SCHOENBERG, POLYPHONY, AND MODE: A RECEPTION OF THE COMPOSER'S TWELVE-TONE METHOD IN AMERICAN PUBLICATIONS c.1925–1950

THESIS

Presented to the Graduate Council of the

Univeristy of North Texas in Partial

Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

Sean Justin Finnegan, B.M., B.M.

Denton, Texas

August, 1995

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Although Schoenberg viewed his twelve-tone method as an extension of the Germanic musical evolution from Bach to Brahms, one group of writers in America identified twelve-tone antecedents with Medieval and Renaissance polyphony. Such a correlation of Schoenberg's practice with this textural orientation of the past was part of a larger movement (what I term "neopolyphony") recognizing twentieth-century musical developments as the genesis of a polyphonic epoch reviving both the technical and aesthetic concerns of the former era. With Schoenberg's practice applied to this analogical context, other writers (Hill, Krenek, Perle) advanced certain modal theories based in various degrees on the internal organization and functional role of the Church modes.

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CHAPTER I

INTRODUCTION

In 1934 while in New York, Arnold Schoenberg made the acquaintance of Walter E. Koons, Music Supervisor for NBC, who was currently anthologizing the responses of contemporary composers and musicologists to the question "what is music?" Invited for his contribution, Schoenberg fulfilled Koons's request in a brief paragraph that was then continued by the following anecdote:

> A blind man asked his guide:
> "How looks milk?"
> The Guide answered:
> "Milk looks white."
> The Blind Man:
> "What's that 'white?' Mention a thing which is white!"
> The Guide:
> "A swan. It is perfect white and it has a long white and bent neck."
> The Blind Man:
> ". . . A bent neck? How is that?"
> The Guide, imitating with his arm the form of a swan's neck, lets the blind man feel the form of his arm.
> The Blind Man (flowing softly with his hand along the arm of the guide):
> "Now I know how looks milk." (Stein 1974, 186)

This appended portrayal, intended to dramatize to Koons the deficient nature of language in regard to his query, has an interesting application to the question that was being asked in Europe and America, "what is twelve-tone composition?" Shortly after Schoenberg began to share his concept of the row in his lectures, essays, and compositions, his subsequent efforts were largely spent in a defensive posture contesting the various interpretations authoritatively tendered by his contemporaries. The source for some of

these interpretations may be traced back to the founder himself whose explications of serial technique and the *nature* of the row resemble the guide's definition of "white" in the parable above. Other causes for controversy are more the product of the commentators' myopia—their tendency to view Schoenberg's practice only through the lenses of their own musical, historical, and cultural prescriptions. One must also realize that, as these commentators taught, wrote, and composed according to their understandings of Schoenberg's technique, they founded circles of scholars, students, composers, and laymen who further expanded upon their assertions. Thus, once the discourse(s) on Schoenberg's practice began to circulate in the mid 1920s and continued to develop in subsequent decades, the method of "composing with twelve tones related only to one another" gradually came to mean different things to different people.

I do not propose a chronological study that might credit one commentator as the first to explain correctly row manipulations (i.e., combinatoriality, invariance, etc.) and then consider those writers before and after who wrestled with such techniques. Such musico-technical principles are not the fundamental obstacle for Schoenberg's contemporaries. Instead, the issues which tend to be the points of departure, although they may include aspects of row structure and use, extend beyond these specific kinds of technical considerations; various interpretations tend to be based more on the compositional nature and value of the twelve-tone technique itself. In other words, what are the compositional and aesthetic consequences for a music regulated by serial applications?

Of the various interpretations involving twelve-tone practice, there are those critics who perceive Schoenberg's method of composition as a system of atonal manipulations

which are inherently acompositional; in other words, the work of art is mechanically generated by a formula or pastiche of row permutations.[1] Still others evince an understanding of the row as a quasi-numerological concern, perhaps Pythagorean in its essence, which transcends auditory perception. Such an interpretation seems to place Schoenberg within the occult tradition of *fin-de-siecle* Vienna.[2] Occasional references to twelve-tone theory

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[1]See Ernst Krenek, "Music Under Construction," in *Music Here and Now*, trans. B. Fles (New York: W. W. Norton, 1939), esp. 181 and 188–190, and "Is the Twelve-Tone Technique on the Decline?" *Musical Quarterly* 39/4 (1953), 515; Constant Lambert, *Music Ho! A Study of Music in Decline* (London: Hogarth Press, [1934], 1985), 52–53, 246, and 251; Oliver Neighbour, "The Evolution of Twelve-note Music," *Royal Music Association Proceedings* 63 (1955), 51 and 59; Josef Rufer, *Composition with Twelve Notes*, trans. H. Searle (London: Barrie and Rockliff, 1954), 8–13; Erwin Stein, "New Formal Principles" [1924], in *Orpheus in New Guises* (London: Rockliff, 1953), 76–77, and "Some Observations of Schoenberg's Twelve-Note Rows" [1926] in *Orpheus*, 78; Egon Wellesz, "The Origin of Schönberg's Twelve-Tone System" [1957], in *Lectures on the History and Art of Music*, ed. F. Freedman (New York: Da Capo Press, 1968), 181–182 and 186; and Ralph W. Wood, "Modern Counterpoint," *Music and Letters* 13/3 (1932), 314–315.

Note also the change in title of the "Letter from Arnold Schoenberg on the Origin of the Twelve-Tone System," in *Music Since 1900*, 1st ed., ed. N. Slonimsky (New York: W. W. Norton, 1937), 574–575 to "Letter from Arnold Schoenberg on the Origin of the Twelve-Tone Method of Composition," in *Music Since 1900*, 3rd ed., ed. N. Slonimsky (New York: Coleman Ross, 1949), 680–681. This alteration suggests either that Slonimsky during the intervening twelve years had grown more sensitive to the aesthetic distinctions between "system" and "method" or that Schoenberg (or someone acting on his behalf) had contacted Slonimsky and requested the change for later editions.

[2]Articulating the mathematical perceptions of the technique, Krenek draws the comparison between the structure of the series and the plotting of numerically situated points in the Cartesian coordinate system in "Music Under Construction," 173; however, twenty years later in "Extents and Limits of Serial Techniques," Krenek dismisses the perception that twelve-tone theory is purely a "numbers game" (Krenek 1960, 218). Elsewhere, in "The Idiom and the Technic," he likens Schoenberg's twelve-tone method to Einstein's theory of relativity (Krenek 1944, 133), a comparison also made by Willi Reich in "Schönberg's New Männerchor," *Modern Music* 9/2 (1932), 62. Lambert, in a passing reference to atonalism, describes Schoenberg's music as "coldblooded and mathematical" (Lambert [1934], 59).

On the mystical side of twelve-tone numerology, Krenek alludes to Schoenberg's disciples as the "initiated," or "'charter members' of the order" (Krenek 1953, 514) as if portraying a secret society conversing in a musical method of mystical runes (see also his note 6, 515–516, which continues this portrayal). Lambert in his usual humor at one point casts the "diabolist" Schoenberg as possessing a "strong favor of the Black Mass" (Lambert [1934], 247). Elaborating in a more serious tone on Lambert's description, Thomas Mann's novel *Doctor Faustus* (New York: Alfred Knopf, 1948) features a Schoenbergian Faust whose twelve-tone technique is the product of the infamous unholy contract. Schoenberg himself contributed to these kinds of interpretations in various instances of his writings. For example, when describing the unity of both the horizontal and vertical dimensions of music in "Composition with Twelve Tones" (Schoenberg [1941], 223), Schoenberg refers to the ideas of the Swedish mystic Emanuel Sweden-borg expressed in Balzac's story *Seraphita*. For a discussion on Swedenborg's influence on Schoenberg as well as other occult beliefs, see J. Covach, "Schoenberg and the Occult," *Theory and Practice*, 17 (1992), 103–118.

also tend to cast it as the expression of certain political orientations: within the series, the non-hierarchic presentation of pitches was viewed as the musical articulation of socialist leanings; in the thorough application of a series and its related row forms to a given work, others sensed an imitation of a totalitarian regime.[3]

For the present study, I will investigate a particular interpretation that intermingles aspects of Schoenberg's serial concept with the theories and procedures of the pre-baroque era. On the one hand, I will demonstrate how a general consciousness of a revival of polyphony, in what I term "neopolyphony," with strong ties to the Medieval and Renaissance periods provided a context into which Schoenberg was placed in regard to his serial works as well as other ideas that he articulated before formulating twelve-tone procedures. Chapter 2 will focus on this contextual picture. Briefly, in the minds of many contemporary writers, modern composers were perceived as exercising an interest in the technical procedures of sacred polyphony—procedures that had fallen into decline and disuse during the last three centuries due to the stylistic demands of homophony. Amidst the overall crisis of music at the turn of the century, this rebirth of a formerly antiquated style seemed

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[3]The political associations drawn to twelve-tone technique appear in Krenek's "Music Under Construction," where he refers to the strict systematic application of row manipulations as a kind of "totalitarian principle" (Krenek 1939, 176–177); additionally, Krenek returns to the theme of mechanical systemization denouncing the claims of others who "in all seriousness" see Schoenberg's method as musical "Bolshevism" and "rabid totalitarianism" and that the "fascists threaten [twelve-tone technique] with extermination as *Kulturbolschewismus* . . ." (Krenek 1939, 190–191). Lambert's essay, "The Revolutionary Situation" (Lambert [1934], 31–35) mildly satirizes the popular tendency to cast most modern composers (Schoenberg included) as either "revolutionaries," "liberals," or "Bolsheviks," when, as he sees it, the contemporary situation in the 1930s has settled into a disguised conservativism. Nevertheless, Lambert speculates elsewhere in "Schönberg and Official Revolution" (Lambert [1934], 256–257) that were a communist counter-revolution to occur in Germany, Schoenberg would likely become the composer laureate. In an interesting parallelism in Mann's *Faustus*, the musical evolution of the Faustian composer (somewhat modelled on Schoenberg's development) unfolds as a microcosmic reflection of the macrocosmic events leading to German fascism and the catastrophe of the Second World War. Schoenberg protests the labels applied to him, such as "revolutionary," "anarchy," and "bolshevik" in "Letter from Arnold Schoenberg," (Schoenberg 1937) and "Is It Fair?" (Schoenberg [1947b]).

to imply the genesis of another, perhaps centuries-long musical era oriented toward the linear perspective of composition. Before probing the writings directly relevant to this interpretation of musical development, however, I will first refer to a parallel interpretation addressing the crisis of culture at large. I offer this example in order to show that the perception of modern musical developments may have reflected on a smaller scale the dialogue concerning larger questions of culture and spirituality.

