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Making the Cathedral Immanent: German Architecture and the Question of Institutional Order

This paper addresses the vexed question of institutional order, with particular reference to the German cultural context. It commences with a concise characterisation of the institutional spectrum generally, which encompasses implicit or social institutions such as customs, friendships and more fundamentally language, to explicitly organised institutions such as the Church. It then identifies that in the architectural endeavour of Pre-Enlightenment Christian Europe there was a deep interlacing of implicit and explicit institutions that crossed classes and disciplines – from the raw material practices of stonemasonry to the contemplative concerns of sophisticated theology. The cathedral served as the common receptacle for highest religious and cultural meanings, and through it the symbol and imagery of the Heavenly Jerusalem were continually reinterpreted in dialogue with history. In the nineteenth century, after the 'death of God' announced by Friedrich Nietzsche, the majestic cathedral became formalised as a model as part of a larger process of immanentisation that saw the Christian promise of salvation beyond history transmuted into the promise of perfection upon earth in time – the 'immanent eschatology' identified by Karl Löwith. Meaning was attributed to the miraculous artefact itself rather than the overlapping cultural practices and customs – in short, the institutions – that facilitated the cathedral's achievement. In the later Bauhaus *the decantation of religious experience into aesthetic experience was complete, as revealed in Lionel Feininger's* Cathedral of the Future *woodcut on the cover of the 1919* Bauhaus Manifesto. *Such isolated modern moments of enchantment as those produced by the Bauhaus suppress the degree to which they rely on a shared involvement in reality, as had been acknowledged in the Middle Ages. This paper adopts the notion of institutional order as a way to illuminate the ways that a common latent background sustains the practical and imaginative life of a culture and its architecture.*

This paper addresses the vexed topic of institutional order via the rich architectural paradigm of the Gothic cathedral, which served as the receptacle for highest religious and cultural meanings in the medieval period. Through it, the symbol and imagery of the Heavenly Jerusalem were continually re-interpreted in dialogue with history, mediating between the dual notions of finitude and eternity. As such, the cathedral was the locus for a deeply interlaced institutional order that traced the ontological descent from deeply reflective theology down to the raw material practices of stonemasonry.

After the profound break in cultural continuity caused by the Enlightenment, which pervasively recalibrated all strata of culture based on the abstract logic of reason, many Romantics rallied to the Gothic period as a raw and authentic mitigating alternative. They invested it with aspirations for redemption from a secular culture as part of a broader cultural project of immanentisation, which saw the Christian promise of salvation beyond history transmuted into the promise of perfection upon earth in time. This is the 'neo-eschatology' identified by Karl Löwith, who asserted that if our modern historical consciousness is derived from Christianity, then "the eschatological outlook of the New Testament has opened the perspective toward a future fulfilment – originally beyond, and eventually within, historical existence."[1] The cathedral became formalised as a symbol and was made to stand for the perceived unity of medieval society as a whole – as the ideal *Gesamtkunstwerk*. Whereas the original decisions around the making of the cathedral were the product of an analogical, or practical imagination, and can be understood as symbolic representations of transcendental meaning, the Gothic Revival embodied immanent meaning in formal representation that could be put to use in history. The collective national endeavour to complete the sublime Gothic fragment of Cologne Cathedral is adopted below as the primary means of exploring this stylistic project. The project was substantially fostered by drawings and copperplate etchings in which the cathedral was aestheticised and always represented in its future complete state. Klaus Niehr, in his *Gothic Images–Gothic Theories,* insightfully recognised that in operating through drawings "one must have been clear that such an abstraction, whether it is a floor plan, or a perspective reproduction, stretched the reality of the monument in a new, ideal frame, which was alone intended for the human eye."[2] Published images of Cologne Cathedral in drawings, paintings and etchings became as important as the actual physical building. The institutional roots of architectural making within the paradigms of medieval tradition were suppressed in favour of the promise of the finished building as an object; the values consecrated in the past can be seen to have determined the iconographic choices, but all emphasis was placed on the projected possibilities.

