.⁴³ By contrast, Bruno Taut included only a small-scale plan with the

41. For the publication of these models in the first three issues of *Frühlicht* see: Taut, *Frühlicht*, 80-4, 110-11, 113, 59, 162 and 194-5 respectively.

42. Gropius' *Bauhaus Siedlungshäuser, Einfamilienhaus, Ausstellungs-und Lagergebäude der Landmaschinenfabrik Gebrüder Kappe & Co., Chicago Tribune Tower Competition* and Farkas Ferenc Molnár's *Der Rote Würfel* (The Red Cube) are all published with plans, elevations, sections or perspectives in: Klaus-Jürgen Winkler, *Die Architektur am Bauhaus in Weimar* (Berlin: Verlag für Bauwesen, 1993), 84-6, 87, 53-4, 48-49 and 91 respectively.

43. Drawings of Determann's *Bauhaus Siedlung* are frequently published and appear in Annemarie Jaeggi's article "Architektur am frühen Bauhaus: 'zunächst auf dem Papier grosse Pläne'," with the model. See: Annemarie Jaeggi, "Architektur am frühen Bauhaus: 'zunächst auf dem Papier grosse Pläne,'" in *Bau einer neuen Welt: architektonische Visionen des Expressionismus*, ed. Rainer Stamm and Daniel Schreibe (Köln: Walther König, 2003), 101; Mendelsohn's *Einsteinturm* was built following the design presented in the model. Plans for the project can be found in Sharp, *Modern Architecture and Expressionism*, 114-17; Poelzig's plaster *Wegkapelle* model is

model of his *Zitadellenmauer* project.⁴⁴ As a simple design, Taut's model could have been the basis for creating the drawing. This though was certainly a method Finsterlin employed to design his *Wohnhaus am Starnberger See* and *Hygiene-Museum* projects whose complex forms could not be cast in molds or easily carved according to predetermined plans and sections.⁴⁵

Compared to plaster or clay, the found objects that Schwitters used as modeling materials in *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen* had very different implications for the design of architecture. In the case of clay, it has no shape proper to it, but can be formed and reformed into almost any architectural configuration. Similarly, plaster is a powder until it mixes with water, and through a chemical reaction, hardens as a mass. In this way, plaster is different from clay since its ultimate form must either be set up in a mold within which it can cure or it must be carved by removing the material from it in its solid state. Conversely, the materials that Schwitters used to create *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen* already had defined shapes as natural or man-made objects that he found. By assembling instead of carving or casting his modeling materials, Schwitters' assemblages could not illustrate any architectural configuration of form and space, but were dictated by those that the materials could create.

Schwitters' own experiences with clay and plaster, along with his brief training in architecture suggest that he was aware of the utility these materials had for creating models of architecture long before he began to create *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*. In a short biography on himself from 1930, Schwitters recounted that until his

published with an elevation and section of it in Holger Brülls article: "*Simulationen des Heiligen in der experimentellen Sakralarchitektur nach dem ersten Weltkrieg*." See: Holger Brülls, "*Simulationen des Heiligen in der experimentellen Sakralarchitektur nach dem ersten Weltkrieg*," in: *Bau einer neuen Welt*, 130-131.

44. Taut's *Zitadellenmauer* site model was published in an article from Theodor Volbeher. See: Theodor Volbeher, "Die Zukunft der Zitadelle," 86-7.

45. Finsterlin, "Innenarchitektur," 108.

graduation from high school in 1909 he only had interest in “painting, kneading with clay and poetry.”⁴⁶ Later, in 1916, Gwendolen Webster claimed that Schwitters used plaster to make a death mask from his son Gerd’s face and in 1917, a bust of his wife Helma.⁴⁷ As architectural modeling materials, Schwitters had some introduction to the use of clay and plaster after his parents encouraged him to enroll in the study of architecture at the *Technische Hochschule Hannover* (Hanover Technical College) in 1918.⁴⁸ Here, Schwitters attended classes for two semesters where the course “*Modellieren I*” (Modeling I) was offered during both semesters as a recommended part of the first year curriculum.⁴⁹ Even though Schwitters, who had only recently taken up an interest in architecture, would not have strayed far from a recommended curriculum, the enrollment at the technical college was low during World War I making it difficult for him

46. In a biography published in *Gefesselter Blick* during 1930, Schwitters gave a short description of the direction that his education took before attending art school. Here he described his interest in working with clay: “*Ich besuchte das Realgymnasium in Hannover und musste auf Wunsch meiner Eltern das Abiturientenexamen machen, denn ich sollte studieren. Für mich kam aber nur Malerei, Kneten in Ton, Dichten in Frage.*” (I attended high school in Hanover, and on the wish of my parents, had to take the high school graduate exam, because I should go to university. For me though, only painting, kneading with clay and poetry came into question.) See: Kurt Schwitters, “Kurt Schwitters” in *Gefesselter Blick: 25 kurze Monografien über neue Werbegestaltung*, ed. Von Heinz und Bobo Rasch (Stuttgart: Wissenschaftlicher Verlag Zugg, 1930), 88-89; Reproduced in *LW*, vol. 5, 335.

47. For Webster’s account that Schwitters used plaster to create the death mask of his son Gerd and the bust of his wife Helma Schwitters see: Gwendolen Webster, *Kurt Merz Schwitters: A Biographical Study* (Cardiff: University of Wales Press, 1997), 210.

48. “*Obgleich ich schon einmal im Kriege 2 Semester Architektur studiert hatte.*” (Although I had already studied architecture for two semesters during the war.). See: Kurt Schwitters, “Daten aus meinem Leben,” Typewritten manuscript reproduced in *LW*, vol. 5, 241. That Schwitters studied at the *Technische Hochschule Hannover* see: Universitätsarchiv Hannover Akz. 2000/05 Matrikelverzeichnis der Technischen Hochschule Hannover WS 1911/12 - SS 1920; That it was his parents who encouraged him to study there is recounted by Gwendolen Webster in: Webster, *Kurt Merz Schwitters* 41; For more on these events, see also: Elderfield, *Kurt Schwitters*, 114.

49. During both the Winter and Summer semesters at the *Technische Hochschule Hannover* there was a course taught by Dozent Professor Grundelach titled “*Modellieren I*” (Modeling I) on Tuesdays and Fridays from 6-8 pm. In the “*Studienpläne*” (Curriculum) for the *Technische Hochschule* it is explained that courses listed in the weekly calendars for the different *Abteilungen* (units, years) and semesters were recommended parts of the curriculum. ‘Modeling I’ was included in *Abteilung I*. Schwitters’ course transcripts are no longer available at archive of the Technische Hochschule and it is not known when he enrolled in this particular course.. See in the *Universitätsarchiv Hannover*: “*Studienpläne*” in *Programm der Königlichen Technische Hochschule zu Hannover für das Studiendjahr 1917-18* (Technische Hochschule Hannover, 1917), 70 and “*Abteilung I für Architektur*,” in *Ibid.*, 73-5;

not to encounter the other students and their semester coursework either directly or in conversation.⁵⁰ During the months leading to the publication of his article, “*Schloss und Kathedrale mit Hofbrunnen*,” Schwitters also had an opportunity to familiarize himself with the context within which it was to be received and read the two issues of *Frühlicht* that were already in print. These two issues would have introduced Schwitters to the use of clay and plaster by Carl Krayl, Peter Behrens, Bruno Taut, and Max Taut to create models of architecture as a mass after preconceived designs.

