INTRODUCTION

Over the millennia, physical models have served as important tools for the architect to imagine and project future constructions. Yet, modeling practices do not remain the same; over time their production, purpose and conception undergo significant changes. The long-dominant use of an architectural model as a material reflection of an architect's prior conception has its theoretical basis in understanding how architects give mental concepts form in nature. In his *Physics* from the fourth century BCE, Aristotle already formulated this connection between idea and matter in architecture arguing that a house could not exist unless material has received the *eidos* (Idea) from the architect. However, it was only in the fifteenth century that Leon Battista Alberti articulated the application of this theory of architectural design in the use of models. Similar to Aristotle, Alberti proposed in his treatise, *De Re Aedificatoria* (On the Art of Building), that architecture was an idea originating in the mind of the architect before it appeared in physical material. In this way, the model became a tool to study and give definition to architectural ideas in three-dimensions. As Alberti argued:

Having constructed . . . [the model], it will be possible to examine clearly and consider thoroughly the relationship between the site and the surrounding district, the shape of the area, the number and order of the parts of a building, the appearance of the walls, the strength of the covering, and in short the design and construction of all the elements.³

^{1.} Aristotle, *The Physics*, trans. Philip H. Wicksteed and Francis M. Cornford (Cambridge, MA: Harvard University Press, 1980), 113, 123, and 129.

^{2.} Leon Battista Alberti, *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Neil Leach and Robert Tavenor (Cambridge, MA: The MIT Press, 1996), 7 and 317.

^{3.} Ibid., 34.

Since Alberti, surveys on models of architecture produced from the Renaissance until the end of the nineteenth century indicate their continued use as illustrations of architectural ideas.⁴

The physical illustration of architecture is, however, only one history of the model. Less often noted, although enjoying similar longevity, is the use of models to inspire new architectural ideas. In these examples, architects not only transformed materials into a model of architecture but also found and interpreted new architectural ideas from them. One significant source of inspiration for this sort of architectural model was nature. As Vitruvius asserts in his treatise on architecture, it was when the "men of ancient times" gathered around a fire for warmth that they developed language and invented architecture by imitating what they found in nature (fig. 1).⁵

During the eighteenth century, Marc-Antoine Laugier provided another account for the beginnings of architecture as an imitation of nature in his *Essai sur l'architecture* (Essay on Architecture) (fig. 2). For Laugier, the first architecture was not a consequence of community and comfort as Vitruvius claimed but a circumstantial response to nature. As Laugier explained, it was because forests were not sufficiently dry and caves lacked ventilation that humans imitated

^{4.} A handful of lexicons and articles on the history of architectural models in central Europe include photos of models and discuss their use as illustrations to test, study or present an architectural idea after it had already been conceived. For a general survey of the history of architectural modeling see: Ludwig H. Heydenreich, "Architekturmodell." in Otto Schmitt, Reallexikon zur Deutschen Kunstgeschichte (Stuttgart, J.B. Metzlersche Verlagsbuchhandlung, 1937), 918-936 and Franz Bischoff, "... das verkleinert opus recht vor Augen gestellt: zur Geschichte und Bedeutung des Architekturmodells von der Frühzeit bis zur Gegenwart," in Rom über die Alpen tragen (Landshut/Ergolding: Arcos, 1993), 33. In more detailed studies, a similar use of architectural models is observed by Henry Millon for the Italian Renaissance, Hans Reuther for Germany between 1500-1900 and Monique Moser for the period of the Enlightenment in France. See: Henry A. Millon, "Models in Renaissance Architecture," in The Renaissance: from Brunelleschi to Michelangelo: the representation of architecture, edited by Henry A. Millon and Vittorio Magnano Lampugnani (London: Thames and Hudson, 1994), 23-70; Hans Reuther, "Wesen und Wandel des Architekturmodells in Deutschland (Origin and Development of the Architectural Model in Germany)," in Hans Reuther and Ekhart Berckenhagen, Deutsche Architekturmodelle: Projekthilfe zwischen 1500 und 1900, (Berlin: Deutscher Verlag für Kunstwissenschaft, 1994), 12-13; Monique Mosser, "Französische Architekturmodelle im Zeitalter der Aufklärung (Models of French Architecture in the Age of the Enlightenment," Daidalos, 2 (1981): 85-95 and 85 specifically.