Proceeding from this general context, chapter 3 will illustrate Schoenberg's status within this context of neopolyphony. Although my ultimate objective here is to show the neopolyphonic connotations applied to Schoenberg's twelve-tone method, other aspects of Schoenberg's career which received similar interpretive translations—such as his pre-twelve-tone experiments and his own commentary in the history of music theory—will be presented. To balance these assertions, I will include excerpts from Schoenberg's writings which seem to respond to these claims of his contemporaries.

On the other hand and perhaps contingent upon the context of neopolyphony is the analogy offered between the structural role of the series and that of the Medieval modes, that the series, with its ability to govern both local and broad-based structures, could potentially assume a modal status not only in the isolated context from composition to composition but in eventually establishing the schematic framework for a future common practice. I will illustrate in chapter 4 certain modal theories that were themselves theoretical extensions of Schoenberg's twelve-tone practice. This discussion will primarily focus on three commentators. First, I will analyze Krenek's manner of devising systems of modes from serially-based hexachords in his *Lamentatio Jeremiae Prophetae*, systems which closely

resemble the declensions of authentic and plagal modes of the past. Turning from Krenek's literal application of Medieval modal theory to the twelve-tone row, I will direct my investigation to the more abstract theory proposed by Richard S. Hill in his article "Schoenberg's Tone-Rows and the Tonal System of the Future" (1936) in which he infuses into Schoenberg's series a functional aspect of mode usually associated with the melodic function of the Medieval Psalm tones. In response to certain forecasts which Hill makes regarding these "functional modes," George Perle's paper, "Evolution of the Tone-Row: The Twelve-Tone Modal System," published five years after Hill's article, features one possible realization of Hill's modal conjectures.

Finally, I will speculate in chapter 5 as to why the neopolyphonic and neomodal movements failed to establish a universal theory for a twelve-tone common practice as professed by their proponents. In addition, I will offer suggestions for further research in this topic.

In order to delimit the scope of this project, I will confine my research to the literature published in the United States, although it will be necessary to include some references to British publications. Such a geographical restriction concerning sources will serve to concentrate the research in two ways: first, the number of substantive English sources critiquing twelve-tone composition during this period is relatively few; secondly, since the commentary in question (c. 1925–1950) incorporates the period when a great many European intellectuals immigrated to the U. S. in response to fascist trends in Germany and Italy, the consulted literature will include not only American writers, but European-born commentators as well. Hence, confining the investigation to American publications will serve to highlight a microcosm of certain twelve-tone discourses that were circulating abroad.

CHAPTER II

THE DAWN OF NEOPOLYPHONY

Judging from much of the musical commentary from the first quarter of the twentieth century, the history of music would seem to have arrived at another *ars nova*.[1] Contemporary music was regarded by many as alien to previous musical styles, particularly of the classical-romantic vein. The general circulation of the new factional style labels such as impressionism, expressionism, exoticism, primitivism, neoclassicism, and futurism by musical commentators of the 1920s and 1930s is perhaps most symptomatic of the abandonment of a common practice and the coalescence of a new musical era. Contemporary composers like Debussy, Scriabin, Schoenberg, Berg, Stravinsky, Bartok, and Ives did not conform to one set of harmonic conventions as did Bach, Haydn, Mozart, Beethoven, Schubert, Chopin, and Brahms.

In addition to the aforementioned "-isms," another classification strategy emerged as demonstrated in the prevalent circulation in stylistic nomenclature of the various "neo-" periods. These labels tend to make the term *artes novae* a more accurate and literal portrayal of the musical situation in the early twentieth century. On the one hand, some of these "neo-" labels addressed the revival of general aesthetic attitudes rather than specific

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[1]As noted in Philippe de Vitry's treatise *Ars nova* (c. 1322), the title of which has come to refer to the new phase of French music (c. 1300–1375) as opposed to the *ars antiqua* style of the previous century, writers of the early twentieth century shared the same general awareness as demonstrated by their fourteenth-century counterparts that contemporary composition was somehow radically different from that of the immediate past. For the twentieth-century commentator, the popular labels "New Music" or "Modern Music" not only expressed the fresh or perhaps rebellious character of contemporary trends but also tacitly acknowledged the exhausted manner of eighteenth- and nineteenth-century harmonic and formal idioms.

technical conventions. For example, Arthur Lourie's designations "neogothic" and "neo-romantic" define the tendency of contemporary composers to value personal expression at the cost of musical convention, and, in the case of the former term, is not meant to imply a rebirth of fourteenth-century musical styles per se (Lourie 1931, 3–4). On the other hand, some of the "neo-" styles pertain more specifically to compositional procedures. For example, "neomodal," defined in the 1928 edition of *Grove's* as either an inflection of the Medieval Church modes, a derivation of modally based folk material, or any consistently used "arbitrary scale" (Dyson 1928, 614–615), seems to serve as a broad heading for music outside that perimeter defined by major-minor tonality. "Neoprimitive" became the designation for works such as Bartok's *Allegro barbaro* (1911) and Stravinsky's *Le Sacre du Printemps* (1913) in which sophisticated rhythmic structures seem to be the privileged compositional parameter. According to Henry Cowell this kind of sophisticated rhythmic concentration is primitive "because rhythm is more complex in aboriginal than in classic music" (Cowell 1933, 149). For those compositions exhibiting strong references to eighteenth-century tonal and formal designs, "neoclassical" emerged as the catch word referring to works by later Stravinsky and Bartok, Casella, Malipiero, Hindemith, and Poulenc. Lastly, with the slogan "Back to Bach" heralded by several commentators on neoclassicism,[2] it is somewhat surprising that the term "neobaroque" did not gain similar acceptance amidst this popularity of "new-"style labels.

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[2]For example, see Lambert [1934], 84 and 264; Lourie 1928, 6; Stein [1931], 34–35; and Weissmann 1925, 17. See also Reich's excerpt from "Schoenberg's New Männerchor" provided in chapter 3, note 3 (page 24) in which Berg models his portrayal of Schoenberg upon Riemann's portrayal of Bach.

Although this terminology may attempt to characterize an arrival of innovative musical fashions, the clothing of past styles in this "neo-" garb actually negates the very idea of revolutionary change. In fact, this preoccupation with connections to the past is indicative of the modern attitude that music of earlier epochs was superior to contemporary expressions and that newly composed works should find their artistic validation in historical terms.[3] For Schenker and his adherents, whose aesthetic position is summarized by Alan Bush, such validation is impossible:

> For Heinrich Schenker, whose musical æsthetic cannot be lightly dismissed, resting as it does upon such acute analysis of the classical masterpieces, music since Brahms does not exist. The constructions of sound put together since then are either repetitions of that which had been done better previously and therefore unimportant, or radical contradictions of classical practice and therefore not music at all. This belief or some variant of it is held, consciously or unconsciously, by a large number of people to-day, for reasons far less weighty than those brought forward by Schenker, in most cases for no reason at all but rather on account of the fact that such constructions of sound do not bring about the pleasurable emotional reaction which mere repetition of something familiar and already registered as pleasant is said by psychologists inevitably to provoke. (Bush, [1936], 21–22)

Others, however, accepted a more compromising position in which some aspect(s) of tradition had resurfaced in modern musical styles, although transformed to varying degrees from composer to composer. In contrast to the popular evolutionary paradigm in which musical progress advances in linear fashion toward some musical absolute, these interpreters adopted a model of historical cyclicism. This belief in the repetitive nature of history offers certain attractive features in interpreting contemporary musical practices: first, if a relationship is established between the enigmatic musical developments of the early 1900s to recognized developments of the past, then the aurally baffling character of

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[3]Lambert [1934], 66–71.

contemporary music could be overcome via such historical analogies; second, after one or many modern styles are filtered through various selected analogues, speculation upon future developments may be made based on the subsequent developments of the earlier examples.

Of the writings that in one form or another express this musical cyclicism, *Doctor Faustus* (Mann 1948) applies various manifestations of historical return within a broader theme of musical/cultural collapse and post-apocalyptic rebirth.[4] In this version of the famous legend by novelist and Nobel laureate Thomas Mann, the fictional composer Adrian Leverkühn enters into a pact with the devil in order "to revitalize an imagination stifled by excess of Enlightenment" (Carnegy 1973, 2). As a result of this transaction, Leverkühn will not only find personal inspiration "to break through the paralysing difficulties of the time," but future generations of composers will esteem his work as the foundation of a new musical era (Mann 1948, 243). Aside from the plot of the legend itself, much of the novel becomes a disparaging critique of decadent European, particularly German, culture. For much of his commentary on social and musical topics, Mann turned to the writings and counsel of his friend, the philosopher T. W. Adorno[5]: in fact, Adorno's thinking was so integral to certain fundamental aspects of the novel that Mann created the character Wendall Kretschmar to serve in part as a mouthpiece for Adorno's ideas. In one of his musicological lectures, Kretschmar distinguishes

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[4]Not only the novelist Mann, but twentieth-century poets expounded on this theme of cultural death and rebirth: for example see W. H. Auden's *The Unknown Citizen* (1940), T. S. Eliot's *The Waste Land* (1922), Robinson Jeffers's *Shine Perishing Republic* (c. 1923), Ezra Pound's *Hugh Selwyn Mauberly* (1920), William Butler Yeats's *The Second Coming* (1919), all featured in Brooks and Warren 1976, 290–312.