Compared to a conventional use of plaster and clay, Schwitters’ use of found materials to model architecture during the beginning of the twentieth century occurred at a time when a small group of architects in Germany were also experimenting with the use of alternative modeling materials including wood, glass and cardboard. These individuals include Herman Finsterlin, who published his 1921 wood building block set called *Stilspiel* (Play of Styles) in the third issue of *Frühlicht* and Ludwig Mies van der Rohe, who included a photograph of his 1922 card and glass *Hochhaus* (Skyscraper) model in the fourth issue (figs. 34 and 35).⁵¹ Literature on the architecture from between 1923 and 1924 includes two models in which cardboard is introduced as a modeling material for Theo van Doesburg’ *Maison Particulière* (Particular House) project from 1923 and Marcel Breuer’s *Etagenwohnhaus* (Apartment Block) from the same year (figs.

50. The course enrollments during the war were considerably less and, even if had he not taken the course, “*Modellieren I*” himself, Schwitters would have surely met many of the other students in his year and heard about the work they were producing in the other courses including. For the decreased numbers in student enrollment at the Technische Hochschule Hannover during World War I see: Rita Seidel, “Hannover 1831-2006. Daten zur Geschichte,” in Rita Seidel ed., *Universität Hannover 1831-2006. Festschrift zum 175-jährigen Bestehen der Universität Hannover*, vol. 1 (Hildesheim 2006), 25.

51. Finsterlin published five photographs of his *Stilspiel* (Play of Styles) wood building block set showing various assemblies of the blocks in the Summer 1922 issue of *Frühlicht*. In the same issue, Ludwig Mies van der Rohe included two views of the card and glass model of his *Hochhaus* (Skyscraper) project in an article titled “Hochhäuser.” See: Hermann Finsterlin, “Die Genesis der Weltarchitektur oder die Deszendenz der Dome als Stilspiel: Ein Lehr-, Spiel- und Versuchsbaukasten,” *Frühlicht* 1, no. 3 (Spring 1922); Reproduced in: Taut, *Frühlicht 1920-1922*, 149-158. See specifically 153; Ludwig Mies van der Rohe, “Hochhäuser,” *Frühlicht* 1, no. 4 (Summer 1922); Reproduced in: Ibid., 212-13. Mies van der Rohe’s project was also exhibited at the 1923 Bauhaus Exhibition and can be seen in Photograph 3 of the exhibition.

36 and 37). Schwitters' own production of two cardboard stage models for his 1924 *Normalbühne* (Normal Stage) project occurred during the same time as these explorations (figs. 38 and 39). As Schwitters explained, these models were intended to present his design of “*normale Formen und Farben*” (normal forms and colors) on a typical and thus roughly to scale stage. Schwitters' exposure to normative modeling practices as well as the construction of his two stage models indicate that he understood the concept of a model as a scalar anticipation of built architecture and that he had very different intentions for his use of found objects to create *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*.⁵²

Nevertheless, Schwitters' exploration of the role that different modeling materials and methods could afford him in the creation of new architectural designs was not an isolated instance in the early twentieth century architectural culture. A handful of his contemporaries, including Finsterlin, Wassili Luckhardt and Mies van der Rohe, also experimented with the utility that different modeling materials and methods could afford the architect in the development of new innovative architectural designs. Similar to Schwitters' found objects, the blocks in Finsterlin's *Stilspiel* were already made for other purposes and the individual who used them could re-assemble them in different ways to discover new architectural configurations.⁵³ In “*Vom Entwerfen*” (From Design), Wassili Luckhardt expressed a similar interest in the role that a modeling method could play in the design of architecture by recommending that architects put

52. In an article titled “*Die normale Bühne Merz*,” Schwitters' explained how: “*Die normale Bühne Merz ist eine normale Montierbühne. Sie verwendet nur normale Formen und Farben als Begleitung und Hintergrund für typische und individuelle Formen und Farben. Die normale Bühne Merz ist einfach und zeitgemäss, billig stört nicht die Handlung, ist leicht zu verändern, unterstützt die Handlung durch unterstreichen der beabsichtigten Wirkung, kann mitspielen, sich bewegen, passt für jedes Stück.*” (The normal stage Merz is a normal installation stage. It uses only normal forms and colors as accompaniment and background for typical and individual forms and colors. The normal stage is simple and contemporary, cheap; the handling does not disturb, is easy to change, supports the action by emphasizing the intended effect, can play with, moves, fits for every piece.). Kurt Schwitters, “*Die normale Bühne Merz*,” *Merz*, no. 11 (1924): 91. Reprinted in: Schwitters, *LW*, vol. 5, 202.

53. Finsterlin, “*Die Genesis der Weltarchitektur oder die Deszendenz der Dome als Stilspiel*,” 149-154 and 158.

down their pencil and ruler to find inspiration in the accidental forms that resulted from kneading clay or plasteline.⁵⁴ During the same period, Mies van der Rohe claims that he hung a preliminary glass model for his *Hochhaus* project outside his studio window to study and adjust the effect of sunlight on its glass walls. As Mies van der Rohe explained in the Summer 1922 issue of *Frühlicht*, the results of this study are evident in the amoeba-like shape of the plan where the glass walls of the model were adjusted to obtain the desired illumination of the interior.⁵⁵ In these examples, like those presented by Schwitters, the model is not created as an illustration of a preconceived design but the result of a process by which the modeling material or its method of construction played a determinant role in its conception. However, Schwitters provided no evidence that he had any direct contact with these architects or their modeling methods until after he published “*Schloss und Kathedrale mit Hofbrunnen*” in 1922. Rather, only after its publication would Schwitters have encountered Finsterlin’s *Stilspiel* and Mies van der Rohe’s

54. “Man lege Bleistift und Lineal beiseite, nehme Ton oder Plastelin und fange an, ganz von vorn, ganz unvermittelt und unbeeinflusst zu kneten und man wird erstaunt sein über die ungefügten Klumpen, die da zunächst auf dem Modelliertisch zu sehen sind, und die nichts von den schönen Proportionen auf dem Reissbrett an sich haben. Aber man wird zu seinem Erstaunen bemerken, dass das Licht in diesen Formen spielt, dass ein Luftraum diese Form umgibt. Man wird beim Weiterschreiten der Arbeit sehen, wie diese Formen in den Luftraum hineinwachsen und ihn anderseits wieder umfassen und ihn einschliessen.” (One lays pencil and ruler aside, takes clay or plasteline and starts from the beginning, immediately and uninfluenced to knead, and one will be astonished by the unformed clumps that are seen on the modeling table, and that have none of the nice proportions from the drawing table. But one will notice to their astonishment that the light plays in these forms and that an air space surrounds this form. One will see by continuing the work, how these forms grow into the air space and on the other hand, surround and enclose it.) Wassili Luckhardt, “Vom Entwerfen,” in *Stadtbaukunst alter und neuer Zeit*, vol. 11, (1921). Reproduced in: *Brüder Luckhardt und Alfons Anker: Berliner Architekten der Moderne*, (Berlin: Akademie der Künste, 1990), 122.