^{5.} Vitruvius, *Ten Books on Architecture*, trans. Ingrid D. Rowland (Cambridge, MA: Cambridge University Press, 1999), 34.

the superior qualities of both as models for the design of the first primitive hut.⁶ In this way, Joseph Rykwert has argued in his discussion of the primitive hut and its conception in architectural history that:

Laugier shows the first building in a Lockeian fashion as being quite devoid of any innate ideas. In such a state of affairs, instinct and reflection respond directly to the pressures of hostile elements in nature by reproducing "constructions" which nature offers as models.⁷

Despite the differences between Vitruvius and Laugier's descriptions about the beginning of architecture, they both present a history for the use of models not to test an idea but to inspire one.

Perhaps the most vivid early account for the use of an architectural model to generate a design is Vitruvius' story of the invention of the Corinthian column capital. As Vitruvius recounts, while strolling past the tomb of a young maiden from Corinth, the architect Callimachus happened upon a basket standing over her grave that had a roof tile sitting on top of it with an acanthus plant growing up along its sides. Impressed by the novel arrangement, Callimachus "began to fashion columns for the Corinthians on this *exemplar* [model], and he set up symmetries, and thus he drew up the principles for completing works of the Corinthian type" (fig. 3). In Vitruvius' story, the design of the first Corinthian capital, like that for the primitive hut, was not an idea first conceived by the architect, but something found and interpreted as a physical model for architecture.

During the early twentieth century, the German artist Kurt Schwitters (1887–1948) developed a similar approach to making and interpreting assemblages of found materials that he

^{6.} Marc-Antoine Laugier, An Essay on Architecture (Los Angeles: Hennessey & Ignalls, 1977), 11-12.

^{7.} Joseph Rykwert, *On Adam's House in Paradise: The Idea of the Primitive Hut in Architectural History* (New York: The Museum of Modern Art, 1972), 48.

^{8.} With my exchange of 'exemplar' for 'model' see Vitruvius, 55.

called 'Merz.' Schwitters, who studied architecture, applied Merz to architectural modeling in several of his works. It is this second kind of generative architectural model, and specifically Schwitters' exploration of it, that is examined here.⁹

Schwitters began to develop Merz in 1918. Until the end of the World War I, Schwitters was a painter whose work the art historian, John Elderfield, has categorized into several developmental stages from Academic painting (1909–1914) to Impressionism (1914–1917), Expressionism (1917), Abstraction (1917–1918), and then to Merz itself (1918–1919). Reflecting on the years leading to the conception of his Merz art, Schwitters suggested that it was because of a sense of freedom from the end of World War I that he quit his job as a mechanical draftsman to devote himself full-time to being an artist. During this time, Schwitters set aside "oil paint, canvas, and brush" and began to construct collages and assemblages using whatever material or medium he could find, nailing and gluing it together into

^{9.} The phrase 'architectural model' is used here to describe the practice by which architectural ideas are interpreted within physical models while 'model of architecture' describes the sort in which a prior idea is imposed onto a physical model.

^{10.} This chronology of dates is developed by John Elderfield in John Elderfield, *Kurt Schwitters* (London: Thames and Hudson, 1985), 14. In Schwitters' article "Merz," he describes an "unbroken line of development" from the "imitation of nature with oil paint, brush, and canvas, to the conscious elaboration of purely artistic components in the Merz object." Kurt Schwitters, "Merz," *Der Ararat* 2, no. 1 (January 1921): 3-9. Reproduced in Kurt Schwitters, *Das literarische Werk*, ed. Friedrich Lach, vol. 5 (Köln: DuMont Buchverlag, 1981), 74-82. Hereafter references made to Lach's compedium of Schwitters' writings are abbreviated as follows: *LW*, followed by a volume number and pagination. This English translation is by Ralph Manheim in *LW*, vol. 5, 404.

