Schoenberg, Boulez, and Twelve-Tone Composition as “Ideal Type”

ARVED ASHBY

... the most influential hypothetic-deductive system in the history of music.
—Milton Babbitt, reviewing Leibowitz’s Schoenberg et son école (1950)

With twelve-tone techniques, Schoenberg and other serialists of the early twentieth century decisively brought composition into the discourse of intellectual history. They accomplished this by developing the idea that musical composition, in analogy to science, was not an aesthetic project but rather a kind of problem solving. Compositional “problems” were not exclusive to the twentieth century, certainly, but many modernist composers came to find the scientific model of inquiry irresistible. Twelve-tone techniques gained their very historical and intellectual legitimacy to the degree that they offered solutions to an ongoing compositional Problemgeschichte, or historical problematic. “Modern music has centered interest on two problems,” Schoenberg wrote in 1934, “that of tonality, and that of dissonance. [But] it cannot be said that the conflict regarding these two questions is new, nor that it is waged with new weapons.”1 According to received wisdom, twelve-tone methods represented—as Andrew Mead recently described them—“a solution to the problem of writing extended music in the total chromatic.”2

A much shorter, early version of this study was read at the Sixty-second Annual Meeting of the American Musicological Society, Baltimore, November 1996. I thank Joseph Auner, Michael Friedmann, Robert Morgan, and Philip Rupprecht for commenting generously on earlier drafts. In the end I did not choose to incorporate every one of their astute suggestions, and any remaining errors and omissions are my own.


[Journal of the American Musicological Society 2001, vol. 54, no. 3]
© 2001 by the American Musicological Society. All rights reserved. 0003-0139/01/5403-0004$2.00
As philosopher of science Larry Laudan reminds us, a scientific theory functions in two ways: (1) empirically, to explain and predict specific details of experience, and (2) heuristically, to guide and modify thinking rather than to specify it—in short, to suggest possibilities. A heuristic is commonly taken to be a system of decision making. In viewing twelve-tone composition as a heuristic, I choose to take up a particular variant of that definition, understanding a heuristic more generally as a means of organizing, stimulating, and facilitating thought about a particular subject, especially a new one. Discussions of serialism and twelve-tone music have concentrated almost exclusively on their empirical aspects—sinking at worst to what Schoenberg called “counting notes.” Philosophers of science, too, focused on deduction and empiricism until the work of Karl Popper, Paul Feyerabend, Imre Lakatos, Thomas Kuhn, and other “post-rationalists.” But those thinkers wrought their changes half a century ago. If we wish to grasp twelve-tone music as an endeavor not exhausted by any one composer—or, indeed, if we wish to understand the term twelve-tone itself in any meaningful sense—we, too, need to shift discussion toward heuristics, establishing phenomenological and cultural as well as paradigmatic meanings for this music.

The heuristic inquiry differs from the empirical in that it is not based on universals, laws, and unchanging definitions. Indeed, I would argue that twelve-tone composition’s urgency of purpose and the ill-definedness of the problems it addressed were its very attractions. Its malleability as a compositional concept was one reason twelve-tone methods proved so conceptually and methodologically attractive to such a variety of composers. If there was a “problem” to be solved by twelve-tone composition, it was perceived not before the term itself was coined but after. It was each composer’s problem simply to define what “twelve-tone” could mean in individual compositional-musical terms. For this reason, I contend that the term twelve-tone is a peculiar conflation of compositional and historical heuristics—or, as Laudan calls them,


5. Joseph DuBiels has begun heuristic-phenomenological investigations of his own into Babbitt’s music, notably in “What’s the Use of the Twelve-Tone System?” Perspectives of New Music 35, no. 2 (1997): 33–51. Here he writes, “I urge that, as we continue to speak of Babbitt’s music as twelve-tone, we try to undermine the received image of the twelve-tone system as a forceful method of construction, and portray it instead as a loose and flexible way to define some possibilities of choice” (p. 37).
the specific "mini theory" group of beliefs that are used to make predictions and explain phenomena, and the more general "maxi theory" assumptions that are harder to test. For an idea to function heuristically, it must push the individual thinker in new directions and must be something that the thinker acknowledges. It has to offer a combination of surface exactitude (verifiability) and ulterior imprecision (lack of testability), and in this way the twelve-tone heuristic may be differentiated from general aesthetic ideas (e.g., classicism, impressionism, modernism); from compositional practices that have for all intents and purposes always existed (invertible counterpoint); from specific yet aesthetically significant features that, in any event, would hardly define a new approach to composition (e.g., a conscious tendency toward disjunct motion); and from subsuming constructs that have been arrived at after the fact through theoretical effort (e.g., functional tonality).

The Ideal Type

One heuristic concept proves particularly appropriate to twelve-tone composition: the ideal type (Idealtypus) first developed and described by social scientist Max Weber in his essay "Die 'Objektivität' sozialwissenschaftlicher und sozialpolitischer Erkenntnis" ("'Objectivity' in Social Science and Social Policy," 1904). Weber's ideal type can help to move the discussion away from problem solving and can supply a basis for comprehending the various unacknowledged ideological roles—Weber spoke of "values and cultural significance"—that twelve-tone methodologies have played, courtesy of their inexactitude, through the decades. (Weber was a decisive influence on Carl Dahlhaus, yet Dahlhaus—through the influence of Wilhelm Dilthey, Johann Droysen, and others—also came to understand history as largely a set of problems, and in that respect ran counter to Weber's understanding of the ideal type.) Specifically, serialist methodologies have served as instruments of utopianism, as accessories to a scientific worldview, and as a contribution to processes of music-historical naming. As a "conceptual instrument for

comparison and the measurement of reality,”9 the ideal type allows us to understand why composers regarded twelve-tone imperatives as “laws,” how overarching concepts of “twelve-tone music” do or do not relate to individual compositional cases, and also how twelve-tone ideas served as what Weber called a “conceptual construct [Gedankenbild]” that may have only a limited connection with compositional reality.

As an idealistic construct, Philip Gossett notes, Weber’s ideal type can be compared with Charles Rosen’s formulation of the Classical style as “a fiction, an attempt to create order, a construction that enables us to interpret the change in the musical language” in the eighteenth century.10 When Dahlhaus described postclassical sonata form in idealypical terms, he found in music a prime Weberian nexus of cultural significance, compositional heuristic, utopianism, and selectivity with regard to specific and concrete musical details.11 Weber’s description of the ideal type as “an internally consistent system . . . a utopia which has been arrived at by the analytical accentuation of certain elements of reality” provides a unique and revealing description of the “cultural reality” of sonata form, a sonata ontology constructed with the sole purpose of facilitating discussion. “In its conceptual purity, this mental construct [Gedankenbild] cannot be found empirically anywhere in reality,” Weber writes. “It is a utopia. Historical research faces the task of determining in each individual case, the extent to which this ideal-construct approximates to or diverges from reality.”12

Weber thought the ideal type a necessary evil: the historian who rejects ideal types as mere theoretical constructs, “as useless or dispensable for his concrete heuristic purposes,” is bound to suffer the inevitable conceptual failure of either “consciously or unconsciously [using] other similar concepts without formulating them verbally and elaborating them logically or . . . [remaining] stuck in the realm of the vaguely ‘felt.’”13 What Weber did argue against is the historian or ideologue misusing the ideal type by inverting the relationship between ideal type and reality, and going on to deduce reality from the laws themselves originally deduced from that reality: “He now claims empirical validity, in the sense of the deducibility of reality from ‘laws,’ for the

13. Ibid., 94.
propositions of abstract theory.”14 Through just such an a posteriori reification of historical construct, twelve-tone composition started to take on specific ideological encrustations by the 1930s. Such ideology-driven misuses of an ideal type are often predicated on abuses of terminology. In particular, they have been served by the pseudo-positivist terms that often mark histories of twelve-tone music: problem, solution, discovery, law, system, and even something called the twelve-tone idea (terms I will return to when I discuss their misapplication to compositional practice and history).

The arguments broached by Weber’s ideal type are primarily historical ones, and he could be interpreted as wanting to rewrite the historical record, to take history from its bureaucratizing and utopian inscribers and return it to its progenitors and their individual, practical value-systems. Accordingly, I will focus here primarily on the differences of perspective between Schoenberg, as the progenitor of twelve-tone music, and the young Pierre Boulez—the modernist, serial composer, and polemical writer of history. There are basic divergences in their historical views: Schoenberg shared an unexpectedly flexible historicism with his fellow modernist Kandinsky in the 1920s and even suggested the kinds of reservations over Problematik (or a problem-based view of history) that Kuhn spelled out later. He wrote the following affirmation of plurality in 1934: “It is evident that abandoning tonality can be contemplated only if other satisfactory means for coherence and articulation present themselves. . . . Without a doubt there are means of accomplishing this; certainly it would not be impossible to mention and to explain at least a few.”15 By the 1950s, Boulez held a much more stringently exclusive and deterministic—ideal-typical—viewpoint, as seen in his essays on Schoenberg and Berg written in this period.16

When Rosen described the Classical style as “a fiction, an attempt to create order,” he saw it as a historiographic construct, necessarily based on a selective set of characteristics. Similar descriptions of dodecaphony as an ideal type, as a kind of fiction, involve four ideas that proved important for Boulez and other Darmstadt modernists: twelve-tone composition (1) as a stage in the historical and teleological unification of musical space, (2) as an instrument used to help effect a complete and consistent circulation of the total chromatic, (3) as a music organized around a pervasive and all-determining principle, and (4) as a music incompatible with traditional harmonic functions. Dodecaphony as commonly defined was utopian in that these four ideas were incompatible (if the composer pursued them in a literal way) with writing works of any length or real musical interest. If aesthetic-historical discussions of twelve-tone music tend toward the utopian, definitions of specific compositional applications do

the same. Some thirty years ago, David Lewin described classical twelve-tone practice as

the functional interrelationship of two abstractly independent structural principles. One is serialism, that is, the use of a fundamental succession of "things" (no matter what) through time, together with various derived successions... The other is what we might, following Babbitt, call permutational total chromaticism. One means, by "permutational," that the primary structural focus is on configurations of all twelve possible pitch-classes (in time), and on the relations among such configurations; this as opposed to primary structural focus on combinations of some of the twelve pitch-classes.17