55. “Meine Versuche an einem Glasmodell wiesen mir den Weg, und ich erkannte bald, dass es bei der Verwendung von Glas nicht auf eine Wirkung von Licht und Schatten, sondern auf ein reiches Spiel von Lichtreflexen ankam. Das habe ich bei dem anderen hier veröffentlichten Entwurf angestrebt. Bei oberflächlicher Betrachtung erscheint die Umrisslinie des Grundrisses willkürlich, und doch ist sie das Ergebnis vieler Versuche an dem Glasmodell. Für Kurven waren bestimmend die Belichtung des Gebäudeinneren, die Wirkung der Baumasse im Strassenbild und zuletzt das Spiel der erstebten Lichtreflexe.” (My experiments with a glass model showed me the way and I soon realized that with the use of glass, it does not depend upon the effect of light and shadow, but on the rich interplay of light reflections. That is what I have aimed for with the design published here. At first glance the contour of the ground plan appears arbitrary, but in reality it is the result of many experiments on the glass model. The curves were determined by the need to illuminate the interior, the effect of the building mass in the urban context, and finally the play of the desired light reflection.) See: Mies van der Rohe, “Hochhäuser,” 215-16.

Glass Skyscraper project since Finsterlin's *Stilspiel* appeared in the same issue of *Frühlicht* as his own *Schloss und Kathedrale mit Hofbrunnen* model and Mies van der Rohe's *Glass Skyscraper* in the one that followed. Because of which, it is not likely that Finsterlin, Wasilli Luckhardt or Mies van der Rohe's modeling methods influenced Schwitters' decision to extend his Merz use of found objects to the design practices of German architects. Instead, one must look to other precedents in the German architectural culture, and Schwitters awareness of them, to discover the applications that he had foreseen for his use of found objects to create models of architecture.

Entwurfmodelle as an Inspiration for Architecture

In spite of the differences between the modeling materials and methods of Finsterlin, Luckhardt, Mies van der Rohe and Schwitters, their shared use of models to “inspire” rather than “illustrate” architectural ideas is not an isolated event in the history of architecture. Vitruvius' story of the invention of the Corinthian capital is discussed below as another early example for the use of a models as a generator of architectural ideas. Further, a study of Gothic reliquaries and cathedral micro-architecture also reveals a use of models as experimental tools for the development of Gothic architecture that challenge Heydenreich's classification of *Idealmodelle* as mere decorative forms.

In Heydenreich's definition mentioned at the beginning of this chapter, *Idealmodelle* were created as three-dimensional representations of architecture and included the *Kuppelreliquiar des Welfenschatzes* from 1175, an ivory and ebony church from H.G. Welling from 1680 and a tower baldachin in the aisle of the Bamberg Cathedral from 1235 as examples

(figs. 40 and 41).⁵⁶ Of these, Heydenreich identified the first two, as *Schmuckformen* and *Zierstücke* that he claimed did not have the intention to represent existing or proposed structures.⁵⁷ Conversely, as Heydenreich explained, the tower baldachin at the Bamberg Cathedral, “*teilweise in Anlehnung an*” (partially depended upon) a tower of the Laon Cathedral as a “*Vorbild*” (model) (fig. 42).⁵⁸ Francois Bucher had observed a similar use of Gothic micro-architecture during the fourteenth and fifteenth centuries, explaining that during the late Gothic, reliquaries, baldachins and tabernacles became an “ideal” of “Gothic structure.”⁵⁹ Haus Merz and

56. Although Heydenreich gave a brief description of each type of architectural model in his “*Architekturmodell*” lexicon entry, he continued to elaborate upon the definition of each type of model. In both descriptions of *Idealmodelle*, Heydenreich also refers to them as “*Phantasiemodelle*” in parenthesis, but prefers to use the former term and uses it to describe *Schmuckformen* (ornamental forms) and *Kultgeräte* (religious objects) that are made to look like architecture while those in the *Kunstgewerbe* (arts and crafts) are *Phantasiemodelle* (fantasy models). These *Phantasiemodelle*, Heydenreich describes as “*reine Zierstücke*” (pure decoration pieces), but in the example he gives for a *Phantasiemodell*, the ivory model from H.G. Welligen, he calls it an *Idealmodell*. For Heydenreich’s description of *Idealmodelle* in the opening of his lexicon entry see: Heydenreich, “*Architekturmodell*,” 921-2. In the more complete description of *Idealmodelle*, Heydenreich states: “*Idealmodelle (Phantasiemodelle) begegnen als Schmuckformen in der Architektur (Tabernakel, Baldachine; z. B. die Idealarchitekturen über den Statuen in Bamberg, teilweise in Anlehnung an reale Vorbilder, wie der Turm von Laon über der Heimsuchungsmaria, Abb. 12), ferner im Kunstgewerbe, besonders bei sakralen Geräten (z. B. Kuppelreliquiar des Welfenschatzes, Abb. 14), hier ebenfalls oft ideale Nachbildungen von Grabbauten (in der Tradition antiker Hausurnen stehend; Beispiele bei [20]). In neuerer Zeit (etwa vom 16. Jh. An) entstehen Phantasiemodelle als reine Zierstücke (Idealmodell aus Bein von Welligen im Hohenzollernmuseum, 1680, Abb. 16). Idealmodelle für Villen und Schlösser in Glas oder Holz wurden auf einer Ausstellung in Florenz 1931 gezeigt [89].*” (Ideal models [fantasy models] encountered as ornamental forms in architecture [tabernacles, baldachins; for example the ideal architecture over the statues in Bamberg, that partially depend upon real models, like the tower of Laon over the holy Mary, Abb. 12], furthermore in the arts and crafts, especially with sacred objects [for example the cupola reliquary of *Welfenschatzes*, Abb. 14], here also often as ideal reproductions of buildings from graves [standing in the tradition of antique houses; example at [20]]. In more recent times [from about the sixteenth century onwards] develop fantasy models as pure decoration pieces [ideal model out of ivory from Welligen in *Hohenzollernmuseum*, 1680, Abb. 16]. Ideal models for villas and castles in glass or wood were shown in an exhibition in Florence in 1931 [89].). Ibid., 936.