The terminus of the discussion is Early Modernism, which is where the notion of architecture as an isolated harbinger of cultural meaning attains its fullest manifestation. In combination with the motif of the crystal, which stands outside of history, a mystical and abstract evocation of the cathedral was coupled with the *Bauhütte* (masons' lodge) in order to lend preliminary symbolic orientation to the Bauhaus. This vision was most memorably illustrated in Lyonel Feininger's prismatic Expressionist woodcut *Cathedral of the Future* on the cover of Walter Gropius' 1919 *Bauhaus Manifesto*.

Broadly speaking, the minimum condition for an institution is that its constancy exhibits an identity – a basic orientation within the openness of the ontological field.[3] The term institution addresses the phenomenon of typicality, recognising that recurrent situations have constituencies and histories attached to them and that they therefore have an anonymous dimension of the common-to-all that permeates practical life and provides a basis for commitment or solidarity. The broad semantic spectrum implied in the term institution ranges from what can be called implicit or social institutions such as friendship and, more fundamentally, customs and language to explicitly organised institutions such as the Church. In the institutional milieu there is generally a deep interlacing of the implicit and explicit domains, since an explicit institution builds on numerous implicit structures. This recognition underscores the complexity involved in any study of an architectural paradigm's institutional order, which consists of several levels of involvement, ranging from spontaneously intuitive to deeply reflective and prevailing between the relatively more embodying phenomena, such as gesture and spatial orientation, and the more articulative phenomena such as speech and geometry.

Sanctified as the bishop's seat,[4] the Gothic cathedral was an embodiment of eternity standing against the confusing tide of history, and in this context could be called upon for spiritual or moral orientation. It was just as significantly the locus for everyday civic life as a temporal monument for the local congregation.[5] The sophisticated mediation that is manifest in the cathedral's sequence of articulations from the setting out of the building on its site, to the walls, sculptures, coloured windows, ornamentation and vaulting presents a horizon for the movement in liturgy and rite between history and its eschaton and indicates a manifestation of a collective orientation that existed only in traditional culture. Peter Carl has noted that "at the deepest level, topographic order is an ontological principle, a structuring of difference with regard to the deep background of culture" and "any actual distribution of settings and the ways of communicating between them is an interpretation, or a history of such interpretations. It pertains to the overall order, but also preserves the continuity of differentiation to more intimate scales, establishing a structure of mediation."[6] Following Dalibor Vesely, it can be asserted that the key to understanding the phenomena of mediation, which in the broadest sense means the continuity between implicit and explicit levels of culture, is an expanded definition of language that would take in the communicative capacities of all articulative phenomena – including gesture, speech and geometry. This understanding is of particular relevance when it comes to understanding the institution of the medieval *Bauhütte*, which was the organ for the construction of the cathedral, and which itself has served as a paradigm for architectural making in modernity.[7] The medieval masons were accustomed to working across articulative phenomena when planning and constructing a cathedral as a grand collective endeavour. Although the primary sources that we have available to us today comprise texts and drawings, they both have their roots in an oral tradition.[8] The masons invented, and passed down from one generation to another, rhymes to help memorise primary geometric procedures used for the laying out a building on its site and ultimately for the cutting of stones. They also remembered and communicated geometric operations by what might be termed gestural, body, or sign

language.[9] As a way of approaching the nature of the deep affinity between spoken and written language, gestures and geometric operations, we can turn to masons' writings themselves. They attach great significance to the first geometric operations that were to be followed when actually setting out the configuration of a building on its site. As disclosed by Lorenz Lechler in his *Instructions* (1516), the very first undertaking was the derivation of the orientation of the building, which was achieved by "turning toward the direction in which the sun rises",[10] that is, liturgical East was instituted anew. So, whilst the configuration of the ground plan of a cathedral is today generally spoken about in removed geometrical terms, the masons' writings remind us of the original embodied situation that was concerned with the re-inauguration of an orientation with respect to the whole (*kosmos*).