^{11.} In 1917, Schwitters was drafted into the German military. In a description of his activities during World War I, Schwitters claimed that he was a soldier for three months, during which time he feigned stupidity till he was discharged. Schwitters then worked at the Wülfel Ironworks as a mechanical draftsman until after the end of the war in November 1918. Kurt Schwitters, "Daten aus meinen Leben," (1926). Typewritten manuscript reproduced in *LW*, vol. 5, 240-42. See specifically 241. For the dating of his military service and discharge from the Wülfel Ironworks see Gwendolen Webster, *Kurt Merz Schwitters: A Biographical Study* (Cardiff: University of Wales Press, 1997), 29 and 40; In 1930, Schwitters explained that he "musste meinen Jubel hinausschreien in die Welt" (must shout out my jubilation to the world) and took whatever he found to do this to express it through art. Kurt Schwitters, "Kurt Schwitters," *Gefesselter Blick: 25 kurze Monografien über neue Werbegestaltung*, hrsg. Von Heinz und Bobo Rasch (Stuttgart: Wissenschaftlicher Verlag Zaugg, 1930), 88-89. Reproduced in *LW*, vol.5, 335-6. See specifically 335. (All translations by author unless otherwise noted).

new matrixes as art.¹² As Schwitters explained, his new art was literally made from the remnants of the former culture since, "everything had broken down . . . and new things had to be built from the fragments." Schwitters named his new working method "MERZ" after a word fragment in his first collage that he claimed was taken from an advertisement for a bank in Germany called "KOMMERZ UND PRIVATBANK" (fig. 4). For Schwitters, "Merz" meant "the combination of all conceivable materials" into a physical "Ausdruck" (expression) of art. As Schwitters explained in his article, "Merz," an "expression" of art was the result of an interdependent combination of physical form and ineffable content because "art is an Urbegriff [archetypal concept] elevated towards divinity." Aristotle called this hylomorphic combination of matter and invisible content "ousia" (substance) and Schwitters applied it to his conception of "all conceivable materials" in his Merz art as having an individual invisible content called an

^{12. &}quot;Ölfarbe, Leinewand und Pinsel sind Material und Werkzeug." (Oil, canvas and brush are material and tools). These are the tools that Schwitters explains in "Merz" one uses to learn and create academic painting. In both his article "Merz" and his autobiographical statement of 1930 titled "Kurt Schwitters," Schwitters is critical of academic painting for its "creative" limitations and describes his movement away from it into the exploration of using found objects to create art and later architecture. Schwitters, "Merz," in LW, vol. 5, 74-76 and Schwitters, "Kurt Schwitters," in LW, vol. 5, 335.

^{13. &}quot;Kaputt was sowieso alles, und es galt aus Scherben Neues zu bauen" (Everything was broken down anyway and new things had to be built from the fragments). Schwitters, "Kurt Schwitters," 335.

^{14.} Schwitters' explanation that the word "Merz" came from an advertisement for "*KOMMERZ UND PRIVATBANK*" is found in an autobiographical text in an issue of *Merz* titled "Katalog." Kurt Schwitters, "Katalog," *Merz*, no. 20 (1927): 99-100. Reproduced in *LW*, vol. 5, 250-54.

^{15.} In "Die Merzmalerei," from 1919 Schwitters explained that the term "Merz" in reference to his "abstract works of art," meant "the combination of all conceivable materials for artistic purposes." Later in his article "Merz," from 1920, Schwitters claimed that every combination of materials has a unique "expression" that he explained was ineffable. It is in this discussion that Schwitters claimed, "art is an Urbegriff [archetypal concept] elevated towards divinity." Urbegriff is a word assembly of two German words: "Ur" meaning "original, primitive or archetypal" and "Begriff" meaning "concept" or "idea." For Schwitters, this Urbegriff was elevated like Gottheit (divinity), unexplainable, indefinable and without purpose. As a primitive concept elevated like divinity, Schwitters' description of art as an Urbegriff has much in common with the Platonic archetypes that were the primitive invisible models for their imperfect copies in visible reality. See: Kurt Schwitters, "Die Merzmalerei," Der Sturm X, no.4 (July 1919): 61. Reproduced in Kurt Schwitters, LW, vol. 5, 37. This is an excerpt from the English translation in John Elderfield, Kurt Schwitters (London: Thames and Hudson, 1985), 50-1; "Kunst ist ein Urbegriff, erhaben wie die Gottheit" (Art is an archetypal concept, elevated towards divinity). Schwitters, "Merz," in LW, vol. 5, 76.