The idealistic basis of such a definition becomes clear if one imagines putting it into practice: the would-be dodecaphonist could well ask what seriality, or "the use of fundamental successions of things," might mean in actual composition. The likely answer is: no one thing, but many things. The ideals of nonrepetition and consistent circulation of the total chromatic—ideas that stand at the center of Darmstadt's "attempt to create order" in its predecessors—proved important as historical and teleological instruments, but also deeply problematic as compositional ones. More specifically: aggregate-formation, one compositional priority by which Ethan Haimo distinguishes Schoenberg's fully developed twelve-tone practice from his earlier practice of "composing with tones," entails postponing pitch-class repetition as long as possible within each aggregate; but it can assure no such consistency of repetition from one aggregate to the next if partitioning and row form are to be varied at all.18 On into the 1930s, in fact, Schoenberg and Webern dismissed as fallacy the idea that twelve-tone techniques might aspire to audible purity by distributing pitch classes entirely equally.19 Similarly, the idea that an integral series of interval classes could prove binding on all vertical as well as melodic formulations was a chimera, and this problem along with concomitant difficulties in the idea of conflating vertical and horizontal dimensions are basic ambiguities in applying the idea of seriality to non-monophonic music.20

18. The essay "Komposition mit zwölf Tönen," which likely represents Schoenberg's thinking in 1923 as described below, discusses this very issue (p. 8); see my discussion of abstraction and uniformity of pitch class, below. Also see Schoenberg, "Hauer's Theories," in Style and Idea, 211–12.
19. Webern summarized this issue thus in Der Weg zur neuen Musik: "Of course composition can't go on without note-repetition; the work would have to end when all twelve notes had occurred" (The Path to the New Music, ed. Willi Reich, trans. Leo Black [London and Vienna: Theodore Presser, 1960], 39).
20. Perle writes, "In twelve-tone music ... simultaneity may or may not conform to the only ordering principle provided by the system, and where it does not do so it bears no necessary relation to this principle" (Serial Composition and Atonality: An Introduction to the Music of Schoenberg, Berg, and Webern, 6th ed. [Berkeley and Los Angeles: University of California Press,
I cannot trace the idealistic turn of events without documenting Schoenberg’s early twelve-tone perspective—the conception he developed well before the idealypical project began in earnest. For this I turn to a little-known Viennese document on twelve-tone composition that dates from the very inception of Schoenberg’s method in the early 1920s. I will use this source to help contrast earlier ideas about twelve-tone technique with later historiography and compositional and theoretical discourse; indeed, my own essay grew out of an attempt to put this Viennese document in context. Although it is anonymous, it almost certainly presents Schoenberg’s thinking quite directly. Read alongside later and better-known polemics on twelve-tone composition, the source—a typescript carrying the simple title “Komposition mit zwölf Tönen” (“Composition with Twelve Tones”)—helps complete a picture of a changeable twelve-tone ideology that closely matches the ideological changes predicated in Weber’s ideal type. More specifically, this document helps fill out an overview of how the twelve-tone conceptions of the 1930s and later years generally sympathized less and less as time went on with Weber’s basic distinction between value judgments (Werturteile) and empirical knowledge. (He writes, “An empirical science cannot tell anyone what he should do—but rather what he can do—and under certain circumstances—what he wishes to do.”)21 “Komposition mit zwölf Tönen” is particularly instructive because it provides a rare glimpse into the earliest contingencies of Schoenberg’s “discovery.” In midcentury, the philosopher of science Hans Reichenbach looked at scientific developments and made a controversial but useful distinction between a “context of discovery” and a “context of justification,” attempting to declare the former a province of psychology and the latter an area for the epistemologist.22 Scholars of twelve-tone music are well versed in the contexts of justification as voiced by Babbitt, Boulez, Webern, and Schoenberg himself; but the aesthetic context of the twelve-tone “discovery” is obscured by the teleological historical constructs of its advocates. It is that little-known inner sanctum, the moment before compositional and historical accounts of twelve-tone composition began to converge, that “Komposition mit zwölf Tönen” illuminates.

---

1991], 84). As Douglas Jarman points out, this paradox between serial order and a personal harmonic language is key to understanding much of Berg’s music. See his Music of Alban Berg (Berkeley and Los Angeles: University of California Press, 1979), 131–33.


22. “The art of discovery escapes logical analysis; there are no logical rules in terms of which a ‘discovery machine’ could be constructed that would take over the creative function of genius” (Reichenbach, The Rise of Scientific Philosophy [Berkeley and Los Angeles: University of California Press, 1964], 231). There are similarities here with Weber’s ideal type, which in Hekman’s description follows two steps toward cultural meaning: that bestowed by the social actor (i.e., the composer) and that bestowed by the investigator (the historian) (Weber, the Ideal Type, and Contemporary Social Theory, 29–31).
Schoenberg’s Discovery

In a 1937 letter to Nicolas Slonimsky, Schoenberg himself took a heuristic view of his early serial endeavors, describing them as an effort to “[base] the structure of my music consciously on a unifying idea. . . . As an example of such attempts I may mention the piano pieces op. 23. Here I arrived at a technique which I called (for myself) ‘composing with tones,’ a very vague term, but it meant something to me.” The vague term apparently signified a proto-serial method of fashioning new motives, themes, and accompaniments from a referential motive—in “Composition with Twelve Tones (2),” he refers to “working with tones of the motive”—but not entirely “systematically” and without necessarily concentrating on the twelve pitches of the chromatic.

Did this early “composing with tones,” and Schoenberg’s extension of the practice into the Op. 24 Serenade and the first stages of work on the Klavierstücke Op. 25, represent a tentative, interim phase in the gestation of a revolutionary “twelve-tone idea”—a phase existing even before the practice really had a name? Or did it in fact present twelve-tone or serial composition in a Weberian pristine form, before it was commandeered by various teleologies—before it became an institution? As far as contemporary documentation is concerned, there is not a great deal to go on here: Schoenberg wrote little prose on the subject of twelve-tone composition in the 1920s. Still, what he did write makes it clear that, early on, he did not share in the scientistic utopianism of those who later took up dodecaphonic composition, and it does not describe twelve-tone composition as the answer to a Problemsgeschichte.

The anonymous “Komposition mit zwölf Tönen” typescript emerges as the earliest substantial account of Schoenberg’s twelve-tone thinking. (I date the document at 1923, for reasons given below, thus placing it in the same year that Schoenberg decided to make his twelve-tone conclusions public.) His published writings barely document his thoughts on twelve-tone composition until the 1941 “Composition with Twelve Tones (1)” essay, which was based on ideas from his Princeton lecture “Vortrag 12TK” in 1934. (Table 1 lists early essays on twelve-tone music, published and unpublished, that relate to the Schoenberg school. Among the earliest of these, Matthias Hauer’s are really studies of his own tropic techniques. One German document not included in the list, Herbert Eimert's Atonale Musiklehre of 1924, deals less specifically with serialism than with basic properties of atonality.) Among

Schoenberg’s earliest writings, "In der Komposition mit 12 Tönen..." (not to be confused with the “Komposition mit zwölft Tönen” typescript under discussion here) and “Hauers Theorien” are only brief expositions, probably not intended for publication and at any rate not published in his lifetime.

I should offer a few words on the provenance of the “Komposition mit zwölft Tönen” typescript, which survives only through a copy found in the Alban Berg Nachlaß at the Austrian National Library, Vienna. Berg was involved with “Komposition mit zwölft Tönen” (or KzT hereafter), at least at an early stage. Found alongside that source in the Berg archive are four pages of detailed notes in Berg’s hand that relate closely to the content of KzT—and which are primarily concerned with twelve-tone music’s historical precedents, Bach particularly. (Two summary annotations in the left margins read “Entwicklung bei Bach” and “Entwicklung bei Schönberg.”) A comparison of Berg’s notes to the typewritten text (each of the two sources having some material that does not appear in the other) suggests that KzT is an expansion of what is contained in Berg’s notes. Considering the sparse circumstantial and documentary evidence, it seems likely that KzT represents Schoenberg pupil Erwin Stein’s fleshing out of ideas dictated to Berg by Schoenberg, possibly intended as an addition to the book on Schoenberg that Berg was compiling in the early 1920s. And it is a strong possibility that Stein’s text expands on ideas that Schoenberg expressed at the famous meeting he called in Mödling on 17 February 1923 to announce his discoveries in twelve-tone composition. If these assumptions are correct and Berg’s notes do represent Schoenberg’s remarks at this forum, he had far more to say about history than about compositional technique.

25. “Komposition mit zwölft Tönen” (Österreichische Nationalbibliothek, Vienna, Musiksammlung, F 21 Berg 121) is typewritten on thirteen pages, with pages 5–13 appearing as carbon copies. Berg’s five pages of notes relating closely to the essay are catalogued as ÖNB Musiksammlung, F 21 Berg 107, fols. 12r–13v and 1r–2v. For a reproduction and transcription of Berg’s notes, and an English translation of KzT, see Ashby, “The Development of Berg’s Twelve-Tone Aesthetic as Seen in the Lyric Suite and Its Autograph Sources” (Ph.D. diss., Yale University, 1995), 223–41.