57. Ibid., 936.

58. “*z. B. die Idealarchitekturen über den Statuen in Bamberg, teilweise in Anlehnung an reale Vorbilder, wie der Turm von Laon über der Heimsuchungsmaria, Abb. 13.*” (For example, the ideal architecture over the statues in Bamberg, partially in dependence on real models, like the tower from Laon over the holy Mary, fig. 13). Ibid.

59. Francois Bucher, “Micro-Architecture as the ‘Idea’ of Gothic Theory and Style,” *Gesta*, 15 (1976): 71-89.

Schloss und Kathedrale mit Hofbrunnen share this characteristic of Gothic micro-architecture as anticipations for the use of materials to construct Schwitters' later Merz architecture.

Shortly after the construction of *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*, Schwitters created four large architectural works that exemplify what his early architecture might have demonstrated in miniature. In his 1931 article, “*Ich und meine Ziele*” (Myself and My Aims), Schwitters claimed that his pursuit to construct architecture at full-scale began in 1923 with the renovation of his own Hanover home on Waldhausenstrasse 5 into what he called “*Le Merzbau*” (the *Merzbau*) in 1933 (fig. 43).⁶⁰ The *Merzbau* was followed by two architectural edifices that Schwitters constructed while he was living in Hjertoya and Lysaker, Norway from 1938 until 1940 and also referred to as *Merzbau*. Upon his arrival in England, a fourth structure called the *Merzbarn* was under construction in Elterwater from 1947 until Schwitters' death in 1948 (figs. 44 and 45). In these Merz constructions, Schwitters used found objects as a building material to create structures that merged architecture, furniture and art into one total living environment.

Notwithstanding a common use of found objects to construct both *Haus Merz*, *Schloss und Kathedrale mit Hofbrunnen* and the later *Merzbau* and *Merzbarn* constructions, their differences suggest that Schwitters had another intention for the use of an assemblage as a model of architecture. As Spengemann's description of *Haus Merz* indicates, the found objects Schwitters assembled in it represented parts of identifiable architectural elements associated with a cathedral including a “*Turmuhrenzifferblatt*” (tower clock face).⁶¹ Conversely, when Schwitters

60. Kurt Schwitters, “*Ich und meine Ziele*,” *Merz 21: erstes Veilchenheft* (Hanover, 1931): 113-117. Reproduced in Schwitters, *LW*, vol. 5, 340-48. See specifically 343-45; Schwitters first used the term “*Merzbau*” in print as “*Le Merzbau*” for the French journal *Abstraction-Création: Art non-figuratif* in 1933. See: Kurt Schwitters, “[Schwitters 1933],” *abstraction création - art non-figuratif*, 1933, Cahier no. I (Paris, 1932): 41. Reproduced in *LW*, vol. 5, 354.

61. Spengemann, “*Merz - die offizielle Kunst*,” 41.

described the painted wood, plaster and found objects of his *Hannover Merzbau* as a “cathedral” in “*Ich und meine Ziele*,” he claimed that its array of “juxtaposed surfaces” that “give rise to forms twisting in every direction, spiraling upwards” had no impression of an existing one.⁶² This interpretation of the found objects assembled in the *Hannover Merzbau* as a cathedral is comparable to the one that Schwitters applied to those he assembled in *Schloss und Kathedrale mit Hofbrunnen*. For Schwitters, the found objects are a castle, cathedral or courtyard in the *Hannover Merzbau* or *Schloss und Kathedrale mit Hofbrunnen* because he says they are while the gable roof and tower that Spengemann saw as a cathedral in *Haus Merz* and Schwitters also identified as a religious structure in *Kirche Bäumt Dorf* imply other intentions. These comparisons aside, Schwitters’ never claimed that he was inspired by the use of Gothic micro-architecture as models or constructed either *Haus Merz* or *Schloss und Kathedrale mit Hofbrunnen* as anticipations of his *Merzbau* and *Merzbarn* projects. Instead, Schwitters’ use of found objects as a modeling material to imagine new architectural designs compared with that of a well-known precedent in the history of architecture he would have been familiar with, the model for the design of the first Corinthian capital.

During the first century BCE, the Roman architect, Vitruvius, recorded an account for the use of an assemblage as a model that compares to the one Schwitters proposed for his *Merzentwürfe* in “*Schloss und Kathedrale mit Hofbrunnen*.” In the fourth book of his

62. “*Der Gesamteindruck erinnert dann etwa an kubistische Gemälde oder an gotische Architektur (kein Bischen!).*” (The total impression then reminds perhaps of Cubist paintings or Gothic architecture [not a bit!]). The short statement “not a bit!” that Schwitters makes in parenthesis has been variously (and in my opinion incorrectly) translated as “you might think” by Eugène Jolas. It is to this translation that John Elderfield makes reference to when he claimed: “Indeed, its organic interpretation of the cathedral theme bears a certain resemblance to some of the “form fantasies” created by the Luckhardt brothers, just as the Hanover *Merzbau* (whose forms Schwitters once compared to those of Gothic architecture) looks back to the alliance of the organic and the crystalline that characterized much of the work produced within Taut’s circle.” Schwitters, “*Ich und meine Ziele*,” 345. Eugène Jolas’s English translation in *Ibid.*, 424; Elderfield, 115; Schmalenbach’s English translation of “*Ich und meine Ziele*” in his monograph, *Kurt Schwitters*, agrees with the one I give here. See Werner Schmalenbach, *Kurt Schwitters*, 132.

architectural treatise, Vitruvius attributed the invention of the Corinthian capital to the Athenian architect and sculptor Callimachus (late fifth century BCE) who found inspiration in a basket of offerings placed on the tomb of a young girl from Corinth.⁶³ As Vitruvius explained, the basket had been weighed down with a roof tile and over time an acanthus plant grew up around it such that Callimachus, who was “pleased with the whole thing and the novel shape [...] made some columns for the Corinthians based on this model and fixed the rule of their proportion” (fig. 3).⁶⁴

Vitruvius’ story of Callimachus is important as a precedent for Schwitters’ proposed use of found objects in “*Schloss und Kathedrale mit Hofbrunnen*” and may be compared to Schwitters’ Merzentwurf, since both he and Callimachus interpreted an assemblage of natural and man-made objects as a model for the inspiration of new architectural designs. At the *Technische Hochschule Hannover*, Vitruvius’ discussion of ancient Greek column design would have been an important topic for two courses offered to students in their first year: “*Geschichte der Baukunst vom Altertum bis zur Zeit des Barock*” (History of Architecture from Antiquity to the Time of the Baroque) and “*Formlehre der Antiken Stile I*” (Study of the Forms of Ancient Architecture).⁶⁵ Like the course “*Modellieren I*” mentioned previously, both courses on

63. Vitruvius, *Ten Books on Architecture*, trans. Ingrid D. Rowland (Cambridge, UK: Cambridge University Press, 1999), 213; A single Corinthian capital in the Temple of Apollo Epikourios (450-20 B.C.) at Bassae, Greece challenges the validity of Vitruvius’ story. Based upon historical data and the quality of craftsmanship of the capital at Bassae, scholars instead ascribe it to the architect Ictinus rather than Callimachus. In this regard, Vitruvius’ story appears to be more relevant to the developed form of the Corinthian capitals attributed to Polykleitos the Younger in the interior of the Tholos at Epidaurus (fourth century BCE). See: Joseph Rykwert, *The Dancing Column*, (Cambridge, MA: The MIT Press, 1996), 338-43; J.J. Coulton, *Ancient Greek Architects at Work* (Oxford: Oxbow Books, 1995), 128.