The second geometric undertaking was the establishment of a 'just measure', divisions and multiplications of which would be used scrupulously through the building. A late medieval plan drawing for a tower at *Saint Stephen's Cathedral in Vienna* serves to illustrate the importance that masons attached to the deployment of consistently reverberating geometrical relationships. In a manner entirely foreign to current architectural convention, the drawing overlays all vertical levels of the tall tower on a single floor plan. Geometric ordering is clearly privileged over the way that the building will appear when finished. The derivation of an orientation, and the establishment of a 'just measure' divulge a concern for 'origins' that went beyond pragmatic circumstance. As argued by Edmund Husserl in *The Origin of Geometry*, the concern for origins is always both a return to essences and a recovery of time in the temporal sense. The key to his argument is his understanding that 'origin' is open to re-inauguration in the present, rather being necessarily located in the depths of history.[11]

An accurate characterisation of the nature of the Post-Enlightenment cathedral as a reified architectural paradigm in the German Gothic Revival – which flattened the deep institutional order described above into a matter of style – can only be made via an understanding of the emergence of historicism and eclecticism and the parameters of nineteenth-century architectural discourse. As Alan Colquhoun has identified: "The idea that values change and develop over historical time is by now so ingrained in common wisdom that it is difficult to imagine a different point of view. Yet the idea is, historically speaking, of fairly recent origin. It began to take shape in Europe as a whole during the seventeenth century, but was not given a consistent philosophical or historiographic formulation until the rise of the Romantic Movement in Germany."[12] The past came to be seen as a field of unique events and each epoch was seen to have its individual character or style that had the same value as that of any other.[13] Klaus Döhmer, in his study of the nineteenth-century agony of representation in architecture, *In Which Style Should We Build?*, identifies pluralism as "the principle that fundamentally all styles of architecture are of equal value, and are therefore practically interchangeable."[14]

The richly illustrated German *Musterbücher* (pattern books) that began to be published in the early nineteenth century are emblematic of this new comprehension of architectural

history as a succession of styles, and are hugely illuminating within the context of the current discussion.[15] These books were not merely transcriptions of ancient manuscripts; rather they were attempts to codify the Gothic in order to guide contemporary practice. The role of these re-productions was quite different from medieval drawings, which masons themselves termed *Visierungen* (visualisations), and which, as the product of an analogical imagination, were symbolic representations of transcendental meaning. The *Musterbücher* embody immanent meaning in formal representation that can be experienced and possessed – that is, they can be put to use in history. Whilst these books often make reference to original late medieval texts and drawings, and in fact carefully re-produce a number of the drawings with a high degree of accuracy,[16] their authors' way of working with the drawings was instrumental, conforming to a mode of thought devolved from the teachings at the École Polytechnique. Alberto Pérez-Gómez has written of the effects of this mode of thought: "Geometrical forms lost their cosmological reverberations; they were uprooted from the *Lebenswelt* and their traditional symbolic horizon, and they became instead signs of technological values."[17]
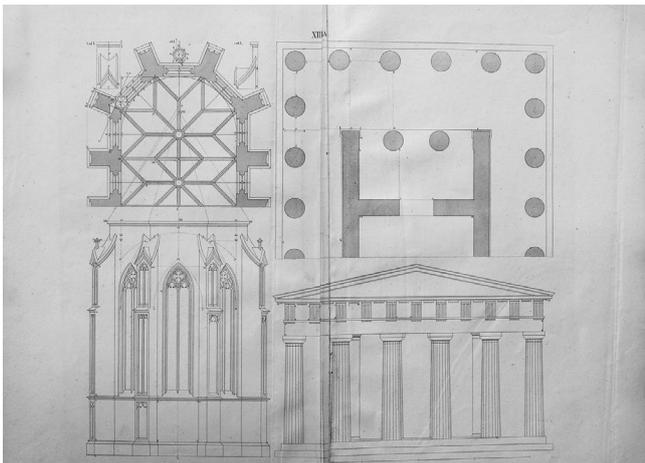

Fig. 1 Friedrich Hoffstadt, *Gothisches ABC-Buch*, Frankfurt am Main: Schmerber, 1840, ill. 13.