26. From interviews with Felix Greissle and others who attended this meeting, Joan Allen Smith ascertained that Stein was present (see her Schoenberg and His Circle: A Viennese Portrait [New York: Schirmer Books, 1986], 197–98). Jennifer Shaw has scrutinized KzT as part of her dissertation research on Schoenberg and has proposed that Schoenberg might even have requested that Berg record the ideas given at the Mödling lecture (“Schoenberg’s Choral Symphony, Die Jakobstei, and Other Wartime Fragments: Genesis of the gearbeitete Aesthetic,” State University of New York at Stony Brook, in progress). Details of Berg’s manuscript pages of notes (for which he reused some paper that had been used in the sketches for Wozzeck), as well as of the KzT typescript itself (which refers to no work later than Schoenberg’s Serenade), do indeed support a date of February 1923 or shortly thereafter. Rudolf Stephan attributes the essay to the late 1920s or early 1930s, “but certainly before 1933”; see his transcription of the German text, published with a brief description of the ÖNB manuscript, in “Ein frühes Dokument zur Entstehung der Zwölftonkomposition,” Festschrift Arno Forchte zum 60. Geburtstag am 29. Dezember 1985, ed. Gerhard Allroggen and Detlef Altenburg (Basel, London, and New York: Bärenreiter, 1986), 296–302.
<table>
<thead>
<tr>
<th>Author</th>
<th>Title, or given title</th>
<th>Date, or (if same year) published source</th>
<th>Later publication or republication</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. M. Hauer</td>
<td><em>Vom Wesen des Musikalischen</em></td>
<td>1920</td>
<td>republished in 1923, with slight changes, as <em>Ein Lehrbuch der Zwölftöne-Musik: Vom Wesen des Musikalischen</em></td>
</tr>
<tr>
<td>J. M. Hauer</td>
<td>“Sphärenmusik”</td>
<td><em>Melos</em> 3 (1922)</td>
<td></td>
</tr>
<tr>
<td>J. M. Hauer</td>
<td>“Atonale Musik”</td>
<td><em>Die Musik</em> 16 (1923)</td>
<td></td>
</tr>
<tr>
<td>Schoenberg</td>
<td>(“In der Komposition mit 12 Tönen . . .”)**a</td>
<td>1923</td>
<td>first published in <em>Style and Idea</em> (ed. Leonard Stein), 1975</td>
</tr>
<tr>
<td>Erwin Stein</td>
<td>“Neue Formprinzipien”</td>
<td><em>Musikblätter des Anbruch</em> 6 (1924)</td>
<td>republished in <em>Von neuer Musik</em>, 1925</td>
</tr>
<tr>
<td>J. M. Hauer</td>
<td>“Die Tropen”</td>
<td><em>Musikblätter des Anbruch</em> 6 (1924)</td>
<td></td>
</tr>
<tr>
<td>J. M. Hauer</td>
<td><em>Vom Melos zur Pauke: Eine Einführung in die Zwölftonmusik</em></td>
<td>1925</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Year</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>J. M. Hauer</td>
<td>Zwölftontechnik: Die Lehre von den Tropen</td>
<td>1926</td>
<td></td>
</tr>
<tr>
<td>J. M. Hauer</td>
<td>“Meine Zwölftonmusik”</td>
<td></td>
<td><em>Pult und Takstock</em> 5 (1928)</td>
</tr>
<tr>
<td>Anton Webern</td>
<td>Der Weg zur neuen Musik</td>
<td>1932</td>
<td>1932–33 lectures</td>
</tr>
<tr>
<td>Ernst Krenek</td>
<td>“Thesen”</td>
<td></td>
<td>published 1960</td>
</tr>
<tr>
<td>Schoenberg</td>
<td>“Schoenberg’s Tone-Rows”</td>
<td>1936</td>
<td>first published in <em>Style and Idea</em> (ed. Leonard Stein), 1975</td>
</tr>
<tr>
<td>Ernst Krenek</td>
<td>“Zwölftontechnik” and “Musik und Mathematik”</td>
<td>1936</td>
<td>published in <em>Über neue Musik</em>, 1937</td>
</tr>
<tr>
<td>Schoenberg</td>
<td>“Composition with Twelve Tones (1)”c</td>
<td>1941</td>
<td>1941; follows up on ideas from 1934 Princeton lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Vortrag 12TK”</td>
</tr>
<tr>
<td>Schoenberg</td>
<td>“Composition with Twelve Tones (2)”c</td>
<td>ca. 1948</td>
<td>first published in <em>Style and Idea</em> (ed. Dika Newlin), 1950</td>
</tr>
</tbody>
</table>

*a Left without a title by Schoenberg and therefore known by the first phrase of the text.
*b Three essays on Hauer, published together by Leonard Stein under Schoenberg’s title for the third.
*c Posthumous numerations differentiating two essays with the same title.
Given the emphasis on historicism rather than future practice in KzT and the other essays from the 1920s, it is difficult to escape the conclusion that Schoenberg did not yet have much of an idea of the celebrated compositional implications of his own “discovery,” despite his infamous declaration to Josef Rufer in 1921 that he had “made a discovery which will ensure the supremacy of German music for the next hundred years.”27 He had intuited a discovery, in essence, and had taken it upon himself to give it a name while partway through the process of refining it to something that resembles “twelve-tone music” as we now understand it, or as Boulez understood it in the 1940s and early 1950s. In this respect, Schoenberg’s use of the word discovery seems tinged with historicist wishful thinking, propitious as the choice was. Kuhn and Imre Lakatos question such conceptions, describing a discovery as a kind of ideological colonization of the past or the future, and a process that is at best gradual.28 Indeed, Kuhn suggested that the very notion of scientific “discovery” tends to be a post facto construction on the basis of subjective hindsight.

A particular Schoenberg sketch, perhaps his most famous, helps connect his early twelve-tone practice with the problematics of scientific models of “discovery” (see Fig. 1). Here Schoenberg demonstrates for himself a subsidiary row derived at the beginning of the third movement of the Op. 26 Wind Quintet, in measures 1–7 of the horn line. In Haimo’s view, this sketch shows that Schoenberg had made a decisive breakthrough in the basic twelve-tone difficulty of reconciling the serial, linear imperative with the need for a consistent harmonic vocabulary.29 To substantiate this proposal, he points to several specifics that he says have larger implications for Schoenberg’s career as serialist: (1) the derived row presents an aggregate, complete and without pitch-class repetition; (2) Schoenberg produces that aggregate by performing symmetrical extractions from the two hexachords, forming the subsidiary set by joining (from repetitions of the basic row) the first and last order positions of the hexachords (E♭, C, B♭, F), then the second and fifth (G, C♯, D, G♯), and then the third and fourth (A, B, E, F♯); (3) the first and fourth of these extracted pitch-class sets are identical, and the tetrachords related by T-6—the transposition for the second theme group (mm. 53–60), where the four-note collections are invariant with those in measures 1–7.

Figure 1  Schoenberg's sketched derivation of subsidiary series in the Wind Quintet Op. 26, first movement (letter names and order positions added, after Reinhold Brinkmann in Journal of the Arnold Schoenberg Institute 1 [1977]: 182)

Even as he lists these properties, Haimo admits that Schoenberg was—as of 1 June 1923, the date the composer assigned to this sketch—probably unaware of their “full implications,” which would likely include Haimo’s third and most significant assertion. The document does bear out Haimo’s first and second proposals. But there is no verification here or in the pitch-based parts of the sketch that Schoenberg was yet necessarily thinking in tetrachords rather than aggregates, and that would imply that structural use of invariance (the T-6 operation for the second theme) was a later “discovery.” Indeed, this conclusion would also seem to follow from Haimo’s own concession that the composer “had not yet systematized a generalized notion of the aggregate as something distinct from the twelve-tone set.”30 In retrospect, Schoenberg’s sketch documents one step within a series of smaller revelations. It also shows his discovery to be more a historical event than a compositional one: the primary revelation is the systematic elegance of the series derivation itself, yet such processes did not actually come to play a significant role in his twelve-tone works. Here Schoenberg’s own historicism obviously encroached on his actual compositional work or even merged with it. He seems to have produced the sketch for future musicologists, and annotates the relations with the remark “I believe Goethe would have been very happy with me” (“Ich glaube Goethe müsste ganz zufrieden mit mir sein”).

This sketch also suggests that, within the Schoenberg circle in the 1920s, the conception of dodecaphony was notably ill-defined. Such an impression is corroborated by other indications that the Schoenberg circle only vaguely understood and realized twelve-tone constructs in musical as opposed to historical terms, as least in its first years. Alban Berg could offer the most impartial

30. Haimo, Schoenberg’s Serial Odyssey, 117.
testimony of this, since he—unlike Webern—did not see himself in competition with Schoenberg, nor did he think himself a promulgator of twelve-tone methods. In his open letter to Schoenberg describing the Chamber Concerto (9 February 1925), Berg pointed to "individual shorter passages of tonal character that correspond to the regulations established by yourself in the 'Composition with 12 notes.'" 31 The piece, particularly its first movement, could be a textbook illustration of Lewin's definition: "the fundamental succession of 'things'" aspect of twelve-tone thinking that Lewin mentions must lie behind Berg's theme-and-variations form, with the original subject given over to basic serial operations of inversion, retrograde, and then retrograde inversion. Likewise, "permutational total chromaticism" doubtless lies behind Berg's obvious concern in his sketches to circulate the total chromatic (particularly in the introduction of the first movement, after which his labeling exercise presumably became redundant). Yet the music is hardly twelve-tone in any accepted sense, whether Schoenbergian, Webernian, or even Bergian. 32

Several semantic and historical details also lead to the conclusion that twelve-tone music was initially an unclear concept. First, the basic term for this compositional method was not standardized at the outset, a semantic issue that reflects musical practice. Schoenberg and his disciples referred variously to "Formprinzipien," "Komposition mit zwolf Taven," "Komposition in zwolf Tönen," "Zwölftonkomposition," "12 Ton-Musik," "Reihen-Komposition," and "Komposition mit zwolf nur aufeinander bezogene Tönen." (Hauer apparently used the now-familiar adjectival description "twelve-tone" from the beginning, with some small variations: his 1923 and 1924 titles refer to "Zwölftone-Musik," or "twelve-tones music.")

Second—and this is related to the issue of nonstandardized terminology—there is the matter of conceptual definition. When Schoenberg wrote his conciliatory letters to Hauer in December 1923, responding to the latter's suggestion that they cooperate on founding an academy of twelve-tone composition, he was eager (for whatever reason) to counter Hauer's idea that they had "discovered the same thing." And yet Schoenberg was also eager to arrive at a specifically worded proposal that would bridge their differences, and to that end he substituted "logic" for Hauer's concept of "Nomeos" in what became a clumsy and heavily qualified proposition: "What I suggest is therefore: Let us take what is common to our results and regard it as 'possibilities of achieving logical form by the use of 12 notes.'" 33


32. In his sketches catalogued at the Österreichische Nationalbibliothek in Vienna (F 21 Berg 74/XI), Berg marked measure 1 through beat 2 of measure 5 "alle 12 Töne"; measure 10, beat 2 through measure 12, beat 3 "11 ohne fis," and so on. But the Chamber Concerto, in George Perle's description, "has nothing to do with Schoenberg's twelve-tone system" (The Operas of Alban Berg, vol. 2. Lulu (Berkeley, Los Angeles, and London: University of California Press, 1985), 2).

Third, it is difficult to assign any particular date or year to Schoenberg’s “discovery” (a point that would confirm Kuhn’s and Lakatos’s ideas). Erwin Stein problematized any idea of a dodecaphonic discovery when he republished his own 1924 essay “Neue Formprinzipien” in English in 1953. One finds him anxious to clarify that Schoenberg’s music described as “twelve-tone” in his original “Neue Formprinzipien”—specifically, Opp. 23–25—no longer qualified as such in 1953. Connecting Schoenberg’s comment to Rufer with Stein’s theoretical dismissal of the early twelve-tone music, one arrives at the anomalous conclusion that the composer who had “discovered” twelve-tone composition in 1921 or 1923 did not in fact understand what he had discovered until the later 1920s: “The present essay does not describe Schoenberg’s composition with twelve tones,” Stein wrote in 1953, speaking of the first version of “Neue Formprinzipien,” “but the stage immediately before it had finally crystallized.”34 The Schoenberg work that separated the “twelve-tone” from the “not-yet-twelve-tone” was surely the Wind Quintet Op. 26, which the composer published late in 1925.