64. Vitruvius 4.1.8-10. This English translation by Joseph Rykwert in Rykwert, *Ibid.*, 317.

65. In the *Studienpläne* (curriculum) for the Winter and Summer semesters of the 1917-1918 academic year at the *Technische Hochschule Hannover*, students were recommended to take, amongst others, two courses during their first year: Progr. – Nr. 80: *Geschichte der Baukunst vom Altertum bis zur Zeit des Barock* (2 hours of lectures) and Progr – Nr. 99: *Formlehre der Antiken Stile I* (2 hours of lectures). The first course, *Geschichte der Baukunst vom Altertum bis zur Zeit des Barock*, was offered during both the Winter and Summer semesters. See in the *Universitätsarchiv Hannover*: “Studienpläne” in *Programm der Königlichen Technische Hochschule zu Hannover für das Studiendjahr 1917-18* (Technische Hochschule Hannover, 1917), 70 and “Abteilung I für Architektur,” in *Ibid.*, 73-5; A former student of the *Technische Hochschule Hannover*, Herbert Baer, published a list of the courses

architectural history were a recommended part of the first year curriculum during the semesters that Schwitters was enrolled at the *Technische Hochschule*. In particular, the course “*Geschichte der Baukunst vom Altertum bis zur Zeit des Barock*,” was a popular course offered during the Summer and Winter semesters making it difficult for Schwitters to miss. Nevertheless, despite the close correspondence between Schwitters and Callimachus’ use of found objects as architectural models, their working methods differ. For Callimachus, the basket and acanthus plant were found already assembled and he interpreted them as an architectural model, while Schwitters proposed the conscious selection of found objects to construct one. In this way, Schwitters’ selection and interpretation of man-made and natural objects as a model of architecture also had much in common with the early twentieth century *Bauspiel* (building play) of children.

Bauspiele (Building Play)

Shortly after the creation of *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*, Schwitters compared his Merz assemblage of architectural models to the play of a child with found objects. Schwitters already made this association between a child’s play with miniature toy buildings and *Haus Merz* when he took the assemblage to the tax office to have an official account of its identity as a “toy, material or art.” Two years later, in the introduction to “*Schloss und Kathedrale mit Hofbrunnen*,” Schwitters indicated that it was the building play of a child

students were required to take during the turn of the twentieth century. In Baer’s account, a longer course that included “3 hours’ lecture. 6 hours’ Drawing.” with the title “Study of the Forms and History of Ancient Architecture” was offered to students in their second year and included “a careful and detailed study of the orders, the copying of the best examples of Ancient Architecture, and one large and carefully executed design in either the Greek or Roman Style.” The course offered during the 1917/18 semester appears to be a similar but modified version of this course. Baer, Herbert. “The Course in Architecture at a German ‘*Technische Hochschule*.” *The American Architect and Building News*, no. 71 (1901): 83-85. See specifically 83.

with found materials that he compared to his Merz assemblage of architectural models. In this instance, Schwitters recounted how:

As my wife fetched the design from the photographer, she had to carry it openly, because the points of the pine stump, which represents the Gothic cathedral, are already very rotten. In the streetcar, the passengers were looking at the design curiously. Finally, the conductor emboldened himself to ask what that should actually be. My wife said evasively, it would be a castle, a church and a well, and her boy had nailed it together. Whereupon the conductor said, that it was very beautiful, that he had thought so, and it showed a very healthy imagination. If my wife had said that I, as an adult painter of art, had nailed a medicine cork, a beech and pine stump on a diagonal board so that the whole gives the impression of a castle-like arrangement at a mountain slope to refresh an architect's imagination, the conductor would have probably said that is what he imagined, but that it looked like an imagination enhanced morbidly. What an injustice. I demand the Merz architecture. This demand applies in two different ways: 1. The Merz design for architecture. 2. The Merz use of architecture for new design.⁶⁶

A writer of children's books, Jean Fondin, along with a scholar on the history of toys, Jac Remise, have made a similar observation about the play of children with found materials suggesting that "[c]hildren are no respecters of property . . . costliness usually means nothing to them . . . Favorite toys are often mere *objets trouvés* [found objects], fugitives from the trash-can."⁶⁷ In the poverty of a post war urban environment, the likelihood of German children playing with found objects had if anything increased. As Schwitters' response to his wife's conversation indicates, he believed that a child's ability to make-believe found objects are

66. "Als meine Frau den Entwurf vom Photographen abholte, musste sie ihn offen tragen, weil die Spitzen des Kiefernstumpfes, der den gotischen Dom darstellt, schon sehr mürbe sind. In der Strassenbahn wurde der Entwurf neugierig von den Fahrgästen betrachtet. Schliesslich ermutigte sich der Schaffner, zu fragen, was denn das eigentlich sein sollte. Meine Frau sagte ausweichend, es wäre ein Schloss, eine Kirche und ein Brunnen, und ihr Junge hätte das zusammenge nagelt. Darauf sagte der Schaffner, es wäre sehr schön, das hätte er sich wohl gedacht, und es zeigte eine sehr gesunde Phantasie. Hätte meine Frau gesagt, dass ich als erwachsener Kunstmaler einen Arzneikork, einen Buchen- und einen Kiefernstumpf auf ein schräges Brett genagelt hätte, damit das Ganze den Eindruck einer schlossartigen Anlage am Bergabhang mache, und damit ein Architekt seine Phantasie auffrischen könnte, so würde der Schaffner wahrscheinlich gesagt haben, das hätte er sich auch gedacht, aber das zeuge von einer krankhaft gesteigerten Phantasie. Mit Unrecht. Ich fordere die Merzarchitektur. Diese Forderung gilt in zweierlei Hinsicht: 1. Der Merzentwurf für die Architektur. 2. Die merzliche Verwendung von Architektur für neue Gestaltung." Schwitters, "Schloss und Kathedrale mit Hofbrunnen," 166.