Eigengift (inner poison). ¹⁶ For Schwitters, in order for an object to be included in a Merz work, this *Eigengift* must be lost through a process of transubstantiation by which the physical appearance of the thing did not change, only its original identity or purpose. ¹⁷

Early in the development of Merz, Schwitters actively explored its application in architecture and assembled two architectural models: *Haus Merz* (House Merz) in 1920 as his "first piece of Merz architecture" and *Schloss und Kathedrale mit Hofbrunnen* (Castle and Cathedral with Courtyard Well) in 1922 as an example for the use of found objects in the modeling practices of architects (figs. 5 and 6). Schwitters' extension of Merz to architecture during this time coincided with the end of World War I and subsequent speculations about the construction of postwar German architecture. In Berlin, many German artists and architects joined the *Arbeitsrat für Kunst* (Workers Council for Art) and rallied themselves around both Bruno Taut's "Ein Architektur Programm" (An Architecture Program) and Walter Gropius' proposal for the new architecture as a "Gesamtkunstwerk" (total work of art) that he claimed would find its crystalline expression as the "Zukunftskathedrale" (Cathedral of the Future). 19

^{16.} The discussion of substance (*ousia*) is one of the main topics of Aristotle's *Metaphysics*. The centerpiece of books VII and VIII is that substance is a combination of its matter and its form. See Aristotle, *The Metaphysics*, trans. Hugh Tredennick, M.A. vol. 17 (London: William Heinemann; Cambridge (Mass.): Harvard University Press, 1980), 310-427. See specifically (1042a26-8), 402-3. In Schwitters' first issue of his magazine, *Merz*, he included the article "*Die Bedeutung des Merzgedankens in der Welt*," wherein he presented a conception of man-made and natural things as having a transitory invisible content that contributed to their identity called an *Eigengift*. Kurt Schwitters, "Die Bedeutung des Merzgedankens in der Welt," *Merz: Holland Dada*, no. 1 (1923): 8-11. Reproduced in LW, vol. 5, 133-35. See specifically 134.

^{17.} For Schwitters, the *Eigengift* of an object must be lost when it is included in a Merz assemblage. Schwitters, Ibid., 134.

^{18.} Schwitters, "Merz," in LW, vol. 5, 79. This English translation after Ralph Manheim in Ibid., 407.

^{19.} Bruno Taut, "Ein Architektur-Programm," (1918). Reproduced in Ulrich Conrads, *Programme und Manifeste zur Architektur des 20. Jahrhunderts* (Berlin: Ullstein, 1964), 38-40. For a discussion of Taut's *Ein Architektur-Programm* and his involvement in the *Arbeitsrat für Kunst* see: Dennis Sharp, *Modern Architecture and Expressionism* (New York: George Braziller, 1966), 64-7; Bruno Taut, *Modern Architecture* (London: The Studio, 1929). Walter Gropius presented his conception of the new German architecture as a *Gesamtkunstwerk* in the pamphlet titled "*Der Neue Baugedanke*" for the April 1919 *Ausstellung für unbeknante Architekten* (Exhibition for Unknown Architects) and in a speech to the Bauhaus students in July of 1919. In both instances, Gropius referred to

While these architects speculated on the new architecture by producing projects and theoretical ideas for the Arbeitsrat für Kunst's Ausstellung für unbekannte Architekten (Exhibition for Unknown Architects) and Taut's Die Briefe der Gläsernen Kette (The Crystal Chain Letters), Schwitters put forward Schloss und Kathedrale mit Hofbrunnen as an alternative to its conception.²⁰ In an article that Schwitters titled after his second architectural model, he presented Schloss und Kathedrale mit Hofbrunnen as a Merzentwurf (Merz design), and proposed that architects assemble them using industrial and natural objects to inspire new designs. ²¹ As the term "Merz" in "Haus Merz" and "Merzentwurf" indicate, Schwitters' architectural Merz assemblages employ the same principles as his Merz art. For Schwitters, this means the interpretation of an invisible ineffable content unifying a physical expression of "arbitrary materials" as an architectural model. The use of found objects "with architectural feeling" is, as Schwitters explained in "Schloss und Kathedrale mit Hofbrunnen," a means to guide the architect in the discovery of new combinations and transformations of forms and spaces that could be transposed "onto representative material as well as onto constructive possibilities" of a

the Gesamtkunstwerk as a Zukunftskathedrale. Gropius' contribution to the exhibition pamphlet is reproduced in: Walter Gropius, Bruno Taut and Adolf Behne, "Der Neue Baugedanke," in Conrads, 43-5. See specifically 43. Gropius' speech to the Bauhuas students has been translated from a hand-corrected typescript in the Berlin Bauhuas Archiv in German Expressionism, Documents from the End of the Wilhelmine Empire to the Rise of National Socialism, ed. and ann. Rose-Carol Washton Long (New York: G. K. Hall, 1993), 246. For the translated speech wherein the terms "Gesamtkunstwerk" and "cathedral of the future" appear, see specifically 250-1.