This way of looking at the discourse underlying the *Musterbücher* clarifies the significance of the drawings reproduced therein, as exemplified by a single drawing across a double-leaf page in Friedrich Hoffstadt's *Gothic ABC Book: Fundamental Regulations of the Gothic Style for Artists and Craftspeople*, 1840. The drawing comprises partial plans and end elevations of a Late Gothic German chapel and a Greek Doric temple facing each other (Figure 1).[18] It invites direct comparison of the two distinctive paradigmatic historical styles in order to evaluate them as equally laudable. The oppositional tenor of the drawing has a deep history to it, rooted in early Romantic attempts to valorise the raw authentic Gothic as a national architectural style that would complement the Greek Temple as a paradigm, representing a people's ability to have a spiritual culture capable of being embodied in the domain of the aesthetic. The young Johann Wolfgang von Goethe's short essay *On the German Art of Building*,[19] published in 1773, was the first strident registration of this sensibility. This essay on Strasbourg Cathedral also announced the conception of a synthesis of the arts as an all-encompassing organic unity that would later be consolidated by Richard Wagner as the *Gesamtkunstwerk*.[20] Goethe wrote: "As in the works of eternal nature, down to the smallest

fibre, all is form, all serves the whole."[21] The full depth of what Goethe identifies as the organic nature of the Gothic is more properly understood as an outcome of the deep institutional order identified in the first part of this paper, which always resists such formalisation. To adduce the Gothic period as Goethe did is to idealise a specific time in history that silences the claims of people who are defeated or forgotten, in order to makes such paradigms as the Gothic cathedral perfect.[22]

The movement to complete the sublime Gothic fragment of Cologne Cathedral, which was finally achieved in 1880,[23] focussed, and to a degree merged, the concerns that had been prefigured by the Romanticism of Goethe and by the *Musterbücher* technical manuals. The cathedral was in a unique position for Gothic Revivalists due to its geographical location, history, and architectural incompleteness.[24] Graphic representations of the cathedral that began to emerge in the early nineteenth century reveal the tense yet mutually affirming dialogue between aesthetics and technology at that time. These representations include drawings that were completed in order to both initiate and drive forth in a practical manner the further construction of Cologne Cathedral, and paintings made by Romantic artists. Both are speculative, and both contain an inherent tension between construction and destruction, and between completeness and the pathos of ruin. "Cologne Cathedral, … this miraculous *Wunderbau* [built wonder], constructed to a single plan in the purest style down to the smallest detail, has been disfigured by its incongruent additions, but today we possess the original drawings of the original design."[25] Thus wrote Sulpiz Boisserée, who began his ambitious and determined engagement with the practical endeavour of completing Cologne Cathedral early in the nineteenth century.

Boisserée reconciled his own measured drawings of the extant fabric with recently rediscovered medieval drawings that depicted the cathedral in its future complete state, producing accurate and detailed drawings as a catalyst for action: "Having diligently concerned myself with this work for more than 12 years, I can now begin the contemporary work of publishing a document comprising 20 large-format copperplate etchings … I commissioned the drawings from the most exemplary architectural draftspersons who worked under my very close supervision."[26] The large exquisitely executed copperplate etchings are bound in a folio entitled *Views, Plans and Details of Cologne Cathedral*,[27] accompanied by a separately bound written commentary. The etchings are evidently as concerned with the wished-for completion of the Cathedral as with archaeological fidelity (Figure 2). The Cathedral is always drawn complete and in regular use. Vincent Statz's Romantic painting *See, It Will Be Finished!*, completed some decades later, also explicitly declares confidence in the Cathedral's anticipated completion and reiterates the conflation of historical analysis and contemporary rhetoric. The etching and the painting underline the fatal flaw of the reclamation of the Gothic cathedral in modernity, whereby the institutional roots of architectural making within the paradigms of tradition were supressed in favour of the promise of the finished building as an emblem of values consecrated in the architecture of the past.
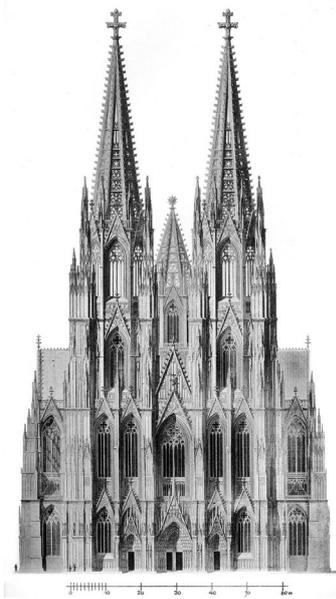
In *Historism: The Rise of a New Historical Outlook* the historian Heinrich Meinecke helpfully identified two modalities of historicism: the one sets up a past period of greatness as a model and the other pursues what he termed a 'flight into the future'. The nineteenth-century Gothic Revival accords with the first mode, having set up the Gothic cathedral of the German Middle Ages as a paradigm coupled to a forcible rejection of Classicism. The orientation to the cathedral in Early Modernism is however better understood as a 'flight into the future', in which the notion of a fixed normative ideal to which historical phenomena had to conform was replaced with the notion of a potential ideal to which historical events were leading. A mystical and abstract evocation of the cathedral was fused with the motif of the crystal[28] in order to lend initial symbolic orientation to the Bauhaus.[29] Walter Gropius wrote in his 1919 *Bauhaus Manifesto* "Together let us desire, conceive, and create the new structure of the future, which will embrace architecture and sculpture and painting in one unity and which will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith."[30] Gropius' vision was most strikingly illuminated by Lionel Feininger in his prismatic *Cathedral of the Future* on the cover of the *Manifesto*.