[5]Adorno read many of the initial drafts of *Faustus* and offered Mann a number of suggestions for revisions. In their conversations, Mann became acquainted with Adorno's ideas that were later published in the *Philosophy of New Music* (Adorno [1948]). For an overview of Adorno's views which Mann found relevant to the novel, see Mann's *The Genesis of a Novel*, 37–42 (Mann 1961), and Carnegy's, *Faust as Musician*, 13–15 (Carnegy 1973).

> between cult epochs and cultural epochs, and . . . that the secularization of art, its separation from divine service, bore only a superficial and episodic character . . . . [This] separation of art from the liturgical whole, its liberation and elevation into the individual and culturally self-purposive, had laden it with an irrelevant solemnity, an absolute seriousness, a pathos of suffering, . . . which did not need to be its abiding destiny, its permanent intellectual constitution. (Mann 1948, 59)

This same historical division between sacred and secular eras appears later in the novel during Leverkühn's negotiations with the devil:

> Since culture fell away from the cult and made a cult of itself, it has become nothing else then [sic] a falling away; and all the world after a mere five hundred years is as sick and tired of it as though, *salva venia*, they had ladled it in with cooking-spoons. (Mann 1948, 243)

In short, the cacophonous arrival of atonality and dissolution of classical form at the turn of the century was seen by many as resulting from the growing compositional decadence displayed by the romantics to expand and corrupt the tonal and formal ideals of the Viennese classicists. With the arrival of both atonality and the global crises of two world wars at nearly the same time, musical culture, in hindsight, seemed to act as a barometer of the culture-at-large. Having reached a cultural and musical *cul-de-sac*, a new cultural and musical aesthetic was necessary for renewed progress. One such musical aesthetic demonstrated in *Faust* was drawn from the context in which Medieval and Renaissance polyphony participated, namely, the prevailing sacred function of music which helped define compositional convention and subordinated personal expression of the composer to universal aims.

In a similar vein, Arthur Farwell, professor of music theory and promoter-publisher of American contemporary art-music, constructs the history of Western music into a kind of binary form: the first division defined by a corpus of spiritual ideals and the second part vaunting primarily secular objectives. The dividing line, the "zero hour" as Farwell calls it, between these "cult" and "cultural" epochs occurred sometime around 1600:

> What were the principles that actuated Count Bardi and his group in inaugurating the secular evolution of music in Florence, in 1600? That the church was not giving out the whole truth of music; that spontaneous musical expressions in the secular life, especially in song, were pointing the way to the free expressiveness of music, and should be consulted and developed; that an ideal type of drama through music was the end to be sought, and that the new development must draw upon the customs and practices, and stand close to the sympathies of the people. (Farwell 1927, 92)

According to Farwell, with the Church, mired in excess and corruption, exerting gradually less influence upon Western culture, new secular forces emerged which found complementary expression in the musical arts. From the standpoint of the late 1920s, Farwell correlates the same process of decline to the recent developments of the secular age; a revival of the former cultural and musical mores—although not necessarily tied to organized religion—would characterize civilization's next cycle:

> Above all will the works of the new epoch mark a clean break with the latter-day manifestations of the secular epoch with respect of spiritual attitude and direction. They will spring from a ground wholly foreign to the hopelessness, cynicism, technic- and idiom-worship, neo-paganism as such, and similar misfit impulses which constitute most of what remains of the secular evolution in its present rapid decline, and will formulate and uphold, in short, will sing, the vision and aspiration animating a humanity which is determined to create a new world on the ruins of an old . . . .
>
> To go on further than this is to advance principles sufficient for the inauguration of a new musical epoch striking out as boldly from the secular, as that did from the religious epoch. (Farwell 1927, 97)

Within this alteration between sacred and secular phases of civilization, the concurrent conversion in music history from a prevailing polyphonic style period to one of established homophony would seem to corroborate this interpretation. Furthermore, the resurgence of polyphonic techniques in contemporary music would also seem to compliment Farwell's speculative reading that spiritual concerns were beginning again to reassert an overriding influence upon Western culture. From a purely logical point of view, that a relationship between modern and pre-baroque periods would have been investigated is not surprising:

since the new music was regarded to be contrary to the musical values and procedures of the tonal common practice (a position actively promoted by many contemporary composers and critics alike), a kind of epochal leap-frogging to periods prior to this tonal era would seem to be a legitimate alternative for interpreters interested—some even desperate—to unravel the contemporary musical mysteries. Nonetheless, connections between contemporary music on the one hand and Medieval and Renaissance styles on the other was established by a great many writers, and although the term "neopolyphonic" does not appear in the musical literature of the early twentieth century, the ideas represented by this label were in some ways as prevalent as those concepts referred to by the accepted expressions "neoprimitive," "neomodal," and, the most widely coined of all, "neoclassical."

The ideas behind neopolyphony probably grew out of the notion of the "neoclassical" style. Although a number of contemporary composers had turned to the formal procedures and ideals of the Viennese classicists, some of these same composers as well as others looked further into the past for their compositional models. Alfred Einstein expresses this point best when he affirms:

> A neo-classic music is possible only if these old relationships still exist or if new ones are attained. But the leap backwards over the classical to the still older masters, to the forms of Bach and of the music of the seventeenth, sixteenth, and even fifteenth and fourteenth centuries was not only possible but justified. Here was music that did not draw its life from contrasts but was purely structural and which, if it ever used contrasts, . . . never did so for an emotional or poetic effect, but for the pure dynamic value and sound quality of the music itself. This contact with the pre-classical enabled the new music to approach the abstract. (Einstein 1928, 30–31)

Edwin Evans, co-founder of the International Society for Contemporary Music (1922) and featured critic of several London newspapers, articulates this position in "Stocktaking,

1930" published in *Music and Letters* (1931). In this article, Evans briefly surveys music since the turn of the century which he sees as a period of experimentation drawing to its close. A harvesting and refining of the raw materials acquired during this time would, therefore, characterize the next phase of musical development. That this period of experimentation arose, according to Evans, is somewhat predictable if one adopts a cyclical view of musical history:

> Whether one accepts the theory of a definable periodicity in musical history, or whether one merely applies the well-known æsthetic sequence, it is reasonably clear that we have been passing through the earlier phases of a new dispensation. There is a certain amount of plausible evidence in support of the former theory. In describing it thirteen years ago I adopted 150 years as the unit, and it is undeniable that from 1150–1300 (the Troubadours) onwards there have been turning-points about 1450, 1600 (the Nouve Musiche), and 1750 (Death of Bach), and one such was therefore to be expected about 1900 . . . . The excesses of all kinds which invaded music about the end of the last century were unmistakable portents of the approaching close of a chapter of musical history, and the corollary that another was already shaping itself. (Evans 1931, 60)

Of these recurring points of musical rebirth, the period of the Nouve Musiche has particular significance for Evans who compares the historical segments 1590–1620 and 1890–1930 "which play a somewhat analogous part in the story of musical evolution" (Evans 1931, 61):

> The analogy with 1600 is striking. What happened then was that a new view began to be taken of the relations between the vertical and the horizontal principles, and from this view sprang the germ of the "harmonic period." About 1900 there began to arise once more a different view of harmony and counterpoint, and, what is perhaps even more important, of the relations between them. They are two radically different processes, but during the nineteenth century they became so inextricably mixed in theory and in practice that it seemed as if one could only be expressed in terms of the other . . . . The "laws" of polyphonic part-writing were held to be applicable to harmony, and harmony was regarded as a weaving of strands, which is the prerogative of counterpoint. That great music sometimes resulted delayed, but could not avert, the inevitable nemesis of this confusion . . . . (Evans 1931, 62–63)

From these two "radically different processes" arose two general trends in modern music: the "emancipation of harmony from counterpoint," exhibited in the impressionists sensuous harmonic style and the "natural corollary [with] the emancipation of counterpoint from harmony"[6] (Evans 1931, 63) found in those works employing "linear" counterpoint—i.e., counterpoint which emphasizes the independence of multiple melodic lines at the expense of vertical note-against-note associations.[7]

The Russian composer Arthur Lourie, cited earlier in regard to his term "neogothic," is described in *Baker's Biographical Dictionary of Musicians* as devoted "chiefly to religious composition, attempting to revive Medieval forms through a highly personal style . . . ." (Baker, 1940, 682). Lourie himself seems to justify these compositional designs in the following excerpt from "The Crisis in Form":

> During the last decade of the nineteenth and the beginning of the twentieth century, harmony became the pivot around which all musical creation of the time revolved. Priority of harmony was established at the obvious cost of rhythm and afterwards of melody. All this led eventually to the atrophy of polyphony as was most acutely marked in the impressionists. Polyphony, in so far as it was preserved at all in their music[,] became merely a function of harmony. There developed an obstinate tendency to transform polyphony by harmonic verticalities. A too refined harmony and the atrophy of a live polyphony brought rhythm to a state of complete paralysis . . . .
>
> Then the reverse process began. The aim of the composer became the stabilization of harmony, the reanimation of rhythm. A new tendency naturally appeared, "polyphony at any cost," and soon became predominant. Rhythm was quickly restored to its rights. After its long restraint polyphony again acquired an elemental character and broke through with impetuous strength. (Lourie 1931, 6–7)

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[6]Evans's use of the phrases "the emancipation of harmony from counterpoint" and "the emancipation of counterpoint from harmony" are modifications of Schoenberg's celebrated idea, the "emancipation of the dissonance," (Schoenberg, [1941], 104–105) discussed in his description of what others termed his "atonal" style. In this instance, Evans's appropriation of Schoenberg's concept demonstrates how other writers modified Schoenberg's ideas—like his twelve-tone technique—to express their own interpretations. Others, however, adhered more closely to Schoenberg's phraseology, as in Mann's use of the exact wording "emancipation of the dissonance," in his passage on twelve-tone technique (Mann 1948, 193).

[7]Adolph Weissmann also recognizes these two, concurrent trends in contemporary music between the harmonic and contrapuntal in "The Tyranny of the Absolute," 17–20 (Weissmann 1925).