67. Jean Fondin and Jac Remise, *The Golden Age of Toys*, trans. D.B. Tubbs (Lausanne: Edita, 1967), 12.

castles, churches or wells, should be accepted by architect's as a legitimate method for creating models of architecture.

A critical point of comparison between the use of found objects in a children's game of make-believe and those in a work of art is that they both encourage the imagination of the participant to interpret them as something other than what they are. For two children, this game of make-believe begins when an agreement is made that, for example, a pile of snow is a fort. Kendall Walton, a philosopher on the points of coincidence between toys and art, has argued how this fort is a found object that children play with as a "prop" that "prompts" them to imagine what they might not otherwise be imaginative enough to invent on their own. By interpreting the pile of snow as a prop, they do not merely imagine a fort with turrets, a tower, and a moat. Rather, they imagine that the actual heap of snow is *itself* a fort.⁶⁸ Hence, when it is true in a game of make-believe that the pile of snow is a fort, it is *fictional*, and because it is fictional, it is a *fictional truth*.⁶⁹ For Walton, adults employ this same form of interpretation when they encounter, for example, Pablo Picasso's 1943 assemblage of a *Bull's Head* as art.⁷⁰ While the pile of snow is an *ad hoc* prop pressed into service for a game of make-believe on a single occasion, a child's doll and Picasso's *Bull's Head* were made to be a baby and a work of art respectively. Accordingly, Schwitters naming of the found objects in *Schloss und Kathedrale mit Hofbrunnen* as a model for a castle and cathedral with a courtyard well implied that we are to make-believe it is this thing as a fictional truth.

The form of interpretation that a child uses to 'make-believe' an assemblage of objects is

68. Ibid., 25.

69. Ibid., 35.

70. Ibid., 276-77.

architecture was also encouraged by the early twentieth century German toy *Baukasten* (building blocks) produced out of artificial stone by Friedrich Adolf Richter. In a 1915 advertisement for the *Anker-Steinbaukasten* (Anker Stone Building Blocks) titled “*Bauspiele*” (building play), the play with small stone building blocks was argued to allow children the opportunity “with which they can without fear of breaking something, build after a free fantasy and again destroy the built up” (fig. 46).⁷¹ The building materials in these sets are simple colored artificial stone blocks used to assemble and reassemble different props that the child can make believe are architecture.⁷² Compared to *Schloss und Kathedral mit Hofbrunnen*, that Schwitters assembled using found objects, by employing a building block in *Das Kegelbild* (the Skittle Picture) from 1921 and to construct the church tower in *Haus Merz*, he directly merged the child-like activity of building play with his Merz method of assembling art and Merz architecture (fig. 47).

Schwitters’ experimentation with the use of building blocks as an architectural modeling material can be seen as belonging to an early twentieth century fascination with the *Bauspiel* of children as a method for generating new architectural forms. This is demonstrated by an early project from Walter Gropius where the *Bauspiel* of a child with building blocks was viewed as a useful paradigm for the design and construction of his 1922 Bauhaus student and faculty housing project.⁷³ Working together with the Hungarian architect Fréd Forbát, Gropius sought to plan the estate based upon “the standardization of individual components from which different types of

71. “Schon die kleinen Kinder erhalten durch die festen, grossen Bausteine ein willkommenes Spielzeug, mit dem Phantasie aufbauen und das Aufgebaute wieder einwerfen können.” (Already the small children receive through the steady, big building stones a welcome toy with which they can without fear of breaking something, build after a free fantasy and again destroy the built up.). Claude Jeanmaire, “Bauspiele,” *Deutsches Spielzeug zur Kriegszeit (1915)* (1915; repr. Verlag Eisenbahn, 1986), 25.

72. Ibid.

73. For this discussion see: Winkler, 85-6.

buildings could be composed.”⁷⁴ Gropius presented this project at the 1923 *Bauhaus Ausstellung* as an assembly of plaster blocks created by Forbát that he referred to as *Baukasten im Grossen* (Building Blocks in Full-Scale).⁷⁵ The model details the design of each house based on the assembly of simple components reduced to basic forms and colors selected by the residents (fig. 25). This project signaled a departure from the original unity of the arts in the Bauhaus program of 1919 to the search for design strategies that encouraged a synthesis of artistic and material design with mass-production.⁷⁶ In the same way that the building play with simple masses had inspired Gropius’ housing plan, he later argued that it could also have an influence on the aesthetic views of children.

Can one expect from a child, that grows up in “Main Street,” that he learns to search after beauty? He has never encountered it, and would not even know where he should ask. His sense has become dulled from the beginning through the chaotic kaleidoscope of colors, forms and noises of the modern consumer advertisements.⁷⁷

In this vein, Alma Siedhoff-Buscher produced a toy ship in 1924 of more than twenty multi-colored wood blocks for children to explore fundamental relationships of form, color, space and balance that were reminiscent of the Bauhaus *Vorlehre* (Basic Course) (fig. 48).⁷⁸ Also during

74. Fréd Forbát, *Erinnerungen eines Architekten aus vier Ländern*. Quoted from Nerdinger (1985), 58, n.3; Forbát, 66 after Magdalena Droste, *Bauhaus 1919-1933* (Köln: Taschen, 2002), 111-12.

75. Forbát identifies himself as the producer of the plaster model. See: Ibid.

76. Winkler, 85-6.

77. “Kann man von einem Kind, das in ‘Main Street’ aufwächst, erwarten, dass es lernt, nach Schönheit zu suchen? Sie ist ihm nie begegnet, und es wüsste nicht einmal, wonach es fragen sollte. Sein Empfinden ist von Anfang an durch das chaotische Kaleidoskop von Farben, Formen und Geräuschen der modernen Kundenwerbung abgestumpft worden.” Flavio Santi and Antoine Wasserfallen, *Konstruieren, eine Passion: Baukästen und Konstruktionsspiele von 1800 bis zur Gegenwart* (Genève: Quiquandquoi, 2002), 26.