Gropius adopted the *Bauhütte* was as a potent symbol for the Bauhaus.[31] Combining the virtues of architectural unity through the exercise of craftwork sensibilities with notions of a community working toward a common 'good', it was conceived as the seed from which art was to be reborn. He evidently viewed the Bauhaus as the metaphorical *Bauhütte* at the base of Feininger's *Cathedral of the Future*.[32] The motif of the *Bauhütte* persisted throughout the Expressionist years of the Bauhaus (1919-23). In 1923 the Bauhaus produced a *Versuchshaus* (prototype house).[33] The building is exemplary for mediating between the knowledge and intentions of the Bauhaus and how these could be embodied. It also helps to illuminate the extent to which the house became sanctified in Modernism, thereby contributing to the cathedral's transformation into a cultural metaphor rather than a constructible building.

In Gerhard Marcks's postcard for the 1923 Bauhaus exhibition for which the *Versuchshaus* was constructed, two hands are depicted holding up a model of the building in the manner of the traditional image of Christ cradling the Heavenly Jerusalem (Figure 3). The chiliastic vision of the descent of the Heavenly Jerusalem is decanted into the house, promising redemption through communion with exemplarily designed artefacts, available to all through the economy of means offered by machine production. The assumption here is that one is capable of obtaining a sufficiently complete spectrum of knowledge from the biological to the spiritual (schematised as ergonomics and aesthetics) to be able to identify what an ideal environment should comprise; and that one is able to bring these to perfection via production. The result is a radically aloof object whose points of reference are locked within concepts or in the specific works of art and their placement. Everything beyond the magical artefact was not only lesser art, it was less meaningful. In this context, the Bauhaus could be said to have constituted itself as a didactic missionary exercise. Its artefacts took on the quality of ritual implements in a living religion of daily acts. The highly typical (and thus anonymous and durable) situations of everyday domesticity were invested with iconic meaning, and the house was conceptualised as a temple.

Such isolated modern architectural moments of enchantment as those produced by the Bauhaus suppress the degree to which they in fact rely on different aspects of shared involvement in reality, as had certainly been acknowledged in the Middle Ages. At that time, a house was not necessarily made, let alone designed by the same person and guild who made the furniture in the house, the clothes of the occupants and their cutlery. The narrative of subsequent decline, conceptualisation and reification that has been traced in this paper leaves open the question of properly understanding what might be termed the analogical or practical imagination in the contemporary context. As against the style of thought that would seek to transform cultural understanding into knowledge concerning achievable objectives that this paper identified in the immanentisation of the cathedral, the practical imagination is fundamentally dialogical, engaging in negotiations between motifs such as the 'good' and practical circumstances. This is the 'tact' of which the philosopher of hermeneutics Hans Georg Gadamer wrote, whereby the typical situations of cultural practices as well as the

intrinsic characteristics of materials offer resistance to pure creativity.[34] The term institutional order is another way of addressing the phenomenon of typicality, recognising that recurrent situations have a stability that permeates practical life. It can help to illuminate the ways that art, architecture, religion, politics, and science can be seen to share a common latent or unarticulated background that sustains the practical and imaginative life of a culture and its architecture.

1   Karl Löwith, *Meaning in History* (Chicago: University of Chicago Press, 1949), 188. Eric Voegelin similarly identified 'immanentist eschatology' as the gnostic nature of secularised modernity. See his *The New Science of Politics* (Chicago: University of Chicago Press, 1952) and *Order and History* (Baton Rouge: Louisiana State University Press, 1956).