But if Schoenberg failed to understand what it was that he had “discovered” between his first twelve-tone explorations in the late teens and his compositions of 1925, who is to say that he ever fully clarified his discovery? Or has Schoenberg’s discovery indeed ever been finalized? (In an essay for the Schoenberg centenary, Babbitt referred to “a catalogue of the actual and possible extensions of Schoenberg’s ‘composing with twelve tones,’ many—probably most—of which yet are compositionally unfulfilled.”)35 In all likelihood, conceptions of what twelve-tone music was continued to change well beyond Op. 26—and did so at least until the young Boulez arrived at Darmstadt in 1952.

Boulez made it clear at that time, despite his anti-Schoenberg rhetoric, that he had not forgotten the “debt” he owed Schoenberg for “discovering the series,” and in 1951 he chose to focus on seriality as the most important aspect of twelve-tone music. Yet Boulez did not conceive the series as a compositional mechanism: in his view, seriality was important for bringing about a liberation of sound and an emancipation of the individual musical moment. As seriality was consummated in Webern’s work, he wrote, “there irrupt[ed] into the acquired sensibility the first elements of a kind of musical thought irreducible to the fundamental schemata of earlier sound-worlds.”36 Karlheinz Stockhausen also saw Schoenberg’s discovery of the series as a watershed, if for

34. Stein, “New Formal Principles,” in his Orpheus in New Guises (London: Rockliff, 1953), 57. Schoenberg himself also distinguished Opp. 23 and 24 from the later twelve-tone works in “Composition with Twelve Tones (1).”
its propagation of a deterministic structure rather than for any encouragement of a new musical language. And he held this view as late as 1981, with the series constituting a kind of irreducible musical counterpart to the neutrino in physics:

The universe seemed, then, to reflect Einstein’s concept of a unique formula. The first composers disposed to derive a new musical method from such indications were Matthias Hauer and Arnold Schoenberg. Schoenberg went much further, taking off from a basic form which was created in the wake of the grand tradition of Bach and Beethoven. Note that I’m not speaking at all of formula, but rather of form; an entire period of this history of music began to develop from that moment on the basis of the so-called series. . . . Every score was to be developed on the basis of that small nucleus, that small structure, that form no one had the right to alter.87

In his 1951 article, Boulez constantly presses a definition of twelve-tone music toward a specification of just what it should exemplify, what it will represent in the future. (It should be noted that the article was written at about the time Boulez composed Structures Ia, his doctrinaire essay in total serialism.) Twelve-tone music becomes a point of departure, with Boulez’s representation of it consistently pointing toward idealized future practice. Babbitt takes a similar perspective, though he differs from Boulez and Stockhausen in being a resolute Schoenbergian: dodecaphony, awaiting its true realization in the future, becomes a necessary concept that has been ill-treated and misunderstood. And both Boulez and Babbitt owe their futurism to a basis in scientistic Problemgeschichte: the reader comes away with the feeling that the solution has been devised to a musical-aesthetic problem that, like the solution itself, is only vaguely understood.88

Non-utopianism and Tonality in “Komposition mit zwölf Tönen”

Invocations of necessity and musical-historical crisis begin two significant essays on twelve-tone music by Schoenberg disciples: Erwin Stein’s “Neue Formprinzipien” (“New Formal Principles,” 1924) and Webern’s “Der Weg zur zwölfton Komposition” (1932–33). By contrast, KzT introduces twelve-tone composition in more practical terms: “[It] is recognizable by way of a


38. In Kuhn’s estimation of the methods of Problemgeschichte, the problems addressed are chosen for their solvability rather than their importance or concreteness: “Though intrinsic value is no criterion for a puzzle, the assured existence of a solution is. . . . One of the reasons why normal science seems to progress so rapidly is that its practitioners concentrate on problems that only their own lack of ingenuity should keep them from solving” (The Structure of Scientific Revolutions, 27).
principle: nonrepetition of one tone, nonemphasis of one tone as keynote.” 39 KzT goes on to claim that twelve-tone music recognizes principles of economy and nonrepetition, and that the modern chromatic style of composition demands these principles:

Regarding nonrepetition, it is chiefly a question of absolute economy. The assertion of tonality demands that all characteristic tones be given. In the case of twelve-tone music, it is required that all twelve tones be used before one is repeated. (That is no eternal law, but only a demand of economy.) The “style” demands further, in another sense, that repetition of tones be avoided: the precursor was chromaticism, from which it resulted. . . .

These new necessities compete with each other: to be both freed from chromaticism and to obey it. (KzT, p. 1)

KzT espouses a perspective that is characteristic of Schoenberg’s earliest compositional aesthetic, and which later became problematic: namely, the view that intuition and the ear constitute the composer’s first and last resorts. 40 The authors of KzT thereby propose that developing post-tonal musical taste (Geschmack) in essence demanded twelve-tone music, which represents the optimal compositional response to that developed taste. According to the listener who has developed this aesthetic, avoiding repetition of tones and emphasis on any one tone are “nothing essential, but explainable only as a reaction against the earlier compositional methods; one avoids recalling earlier chords.” The authors declare again, further on, that “avoiding repeated tones and triads is no eternal law, but probably only manifestation of a reaction. We write according to our taste, and this imposed these restrictions on us above all” (KzT, pp. 1, 8). The authors of KzT also emphasize intuition, taste, and the musical ear when speaking about motivic process (die motivische Arbeit), which is seen as the primary structural dynamic of a twelve-tone composition. Motivic processes, according to the authors of KzT, are the means of providing clarity, almost a visible dimension, to purely musical relationships (what Schoenberg elsewhere calls the “mutual relation of tones”): 41 “[Motivic process] serves also to make evident that which is comprehensible by aural perception. It moves representation of the thought from the audible to the visible [sichtbar], whereby cohesion becomes recognizable from the representation of the notes [aus den Notenbild]” (KzT, p. 10).

One way that composers after Schoenberg falsely imputed their own values to their predecessors (forcing a kind of “value relevance,” to use Weber’s phrase) was by saying that twelve-tone methods were necessitated by denial of tonal reference; or that they functioned not as a kind of substitution for

39. I should also point out, however, that Berg’s notes serving as a template for KzT present a more rigorous historical framework for the development of twelve-tone music than does the KzT essay itself.


41. Schoenberg, “Composition with Twelve Tones (1),” in Style and Idea, 220.
tonality, a return to normative procedure, but as a means of obstructing or opposing it. Boulez expressed this ideal-typical view as a compositional manifesto in 1952:

We must expand the means of a technique already discovered; that technique having been, up to now, a destructive object linked, for that very reason, to what it has wanted to destroy, our first determination will be to give it autonomy. And, furthermore to link rhythmic structures to serial structures by common organizations, which will also include the other characteristics of sound: intensity, mode of attack, timbre. Then to enlarge that morphology into a coalescent rhetoric.  

The year before he wrote these lines, Boulez had made the following rather simplistic connection between Schoenberg’s wish to “avoid” tonality and his desire to construct new compositional systems:

Schoenberg . . . is the very model of a search for language. Arriving during a period of dissolution, he pushed that breaking-up to its extreme result: “suspension” of the tonal language. That expression—which I borrow from René Leibowitz—seems to me, in fact, to fit better than “atonal” language, for it points to Schoenberg’s first wish, which is to “avoid” tonality, differentiating it from the second, constructive phase of his thinking. Schoenberg’s work thus rests on two elevations separated by seven years of silence. Which certainly does not mean that the two elevations are unconnected, as many well-intentioned spirits would have us suppose.

One can turn to later Schoenbergian polemics to find substantiation for the beliefs that the series was designed to obstruct suggestions of tonality, and that twelve-tone music and tonal music were necessarily mutually exclusive. It was in “Composition with Twelve Tones (1)” that Schoenberg first expressed the idea that “the style of free dissonance” would eradicate “constructive meaning” in harmony.

Turning, however, to KzT and less wide-ranging documents of the 1920s, we find no indication that twelve-tone methods were understood to be “a destructive object” or a kind of exclusionary alternative to tonality. Indeed, the authors of KzT take issue with any outright rejection of tonality, finding such a rejection to be compositionally and historically arbitrary. And it is surely significant that the authors of this early essay on twelve-tone composition chose even to include such a defense:

It would perhaps be no misfortune if we wanted to compose “polytonally” rather than “atonally.” It would be no surprise at all if in this music conform-

---

43. Originally published in Contrepoint 7 (1951); reprinted as “A Time for Johann Sebastian Bach,” in Notes of an Apprenticeship, 11.
44. This would appear to be a restatement of Schoenberg’s well-known preference of the word polytonal or pantonal over atonal. He offered his most detailed views on this matter in
ing to a monotonal [music], the aftereffect of tonality is so strong that a tonal-
ity might occasionally occur. Perhaps the effort to avoid tonality is only a
reaction. (KzT, p. 7)

That we proceeded from these precepts [of avoiding triads and repeated tones]
is no guarantee that we will remain with them. Later a new kind of tonality can
again be found. Triads, too, will likely become possible again. (KzT, p. 8)

KzT moves from a defense of tonal sonorities to a refutation of Stilreinheit
(though such “purity of style” would seem inextricable from Schoenberg’s
own later description of dodecaphonic composition as a method of compos-
ing with “twelve tones related only to one another”). The authors write:

Yet it is possible that there is a combination of perspective and nonperspective
elements in an artwork. In our case, triads and chords of many voices appear
mixed. The triad momentarily fills the purpose of indicating sections, of giving
better impressions of beginning and closing. It can certainly be used now in
this way. “Purity of style” [Stilreinheit] surely comes into question. Yet it is
questionable if there is such a thing as “purity of style.” (KzT, p. 8)

I have already mentioned aggregate formation and the utopian idea of ut-
ter uniformity of pitch class: as a way of preventing tonal reference, consistent
circulation of the chromatic was another important element in the search for
“purity of style.” In KzT, the authors specifically address the utopian idea of
entirely avoiding pitch-class repetition and offer an extreme response, saying
that “intervals of repetition” will be unequal in twelve-tone composition:

If one wanted to postpone the repetition of each tone as long as possible, one
would have to postpone each tone as long as possible. Thus identically post-
pone each, repeating all twelve tones in the same succession. It follows that the
interval of repetition must be unequal. Repeated tones can occur in one voice,
without eleven different tones being stated in between. (KzT, p. 9)

The authors of KzT also argue that the wish to postpone the repetition of
every pitch class as long as possible—a premise from which “the construction
of a basic set of twelve tones derives,” according to Schoenberg’s thinking of
around 194845—is, in principle, incompatible with modern orchestral writing.
Consistent circulation of the chromatic, in other words, is not practicable in a
texture of more than three parts:

Repeated tones must also be judged from the polyphonic perspective. Since in
general our inclination is to write more than three-part chords, so our entire
material would perhaps be used up after every three chords. It is therefore clear
that repetitions cannot be avoided.

the third edition of the Harmonielehre (Theory of Harmony, trans. Roy E. Carter [Berkeley and
Los Angeles: University of California Press, 1978], 432–33); and in the conclusion to “Opinion
or Insight?” in Style and Idea, 263.