Perhaps the fullest exposition concerning these tidal forces between polyphony and homophony is made by the composer, conductor, and professor of the Royal Academy, Alan Bush. In his paper "What is Modern Music?" (Bush [1936]), delivered at the sixty-third session of the Royal Music Association, Bush not only recognizes the revival of a new polyphonic style in modern times but generally regards the history of Western music *in toto* as a perpetual shifting between homophonic and polyphonic orientations: the first of these macro-styles is that of "melodic homophony" spanning the period 600 B.C. to 800 A.D. which incorporates the era spanning the ancient to the first half of the Medieval era; the next eight-hundred years (800–1600) constitute the period of increasingly complex polyphonic development from organum through the various Netherlands Schools to Palestrina; lastly, the following three centuries (1600–1900) mark a return to a predominant homophonic style, although significantly different from that of antiquity since this manifestation is one of "harmonic homophony" (Bush [1936], 24). Concerning the era initiated by the twentieth century, Bush concludes:

> we are now entering upon a second period of polyphony. Just as many progressive composers of the close of the sixteenth century all started as polyphonists and later forsook polyphony, making homophony the style of their most characteristic works, so their brethren at the end of the nineteenth century started harmonically and developed a contrapuntal style as they worked out new methods. Schönberg shows this in its most drastic form; starting as a late romantic harmonist he has evolved in the twelve-tone system a method of composing governed exclusively and rigidly by polyphonic considerations; yet it is not the purely melodic polyphony of the second main period but a sort of harmonic polyphony in the sense that the notes of the melodic line appear not only successively in one or more parts, but also telescoped together as it were and sounded simultaneously in two or more other parts; the same melody provides both the horizontal and the vertical structure. But not only Schönberg shows a pronounced trend towards polyphony, Bartók, Berg, Busoni, Casella, Hindemith and Vaughan Williams, to name leading composers of five different countries, all share this characteristic in common, though to a less radical degree. All start from a late romantic or in the case of Busoni, a classical harmonic style, and have evolved away, from the major and minor scales and towards a style in which polyphonic considerations preponderate greatly over questions of chord progression.
>
> Does it not appear then from an analysis of the musical literature of the present day, that a modern period is in process of development, that it will be based on scales other than the major and minor, and that it will be polyphonic rather than harmonic? In my opinion, yes. (Bush [1936], 25)

To summarize this general context, the following points can be made. The cultural developments of Europe leading up to and including the early twentieth century were apprehended in pessimistic fashion by a significant segment of those assessing said trends. In their comparisons to the cultural golden ages of the High Middle Ages and Enlightenment in which the respective sacred and secular ideals found their fullest expression, these commentators maintained that contemporary civilization had lost its progressive momentum, reverting into a condition of barbarism and stagnation. Since the contemporary situation was viewed as a decadent outgrowth of a secularly centered age initiated sometime around 1600, the impetus for renewed, progressive momentum might draw from the standards of its historical antecedent. Within this reassessment of the ideals of the sacred age, a shift back to polyphonic—usually associated to a sacred musical style—from a homophonic style was evident. From the citations above, this notion that the twentieth century had inaugurated an era of neopolyphony was not an uncommon one; nevertheless, each commentator cited above defined the new polyphonic development in different ways. For Evans, the two tendencies between homophony and polyphony could coexist in contemporary times. For Bush, musical history had oscillated somewhat exclusively between the two styles and would continue to do so. Both Evans and Bush used this cyclical development as the foundation for their speculation upon future developments. Lourie, on the other hand, made this comparison in part to provide historical justification for his own compositional ideals. Despite these internal differences between these and other writers, an interpretive context—both culturally wide and musically specific—arose in the 1920s and 1930s in which, as shall be demonstrated next, the writings and compositions of Arnold Schoenberg were appraised.

CHAPTER III

SCHOENBERG AND NEOPOLYPHONY

How, then, was Schoenberg regarded by neopolyphonic thinkers? How were his compositions, musical theories, and other writings situated into the context just described? Broadly speaking, Schoenberg's output from the early works of *Verklärte Nacht* (1899) to the later twelve-tone compositions of the 1920s and 1930s display a motivically saturated physiognomy, a stylistic trait almost inherently suited to polyphonic expression. From a compositional standpoint, therefore, the horizontal character of his works complimented this contemporary polyphonic movement. Although the writers cited in the previous chapter seem to regard optimistically the return of the ancient style as indicative of renewed musical progress, not all of the discussion on neopolyphony converging around Schoenberg was equally favorable. Granted, Schoenberg's ideas, whether expressed in notes or words, were portrayed by some as the insights of a progressive artist championing the new contrapuntal idioms; however, for those unwilling to admit that the final phase of the common-practice era had elapsed sometime around the turn of the century, Schoenberg's contrapuntal style became an easy target for reactionary polemic. The present chapter will show how a group of selected writers either portrayed Schoenberg as a neopolyphonist or affiliated his ideas to this interpreted trend. Throughout the following discussion, I will turn to Schoenberg's statements which either support or repudiate his colleagues' assessments.

One example in which Schoenberg was drawn into neopolyphonic discourse pertains to his expertise in the history of music theory. Although usually described as a harmonic style distinct from the homophonic tradition of the common practice, certain aspects of Debussy's impressionism for some commentators seemed to recall one of the earliest forms of polyphony dating back to the High Middle Ages. In recounting the breakdown of tonality, the musicologist Egon Wellesz (and former pupil of Schoenberg) perceives Debussy's affinity for diatonic, unresolved ninths as "re-creating the effect of the 12th- and early 13th-century *organa*" (Wellesz [1957], 175). Guido Adler also senses a return to the organal style when he criticizes modern music for its "relapse into primitivity, the earlier stages of polyphony, a revival of ancestral peculiarities of the old school of art, like the continuous progressions in parallel fourths" (Adler 1925, 295). In the more extended discussion of "Hucbald, Schoenberg and Others on Parallel Octaves and Fifths," the technique of "planing"—the successive transposing of a vertical sonority to various degrees of a scale without altering the ordered intervallic content of that sonority—unequivocally resembled for Maud Sewall a revival of early organum (c. 800–1100) which features a similar planing of perfect fourths and fifths. Citing the opening measures of Alfredo Casella's impressionistic parody *A la Manière de Debussy* (c. 1912) which exhibits the planing of a chord composed of thirds, fifths, sevenths, and octaves in ascending and descending stepwise motions, Sewall exclaims:

> What is this but Hucbald's Organum *redivivum* [i.e., "restored"]?
>
> We have here a reinforcing of the effect of the octave by the addition of still other sonorities. It is Organum, in its earliest, simplest form, and we have rediscovered it, and find it good. (Sewall 1926, 258)

Sewall's explanation for both the disappearance and revival of this stark polyphonic texture is based upon the developments of tonal organization:

> It was modality or tonality that broke down an organum based upon perfect parallelism, and now that tonality seems to be loosening its grip it is only to be expected that the essentially atonal parallels should begin to reappear. (Sewall 1926, 263)

With a succession of parallel perfect intervals usually arising within the planing sections of impressionistic compositions, Sewall reconsiders the age-old proscriptions against such parallelisms. Surveying the use of these consecutive intervals from Medieval times to the present, the author turns to the proponents of these octave and fifths to support his own conciliatory stance.

Of those experts whom he consults, Schoenberg is clearly Sewall's central authority as evident in the generous passages drawn from Schoenberg's *Harmonielehre* (from pages 70–80 of the 1911 edition), quoted at such length "since his brilliant book is not yet accessible in English dress" (Sewall 1926, 254). In one of these excerpts, Schoenberg asserts that the avoidance of octaves and fifths occurred because

> they had merely been found old-fashioned, primitive, relatively inartistic, but . . . *no physical or æsthetic reason* presented itself for not availing oneself of them again, occasionally. And then if one consider[s] that these rules, formulated as "Thou shalt not . . ." were promulgated abroad for centuries, it will become clear that the ear forgot the agreeable sound which it had once discovered, and its employment caused a shock because of the *estranging quality always inherent in the new*. I think that since the progression in octaves and fifths was not used for centuries, the ear came to regard the occasional appearance of such combinations as strange, whereas the reverse is the truth. It was old, but only forgotten. (Sewall 1926, 257; italics Sewall's)

Among the traditionally prohibitive rationales that Schoenberg's quotations dismiss—that parallel perfects sound bad, that they reinforce the stronger, lower partials of the overtone

series, that parallel motion is weaker or less inventive in comparison to contrary motion (Sewall 1926, 254–259)—at least one argument maintains for both Schoenberg and Sewall some measure of validity: in a richly polyphonic context, the appearance of parallel octaves, and to a lesser extent fifths, tends to negate the presentation of independent lines since, says Schoenberg, "every voice, at every moment, ought to have something to do which it alone does" (Sewall 1926, 259). Although the appearance of these parallel intervals in early organum would seem to contradict this principle advanced by Schoenberg, Sewall accommodates his source, countering that organum was not a true realization of polyphony, but a kind of pre-polyphonic stage out of which "real" polyphony later emerged (Sewall 1926, 258).