2   Klaus Niehr, *Gotikbilder-Gotiktheorien* (Berlin: Gebrüder Mann, 1999), 33.

3   The understanding of institutional order as a mediator between particular individuals and the highest dimensions of universality available to their culture follows Peter Carl's deployment of the term. See, for example, his "On Depth," in *Fragments: Architecture and the Unfinished*, ed. Barry Bergdoll and Werner Oechslin (New York: Thames & Hudson, 2006).

4   'Cathedral' is derived from the Latin *ecclesia cathedralis* (church of a bishop's seat), from the Greek *kathedra*.

5   The following key texts of twentieth-century scholarship provide background knowledge and general orientation within the field of medieval architectural studies: Günter Bandmann, *Mittelalterliche Architektur als Bedeutungsträger* (Berlin: Gebrüder Mann, 1951), which remains an important resource for understanding the symbolic meaning of Gothic architecture as well as the gradual loss of this universal meaning that came with secularisation; Günther Binding et al., *Baubetrieb Im Mittelalter* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1993), which provides an exhaustive listing and categorisation of medieval sources and can be used to guide discussions on the definition and historical understanding of the *Bauhütte* (masons' lodge); Hans Sedlmayr, *Die Entstehung der Kathedrale* (Zürich: Atlantis, 1950); Otto von Simson, *The Gothic Cathedral: Origins of Gothic Architecture and the Medieval Concept of Order* (New York: Pantheon Books, 1956); and Erwin Panofsky, *Gothic Architecture and Scholasticism* (New York: Pantheon Books, 1956).

6   Carl, "On Depth," 36-37.

7   See Ross Anderson, "From the Bauhütte to the Bauhaus: The Immanentisation of an Architectural Paradigm" (PhD dissertation, University of Cambridge, 2012) and Ross Anderson, "The Medieval Masons' Lodge as Paradigm for Peter Behrens's Dombauhütte in Munich, 1922," *Art Bulletin* 90 (September 2008): 442-466.

8   See Joseph Rykwert, "On the Oral Transmission of Architectural Theory," *AA Files* 6 (Spring 1984): 15-27.

9   On the relationship between gesture and language, see David Armstrong et al., *Gesture and the Nature of Language* (Cambridge: Cambridge University Press, 1995). For an early study on stonemasons' signs, see Karl Back, *Von Steinmetz Zeichen* (Altenburg: 1861); and on stonemasons' rhymes see Karl Maertin, *Des Steinmetzen Hymnen* (Munich: Georg Müller, 1928).

10 Lorenz Lechler, *Unterweisungen* (1516) in Ulrich Coenen, *Die Spätgotischen Werkmeisterbücher in Deutschland als Beitrag zur mittelalterlichen Architekturtheorie* (Aachen: G. Mainz, 1989), 243.

11 See Edmund Husserl, "The Origin of Geometry," in Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology* (Evanston: Northwestern University Press, 1970).

12 Alan Colquhoun, "Three Kinds of Historicism," *Oppositions* 26 (Spring 1984): 29.

13 The word 'historicism' comes from the German word *historismus*. See Friedrich Meinecke, *Historism: The Rise of a New Historical Outlook* (London: Routledge & Keegan Paul, 1972).

14 Klaus Döhmer, *In welchem Style sollen wir bauen?* (Munich: Prestel Verlag, 1976), 7.

15 See, for example, Vincenz Statz and Georg Ungewitter, *Gothisches Musterbuch* (Leipzig: T. D. Weigel, 1856).

16 For example, Lechler's text *Von des Chores Maß und Gerechtigkeit* (c. 1500) was first published in
    Friedrich Hoffstadt, *Gothisches ABC-Buch* (Frankfurt am Main: Schmerber, 1840).

17 Alberto Pérez-Gómez, *Architecture and the Crisis of Modern Science* (Cambridge, Mass.: MIT Press,
    1983), 311.

18 The Doric order was one of the three canonical orders of ancient Greek architecture, alongside the
    Ionic and the Corinthian. Note that Leo von Klenze's Walhalla Temple near Regensburg in Bavaria was
    completed in the Doric order in 1840, the same year as the publication of Hoffstadt's *Gothisches ABC-
    Buch*.