45. Schoenberg, “Composition with Twelve Tones (2),” in Style and Idea, 246.
—To the question of why we prefer chords in more than three voices, the following arguments can be cited. The early development was already aiming toward four-, five-, six-tone chords (seventh, ninth, fourth, whole-tone chords). Moreover, if the voices are widely separated it is also necessary, as dictated by the sound quality, to fill this large space with more than three tones, since we do not double. For comprehension the chords often need clarification through many tones. (KzT, pp. 9–10)

KzT even questions the basic supposition that a repeated tone must take on the character of a tonic:

One will generally [N.B.] avoid introducing repeated tones too soon in a voice, because the danger would arise that the repeated tone could be understood as a tonic. Yet perhaps that is not always to be avoided. (Indeed, thirds [Terzenschritte] were repeated in monotonal music without thereby creating a new tonic.) The danger is greater here, to be sure, since no declared key-note confronts it. (KzT, p. 9)

The Musette from Schoenberg’s Klavierstücke Op. 25 provides specific examples of some of the more undoctrinaire points on pitch repetition and tonal reference mentioned in KzT (see Ex. 1). The suite as a whole is persistently oriented to the diminished tetrachord E–G–B♭–Db, which is invariant and order-position fixed in the four row forms used. In the Musette, Schoenberg plays momentary and alternating suggestions of E minor and G centricity against this E-diminished orientation. The first two bars, with their predominant melodic motion through thirds and seconds, could be heard as E minor with added neighbor and passing notes (the first beat of measure 3, with its downbeat on an A♭ that is not easily connected with any particular E-based harmonic “resolution,” is harder to reconcile with such an allusion, and it must be said that the invariant B♭ works against such impressions). As the piece begins and Schoenberg plays out these references to G- and E-centricities, he illustrates the following specific assertions made in KzT and the Harmonielehre.

(1) “Avoiding repeated tones and triads is no eternal law” (KzT, p. 1), but a matter of the composer retaining a certain economy of language and also coping with new and binding stylistic and structural demands. Similarly, (2) tonal reference is permissible if it proves “homogeneous with the character of [the] thematic material,”46 and (3) “the triad momentarily fills the purpose of indicating sections, of giving better impressions of beginning and closing” (KzT, p. 8). More generally, (4) “fixed successions of tones amalgamated with fixed rhythms must be constructed, . . . cultivating a relationship that can only be formed through the use of repetition” (KzT, p. 12). (5) Suggestions of polytonality are in some sense synonymous with “atonality” and at times are compositionally preferable. Likewise, (6) there is less danger of a repeated note being understood as a tonic if a “declared key-note confronts it” (KzT, p. 9). And (7) the only diatonic interval to be concordedly avoided is the octave.

Twelve-Tone Composition as “Ideal Type”

Example 1 Schoenberg, *Klavierstücke* Op. 25, no. 3, mm. 1–5

History, Necessity, and Thematicism

Schoenberg and Kandinsky were open to a plurality of styles (Kandinsky writing to Schoenberg in 1911, “I have long felt that our period—which is after all a great one—will bring forth not one, but many possibilities”). This predilection was too fundamental to their thought to be regarded as evidence of mere inconsistency or aesthetic laziness. Rather, it signals a fundamental clash between the opposing claims of various modernist philosophies of history—and perhaps more specific aesthetic and historiographical differences between earlier European modernism and the Darmstadt avant-garde.

The modernist concept of stylistic purity hinges on a teleological conception of history—the idea, in Aldous Huxley’s memorable description, that “the real is the rational—that what happens is ultimately the same as what ought to happen.” Thus Boulez, possibly under the influence of Adorno’s


Philosophie der neuen Musik, originally spoke of “lines of force” and the pressures of “historical necessity.” For later historians and ideologues of Boulez’s generation, attributing a discovery to Schoenberg was a way of legitimizing certain compositional methods of the past and thereby propagandizing for theoretical constructs of the present—a way of portraying those constructs as a natural outcome of the past. In the early 1950s, members of the Darmstadt avant-garde based their aesthetic on the extension of Schoenbergian serial principles to the parameters of dynamics, attack, and rhythmic duration. In so doing, these Darmstadt musicians—Boulez the most prominent polemicist among them—dictated which composers should be considered central, and which marginal, to an understanding of twentieth-century European music. And this historical construct proved much more powerful and long-lasting than the compositional pan-serialist effort that lay behind it: the historical picture has been questioned only recently, yet the all-integrating impulse was dead among European composers by the late 1950s, and even as early as 1948 and the Second Piano Sonata, Boulez “simply broke with the ‘concept’ of the Schoenbergian series.”

In trying to arrive at a brief evaluation of the Second Viennese School in 1957, Boulez gave these composers a predetermined role in the serial teleology that served as the launching point for the Darmstadt aesthetic. In doing so, he reified a historical construct at the expense of historical accuracy:

In Vienna . . . a new language was patiently formed, in several steps; in the beginning, dissolution of the tonal attractions (a procedure contrary to Stravinsky’s), then functional ultrathematization, which could only lead to the discovery of the series; then the series exploited in differing ways by Schoenberg, Berg, and Webern.

Boulez was not alone in this project, naturally. The writer, theorist, and Darmstadt partisan Heinz-Klaus Metzger saw serialism rather differently if just as teleologically: the main discovery, inextricable from serialist discoveries, lay in “new formal principles.” According to Metzger, Webern found these principles earlier and developed them more steadily and consistently than Schoenberg, who in fact regressed structurally. And it was these formal discoveries that forced Webern to abandon tonality while Schoenberg found himself

49. Boulez not only desired works that were consistent unto themselves and fully aware of the possibilities implied in their material; he foresaw music that forced itself—in contradistinction to Berg’s Lyric Suite—“to choose one or another” solution, music that espoused no hybridization, no “final hothouse flowering of postromanticism,” and no “very confusing return[s] to Wagner” (“Present-day Encounters with Berg,” in Notes of an Apprenticeship, 238–39).


doing the reverse and, "after renouncing the form-building potentialities of tonality, ... look[ing] for 'new formal principles.'"52

Clearly, ideas of a corrupt tonality served later practitioners of the twelve-tone ideal type as a point of contention as they usurped the "discovery" of dodecaphony and the supposed goals behind that discovery. By contrast, atemmaticism served Boulez as a construct by which he claimed to make Schoenberg's ideas more faithful to Schoenberg's intentions than that composer's own work would allow. In the quotation given above, Boulez spoke of "functional ultrathematization, which could only lead to the discovery of the series." Here he wished to draw a firm distinction between (1) the motivically based thematism giving rise to the concept of "developing variation" and Schoenberg's "twelve-tone idea"; and (2) the kind of twelve-tone writing that would operate independently of, and eliminate any need for, thematic reference: "It behooves me to acknowledge that this ultrathematization remains [subjacent in the] idea of the series, which is only its purified outcome. In Schoenberg's serial works, furthermore, the confusion between theme and series is explicit enough to show his impotence to foresee the sound-world that the series [calls for]."53

KzT presents us with the Schoenbergians' only specific refutation of such Boulezian assertions of writing serially without themes. In his incomplete theoretical manuscript entitled "Lehre vom musikalischen Zusammenhang," which he began in 1917 and abandoned in 1923 in favor of "Der musikalische Gedanke," Schoenberg had explicitly equated motivic thinking and musical repetition: "The most important characteristic of a motive is its repetition. The presence of a motive can be recognized by the repetitions."54 The authors of KzT say that motives initially disappeared in twelve-tone music because of "the fear of repetition." "This could only mean: one no longer restricts himself to perceptible forms of cohesion, but also uses the imperceptible, [uses] that which every existing system still fails [to help] us understand" (KzT, p. 11). The sense of cohesion produced between individual notes via the motivic process could only be extended by the cohesion imparted through a Grundgestalt. "Repetition aims to facilitate intelligibility," say the authors, before continuing:

Distinct repetition has likely been displaced by a less distinct form of repetition, repetition through diverse variation. ... No music could possibly get by without repetition. (That is already shown by the tones.)55 This is also true of

55. This perhaps refers to the incremental octave division into twelve discrete and equal-tempered, and thus necessarily recurring, scale degrees.
Grundgestalten. The only possible way music can express itself is by juxtaposing enough forms of a Grundgestalt until the idea is expressed. (KzT, pp. 11–12)

According to the Schoenbergian perspective represented in KzT, the subtlety of new modes of repetition—presumably basing material on interval classes rather than intervals—necessitates the compensation of strict and recognizable formal processes:

The cohesion that usually continues between the notes does not suffice, since one could then write only scales, series of harmonics, and triads—that which is inherited from nature. Fixed successions of tones amalgamated with fixed rhythms must be constructed, and joined with such [elements], cultivating a relationship that can only be formed [gebildet] through the use of repetition. (KzT, p. 12)

This is a definition of the Schoenbergian Grundgestalt, and also a remarkable polemic whereby Schoenberg would seem to deny in advance Boulez’s wish to renounce any possible manifestation—aural or visual—of series as “theme.” The KzT authors go so far here as to claim that pitch relationships—circulations of the total chromatic organized according to specific patterns of interval classes—are not in themselves sufficient as a basis for musical structure. This would correlate with Schoenberg’s serial music written before 1925, works that consistently use neither twelve-tone series nor systematic aggregate formation. Structure requires repetition, as stated in KzT, and that in turn necessitates thematicism. And here Schoenberg specifically requires “fixed successions of tones amalgamated with fixed rhythms.”