^{20.} For a discussion of the aims and the works selected for the Ausstellung für unbekannte Architekten see Marcel Franciscono, Walter Gropius and the Creation of the Bauhaus (Chicago: University of Illinois Press, 1971), 145-6; Dennis Sharp, Modern Architecture and Expressionism (New York: George Braziller, 1966), 61-67. Behne also published a description of the exhibition and its contents in Adolf Behne, "Unbekannte Architekten," Sozialistische Monatshefte 25 (April 28, 1919): 422-23; Following this exhibition, Bruno Taut instigated a correspondence with many of its contributors on theoretical ideas of architecture that became known as the *Die* Briefe der Gläsernen Kette (The Crystal Chain Letters). 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); For Schwitters' article and assemblage see Kurt Schwitters, "Schloss und Kathedrale mit Hofbrunnen," Frühlicht Eine Folge für die Verwirklichung des neuen Baugedankens, ed. Bruno Taut I. no. 3 (Magdeburg: Karl Peters Verlag, 1922): 87. Reproduced in Bruno Taut, Frühlicht 1920-1922 (Berlin: Ullstein, 1963), 166-7.

^{21.} Schwitters, "Schloss und Kathedrale mit Hofbrunnen," 166.

future construction.²²

By using found materials to create architectural models, Schwitters's assemblages are comparable to what Umberto Eco called "open works." For Eco, an open work is one in which either the maker or the audience interpret the work as unfinished or incomplete, and thus open to the interpretation of the viewer to discover more from it than what it simply presents. By contrast, a work of art is "complete" when its author intends the audience to recreate or receive the aims of the work as they devised it. In "Merz - die offizielle Kunst," Schwitters' friend, Christof Spengemann, demonstrates this open process of interpretation in Haus Merz by identifying the circular piece of ivory not only as a "Hosenknopf" (trousers button), but also a cathedral clock that is an integral component in making the assemblage "an expression of a truly spiritual intuition, of the kind that raises us to the infinite."

The interpretation of an open work as possessing "higher" meanings is an idea Eco develops using biblical exegesis as an example. Similar to Spengemann's reading of *Haus Merz*, Christian scriptural interpretation posits different levels of meaning beyond the literal one; including moral, allegorical and anagogical senses. As Eco explains:

The reader of the text knows that every sentence and every trope is "open" to a multiplicity of meanings which he must hunt for and find. Indeed, according to how he feels at one particular moment, the reader might choose a possible interpretative key, which strikes him as exemplary of this spiritual state.²⁶

^{22. &}quot;Das Transportieren des Entwurfs auf darstellendes Material sowie auf konstruktive Möglichkeiten ist Sache der Durcharbeitung." (The transfer of the design onto representative material as well as onto constructive possibilities is a question of the working through it). Ibid., 166.

^{23.} Umberto Eco, "The Poetics of the Open work," in *The Open Work*, trans. Anna Cancogni (Cambridge, MA: Harvard University Press, 1989), 3-4 and 19.

^{24.} Ibid.

^{25. &}quot;[...] Ausdruck wahrhaft geistiger Anschauung dessen, was uns in das Unendliche erhebt [...]" Christof Spengemann, "Merz - die offizielle Kunst," Der Zweemann 1, no. 8-10 (June-August 1920): 41.

^{26.} Eco, 5.

Like an exegete who interprets an assemblage of letters and tropes in Scriptures as having higher spiritual meanings, Schwitters explains that it is the role of the artist to interpret found materials as being unified by an invisible ineffable content "elevated to divinity." In Christian biblical exegesis, the form of interpretation that elevates the mind from visible to invisible is called "anagogy."