78. Alma Seidhoff-Buscher produced her toy ship building blocks set while an architecture student at the Bauhaus. Later, she gave an explanation of her building set that: “*Es will nichts sein – kein Kubismus, kein Expressionismus, nur ein lustiges Farbspiel aus glatten, eckigen Formen nach dem Prinzip der alten Baukästen.*” (It will be nothing – no cubism, no expressionism, only a funny color play out of smooth, angular forms after the principle of old building blocks.) Alma Buscher, *Offset -, Buch- und Werbekunst*, 10, (1927), 464. For Buscher, “*Unser Spielzeug: Die Form - einfach - unverwirrend klar und bestimmt - Vielfältigkeit und Reize schafft das Kind*

this time, Bruno Taut created a series of building designs with a set of colored cast-glass children's building blocks invented by Blanche Mahlberg called *Dandanah, The Fairy Palace* (fig. 49).⁷⁹ In this light Finsterlin also created his *Stilspiel* as tool for children and architects; whom he suggested would like to seize the impartiality of the child to rid themselves of their of cultural inhibitions.⁸⁰

Similar to Schwitters' Merz method, Finsterlin's *Stilspiel* encouraged the assemblage of objects made for other purposes as models for inspiring new architecture. As the subtitle to Finsterlin's article "*Die Genesis der Weltarchitektur oder die Deszendenz der Dome als Stilspiel: Ein Lehr-, Spiel- und Versuchsbakasten*" (The Genesis of World Architecture or the Decendence of the Cathedral as Style Play: a Learn-, Play- and Study Building Blocks Set)

selbst durch Zusammenstellen, Bauen." (Our toy: the form - simple - unconfusing - clear and certain - variety and charm the child creates themselves through the putting together, by building.) Reproduced in Gunda Luyken, "*Kunst ein Kinderspiel*," in: *Kunst ein Kinderspiel*, edited by Max Hollein (Frankfurt am Main: Revolver - Archiv für aktuelle Kunst, 2004), 37, n. 84. Buscher's principles recall those that Johannes Itten established for the Basic Course at the Bauhaus till 1923. In Itten's course, students began by restricting themselves to the study and composition of basic shapes and hues, materials and textures based upon a principle of contrast. See: Johannes Itten, *Design and Form: The Basic Course at the Bauhaus and Later* (New York, Chichester, Weinheim, Brisbane, Singapore, Toronto: John Wiley & Sons, 1975). This comparison is also made by Herbert Schubert in: Herbert Schubert, "Toys and the Modernist Tradition," *Toys and the Modernist Tradition* (Montréal: Centre Canadien d'architecture, 1993), 18.

79. Taut was deeply influenced by Paul Scheerbart's novel *Glass Architecture* for his glass pavilion at the Cologne exhibition in 1914. Later Scheerbart's novel also inspired architectural visions for Taut's book *Alpine Architecture* from 1919. In this publication, Taut presented drawings of a dream world in which the Alps were transformed into vast spatial cities of concrete and colored glass. See: Paul Scheerbart and Bruno Taut, *Glass Architecture: and Alpine Architecture*, ed. Dennis Sharp (New York: Praeger, 1972); Sharp, *Modern Architecture and Expressionism*, 85-96. Taut's promotion of Blanche Mahlberg's glass blocks is found in Blanche Mahlberg and Bruno Taut, "*Dandanah der Märchenpalast: Baustein aus massiven Glas*," in Manfred Speidel, Karl Kegler and Peter Ritterbach, *Wege zu einer neuen Baukunst: Bruno Taut: Frühlicht: Konzeptionskritik H. 1-4 und Rekonstruktion H. 5* (Berlin: Mann, 2000), 86-87.

80. Finsterlin's intention that his building block set could be used as a study tool for architects is suggested by the term "*Versuchsbakasten*" (study building blocks) in the subtitle to his article "*Die Genesis der Weltarchitektur oder die Deszendenz der Dome als Stilspiel: Ein Lehr-, Spiel- und Versuchsbakasten*." In the concluding paragraph of his article, Finsterlin described how the innocence of the child who sees the world without already formed cultural ideas of architecture is an ideal model for the people searching for the development a new architectural forms: "*Von jeher war die Verwandtschaft klar zwischen dem unverbildeten Kinde und Naturmenschen, dem Kulturhemmungen überwinden Narren und dem Genius*." (Since ever was the relationship clear between the unspoiled child and the primitive human being, between the fool that overcame the cultural inhibition and to the genius). In: Finsterlin, "*Die Genesis der Weltarchitektur oder die Deszendenz der Dome als Stilspiel*," 158.

suggests, it had a function by which architects could use and re-use them as “*Versuchsbaukasten*” to discover new architectural forms.⁸¹ In the examples that Finsterlin gave in the publication of his “*Versuchsbaukasten*,” he presented a number of identifiable building types for which the building blocks had been created. Accompanying these, Finsterlin also included an example at the bottom of the page that presented the re-assemblage of gable roofs into a new complete building form.⁸² However, compared to Finsterlin’s building blocks, Schwitters’ found objects were not made to represent different parts of known architectural structures in new ways. As if acknowledging this limitation, Finsterlin introduced a second set of building blocks called *Formdomino* where he abandoned the reliance upon existing architectural forms (figs. 50 and 51).⁸³

Like *Schloss und Kathedrale mit Hofbrunnen*, the examples Finsterlin chose to illustrate the use of his *Formdomino* set in practice possessed only a vague resemblance to conventional architectural structures. Finsterlin intended to publish his *Formdomino* set in an article titled “*Formdomino und Zukunftsarchitektur*” (Formdomino and Future Architecture) for the unpublished fifth issue of *Frühlicht* as a set of building blocks derived from basic geometric and irregular shaped masses.⁸⁴ For Finsterlin, the use of these blocks was to act as a bridge for the imagination between the *Präformation* (pre-formation) he called its *Geists im Stoff* (spirit in

81. Ibid. 149-58.

82. Ibid., 153.

83. Herman Finsterlin, “Formdomino und Zukunftsarchitektur,” in Reinhard Döhl, *Herman Finsterlin* (Stuttgart: Staatsgalerie Stuttgart, 1988), 323-329. Reproduced in Speidel, Kegler and Ritterbach, 88-94. References to this work are hereafter made to this reproduction.

84. In the three examples given with the reproduction of the article, one shows a horn-shaped block of wood amongst other cut shapes deriving from what appear to be cubes, spheres, cones and cylinders. See: Ibid., 89, 91 and 93.

material) and its materially grown-up final form.⁸⁵ In “*Schloss und Kathedrale mit Hofbrunnen*” Schwitters also claims that the use of found objects as architectural modeling material had the intent to enrich the imagination of the architect such that what is transposed “onto representative material as well as constructive possibilities” is dependent upon how the *Merzentwurf* is interpreted as architecture. This interpretation of an assemblage of wood blocks or found objects as a having an invisible unity finds a precedent in Friedrich Fröbel Kindergarten theory of building play with *Baukasten*.