In this article which endorses the twentieth-century composer's interest in Medieval organum, Sewall's liberal citation of Schoenberg to validate this trend establishes the Austrian composer as a kind of specialist of topics concerning neopolyphony. Furthermore, to those unfamiliar with the German editions of the *Harmonielehre*, Sewall's translations of Schoenberg's text in themselves cast Schoenberg's treatise as in-step with neopolyphonic thought. Schoenberg, on the other hand, aware of the historical analogies being made between present and past styles, did not subscribe to these views. In "New Music, Outmoded Music, Style and Idea," Schoenberg attacked this position head-on, stating that if, in fact, "history repeats itself" then the problems facing composers of the twentieth century would have been solved decades ago (Schoenberg [1946c], 39). In this case, Schoenberg would seem to be rebuffing the perceptions such as those articulated by Sewall who not only see a casual correspondence between modern and pre-tonal music, but more of a literal replay

of musical styles. Schoenberg also engages this subject in "Criteria for the Evaluation of Music," remarking that the creative element in a composer's work is not at all addressed by the mere modification of past techniques by present-day idioms:

> Creation to an artist should be as natural and inescapable as the growth of apples to an apple tree. Even if it tried to produce apples in response to the demands of a fashion or of the market, it could not. Thus artists who want to "go back to a period," who try to obey the laws of an obsolete aesthetic or of a novel one, who enjoy themselves in eclecticism or in the imitation of a style, alienate themselves from nature. (Schoenberg [1946b], 134)

One wonders if this passage was directed not so much to writers like Maud Sewall but specifically at Igor Stravinsky whose compositional aesthetic or the lack thereof was the antithesis of Schoenberg's.[1] His most definitive statements against the claims of neopolyphony appear in "Problems of Harmony" in which he tries to dispel the comparison made between contemporary music and that of Bach's:

> [Works] can be written "in the old style." But I do not deny the possibility that now, as often in the musical past, when harmony has developed to a certain high point, a change will occur which will bring with it entirely different and unexpected things. The best example of this we find in J. S. Bach, whose

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[1]Twenty years earlier, Schoenberg had composed his *Three Satires* (Op. 28, 1925) in which the third movement featuring a series of canons entitled "Die Neue Klassizimus" takes aim at Stravinsky's stylistically imitative style. Stravinsky later remarked that he would have forgiven Schoenberg for his attack, except that the mocking canons were too excellently composed. The text to the second satire also presents a jeering caricature of Stravinsky:

> Why who could be drumming away there?
> If it isn't little Modernsky
> He's had his pigtails cut.
> Looks pretty good!
> What authentic false hair!
> Like a peruke!
> Quite (as little Modernsky conceives of him),
> Quite the Papa Bach

For a further discussion of Schoenberg's *Three Satires* and Stravinsky's reaction see Stuckenschmidt 1977, 310–311; L. Stein 1986, 310–324; and Watkins 1986, 238–240.

> manner of composition was regarded as out-moded by his son, Philip Emanuel, and in whose time, directly at the apex of the contrapuntal style, the homophonic-melodic of the classical period began.
>
> How such a new method of composition is to be contrived, I am as little in a position to say as probably Bach in his day. I hope it will not be held against me, if I confess that I have no faith in such an end—though I hold it to be possible. *For the parallel is not entirely sound.* Bach was, to be sure, the first and only one to found and develop a domain of contrapuntal writing. He carried over perfectly—a fact not yet discovered—the secret of the old contrapuntal art of former periods, from the church-modes to major and minor, from seven to twelve tones. This art had no predecessor and no successor and probably herein lies the explanation of the sudden turn toward a new goal; namely that the goal of the contrapuntal style had been perfectly realised! But the music of today is developing a field which must at first appear entirely new to us. And here probably is the difference: the field must first be cultivated. It is virgin soil. We are not at the high-point of an old art but rather at the beginning of a new one. (Schoenberg [1934], 286; italics mine)

Although Schoenberg finds the analogy of neopolyphony "not entirely sound," he nonetheless shares the idea articulated by the writers discussed in chapter 2 that a new era in music has commenced.

Another example of Schoenberg's assimilation to neopolyphonic thinking pertains to the twelve-tone method. In an experimental stage antecedental to his serial practice, the Five Piano Pieces (op. 23), the *Serenade* (op. 24), and the Piano Suite (op. 25), collectively composed between 1920 and 1923,[2] as a group feature the various procedural alternatives that Schoenberg was testing at this point in his career. An article entitled "New Formal Principles" by Erwin Stein—editor of the music periodical *Pult und Taktstock*, artistic advisor to Universal Edition, and former pupil of Schoenberg—presents cursory analyses of these works.[3] Prior to illustrating the new and remarkably different organizational

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[2]Schoenberg briefly narrates his writing of op. 23 in "Letter of Arnold Schoenberg" (Schoenberg 1937). Ethan Haimo traces the chronological process of composition of these three works more fully in "The Formation of the Twelve-tone Idea, 1920–1923" in *Schoenberg's Serial Odyssey* (New York: Oxford, Clarendon Press, 1990).

[3]This essay was first published as "Neue Formprinzipien" in the 1924 Festschrift edition for Schoenberg's fiftieth birthday in the Viennese journal *Musikblätter des Anbruch*. This article, along with several others by Stein, was translated into English in *Orpheus in New Guises* (Stein 1953).

Not all of Stein's readers recognized that his article surveyed Schoenberg's practice *before* he had conceived of the twelve-tone method. See the critique by D. M[ason?] in *Musical Opinion* 77/922 (July 1954): 587–589 of

conventions that Schoenberg had employed here, Stein traces the demise of tonality through the nineteenth century and argues for the necessary return to polyphonic concerns (Stein [1924], 57–61). Within this introductory section to Schoenberg's formal principles, Stein draws the following neopolyphonic comparison:

> The crisis of musical form through which we are going to-day may be compared to the transition period between Bach's polyphony and the homophonic style of the classics. Only, the relation is reversed now: we are returning to a polyphonic style. And the situation is more difficult. Tonality was one of the strongest means of formal organization. An equivalent substitute has not yet been found. (Stein [1924], 59–60)[4]

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a book review of Stein's *Orpheus*. It is not until six years after the publication of this paper that Stein published an article addressing the fundamental techniques of the twelve-tone method: see Stein, "Schönberg's New Structural Form," (Stein 1931, 3–10).

Considering how close Stein was to the composer and his circle, one wonders if Schoenberg, who, at the very least, must have read Stein's early drafts, acted more in the capacity of a ghost-writer. Due to the negative image which hounded Schoenberg throughout his career, he may have felt that an explication of his ideas and procedures would receive wider circulation if seemingly advanced by a reputable scholar, in this case, Stein. This same situation seems to arise thirty years later with the publication of Josef Rufer's *Composition with Twelve Notes* (trans. 1954), a collaborative effort between Rufer, a former pupil, and Schoenberg (until his death in 1951) in which lengthy excerpts from the composer's theoretical writings in many cases outweigh Rufer's commentary. Such questions, here purely speculative, probed further may shed new light on the writings of Berg, Webern, and Wellesz who may have assumed similar roles for Schoenberg at various times.

[4]Although Stein does not specifically compare Schoenberg to Bach, another of Schoenberg's pupils makes a direct comparison between the two composers which Willi Reich exposes in "Schönberg's New Männerchor":

> The true significance of Schönberg's powerful personality as the pioneer of a new art is best comprehended when we consider an analogous turning-point in the development of music, the time of Johann Sebastian Bach. Appended is an interesting comparison which Alban Berg published under the title *Credo*. It represents an almost complete transliteration of the parallel characteristics of Bach, as given in Riemann's *Lexicon* and applied to Schönberg:
>
> "One of the greatest masters of all times, one of those who cannot be surpassed, because they incorporate the musical feelings and concepts of an epoch: who gains a distinct significance, an unparalleled greatness, in that the styles of two different eras are carried simultaneously through him to their highest flowering; so that he stands between them like a huge boundary-stone, which towers gigantically in both. He belongs to the antecedent . . .
>
> | (Bach [by Riemann]) | (Schönberg: paraphrase by Alban Berg) |
> | --- | --- |
> | . . . period of polyphonic music, of the contrapuntal, canonic style, and to the period of harmonic music and the system of modern keys, presented in its entire extent, for the first time (and taking the place of the church modes)." | . . . period of the harmonic style and to the period of polyphonic music, which is restated with him; i.e., the period of the contrapuntal, canonic style and the system of the twelve-tone series, presented in its entire extent for the first time (and taking the place of the major and minor tonalites)." |
>
> (Reich 1932, 65)

> No doubt the texture will have to be polyphonic. Not only that the formal functions of dissonant chords will thus be completely realized, but upon the renunciation of tonality a large-scale form can hardly materialize without the constructive power of polyphony. (Stein [1924], 60)

Clearly, Stein perceives the same developments in terms of the historical analogy demonstrated by the writers cited in chapter 2; however, unlike his contemporaries who illustrated merely the larger picture of cyclical processes of polyphony, Stein explains why polyphonic procedures specifically satisfy the modern composer's—in this case Schoenberg's—methodological needs (Stein [1924], 58–60). In Medieval and Renaissance polyphony, consonant and dissonant relationships were established as well as the manner in which particular dissonances were to be resolved. Newer contrapuntal methods, while not establishing the same kind of voice-leading procedures as in former times, still bestowed a degree of comprehensibility to the dissonance. In addition, out of common vertical constructions created through the linear procedures of the past, tertian harmony eventually developed. In modern hands, tertian harmony had become only one of numerous ways of constructing sonorities—and usually the marginalized alternative of harmonic construction. Whether chords were strictly quartal or quintal, or any combination of various intervals among trichords, tetrachords, pentachords, etc., polyphonic procedures could assist in defining new relationships, if not as a common thread for modern music as a whole, then on a contextual basis from composition to composition. Lastly, with the necessity for motives to paraphrase or outline an underlying harmonic progression no longer prevailing as in the common practice, motives could maintain their discreet intervallic contours without the need for tonal adjustments; hence, this "fidelity of interval relations," concludes Stein, presupposed contrapuntal operations, operations which could assist composers in organically presenting and developing motives.

The new formal principles found in Schoenberg's opp. 23–25 all display various means by which motives or extended rows (not necessarily composed of all twelve tones) could be contrapuntally developed. For example, in regard to op. 23, Stein describes the first movement as "essentially a three-part invention," the second movement in terms of a motivic fantasy, the remaining three movements as "showing a certain affinity with that of fugue" (Stein [1924], 66–68). Although Stein does not use the terms associated with fourteenth-century isorhythm in reference to the Sonnet of op. 24 (Stein [1924], 72) which features a twelve-tone row as the *color* plotted against the *talea* of the verses' eleven syllabic accents, his analytical account would nonetheless have reminded his readers of this ancient polyphonic device.[5] Stein, though, is careful not to overemphasize Schoenberg's interest in horizontal creation at the trivialization of the vertical.[6] Stein summarizes Schoenberg's unique perception of musical space which combines both the horizontal and vertical aspects of music (Stein [1924], 64). These two spatial facets, which seem to be mutually exclusive as seen in the histories of polyphonic and homophonic style periods portrayed by Bush, Evans, Farwell, Lourie, and Mann, are for Schoenberg integral aspects necessary for the presentation of musical ideas:

> THE TWO-OR-MORE-DIMENSIONAL SPACE IN WHICH MUSICAL IDEAS ARE PRESENTED IS A UNIT. Though the elements of these ideas appear separate and independent to the eye and the ear, they reveal their true meaning only through their co-operation, even as no single word alone can express a thought without relation to other words . . . .