Schwitters' conception of his Merz art and architecture as a visible manifestation of the invisible has its beginnings in the anagogical perspective of Gothic and Romantic art. Since an early stage in Schwitters' Merz *oeuvre*, friends and critics perceived similarities between his Merz interpretation of found materials and German Romanticism. For early German Romantics, nature has an invisible source founded in the transcendental realm of Ideas, and art played a fundamental role in disclosing these perfect archetypes that are eternally becoming in nature.²⁸ This anagogical interpretation of art has a precedent in the creation of medieval religious objects as visible models of divine ideas.²⁹ However, Schwitters did not assemble found objects to create

^{27.} In his article "Merz" Schwitters explained that each line, color or form, and each combination of lines, colors, and forms have a definite expression that "cannot be put into words, any more that the expression of a word, such as the word 'and' for example, can be painted." Later, in the same article, Schwitters explained that for him art was "an archetypal concept, elevated to divinity." Schwitters, "Merz," in LW, vol. 5, 76. This English translation is by Ralph Manheim in LW, vol. 5, 405-6.

^{28.} During the early twentieth century, Oskar Walzel gave a summary of this German Romantic perspective of art and poetry in his popular book *Deutsche Romantik* that went through five printings between 1908-1923. Oskar Walzel, *Deutsche Romantik*: eine Skizze (Leipzig: B.G. Teubner and Company, 1908), 22-23 and 25-65.

^{29.} The early Christian theologian, Dionysius the Pseudo-Areopagite, discusses the use of material images in Christian art for uplifting (anagogy) the soul to a contemplation of God in his "The Celestial Hierarchy." See Dionysius the Pseudo-Areopagite, "The Celestial Hierarchy," in *Pseudo-Dionysius: The Complete Works*, trans. Colm Luibheid (New York: Paulist Press, 1987), 145-7; Erwin Panofsky claims that the writings of Dionysius the Pseudo-Areopagite had a significant influence upon the Abbot Suger and his construction of the art and architecture at the Abby Church of St. Denis during the 12th century. Erwin Panofsky, "Introduction," in Erwin Panofsky, ed. trans. *Abbot Suger on the Abbey Church of St.-Denis and its Art Treasures*, 2nd edition (Princeton, NJ: Princeton University Press, 1979), 18-24. Contrary to Panofsky's attribution though, Grover A. Zinn has argued that Abbot Suger was not influenced directly by the Pseudo-Areopagite's writings but by Hugh of St. Victor's commentary on them. See Grover A. Zinn, Jr., "Suger, Theology and the Pseudo-Dionysian Tradition," in *Abbot Suger and Saint Denis: A Symposium*, ed. Paula Lieber Gerson (New York: The Metropolitan Museum of Art, 1986), 33-40.

a description of reality as a dichotomy of transcendental Idea and visible form, but to release the content of the everyday in order to imagine new art and architectural ideas. Instead, Schwitters' interpretation of found materials in a Merz assemblage may be described as a non-transcendental form of anagogical interpretation. Compared to the making of Romantic art and Christian religious objects in which an Idea is conceived as *a priori* and imposed upon matter, Schwitters believed that they emerged within the "artistic evaluation" of the materials as models of architecture.³⁰

In studies devoted to Schwitters' *oeuvre*, *Haus Merz* and *Schloss und Kathedrale mit*Hofbrunnen Well are important works in his Merz architecture. However, since Schwitters never gave an explicit explanation for the intention of his architectural models, scholars of his Merz

oeuvre frequently label them as model sculptures or sculptures about architecture and not models that have a specific significance in his conception of architectural design. In this light, *Haus*