Boulez insisted on a stark opposition between Webern’s “functional use of intervals” and Schoenberg’s “dodecaphonic principle [that] appears instead to come from ultrathematization (third piece of opus 23).” But another example from Schoenberg’s Op. 25 will give some idea of the more subtle and intricate ways in which he compositionally manipulated ideas of thematicism. Haimo has explored in some detail the changes that transpired in Schoenberg’s twelve-tone techniques between the sections of Op. 25 dating from 1921 (the Präludium and part of the Intermezzo) and those he wrote in 1923 (the rest of the Intermezzo, and the Gavotte, Musette, Menuett, Trio, and Gigue). Significant among these changes is Schoenberg’s move from a predominant use of his series as three tetrachords, with referential orderings operating more within each tetrachord than between the tetrachords themselves (an arrangement seen in a well-known set of Schoenberg’s row tables brought to light by Reinhold Brinkmann), to a predominant use of the series in a linear ordering with no particular emphasis on tetrachordal division.

57. See Haimo, Schoenberg’s Serial Odyssey, 84–105. For the dating of these pieces, see Jan Maegaard, Studien zur Entwicklung des dodekaphonen Satzes bei Arnold Schönberg (Copenhagen: W. Hansen, 1972), 93–115.
In fact Schoenberg is quite loose with this technical dichotomy, and the Op. 25 piece that he began last—the Gigue—moves at strategic moments from strict serial ordering to a new melodic “series” derived through tetra-chordal interplay. Here the serial interval content of measures 1–4 (the P-0/I-6 pairing of measures 1–2 mirrored by the I-0/P-6 pairing in measures 3–4; see Ex. 2) contrasts with the derived melodic chains of fifths and tritones (representing order positions 4 3 8 7 6 of the series), and the audible and straightforward use of transposition, heard in measures 5–8 (P-0 answered by P-6 in measures 5–6, I-6 followed by I-0 in measures 7–8). At this moment in the Gigue, as he moves from the first type of writing and intervallic construction to the second, I suggest that Schoenberg effects a telling contrast and disjunction between less- and more-audible forms of repetition. The new tritones-fifths melodic chains, heard in immediately juxtaposed transpositions in measures 5–6 and 7–8, might not represent a motive in the usual Schoenbergian sense; but they do represent a new development that he uses and manipulates as a distinctly audible melodic/rhythmic signpost (with reappearances in measures 16, 19, 45–46, and 71–72, among other places) and as a forced, almost panicked, motion from “less distinct” to “distinct” forms of repetition.

In the end, one must hear Schoenberg’s subtle play between row, thematicism, and atonality in the context of larger structural references in Op. 25: the chordal repetitions in the Intermezzo are a necessary intercession between the sequential, audibly thematic repetitions in the preceding Musette and in the Menuett that follows, and they are also “homogeneous with the character of [the] thematic material” in this movement and with the place of the Intermezzo within the series of pieces. (As the slow and mysterious character piece of the set, the Intermezzo functions much like the second of the Drei Klavierstücke Op. 11, which is itself host to a similar ostinato with similar diatonic implications.) Finally, the ever-shifting and vertically conflicted harmonic implications of the voicings and pitch repetitions do indeed seem to vindicate Schoenberg’s simile in KzT of “polytonal” rather than “atonal” composition.

**Boulez and the Series**

Such contentious differentiations of theme from series provide an avenue of approach to Boulez’s own serialist deliberations. Weber pointed to the historical dangers of overzealous abstractions. His warnings should be heeded by those who lump Schoenberg and Boulez together under the “twelve-tone” rubric, even though Boulez has worked hard to erase the common conception of a basis shared by Schoenberg’s work and his own: the idea of “the series.” Indeed, that Boulez engaged in something like Harold Bloom’s revisionary ratio of *kenosis* leads us to question whether the two composers share, in word or practice, any common concept of (to return to Lewin’s twelve-tone definition) “a fundamental succession of ‘things’ (no matter what) through time.”
Boulez said he was indebted to Schoenberg for discovering the series, while he reviled him for not pursuing the construct further. Not only were Schoenberg's *compositional* ideas of thematicism more nuanced and flexible than Boulez admits, but Boulez has in his own music suppressed the very idea of structural referentiality in which "twelve-tone music" is rooted by any account (or has at least done so between *Le marteau sans maître* and ... *exploisante-fixe* ...). This is manifested most obviously in Boulez's instances of "hiding" the series from his analysts. In this and other ways, the sometimes bombastic structuralism of Schoenberg gives way to the "hidden, submerged ... secretly, as if ashamed" structures of Boulez.59

Boulez summarized his expanded idea of the series in a 1961 entry under "series" in the Fasquelle *Encyclopédie de la Musique*, reprinted and translated in his *Notes of an Apprenticeship*. He gives the Schoenbergian definition as "an unchanged sequence of twelve tones throughout a determined work"—thus supporting his disapproving accusation of "ultrashematicism"—and in contrast describes his own "generalized principle of the series" as "a polyvalent way of thinking and no longer only a technique of vocabulary."60 He does not pick up on Schoenberg's notion that the series is an extension of the compositional motive, but rather emphasizes again the way serialism should revolu-


tionize compositional syntax, though without offering any concrete, causal connections between the series and general syntactical developments. In his 1963 essay "Musical Technique," Boulez goes further, describing the post-Viennese series as an organism "whose hierarchy is no longer based on the principle of identity by transposition, but, on the contrary, on localised and variable deductions."61

In "Composition with Twelve Tones (1)" (1941), Schoenberg referred to the series as a prescriptive modus operandi: "The restrictions imposed on a composer by the obligation to use only one set in a composition are so severe that they can only be overcome by an imagination which has survived a tremendous number of adventures. Nothing is given by this method; but much is taken away."62 Boulez, on the other hand, conceives the series as a jumping-off point. Defining it as a way of "organising a FINITE ensemble of creative possibilities connected by predominant affinities," he writes: "The possibilities are infinitely vast, and end in series having only a very distant relationship with the primitive series of twelve sounds."63 To this end he lists the "mechanical procedures" of pitch "augmentation" and "filtering"—the first creating an isomorphic reference within a series by multiplying interval classes by a constant, the second transforming a series by restricting its ambitus. Example 3 shows two of Boulez's illustrations. In Example 3a, Boulez freely manipulates Webern's isomorphic techniques, necessitating a final trichord that is unrelated to the generating m2–M3 figure; and in Example 3b, he derives two "filtered reductions" of a series by dividing the original major-seventh ambitus into two disjunct fourths, and then reducing the row in turn to each one of those fourth ambituses. Similarly, Boulez also mentions the possibility of "virtual octaves," created through a process similar to "filtering" in which octaves are adjusted to become minor ninths or major sevenths.

Boulez's series-driven colonization of Schoenberg might conceal the irreconcilable differences between the two composers. He denies the Schoenbergian Grundgestalt and overriding conception of unity as follows:

It is hardly necessary to state that these reductions of the original series are eminently variable and mobile, and that they can occupy determinant roles; they have the effect of breaking down the rigidity which arises from the exclusive use of primary structures. Limited and defective series [incomplete ordered collections, produced as isomorphic or "filtered" reductions of the original row] make the mechanisms of derivation considerably more supple, and at the same time they enlarge the field of variation.64

62. Schoenberg, "Composition with Twelve Tones (1)," in Style and Idea, 223.
64. Ibid., 82.
This generalized theory of the series is less an extension of Schoenberg’s system than a contradiction of it. But then Boulez might prefer to say, bringing back the *Problemgeschichte* model, that his theory takes Schoenberg as a premise in the same sense that a scientific theory is both based on and supplants an earlier one: the Schoenbergian gives way, in Boulez’s own simile, just as the Newtonian world and its basis in ideas of universal law and uniformity and immutability of natural processes cede to the Einsteinian understanding of relativity. (Indeed, Boulez’s frequent invocation of relative processes implicitly acknowledges Einstein, and he links the Schoenbergian “principle of allegiance of structures to a central authority” with superseded, Newtonian modes of thought.) In this vein, he declares that “there is no need to keep to defined objects; the concept of serial generation can equally well be applied to fields.” And Boulez’s admiring description of the way Berg uses his central series in *Lulu*—namely, as “a mythical point of reference”—becomes a useful clue to his own serial thinking.

For Boulez, these “supple” operations and their near-infinite variety do less than the Schoenbergian series to help preclude musical arbitrariness. (In Boulez’s view, according to Peter F. Stacey, Schoenberg retained the integrity

65. Ibid., 99.
66. Ibid., 41.
of one series as a generative structure while Webern developed subgroups or privileged areas, with unity preserved through the basic and inherent relation between the subgroups and the series.)

67 Rather, it is up to the composer to ensure unity by choosing the appropriate row forms. The row does not do this; it only enables the composer to make the compositional decisions that will allow him or her to effect unity. Boulez says, for example, that the “filtering” process must have “a structural justification” such as an axis of symmetry or a privileged family of intervals (though it becomes obvious in Example 3b above that this does not necessarily entail circulation of the chromatic).

Indeed, his idea of the series as a compositional device is so flexible as to qualify as a heuristic. Yet conjoined with this is a deceptive statement of historical causality and generalization, in which Schoenberg is described as the originator of the series concept that Boulez went on to develop—an assertion that a Weberian would doubtless claim is an abuse of the ideal type.

**Misusing the Twelve-Tone Ideal Type**

Boulez’s philosophy of history, always as aboveboard as it is outspoken, has changed in step with Popper’s, Kuhn’s, and Feyerabend’s widely influential attacks on historicism and scientific rationalism. By the 1960s he was voicing the same caveats that Weber had used to describe historiographical polemics. A nonhistoricist Boulez becomes particularly evident in “Aesthetics and the Fetishists” from 1961, in which he writes:

> It is not only our attitude to the past of our own culture that has changed, but also our relationship to non-European cultures, as forming part of a collective whole. There is no longer any place in a demonstrably relative universe for the idea of progress as a kind of one-way movement.

But Boulez’s abuse of the twelve-tone ideal type stays in the collective memory, his philosophical change of heart all but ignored in the history books.