19 Johann Wolfgang von Goethe, "Von deutscher Baukunst," in *Von Deutscher Art und Kunst*, ed. Johann
    Gottfried Herder (Hamburg: Bode, 1773), 81-92.

20 Richard Wagner formalised the hugely influential notion of the *Gesamtkunstwerk* in the mid-nineteenth
    century, conceiving of it as a remedy for the fractured culture of modernity. See his two long essays
    Die Kunst und die Revolution (Leipzig: O. Wiegand, 1849) and *Das Kunstwerk der Zukunft* (Leipzig: O.
    Wiegand, 1850).

21 Goethe, "Von deutscher Baukunst," 88.

22 This very issue is the substantive theme of Paul Ricoeur's *Memory, History, Forgetting* (Chicago:
    University of Chicago Press, 2004).

23 For an exhaustive account of the physical completion of Cologne Cathedral, including biographies
    of the major figures, relevant political events, financing, sourcing of materials and labour, design and
    construction technologies, see Thomas Schumacher's *Grossbaustelle Kölner Dom* (Cologne: Kölner
    Dom, 1993).

24 According to August Reichensperger, who was the central figure involved in the completion of Cologne
    Cathedral, "Germany's Gothic Architecture had pride of place; within Germany, the Rheinisch Gothic
    enjoyed that distinction; and within the Rheinland, Cologne was the most brilliant jewel in the rich
    regalia of the Middle Ages." August Reichensperger, "Einige Worte über den Dombau zu Cöln," in
    Vermischte Schriften über *christliche Kunst* (Leipzig: T. O. Weigel, 1856), 14.

25 Sulpiz Boisserée, Foreword to his *Geschichte und Beschreibung des Doms von Köln* (Stuttgart: Cotta,
    1823)**,** i.

26 Boisserée, Foreword, ii.

27 Boisserée, *Ansichten, Rissen und einzelnen Theilen des Doms von Köln* (Stuttgart: Cotta, 1821).

28 The crystal has a long history as a symbol of utopian and millenarian faith in a perfectible society,
    stretching back to St John's vision of the New Jerusalem in the *Book of Revelation*. For a concentrated
    treatment of the history of the crystal metaphor in Modern architecture, see Rosemarie Haag Bletter,
    "The Interpretation of the Glass Dream: Expressionist Architecture and the History of the Crystal
    Metaphor," *Journal of the Society of Architectural Historians* 40, no. 1 (March 1981): 20-43.

29 Bruno Taut's series of visionary Expressionist *Alpine Architecture* drawings published in 1919 share
    conceptual ambitions with the early Bauhaus. In a letter to Karl Ernst Osthaus, Berlin, February 2, 1919,
    Gropius wrote: "He [Taut] is the first architect who has fundamentally understood the idea that I have
    been pursuing for many years – that is, the unification of all arts in building, and we are now both pulling
    in the same direction. I have great empathy for the spirit of his program for architecture."

30 Walter Gropius, *Manifest und Programm des Staatlichen Bauhauses* (Weimar, April 1919).

31 Gropius revealed the guiding paradigm of the *Bauhütte* in a letter to Ernst Hardt, Berlin, 16 January
    1919: "A salubrious unity and working community with a common goal that of the all-encompassing
    Baukunst … Such a community, for which the medieval *Bauhütten* have long served as an exemplar,
    could become a locus of creative activity".

32 Ludwig Grote made this assertion in "Funktionalismus und Stil," in *Historismus und bildende Kunst*, ed.
    Grote and Helmut Coing (Munich: Prestel, 1965), 63.

33 The primary resource in regards to the Bauhaus' self-understanding of the *Versuchshaus* is Adolf Meyer,
    ed., *Ein Versuchshaus des Bauhauses in Weimar* (Munich: Albert Langen Verlag, 1924). For a critical
    appraisal from the time, see Adolf Behne, "Das Musterwohnhaus," *Die Bauwelt* 41 (1923).

34 See Hans Georg Gadamer, "The Guiding Concepts of Humanism (i) Bildung (Culture)," in *Truth and
    Method*, 2nd rev. ed. (London: Continuum, 2004), 9-19.