30. Schwitters, "Merz" in LW, vol. 5, 76. This English translation by Ralph Manheim in Ibid., 405-6.

^{31.} In references to Haus Merz and Schloss und Kathedrale mit Hofbrunnen scholars and critics of his architectural activities are hesitant to name the two assemblages either works of art or models of architecture. In this regard, most scholars who discuss *Haus Merz* tend to refer to it as a "sculpture" or an "assemblage representing a church edifice or cathedral." Conversely, Werner Schmalenbach did suggest that Schwitters regarded Haus Merz not as a sculpture but as an architectural model in his monograph, Kurt Schwitters from 1967. However, it is not exactly clear what Schmalenbach's position on the small construction was since in a separate reference to Haus Merz, he affirms that Schwitters claimed it to be his "first Merz architecture" but goes on to describe Schloss und Kathedrale mit Hofbrunnen as a "sculpture" while noting that it accompanied "a piece on 'Merz Architecture." In a similar manner, Schloss und Kathedrale mit Hofbrunnen has also received much disagreement from scholars concerning its intended use as an architectural mode and instead identify it as a "sculpture" that for Elderfield was "inconceivable as architecture" while for Elizabeth Burns Gamard, it should be "regarded more as an intellectual model rather than a proposal for a real building." This is contrasted by Dietmar Elger who refers to both Haus Merz and Schloss und Kathedrale mit Hofbrunnen directly as "Architekturmodelle" (Architectural Models) in his study Der Merzbau von Kurt Schwitters: eine Werkmonographie or as "Modellanlage" (Model arrangement) in his article "Die Merzbauten von Kurt Schwitters," although, like Gamard, he also suggested that Schloss und Kathedrale mit Hofbrunnen (along with Haus Merz), should be viewed more as a "Denk- als Architekturmodell" (Concept model than architectural model) for the principles of construction in his larger Merzbau. See Werner Schmalenbach, Kurt Schwitters, (Köln: Verlag M. DuMont Schauberg, 1967), 129 and 124; John Elderfield, 113-5; Elizabeth Burns Gamard, Kurt Schwitters' Merzbau (New York: Princeton Architectural Press, 2000), 25 and 74-76; Dorothea Dietrich, The Collages of Kurt Schwitters: Tradition and Innovation (Cambridge, UK: Cambridge University Press, 1993), 170-2; Dietmar Elger, "Kurt Schwitters' Architekturmodelle und der Einfluss der expressionistischen Architekturtheorie auf den Merzbau," in Der Merzbau von Kurt Schwitters: eine Werkmonographie, 2nd printing, (Köln: Walther König,

Merz and Schloss und Kathedrale mit Hofbrunnen have yet to be studied as Schwitters' extension of his Merz *oeuvre* to German architects and the implications they have upon architectural design after World War I.³² Conversely, while anagogy has been used to explain Spengemann's description of *Haus Merz* as "an expression of a truly spiritual intuition," it has not been applied to Schwitters' Merz interpretation of found objects or their use to construct Merzentwürfe as architectural models. Schwitters created these projects during a period of German history when ideas about art and architecture were being drastically reconsidered and revitalized. This historical situation invites one to consider why Schwitters extended his Merz art to architecture. To do this requires a closer examination of the events and cultural context surrounding Schwitters' creation of his two architectural Merz models and the normative modeling practices to which he reacted.

The aim of this dissertation is to examine Schwitters' development of *Haus Merz* and Schloss und Kathedrale mit Hofbrunnen as architectural models. This investigation proposes that anagogy is the interpretative method Schwitters employed in his assemblage of natural and manmade objects as art or architecture. However, Schwitters promoted Merz as a unique art movement about which he wrote very little regarding the meaning and intention of the works produced in it. For this reason, a study on the sources, motives or intentions of any work in Schwitters' Merz *oeuvre* must rely to a great degree not only upon an examination of the work itself, but also upon the other works he was creating at the time and the cultural context which he encountered. At this time, little secondary research on Haus Merz and Schloss und Kathedrale

^{1999), 80-88.} See specifically 86; Dietmar Elger, "Die Merzbauten von Kurt Schwitters," Der Architekt, no. 8 (August, 1994): 455.

^{32.} Although Rosemarie Haag Bletter does discuss in "Kurt Schwitters' unfinished rooms" Schwitters' proposed use of found objects to construct Merz architecture in "Schloss und Kathedrale mit Hofbrunnen," no one has yet to assess the practical application that Schwitters believed his Merz method could have in the modeling practices of architects. Rosemarie Haag Bletter, "Kurt Schwitters' unfinished rooms," Progressive Architecture 58, no. 9 (September 1977): 98-99.

mit Hofbrunnen exists, while original artifacts are limited to photographic reproductions of the two architectural models along with written descriptions from Schwitters and his critics.³³ My dissertation augments the existing documentation on Schwitters' models by locating them within the early twentieth century German architectural modeling culture and searches for the beginnings of his interpretive method in biblical exegesis and early Greek philosophy. This study will reveal how Schwitters two assemblages and the written accounts about them reinforced the allegorical and anagogical themes that he used to describe his own Merz *oeuvre*.

The first chapter focuses on an examination of what has been written about and assembled in *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen* as models of architecture. Beginning with an assessment of the different materials and methods that Schwitters employed to create his two Merz models, this examination compares the assemblages to the models produced in the German architectural culture. The investigation also explores parallels between Schwitters' method of assembling found materials and the play of children by comparing his interpretation of an invisible content unifying the "expression" of found materials as an architectural model to Friedrich Fröbel's concept of an inner unity that children were to discover playing with building blocks. These observations provide a historical foundation for the following chapters that investigate the personal and cultural factors surrounding Schwitters' assemblage of his architectural models.