69. As well as in Alex Ross’s recent *New Yorker* essay, in which Boulez’s Carnegie Hall performances with the London Symphony Orchestra in March 2000 were held hostage to some of his more stringent polemics of the forties and fifties. “He played the sniper often,” Ross writes; “he had excellent aim; he created, in the years following the Second World War, a climate of intellectual fear. He announced the supremacy of atonal, twelve-tone composition in the following terms: ‘Any musician who has not experienced . . . the necessity for the dodecaphonic language is useless.’ . . . Boulez has stopped issuing proclamations of this kind, but no one should be fooled into thinking that he has changed his mind” (“The Godfather: At Seventy-Five, Pierre Boulez Is Still Laying Down the Law,” *The New Yorker*, 10 April 2000, 94). To judge from this last and gratuitous assertion, Ross would seem to have read none of Boulez’s writings of the past forty years.
persists in the minds of musicians who would do well to learn from his example. And those latter-day ideologues present the more pernicious—because anachronistic—abuse of historical and compositional generalization. The clearest instance of the misused twelve-tone ideal type is the oft-invoked "twelve-tone idea," called up with the definite article in order to bring together composers of different styles, and in so doing used to raise a theoretical construct to the level of historical reality. Weber warned against such reification and attributed large, persistent concepts to processes of psychology and naming. He writes:

Those "ideas" which govern the behavior of the population of a certain epoch, i.e., which are concretely influential in determining their conduct, can, if a somewhat complicated construct is involved, be formulated precisely only in the form of an ideal type, since empirically it exists in the minds of an indefinite and constantly changing mass of individuals and assumes in their minds the most multifarious nuances of form and content, clarity and meaning.

The strangest aspect of this situation is the very persistence of "the twelve-tone idea," even though the teleologies supporting the ideal type and its construction have all but fallen away. Writing in 1967, Eric Salzman, for example, chose to describe "the twelve-tone idea" as follows:

It is not necessary to accept any mystical superiority of twelve-tone music or even any particular notion of historical necessity to recognize that certain ideas have enough innate power and richness to gain, sooner or later, widespread acceptance... the twelve-tone conception by no means required the manner or even the forms employed by its originators. Total chromaticism and the whole range of associated rhythmic, dynamic, and color material offered a rich source of ideas, and the twelve-tone notion of Schoenberg—or some modification of it—suggested a way of handling this material without necessarily adopting a specific idiom.

As a formulation of a twelve-tone ideal type, Salzman's reified "twelve-tone conception" is useful, perhaps even inevitable, for the historian. But Salzman takes it too far: several aspects of the way he uses the construct, and of the language he phrases it in, are misleading. As he understands it, the twelve-tone idea is a teleology, not the a posteriori construct or historian's fiction that Weber prescribes. As with Boulez and his Darmstadtian idea of a syntactical twelve-tone revolution, Salzman claims that total chromaticism necessarily

70. For one investigation into how Schoenbergian paradigms of twelve-tone syntax have inhibited analysis and historical understanding of Berg's music, see Ashby, "Of Modell-Typen and Reihenformen: Berg, Schoenberg, F. H. Klein, and the Concept of Row Derivation," this Journal 48 (1995): 67–105.


brought with it “the whole range of associated [N.B.] rhythmic, dynamic, and color material.” His large intellectual concept is not a necessary historiographical stand-in for what Weber calls the “most multifarious nuances of form and content, clarity and meaning” in the minds of individual twelve-tone practitioners; it becomes the central force that drives individual compositional projects even as it subsumes them. Weber believed in individual autonomy, while Salzman invokes a collectivist twelve-tone institution that floats free of any one compositional manifestation.

Like Salzman, Neil Boynton invokes an abstract twelve-tone “common knowledge” that was perpetuated free of any one composer’s practice: in discussing Berg’s serial epistemology, he divines a type of “twelve-tone composition that is neither specifically Schoenberg’s nor specifically Hauer’s.”73 Boynton would seem to imply that there was a kind of quintessential and universal twelve-tone property that all the early practitioners had in mind. This mysterious universality removes the last possible avenue of appeal to Weber’s stipulations: namely, the scholar restricting him- or herself to a more specific discussion of, say, “the Schoenbergian twelve-tone idea” or “the Babbittian twelve-tone idea.”74 In truth, it is hard to say much in general about the twelve-tone method without referring to the formulations of specific composers.

John Covach, a tireless and astute chronicle of Hauer’s and Schoenberg’s thought, also proposes a developing “twelve-tone idea” that is “as applicable to Hauer’s music as to Schoenberg’s, and form[s] a kind of common link between the music of Frank Martin and Pierre Boulez, to mention two composers of highly contrasting musical sensibilities.”75 Covach offers the appropriate caveats and precautions, reminding us of the necessity “to see each composer’s employment of some twelve-tone technique as a solution to a particular set of problems. Thus, since the problems are bound to be very different from composer to composer, the solutions are situated in very different contexts.”76 But he then turns away from such valuable apologias, using the


74. Haimo describes “the twelve-tone idea” rather differently than Salzman: “A series of gradual changes may have the effect of permitting, even demanding, the development of ideas previously unimaginable, creating a new compositional world that bears little resemblance to its antecedents.” Though he uses the definite article, Haimo applies his conception only within Schoenberg’s “odyssey” toward a “mature twelve-tone style.” For Haimo it is a historical-stylistic heuristic, a line of demarcation between Schoenberg’s Op. 23 and his previous oeuvre—in other words a construct built for reasons of “justification” rather than “context,” to use Reichenbach’s terms. Haimo, Schoenberg’s Serial Odyssey, 69. See also Haimo, “The Evolution of the Twelve-Tone Method,” in The Arnold Schoenberg Companion, ed. Walter Bailey (Westport, Conn., and London: Greenwood Press, 1998), 101–28.


76. Ibid.
term "twelve-tone idea" widely and defining it as "the constant and systematic circulation, at some level of structure, of the twelve pitch classes that form the aggregate."\(^7\) Elsewhere he rather more explicitly equates the twelve-tone idea with "the compositional practice of constantly and consciously circulating the twelve-pc [pitch-class] aggregate."\(^7\)

Like Salzman, Covach makes an uneasy equation here between idea and conscious practice. Unlike Salzman, however, he attempts to forestall such Weberian questions through deft emphasis on the conscientiousness of the practice, indeed by defining a twelve-tone composer as a composer with a particular consciousness where I would—in line with the heuristic idea—define him or her as lacking a specific kind of consciousness. The practice itself was not the idea, Covach might say, since uniform circulation of the total chromatic had been exercised by various composers for decades before Schoenberg's "discovery," but rather the conscious institution of that practice. But here I question the historical worth of an "idea" that describes preexisting practice (and Salzman and Covach invoke the "twelve-tone idea" as just that, a historical fact). Contrary to these scholars' assertions, I would say that the only possible way to formulate a "twelve-tone idea" as a historical phenomenon that affected both Boulez and Frank Martin is to phrase it almost frivolously: the "twelve-tone idea" was simply the idea of writing "twelve-tone music" as each composer chose to understand that term.\(^7\)

The ideological ideal type is most frequently perpetuated by accepted techniques of twelve-tone analysis—or more specifically, by assumptions that practitioners of normative, institutionalized techniques of analysis make regarding the operative relationships between the rows and row forms in twelve-tone compositions. (The analyst, to use Babbittian terminology, makes assumptions in defining row class.) Dave Headlam has drawn our attention to one central aspect of the twelve-tone "construct," and I propose that analysts, himself included, habitually and wrongfully presuppose this to be a definitive aspect:


78. Covach, "The Early Development of the Twelve-Tone Idea."

79. Writing in 1932 under Schoenberg's guidance, Webern chose to mention a twelve-tone "law" that was formulated after an already instituted compositional practice. He mentions the particular string of twelve pitch classes that begin his 1917 song "Gleich und Gleich" and then adds: "That makes twelve notes: none is repeated. At that time we were not conscious of the law, but had been sensing it for a long time. One day Schoenberg intuitively discovered the law that underlies twelve-note composition. An inevitable development of this law was that one gave the succession of twelve notes a particular order" (Webern, *Path to the New Music*, 51–52). The concept of order was something that Schoenberg formulated in the early 1920s, but Webern's 1932 idea of a prescriptive twelve-tone law is tellingly more precise than the one described by Schoenberg in 1941 in "Composition with Twelve Tones (1)."
namely, that a twelve-tone row is to be defined as “a pairing of the twelve discrete pitch-classes (pcs) with twelve order-position numbers (ops).”80 Headlam would seem to imply two things here: (1) basic row manipulations, apart from integral retrogrades, are a matter of operations performed not in the order-position domain, but within the pitch-class domain (i.e., transposition and inversion); and (2) the analyst must assume pitch-class sequences—along with their transpositions, inversions, retrogrades, and retrograde inversions—to be definitively conjoined with specific order positions.

Invoked thus, row class becomes, to paraphrase Weber, the theoretical routine that has supplanted reality. I have advanced documentary evidence elsewhere that Berg was as strongly influenced by Fritz Heinrich Klein’s basic twelve-tone operations as he was by Schoenberg’s. More specifically, there is a structurally significant row form in Berg’s second setting of Theodor Storm’s “Schließte mir die Augen beide,” a row he actually adopted from Klein, that the composer understood to be an instance of systematic interval rotation (see Ex. 4a) in accordance with Klein’s example.81 Analysts who have operated without knowledge of Berg’s debt to Klein, including Headlam and George Perle, describe this row form as something arrived at not through interval rotation, but through order-position (hexachord) rotation of the original row at I-3 (see Ex. 4b).82 The Kleinian and Schoenbergian analyses account equally well for the derivation in purely musical terms, and so the difference may seem academic. And yet, in this case the analyst who operates under the presuppositions of the Schoenbergian system wreaks historical as well as conceptual damage: the only way he or she can prove the validity of a normative (Schoenbergian) twelve-tone construct is by misrepresenting Klein’s divergent example, in short by doing violence to actuality. In the process of validating itself, the idea does violence to individual historical facts.

Ideal Type and the Mythic

What is twelve-tone music? Which is the same as asking: How are we to understand it? The need to speak of a twelve-tone culture becomes all the more urgent the further that culture is distanced from our own—and the further

80. Headlam, “The Derivation of Rows in Lulu,” Perspectives of New Music 24, no. 1 (1985): 199. See also Mead’s description of a row class as a closed system of rows equivalent in pitch under transposition, inversion, retrograde, and combinations thereof (in, among other studies, his “Large-Scale Strategy in Arnold Schoenberg’s Twelve-Tone Music,” Perspectives of New Music 24, no. 1 [1985]: 120–57).
82. Headlam even goes on to say, presumably by virtue of his Schoenbergian perspective, that this rotation + I-3 relation between original row and derivation—a relationship I suggest the composer was unaware of until he had finished Schließte mir—is a particularly close one; and that the song thereby represents “Berg’s only ‘true’ twelve-tone work, in which all events can be directly related [through operations within the pitch-class domain] to one row” (The Music of Alban Berg [New Haven and London: Yale University Press, 1996], 242).
humans progress in the project of forsaking a structuralist "liberating use of reason" for new "attention on the concrete varieties of cultural meaning" (to quote social scientists Paul Rabinow and William M. Sullivan).\textsuperscript{83} Useful as Weber's ideal type is, his fin-de-siècle conception of cultural meaning is, necessarily, very different from our own. His goals are those of a nonhistoricist, yet his specific tenets have become suspect: Weber's ultimate appeals to "concrete cultural phenomena," truth, corrected historical fact, and "reality" don't sit comfortably with a poststructuralist view of individualism. Indeed, to twenty-first-century ears they can sound strangely scientific, elitist, quaintly "ethical," or at best incongruous with his project. In trying to separate Weber's thinking from these limiting terms and at the same time redefine the twelve-tone composer's pretensions toward rationalism, we can usefully turn to myth—a method of creating cultural meaning that subsumes the heuristic and defines its own pluralistic kind of rationalism.