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[5]Bush does use this term in describing twelve-tone technique as Schoenberg's "isomelodic system as one might call it, analogous to the isorhythmic [system] of the thirteenth and fourteenth centuries, . . . a new formal principle but not an anti-musical one" (Bush [1936], 22).

[6]See also Eschman 1945, 104.

> A musical idea, accordingly, though consisting of melody, rhythm, and harmony, is neither the one nor the other alone, but all three together. The elements of a musical idea are partly incorporated in the horizontal plane as successive sounds, partly in the vertical plane as simultaneous sounds . . . . This explains why . . . a basic set of twelve tones . . . can be used in either dimension, as a whole or in parts. (Schoenberg [1941], 220)

Reiterating these sentiments, Schoenberg states that "*the unity of musical space demands an absolute and unitary perception*. In this space, . . . there is no absolute down, no right or left, forward or backward" (Schoenberg [1941], 223). However, for a method employing prime, inversion, retrograde, and retrograde-inversion forms of the series, forms which in themselves seem to stress "absolute" linear motion, a number of writers—whose ideas will be discussed further below in regard to "linear counterpoint"—could not grasp Schoenberg's meaning and perceived Schoenberg's style and method as strictly polyphonic.

While Stein contextualizes Schoenberg's *pre*-twelve-tone experiments to a setting of neopolyphony, Thomas Mann casts the composer's dodecaphonic method in the same light, in effect picking up Schoenberg's compositional evolution where Stein had left off. In chapter 22 of *Faustus*, Mann involves his two principle characters, Zeitblom and Leverkühn, in a discussion on the merits and shortcomings of Leverkühn's new compositional procedure—twelve-tone serialism (Mann 1948, 188–194). In the conversation (Mann 1948, 189–191) leading-up to the technical description and application of the forty-eight row forms (Mann 1948, 192), the distinction between the subjective and objective strains of musical development is debated, a distinction established earlier in the novel in another of Kretschmar's (a.k.a. Adorno's) lectures: there, Kretschmar portrays the harmonic realm as the vehicle most suited for the expression of a composer's "ideas of limitless subjectivity," whereas "polyphonic objectivity" demands a kind of self-denial in the utterance of the musical

absolute[7] (Mann 1948, 52–53). Seeing the paralysis of subjective expression as the chief symptom of the twentieth-century musical crisis, Leverkühn proposes a return to the order of polyphony, the leading composer of which would become "a system-master, a teacher of the objective and organization, with enough genius to unite the old-established, the archaic, with the revolutionary" (Mann 1948, 189). From these observations, Leverkühn then describes one of his own "new formal principles" in his song *O lieb Mädel* (Mann 1948, 191). The serial method described in this composition recalls similar techniques found in the song "Nacht" from *Pierrot lunaire* (which may have been Mann's compositional model[8]) as well as those in op. 23, both described by Stein in his essay. Extending and developing these techniques further, Leverkühn arrives at the twelve-tone method, much as Schoenberg had.

Despite the fact that Mann's characterization of Leverkühn drew deeply upon Schoenberg's compositional maturation, the novelist had not intended his readers to equate his protagonist with Schoenberg. Leverkühn was meant to embody the predicament of most early twentieth-century composers who were forced to find new means of musical expression relevant to their times; yet, Mann's characterization was perhaps too convincing for the identification of Leverkühn *as* Schoenberg to escape many of his readers. In the same way

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[7]Lambert ([1934], 253) use this same terminology when describing Schoenberg's evolution as a composer. Lambert asserts that "by lowering, if not eliminating, the subjective content of his works and by emphasizing their contrapuntal construction, Schoenberg [had] achieved the objective and anti-romantic ideal . . . ." The "objective" also gained a kind of movement status in the 1930s and 1940s among the so-called "*Neue Sachlichkeit*" works of Krenek and Hindemith.

[8]Leverkühn's song features a five-note motive, B–E–A–E–E$^{\flat}$, of which the intervallic content is "interchangeable" thus being the source for all melodic and harmonic elements (Mann 1948, 191). In similar fashion, Schoenberg organized *Nacht* (in addition to the form of the passacaglia) by saturating the horizontal and vertical textures with the interchangeable components of the three-note motive E–G–E$^{\flat}$ (see Stein [1924], 66).

that Kretschmar was modelled upon Adorno and the manner in which the narrator Zeitblom possessed certain connections to Mann himself, readers of *Faustus*, therefore, would have been further tempted to construe a similar modelling of Leverkühn to Schoenberg, similarities extending beyond the link to the twelve-tone technique. The correspondence of *O lieb Mädel* to Schoenberg's earlier output described above is one example. Another involves Brahms's influence upon both Leverkühn and Schoenberg. In the music of Brahms, Leverkühn sees an inclination towards the rigid style that he is proposing:

> Take him [i.e., Brahms] as an example of how subjectivity turns into objectivity. In him music abstains from all conventional flourishes, formulas, and residua and so to speak creates the unity of the work anew at every moment, out of freedom. But precisely on that account freedom becomes the principle of an all-round economy that leaves in music nothing casual, and develops the utmost diversity while adhering to the identical material. (Mann 1948, 191)

Schoenberg, too, expressed these sentiments in his analytical essay, "Brahms the Progressive." In his discussion of the irregular phrase lengths in Brahms's two Sextets, opp. 18 and 36, Schoenberg portrays this "subjective" aspect of Brahms (to use Leverkühn's terminology) as "a more advanced phase of the development toward liberation from formal restrictions of musical thoughts . . ." (Schoenberg [1947a], 417). Yet out of this "liberation" comes the opposite manifestation, the "objective," towards strict organization. In the climax of his commentary involving analyses of Brahms's Andante from the A-minor String Quartet (op. 51, no. 2), Schoenberg distills out a motivic-intervallic saturation comprising both melody and accompaniment,[9] praising Brahms for his "sense of logic and economy and the

[9]Joseph Straus studies how Schoenberg's analyses of the A-minor Quartet emphasize this saturation of motive at the cost of other prevailing aspects, such as harmony and voice-leading—in effect, elevating motivic relationships of the purely incidental to the structurally profound (Straus 1990, 29–37). Straus, applying Harold Bloom's theory of the anxiety of influence, relates that Schoenberg deliberately misread Brahms's musical texts in order

power of inventiveness which build melodies of so much natural fluency . . ." (Schoenberg [1947a], 435). From his analyses, Schoenberg offers the proof to Leverkühn's statement that "Where there is nothing unthematic left, nothing which could not show itself to derive from the same basic material, there one can no longer speak of a 'free style'" (Mann 1948, 191).

Furthermore, Schoenberg may have inadvertently advanced this association to Mann's character in the publicly aired dispute occurring between composer and novelist shortly after *Faustus* was published. Schoenberg took issue with Mann for, as he perceived it, pilfering his intellectual property (the twelve-tone method) without crediting him as its inventor.[10] At the root of Schoenberg's complaint was his fear that, without acknowledging him, posterity would credit Mann as the true founder of twelve-tone serialism, a fear that probably stemmed from his earlier struggles against Hauer's claim to twelve-tone priority.[11] Thus ensued a series of letters between Schoenberg and Mann, two published

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to provide and justify the basis of his own compositional developments. Egon Wellesz would seem to support Straus's claim (Wellesz [1957], 173). Citing, too, Schoenberg's analyses of Brahms's sextet and string quartet, Wellesz surmises that the relationships Schoenberg had gleaned from these works and had attributed to Brahms's "progressive" practices were "actually his own method," the result of Schoenberg seeing what he had wanted to see.

[10]In his discussion concerning the flexible application of twelve-tone technique by other composers and refuting the perception that such a thing exists as a "classical" or "orthodox" method, Ernst Krenek, undoubtedly cognizant of the controversy between Schoenberg and Mann and the composer's charge involving intellectual property, states that "this [flexible application of twelve-tone technique] may have surprised and perhaps shocked those who saw in this compositional method a kind of private property of Arnold Schoenberg, invented by him for the perfection of his own personal style and available only to the duly initiated" (Krenek 1953, 526). Obviously, one of the shocked and surprised to whom Krenek refers is Schoenberg himself.

[11]For a review of this controversy between Hauer and Schoenberg over priority, see Bryan Simms "Who First Composed Twelve-Tone Music, Schoenberg or Hauer?," *Journal of the Arnold Schoenberg Institute* 10/2, 109–133.

in *The Saturday Review of Literature*,[12] expressing Schoenberg's bitter complaints against Mann, and Mann's replies of a respectful deference which eventually succeeded in reconciling the two.[13] The point to be made here is that during this controversy Schoenberg's only argument concerns methodological authorship, and not the inferences between his personality and Leverkühn's.[14] In only a passing remark from his letter of the *Saturday Review* does he contest these implications—and only those pertaining to Leverkühn's syphilitic infection and subsequent lunacy—that could be made between Leverkühn's likeness and

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[12]Published in the 1 January 1949 edition. Carnegy reprints these letters in his Appendix, 168–173, of *Faust as Musical* (Carnegy 1973).

[13]Mann's rationale not to cite Schoenberg appears in *A Genesis of a Novel* (Mann 1961), 32–33. Nonetheless, Mann had attempted to appease Schoenberg's concerns by appending to the end of the novel in all subsequent editions (including the English translation of 1948) a brief statement citing Schoenberg's priority to the twelve-tone method (see "Author's Note," in Mann 1948, 512). For a review of this dispute between Mann and Schoenberg, see Carnegy's "Schoenberg and Leverkühn" in *Faust as Musician*, 37–54 (Carnegy 1973).