The second chapter builds on chapter one by examining *Haus Merz* as a product of Schwitters' Merz *oeuvre* and the cultural context within which it was received. This chapter

^{33.} There is only one remaining photograph for each of Schwitters' two architectural models. The first is a photograph of *Haus Merz* that accompanied Spengemann's article "Merz – die offizielle Kunst" and the second was included in Schwitters' article "Schloss und Kathedrale mit Hofbrunnen." See: Spengemann, "Merz – die offizielle Kunst," opposite 38 and Schwitters, "Schloss und Kathedrale mit Hofbrunnen," 166. Friedhelm Lach's five-volume compendium of Schwitters' writings in Das Literarische Werk along with Gwendolen Webster's 1997 biographical study Kurt Merz Schwitters provide useful source material and insight into the events surrounding the development of his Merz architecture. See: Schwitters, LW and Webster, Kurt Merz Schwitters.

opens by comparing Schwitters' assemblage of gears and a small cathedral in *Haus Merz* with those he depicted in watercolor and stamp drawings from the same period. Schwitters' work coincides with that of his contemporaries in the Arbeitsrat für Kunst who were interested in the creation of a new German architecture as a Gesamtkunstwerk (total work of art). In this discussion, Christof Spengemann's identification of *Haus Merz* as a "cathedral" that would soon become "die offizielle Kunst in Deutschland" (the official art in Germany) is compared to the "crystalline" Zukunftskathedrale of the Arbeitsrat für Kunst whose director, Walter Gropius believed would "shine like a light into the smallest things of everyday life." As a cathedral, questions are raised about the practical purpose that Schwitters intended for placing gears in the nave of what would otherwise serve as a space for people to congregate. Instead, the gears in Haus Merz are linked to those that Schwitters depicted in his watercolor and stamp drawings from the same period where he drew gears in mills and on people to suggest am allegorical comparison between the milling of grain and the transformation of found objects into Merz art or architecture. The chapter concludes by contrasting the crystalline cathedral of the Arbeitsrat für *Kunst* with Schwitters' *Haus Merz* and what each implied for the development of new German architecture.

The third chapter is devoted to ascertaining the principles Schwitters established for his Merz interpretation of found objects as art and their application as a modeling method for architects. This study begins with an assessment of the cultural and personal events surrounding Schwitters' development of Merz in 1918. These are compared with the rationale that Schwitters gave for his Merz use of found objects as the visible manifestation of the invisible.³⁵ In this

^{34.} Walter Gropius, "Speech to Bauhaus Students," (July 1919). Reproduced in Rose-Carol Washton Long, 246-252. See specifically 251.

^{35.} Schwitters, "Merz," in LW, vol. 5, 76.

regard, the chapter explores the beginnings of Schwitters' conception of his Merz *oeuvre* as having a spiritual foundation in an early exposure to Jena Romantic theories of poetry and art. Here, Schwitters' interpretation of the materials in a Merz assemblage as unified by an invisible content is compared with the Romantic conception of art as a guide to the perception of an invisible transcendental unity "becoming" in nature. This perspective of art is traced back to an anagogical form of interpretation in Christian biblical exegesis. Its beginnings are founded upon a description of the mind that interpreted physical things as dependent upon an invisible Idea in early Greek philosophy. In this comparison, Schwitters' Merz art, as an end in itself, is contrasted with his *Merzentwürfe*, which intended to encourage their user to imagine an assemblage of "arbitrary materials" as a new model for the real materials and constructive possibilities of another structure.

These three chapters follow an exegetical progression to examine the historical, allegorical and anagogical themes in Schwitters' *Haus Merz* and *Schloss und Kathedrale mit Hofbrunnen*. The first chapter begins with a historical study of Schwitters' two architectural models; how they were created, what had been recorded about them and the precedents that influenced their development. The second chapter examines how the materials and methods Schwitters employed in making *Haus Merz* coincided with allegorical themes in his own work and the German architectural culture. The third takes a closer look at the development of *Schloss und Kathedrale mit Hofbrunnen* and how Schwitters' anagogical perspective of materials supports his use of assemblage to create it. This exegesis demonstrates the value of Schwitters' approach to the making and interpretation of architectural models that do not merely record already developed ideas, but have a productive power to give birth to new conceptions.