Myths fulfill multiple functions in human societies: most generally, they provide narratives by which common beliefs, occurrences, or practices are explained.\textsuperscript{84} More to the point for present purposes, they show people establish-


ing a kind of rationality through discourse. The power of the myth lies in its telling, and in the unquestioned mythical narrative itself—“the performance,” in Stephen H. Daniel’s words—making questions of truth and causality irrelevant. As Daniel writes:

Myths might be understood as imaginative accounts, cautionary tales, fables, or even philosophic systems—any of which might become the basis for determining what is true in virtue of its narrative ability to explain something in ways that unite a community. Myths become effective, then, for the same reason that they fail to remain myths: Insofar as they provide the basis for organizing experience, they become incorporated into the discursive practices of a community and thus no longer are viewed as source expressions of meaning. . . . Indeed, myth confounds the impulse to discover a rationale behind the performance because, in myth, the performance is what establishes rationality.85

There are significant correlations, or overlaps, between Weber’s heuristic and Daniel’s discursive conception of myth: both emphasize the necessary fluidity-within-permanence of models and point to the dangers of using nonfluid, overarching conceptions to measure significance and meaning. Indeed, both present deviation from any rigidly fixed ontology as the very source of meaning. Concepts thus become imperatives that must be defined individually as well as socially.

If mythology involves telling, it also—like the heuristic—entails naming. The myths of Bacchus or Achilles are powerful and durable because they isolate and put a face to aspects of human nature; in this way, godliness becomes an abstraction of what it is that makes us human. If the twelve-tone music of the 1920s was in part an a posteriori historical construction, an implicitly ideological colonization of past and present, then twelve-tone composition was also a kind of symbol invented, or better yet reinvented, for the cause of atonal procedure. Schoenberg famously objected to the word atonality as an inherently negative construction,86 and the final historical worth of the term twelve-tone is that it helped focus aesthetic ideology and compositional practice.

9–46; William G. Doty, Mythography: The Study of Myths and Rituals, 2d ed. (Tuscaloosa and London: University of Alabama Press, 2000); and especially G. S. Kirk’s classic text Myth: Its Meaning and Functions in Ancient and Other Cultures (Cambridge: Cambridge University Press, 1971), particularly “Tales, Dreams, Symbols: Towards a Fuller Understanding of Myths,” 252–85. The concept of totemism is also relevant: according to Lévi-Strauss’s account, it is the lumping together of individual instances that allows the totemic system to function mythologically, with magical powers conferred through the very act of generalizing; see Lévi-Strauss, “Categories, Elements, Species, Numbers,” in The Savage Mind (Chicago: University of Chicago Press, 1966), 135–60.


86. “I find above all that the expression, ‘atonal music,’ is most unfortunate—it is on a par with calling flying ‘the art of not falling,’ or swimming ‘the art of not drowning.’ Only in the language of publicity is it thought adequate to emphasize in this way a negative quality of whatever is being advertised” (Schoenberg, “Hauer’s Theories,” in Style and Idea, 210).
Something intimately couched in compositional terms was, in reality, a historiographical construct, a name; it filled a historical and semantic gap, giving title to a positive cause around which avant-garde thinking could precipitate. Though using more negative terms, Luciano Berio said as much in 1968 when he sided with Adorno and weighed in on twelve-tone techniques thus:

The ideology of the culture industry tends to freeze experience into schemes and manners: any attempt to codify musical reality into a kind of imitation grammar (I refer mainly to the efforts associated with the Twelve-Tone System) is a brand of fetishism which shares with Fascism and racism the tendency to reduce live processes to immobile, labeled objects, the tendency to deal with formalities rather than substance.87

With his Weberian distaste for bureaucratization of meaning, Berio points to the main contention in deciding the fate of twelve-tone composition: deciding just how “immobile” the labeled objects of twelve-tone composition have become. Just how fluid are the systems of naming, and when did the labels start to obscure and dictate the endeavors so named? Certainly, with a reversal of aesthetic contexts across the later twentieth century, the phrase twelve-tone, originally devised as a positive label, has now become a negative term that even “educated” musicians assume to be synonymous with revolution, atonality, hyperseriousness, and rebarbative sounds.88

But in the last analysis we can get only so far by being suspicious of generalization, dropping the definite article with the term twelve-tone, and abandoning reified technique for a study of the social roles that twelve-tone composition played. We must recognize twelve-tone composition as neither entirely empiricist nor exclusively heuristic; we must realize its in-betweenness. Ernst Cassirer’s concept of myth complements Daniel’s in that it describes myth as a kind of storytelling against which science and philosophy have defined themselves negatively—as modes of empirical discourse.89 The heuristic is mythic in this way in that it provides a necessary complement to empiricism,

87. “Meditation on a Twelve-Tone Horse,” Christian Science Monitor, 15 July 1968; reprinted in Composers on Modern Musical Culture: An Anthology of Readings on Twentieth-Century Music, ed. Bryan R. Simms (New York: Schirmer, 1999), 184–85. Berio’s view here is marked by an obvious resistance to authoritarianism, as is to be expected, given that he grew up during the Mussolini years, was an American resident at the time of the Civil Rights movement, and was one of the more free-spirited visitors to the Darmstadt Ferienkurse.

88. Violinist Gil Shaham writes of the non-dodecaphonic Bartók Violin Concerto No. 2: “This music is powerful and it is sensitive; it is serious and it is humorous; it is revolutionary and it is classical. All to the nth degree. Whether composing adaptations of countryside melodies or 12-tone rows, Bartók’s writing technique and mastery of his art always win me over” (liner notes to Bartók: Violin Concerto No. 2; Rhapsodies Nos. 1 and 2, Deutsche Grammophon, 1999, DG 289 459 639).

and we must also take the problems of discussing twelve-tone music—its
mythic nature couched in pseudoscientistic terms—to mean that this music is
eternally and fatally poised between empirical and conceptual worlds.

This division can be seen in the divergence between Boulez’s empiricist-
historicist polemics from the 1940s and 1950s, and his heuristic approaches to
composition. Twelve-tone composers starting about 1930 were myth-makers
posing as scientists. Described thus, dodecaphony sounds less than pernicious,
the labeling more akin to parables than fascism. And then there is the music.
In liberating the music from its own poiesis, we might be able actually to hear
it. Or at least to play it more often: these ideal-typical and cultural understand-
ings could well discourage people from dismissing the music because of its
supposed ideology. Instead of trying to declare which composers are truly
“twelve-tone” in terms of practice, measuring artists by the paradigms we con-
struct around and in spite of them, it is time to come up with a heuristic
twelve-tone conception that will work for all composers who aspired to write
twelve-tone music. In short, given the decline of a doctrinaire twelve-tone ide-
ology, this is not the time to end productive engagement with Schoenberg’s
twelve-tone music and that of later composers, but the moment for such
involvement to begin.

Works Cited

Ashby, Arved. “The Development of Berg’s Twelve-Tone Aesthetic as Seen in the
----- “Of Modell-Typen and Reihenformen: Berg, Schoenberg, F. H. Klein, and the

Auner, Joseph. “In Schoenberg’s Workshop: Aggregates and Referential Collections in
105.


Berg, Alban, and Arnold Schoenberg. The Berg-Schoenberg Correspondence: Selected
Letters. Edited by Juliane Brand, Christopher Hailey, and Donald Harris. New York

Berio, Luciano. “Meditation on a Twelve-Tone Horse.” 1968. In Composers on
Modern Musical Culture: An Anthology of Readings on Twentieth-Century Music,

Boulez, Pierre. “Aesthetics and the Fetishists.” In Orientations: Collected Writings, by
Pierre Boulez, edited by Jean-Jacques Nattiez, translated by Martin Cooper, 31–
------ “Musical Technique.” In Boulez on Music Today, translated by Susan Bradshaw
------ Notes of an Apprenticeship. Translated by Herbert Weinstock. New York:
Knopf, 1968.


Hekman, Susan J. Weber, the Ideal Type, and Contemporary Social Theory. Notre Dame, Ind.: University of Notre Dame Press, 1983.


Twelve-Tone Composition as “Ideal Type”  625

Twelve-tone music is often defined empirically, in generalized terms of compositional practice. I contend that historians and theorists have neglected a heuristic perspective of twelve-tone composition. One heuristic model proves particularly helpful: the “ideal type,” first described by social scientist Max Weber in “‘Objectivity’ in Social Science and Social Policy” (1904). Weber’s ideal type can help to move the discussion away from scientific ideas of problem solving and overly abstract invocations of “the twelve-tone idea,” and toward what Weber would call the “cultural significance” of twelve-tone methodologies (a move in line with influential revisions to the historiography of scientific “problem solving” proposed by Thomas Kuhn and Imre Lakatos).

Differences of perspective between Arnold Schoenberg and the young Pierre Boulez, at about the time the latter first arrived at Darmstadt, highlight the difficulty in establishing a coherent history of twelve-tone compositional practice (as opposed to a heuristic “ideal type”). The anonymous typescript “Komposition mit zwölf Tönen,” linked with Schoenberg’s Viennese circle of the early 1920s, reveals how the early twelve-tone “discovery” described by Schoenberg is, no less than the later descriptions by Boulez, an a posteriori construct—or, as Kuhn and Lakatos might say, an ideological colonization of past practice.


Abstract

Twelve-tone music is often defined empirically, in generalized terms of compositional practice. I contend that historians and theorists have neglected a heuristic perspective of twelve-tone composition. One heuristic model proves particularly helpful: the “ideal type,” first described by social scientist Max Weber in “‘Objectivity’ in Social Science and Social Policy” (1904). Weber’s ideal type can help to move the discussion away from scientific ideas of problem solving and overly abstract invocations of “the twelve-tone idea,” and toward what Weber would call the “cultural significance” of twelve-tone methodologies (a move in line with influential revisions to the historiography of scientific “problem solving” proposed by Thomas Kuhn and Imre Lakatos).