[14]Probably because he did not read the novel, "owing to my nervous eye-affliction" (see letter #224 to Josef Rufer, dated 25 May 1948 in Stein 1974, 254–255); see also Dika Newlin's poem (Newlin 1980, 337–338) satirizing the Mann-Schoenberg affair, with the ending couplet, "If NOW his feelings this form took/WHAT WILL THEY BE WHEN HE'S READ THE BOOK!" In fact, this rift between Schoenberg and Mann seems to have been instigated by Schoenberg's protective friend, Alma Mahler-Werfel who, after reading the book, brought Mann's use of the twelve-tone technique to the composer's attention: see Carnegy 1975, 38–41 and Schoenberg's letter of reconciliation to Mann dated 2 January 1950 (#249 in Stein 1974, 278–279). See also Schoenberg's passing critique of Mann's Leverkühn in "The Blessing of the Dressing" (Schoenberg [1948b], 386). Yet, this so-called "rift" between Schoenberg and Mann may not have been as severe as these writings seem to portray. In the satirical "A Text from the Third Millennium" by Schoenberg, the twenty-first-century musicologist Hugo Triebsamen satirizes the affair by switching the roles of Schoenberg (who has since been forgotten by posterity) and Mann:

> [Schoenberg] must have had a kind of battle with the well-known German writer Thomas Mann, who was clearly the inventor of the method of composing with twelve tones . . . .
>
> [Mann] probably invented the twelve-tone theory at that time (1933), and as he had given up composing himself, he allowed Schoenberg to use it and publish it under his own name. Mann's liberal nature never mentioned this violation of his rights. But it seems that they became enemies in the last years of their lives, and now Mann took his property back and attributed its origins to a person whom he had created himself (Homunculus). (Schoenberg [1948a], 547–548)

his own.[15] Without further repudiation from Schoenberg on this matter, then, Schoenberg may have figured more prominently in *Doctor Faustus* than was ever intended by its author. And, contrary to his remarks against Mann's plagiarism, Schoenberg may have been seen as arguing for an even closer association with Leverkühn than Mann had portrayed.

On a certain level, therefore, there exists between Stein's essay and Mann's novel a kind of intertextual narrative that places Schoenberg's developments in technique against a background of neopolyphony. Stein, introducing Schoenberg's serial principles prior to a strict application of twelve-tone serialism, uses a neopolyphonic context in order to show that Schoenberg's style had evolved not through the impulsive tendencies of a reckless revolutionary but by the carefully thought-out investigations of a composer sensitive to the demands of his time. Mann, in the dialogue between harmonic subjectivity and polyphonic objectivity, provides a similar setting for the Leverkühn-Schoenbergian twelve-tone method.

The examples presented thus far have shown how three writers placed Schoenberg in a neopolyphonic context: Sewall in citing Schoenberg as authority on the subject, Stein as promoter of Schoenberg's pre-twelve-tone processes, and Mann integrating Schoenberg and twelve-tone procedures into his literary work. To complete the picture, I will turn to an example of how the composer Ernst Krenek employed Schoenberg's twelve-tone technique in his pedagogy of modern counterpoint. In order to contextualize his *Studies in Counterpoint*, I will first discuss the general reception of the new counterpoint as well as Schoenberg's attitude toward the subject.

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[15]Aside from not reading *Faustus*, Schoenberg may not have ardently contested his Leverkühnian portrayal simply because such depictions were nothing new. Ernst Krenek relates that the idiom in opus 11 (1909) had made Schoenberg "known the world over as a dangerous lunatic setting out to destroy all established musical values or as a prophet announcing the millennium" (Krenek 1944, 132).

Termed synonymously as dissonant, linear, pure, absolute, modern, or atonal counterpoint, this manifestation of horizontal writing of often intensely chromatic lines seemed to incidentalize, for those whose ears were ingrained in common-practice tonality, any significant vertical relationship between textured voices. Perceived in this fashion, modern counterpoint did not usually measure favorably against the ideals of the older contrapuntal style. Ralph Wood's essay "Modern Counterpoint" (*Music and Letters* 1932) criticizes the new polyphonic trends solely along these lines. To him, linear counterpoint is no different, no more skilled than effectively setting "the first fifty tunes in *Hymns Ancient and Modern* . . . in score one above the other . . ." (Wood 1932, 313). Texture, according to Wood, cannot merely arise fortuitously from this kind of linear juxtaposition leading him to emphatically conclude atonality "in practice and in theory, to be an essentially non-contrapuntal medium" (Wood 1932, 317). Yet, the atonal element would not seem to be the crux of the problem but rather, the systemization inherent within contrapuntal writing. Forms such as inversion, retrograde, sequence, fugue, and canon appear to Wood as compromising a composer's artistic inventiveness, Schoenberg's output being a prime example:

> The most significant fact is that the present-day composers who more than any others are relying on counterpoint are those who have thrown overboard tonality. The prime examples are to be found in the Schönberg school and in Hindemith and the other younger Germans. I scarcely need to emphasise [sic] how consistently we are told of Schönberg's contrapuntal mastery, how we are asked to admire the dazzling ingenuities in, for example "Pierrot lunaire"—and how Hindemith and the rest are also held up to us as marvellous [sic] modern contrapuntalists.
>
> With diffidence I suggest that most of these references to ingenuity, and like qualities, are sheer nonsense. It is perfectly true that "Pierrot lunaire" contains passacaglias, a crab canon, dizzying inversions, and what not, but that any real *ingenuity* was required to pen them I find difficult to believe. For the vital qualifications of counterpoint which demand ingenuity are here ignored, namely, tonality and/or euphony. Schönberg himself disowns the one, and I have never yet found even the most earnest Schönbergian hardy enough to claim that Schönberg's compositions sound well. (Wood 1932, 314–315)

Both ideas expressed by Wood, the perceptions of a specifically "linear" counterpoint and the inventivelessness of contrapuntal techniques, so ruffled Schoenberg's musical convictions that he wrote a series of essays directed against these arguments. Concerning the former, Schoenberg at first seems to agree with the perceptions of Wood and his colleagues. By comparing the role of dissonance of the Netherlanders School and modern polyphonic style, Schoenberg in "Old and New Counterpoint" asserts that there is "no essential difference between the way dissonances are regarded in our day and the treatment of dissonance in old music . . . which is that the fact of non-consonant intervals' sounding together has no perceptible outcome in the way parts subsequently move" (Schoenberg 1928, 289). Schoenberg, then, would seem to be allied to Wood's thinking by discounting the vertical associations not only in modern counterpoint, but in the older form as well. However, in later essays, Schoenberg emphasizes views to the contrary. In "Linear Counterpoint" and its sequel "Linear Counterpoint: Linear Polyphony" (both written in 1931), Schoenberg dismisses the portrayal of modern polyphony made in Ernst Kurth's *Grundlagen des lineare Kontrapunkts* (Kurth 1917),[16] points basically summarized by Wood in the earlier passage. To Schoenberg, the idea of a purely linear counterpoint is a contradiction in terms: "counterpoint means an "opposing point" whose *combination with the original point* is needed if the idea is to exist" (Schoenberg [1931a], 289; italics Schoenberg's). Thus, the vertical associations created between voices is the inherent purpose of contrapuntal presentation. Finally, if one were to write voices in counterpoint that have no relation to each other, as

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[16]For extended, translated passages of Kurth's book, see Lee Rothfarb's *Ernst Kurth: Selected Writings* (Rothfarb 1991) 37–95.

suggested by Wood with his fifty hymn tunes, Schoenberg would agree that the effect would be "thematically meaningless" (Schoenberg [1946c], 120). Arguing against the lack of invention seemingly inherent in contrapuntal techniques, Schoenberg repeatedly tries to assert that the use of construction (as opposed to spontaneity) and/or intellect (as opposed to feeling) are evidence of real musical art.[17] The essential distinction is made by Rufer who further expounds Schoenberg's position:

> For a genius, technique is a by-product of the creative imagination; technique which is mechanically adopted or imitated remains a recipe by which one can certainly "fabricate" music, but not "create" it. (Rufer 1954, 3)

While Schoenberg may grant that there are modern compositions which fit Wood's descriptions concerning horizontalism and inventivelessness, he clearly contests these associations directed toward his creations.

Taking a more objective and somewhat more conciliatory approach, the musicologist, composer, and teacher Charles Louis Seeger admits that the new counterpoint "rests upon a distinction which forms a logical basis just as . . . does the old counterpoint itself" (Seeger 1930, 25). Again, justification for the modern procedure comes through an analogy with an older practice:

> Times change. Emphasis is placed by each generation in a place which the preceding generation has ignored or slighted. We have had a great deal of homophony. The impulse and the logic point toward a new polyphony, "heterophony." And since this means real independence of parts, it follows that the parts must be so different in themselves and the relation between them (which makes their simultaneous sounding agreeable) must perforce be such that their difference rather than their likeness is emphasized. (Seeger 1930, 28)

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[17]See "Constructed Music," (Schoenberg [c. 1931], 106–108), "Heart and Brain in Music," (Schoenberg [1946a], 153–179), and *Composition with Twelve Notes* (Rufer 1954), esp. 1–13.