Although building blocks existed since at least the seventeenth century, they received their theoretical foundation during the first half of the nineteenth century in the lessons of Friedrich Fröbel’s (1782–1852) kindergarten program.⁸⁶ Fröbel’s interest in the use of building blocks as an educational toy can be traced to his studies at the University of Jena in 1799. Here, his views were significantly influenced by the philosophy of Johann Gottlieb Fichte, early German Romantic literature, art and the developing evolutionary theories in science.⁸⁷ As he

85. “So wird die höchste Menschäusserung zum reinsten Spiel und nur, wo die Ausmasse des Objektes als Forderung unproteischer Erdschmarotzer vereinte Werkkräfte bedingen und die Lichtgeschwindigkeit der Erschaunis in ein groteskes Verhältnis zum möglichen Tempo der Verstofflichung setzen, wird das unbedingte Spiel zum Spiel-Zeug, das Spiel-Zeug zum Modell. Das Modell ist uns vor allem die Brücke von der Vorstellung zur stofflich erwachsenen, nach den Sichtverhältnissen der Grösse berichtigen Endformen; die Gegenprüfung des Geistes im Stoff, ein einzigartiges Asyl der Präformation.” (So the highest human expression becomes the purest play and only, where the extents of the objects as demand *unproteischer* earth parasites ask for united work forces and the speed of light of the *Erschaunis* in an grotesque relationship to the possible speed of materialization, will the absolute play becomes play-stuff [also ‘toy’], the play-stuff becomes model. The model is to us above all the bridge from the imagination to the materially grown-up final form, corrected according to the visibilities of the scale; the counter examination of the spirit in material, a unique asylum of pre-formation.). Ibid., 89

86. One of the pioneers of infant education, Erhard Weigel (1625-1699) confirms the existence of building blocks since the seventeenth century and recommends that grown-ups already promote with their children “the building with cut little boards and blocks.” See: Hein Retter, *Spielzeug: Handbuch zur Geschichte und Pädagogik der Spielmittel* (Weinheim: Beltz Verlag, 1979), 104 after Werner Jehle, “Von Architektur – Spielsachen,” in *Architektur – Spielsachen* (Basel: Architekturmuseum, cop. 1984), 13-14, n. 10; Gehard Vana, “Bauspiele,” in *Kunst ein Kinderspiel* (Frankfurt am Main: Revolver - Archiv für aktuelle Kunst, 2004), 203.

87. Klaus Giel, *Fichte und Fröbel: die Kluft zwischen konstruierender Vernunft und Gott und ihre Überbrückung in der Pädagogik* (Heidelberg: Quelle & Meyer, 1959). See also Robert B. Downs, *Friedrich Fröbel* (Boston: Twayne Publishers, 1978), 55; Norman Brosterman, *Inventing Kindergarten* (New York, N.Y.: H.N. Abrams, 1997), 17-18.

recalled, at Jena, “I could already perceive the unity in diversity, the correlation of forces, the interconnection of all living things, life in matter, and the principles of physics and biology.”⁸⁸ It was during this time that Fröbel developed a desire to pursue a type of work that would allow him to “ennoble mankind” with these principles and decided to move to Frankfurt in 1805 to study architecture. Although he only worked as an apprentice for a few months before beginning a career in childhood education, he later recognized how supervised building play was a means of educating children and enabling them to see a divine unity not only permeating the universe but also enfolded within their own souls.⁸⁹ As Fröbel explained in the “Introduction” to his book, *The Education of Man*:

In all things there lives and reigns an eternal law. To him whose mind, through disposition and faith, is filled, penetrated, and quickened with the necessity that this can not possibly be otherwise, as well as to him whose clear, calm mental vision beholds the inner in the outer and through the outer, and sees the outer proceeding with logical necessity from the essence of the inner, this law has been and is enounced with equal clearness and distinctness in nature (the external), in the spirit (the internal), and in life which unites the two.⁹⁰

This concept of an ‘inner unity’ to all physical things was the basis on which he developed a series of lessons between 1835–50 for children aged three to seven. He termed the education program “Kindergarten.” His pedagogy used geometrical objects, such as a ball, cylinder, and a cube, each called “gifts,” and the activities children who engaged with them he called “occupations.”⁹¹ The intention of the building blocks comprising the third through the sixth

88. Friedrich Fröbel, *Autobiography of Friedrich Fröbel*, trans. Emilie Michaelis and H. Keatly Moore (Syracuse: C.W. Bardeen, 1889), 31-32.

89. Ernest E. Bayles and Bruce L. Hood, *Growth of American Educational Thought and Practice* (New York: Harper & Row, 1966), 170 and Friedrich Fröbel, *The Education of Man* (Honolulu, Hawaii: University Press of the Pacific, 2004), 4-5.

90. Friedrich Fröbel, *The Education of Man* (Honolulu, Hawaii: University Press of the Pacific, 2004), 1-2.

“gifts” was to encourage the investigation of the relationship between the whole and part (figs. 52 and 53).

For Fröbel, the aim of his Kindergarten activities was to elicit the child to consider the relationship between the parts to the whole and provide them the opportunity to make their own use, application, or modification of what they had learned. Fröbel explained in *Pedagogics of the Kindergarten* that the experience children have when they are given an opportunity to study the assembly and disassembly of a whole into its parts:

After comprehending the outside of the object, the child likes also to investigate its inside; after a perception of the whole, to see it separated into its parts; if he obtained a glimpse of the first, if he has attained the second, he would like from the parts again to create a whole.⁹²

The goal of the part-whole exercise was to allow children to create their own original constructions since, as Fröbel argued, “God created man in his own image; therefore, man should create and bring forth like God.”⁹³ This creative ability of the child to discover an inner unity between unrelated elements was the entire basis of Fröbel’s Kindergarten lessons and resonates in Schwitters’ Merz method.

Conclusion

By assembling found objects into models of architecture, Schwitters harnessed a form of imaginative activity that was similar to a child playing with building blocks. Compared to the normative practices of early twentieth century architects who cast plaster or molded clay into

91. Downs, *Friedrich Fröbel*, 47 and Bayles and Hood, *Growth of American Educational Thought and Practice*, 175.

92. Friedrich Fröbel, *Pedagogics of the Kindergarten*, trans. Josephine Jarvis (New York: D. Appleton, 1896), 118, after Brosterman, *Inventing Kindergarten*, 50, n. 5.

93. Fröbel, *The Education of Man*, 31 after Bayles and Hood, *Growth of American Educational Thought and Practice*, 176; See also Downs, *Friedrich Fröbel*, 48-9.

illustrations of predetermined architectural designs, the found materials Schwitters proposed to assemble in architectural models, had the intention to open-up the imagination of the architect to discover new ones. For Friedrich Fröbel, this method of assemblage was dependent upon the child's interpretation of an inner content unifying the parts as a new whole. During this time, Schwitters also explained how the choice and selection of a found object for a Merz work was determined by their contribution to an ineffable unifying content he called its *Urbegriff*. However, while a child's building block construction was an end in itself, Schwitters produced assemblages that, as *Merzentwürfe*, had the intention to be transferred to the representative materials and constructive possibilities of a future construction. An investigation of Schwitters' cultural context and the works he was producing at the time reveal that he also created *Haus Merz* as a model, not for a single structure, but as a paradigm for the making of post-World War I German architecture. The following chapters will probe deeper into the role that Schwitters' interpretation of an ineffable content played in the selection of found objects for *Haus Merz* and his *Merzentwürfe* as architectural models.