What is interesting about Seeger's interpretation is how he perceives a reworking of the old rules of counterpoint in regard to consonance, not dissonance:

> Dissonant Counterpoint was at first purely a school-room discipline—a link between the preparatory studies in harmony, counterpoint, canon and fugue of a regular composition course and the "free" composition of the second decade of the twentieth century, which was the forerunner of present-day e[c]lecticism, neo-classicism and stylization. It was based upon the perception of a difference, sincerely felt but also logically postulated, between consonance and dissonance. The octave, fifth, fourth, thirds and sixths were regarded as consonant and the tritone, seconds, sevenths and ninths, as dissonant. The species were as in the old counterpoint. The essential departure was the establishment of dissonance, rather than consonance, as the rule. Thus, in the first species, in two parts, no consonance was allowed; and from the second onwards it was consonance that had to be prepared and resolved. The manner of this (by skip rather than by step) successfully differentiated the result from its prototype. (Seeger 1930, 25–26)

> Interestingly enough, the octave and the unison take the place of the tritone as *diabolus in musica* and must consequently be avoided. (Seeger 1930, 30)

In what could be viewed as *the* definitive codification of the new contrapuntal procedures, Ernst Krenek's *Studies in Counterpoint* (1940) employs the techniques of Schoenberg's twelve-tone method in a pedagogical text. Although Dika Newlin, one of Schoenberg's pupils during his Los Angeles years, alludes to Schoenberg's dismissive attitude towards Krenek's work (Newlin 1980, 37), Krenek's book, which could be characterized in today's terms a "user-friendly" manual on twelve-tone composition, notwithstanding, served to advance Schoenberg's method. While Krenek is quick to mention that his application of Schoenberg's twelve-tone techniques is not intended to be the consummate treatise on the subject (Krenek 1940, viii), it is not far-reaching to suggest that some of Krenek's readers unversed in Schoenberg's manner of composition would have made this assumption. In any event, regardless of how his book was understood in relation to Schoenberg, Krenek's contrapuntal interpretation of twelve-tone serialism is worth exploring for its own merits regarding neopolyphony.

In the Festschrift edition of *Modern Music* celebrating Schoenberg's seventieth birthday, Krenek remarks:

> Regarded as a method of polyphonic writing, this technic [sic] is no more difficult or mysterious than sixteenth-century counterpoint which today is increasingly recognized as material of elemental theory . . . . Regarded as a means of expression for living musical thought, it is as problematical and perilous as must have been the counterpoint of Palestrina in the sixteenth century, with Gesualdo's wild experiments[18] going on at the same time and the Monteverdi-Artusi controversy in full swing . . . . (Krenek 1944: 133–134)

Again, the era around 1600 is given analogical prominence, here in regard to twelve-tone theory. These remarks would also seem to be the premise for his *Studies*—that the counterpoint discussed therein will similarly participate in the technical and aesthetic concerns embodied in the counterpoint of the Counter-Reformation. Krenek's final remark in his introduction is further evidence: "As the twelve-tone technique is approached here from the viewpoint of counterpoint, the knowledge of strict (Palestrina) counterpoint is recommended as prerequisite, though not indispensable" (Krenek 1940, ix). In relation to the famous treatise on Palestrina's style, Josef Fux's *Gradus ad Parnassum* (1725), Krenek's *Studies* offers an interesting comparison. Although not organized like the *Gradus* in the species approach of note-against-note, two-against-one, etc., Krenek imitates Fux's middleground organization in which the progression of more sophisticated species are repeatedly studied according to two-, three-, and four-part textures. After a short introductory chapter, Krenek proceeds with a chapter of solo melodic writing, four chapters of two-part inventions involving different combinations of row forms, and a chapter on three-part composition.

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[18]Wellesz, too, sees the same associations between Schoenberg and Gesualdo: see Wellesz [1957], 181.

In itself, this systematic presentation of lessons in progressively thickening textures found in Krenek's *Studies* refutes some of the complaints against linear counterpoint in general and against Schoenberg in particular. If, as Wood states, modern counterpoint does not take into account the vertical "recognition of texture," then why would Krenek *à la* Schoenberg have discrete lesson-chapters on one-, two-, and three-part textures? Clearly, vertical associations were involved in twelve-tone counterpoint. The most obvious example occurs in the chapter on three-part writing, in which Krenek rapidly devises a theory of harmony (Krenek 1940, 19–20) somewhat akin to Hindemith's classifications of harmony in terms of greater or lesser dissonance.

The other apologetic function that Krenek's book serves in relation to Schoenberg is its demonstration of the sophisticated compositional craft necessary in writing counterpoint with a twelve-tone series. Schoenberg in "Composition with Twelve Tones" repeatedly stresses the predicament that his method creates for the composer:

> Though it seems to increase the listener's difficulties, it compensates for this deficiency by penalizing the composer. For composing thus does not become easier, but rather ten times more difficult. Only the better-prepared composer can compose for the better-prepared music lover. (Schoenberg [1941], 215)

> The introduction of my method of composing with twelve-tones does not facilitate composing; on the contrary, it makes it more difficult. Modernistically-minded beginners often think they should try it before having acquired the necessary technical equipment. This is a great mistake. The restrictions imposed on a composer by the obligation to use only one set in a composition are so sever that they can only be over-come by an imagination which has survived a tremendous number of adventures. Nothing is given by this method; but much is taken away. (Schoenberg [1941], 223)

The argument against the perception that twelve-tone serialism is necessarily a system or precomposed construction—the same one alluded to in the discussion on Wood's ideas—is challenged in *Studies*. In one case, Krenek demonstrates the complicated decisions facing

the composer of twelve-tone counterpoint by offering rough drafts of a solo melody, critiquing it upon the criteria of phrase structure, strategic placement of registral and dynamic climaxes, the contrapuntal presentation of atonal rhythm (i.e., free, asymmetrical), etc., and submitting a revision based upon these suggestions. This pedagogical procedure marks yet another similarity between *Studies* and *Gradus* in which the latter, cast in the form of a dialogue between benevolent master and reverential student, features the same draft-critique-revision process between the two characters. In short, *Studies in Counterpoint* is the source which manifests Schoenberg's assertion that, yes, "One has to follow the basic set [i.e., the series]; but, nevertheless, one composes as freely as before" (Schoenberg [1941], 224).

As I have demonstrated in this chapter, writers who embraced the ideas of neopolyphony in one form or another found Schoenberg to be a leading exponent. In all the writers presented here, only Stein offers a polyphonic context which is not contrary to Schoenberg's views on the matter. On the whole, Schoenberg, it was shown, rejected the very premise upon which neopolyphonic theory rested, the model of historical cyclicism. To him, the contemporary musical context and that of earlier style presented more differences than similarities. But, even if Schoenberg had accepted the premise—that such a revival was indeed taking place—, he nevertheless would have seen his own approach to composition as entirely separate from this movement. As much as he was censured in the musical press for trying to overthrow the values of classical and romantic music, Schoenberg saw himself quite clearly as a propagator of the line beginning with Bach and extending through Mozart and Beethoven to Brahms. In Schoenberg's view, the twelve-tone method was simply a

means of expressing and organizing musical ideas in the same logical fashion that these "great masters" had done. However, as will be shown in the following chapter, Schoenberg's method provided the basis for yet other theoretical explorations which themselves were rooted in this context of neopolyphony.

CHAPTER IV

PROPOSALS OF TWELVE-TONE MODALITY

As described in Stein's "New Formal Principles" and Schoenberg's "Composition with Twelve Tones" as well as other articles appearing in the late 1920s and early 1930s, twelve-tone technique provided the means to develop or even exploit atonal materials of a particular movement or composition into a thoroughly integrated, cohesive web of horizontal *and vertical* structures. Although recognized as a breakthrough on the formal level, Schoenberg's method seemed to possess other potentialities upon which certain commentators focused their attention. With the formal problem resolved, the question that still remained was whether dodecaphonic procedures could extend beyond the confines of contextual atonality and establish a universal theory capable of explaining stylistically diverse works of a multitude of composers—in other words, whether twelve-tone serialism could institute another common practice. That Schoenberg had not bequeathed such an all-encompassing theory was a fact not held against him since the period of gestation leading to the culmination of a twelve-tone common practice was seen to encompass the careers of composers through several generations. Schoenberg himself spoke of such an evolution when talking about the application of consonant intervals and tertian harmonies idiomatic of the tonal tradition. As part of the musical language of the past, these constructions were to be vigorously shunned so that the sound of contemporary works could be judged primarily on their own terms and not on a referential basis to the former dialect. Only after the new sounds

in the atonal medium had established their own identity could these consonant sonorities be reintroduced—and even then, only gradually. However, since the inclusion of historically evocative consonances was regarded merely as expanding the intervallic content of twelve-tone composition, this process of development was judged a conservative one in relation to the evolutionary forecasts of Schoenberg's contemporaries. Modal concepts associated with an emerging twelve-tone tradition would subsequently expand and transform the function of the row itself.

During the pre-tonal and tonal common practices circumscribed by the same temporal divisions of the polyphonic and homophonic periods discussed in chapter 2, the common denominator providing the basis of universal expression was an accepted pitch-based system —namely, the collection of the six Church modes (with their accompanying plagal transpositions) for the former era, and, for the latter, the equal-tempered transpositions of the major-minor scales. Since Schoenberg's tone row provided a similar kind of pitch-class organization that modes and scales had furnished in prior contexts, it seemed logical, perhaps inevitable that the theoretical basis for another common practice could be viewed as inherently situated within the series itself. For the writers to be discussed in the present chapter, this evolution towards a twelve-tone modality, in which the role of the series as a motivic or thematic generator was transformed into that of a scalar abstraction, was founded on an imitation of the Medieval modes.

I had stated earlier in chapter 2 that the emergence of neopolyphonic thinking was not necessarily a startling development. If modern musical trends were to be cast as a rejection of the classical-romantic musical syntax, then the procedures of musical style preceding this

period would be worthwhile territory for interpretive comparison. By analogy, if contemporary, atonal music was viewed as a rejection of the major-minor scale system, then the scales favored in earlier periods might serve as a model for contemporary composers and theorists. Krenek best articulates this position in *Music Here and Now* where he draws the same kind of comparison between modern, specifically the twelve-tone technique, and the age of sacred polyphony as stated by Evans and Bush:

> Actually, the twelve-tone technique . . . is nothing more than an attempt to produce a new "balance" by contrapuntal methods. It is merely one more tie between our atonal music and music of the pretonal, ecclesiastical kind, as if a circle has been completed, bringing us around to the starting point of a spiral where ideas of the pretonal epoch are again strongly asserted. Naturally the new music has many aspects that differ from those of the medieval age, since the enormous experience of the past centuries has been garnered and turned to good account. But whoever looks beneath the surface of the material will soon recognize the vital resemblance of music in the twentieth century to scholastic music. (Krenek 1939, 169)

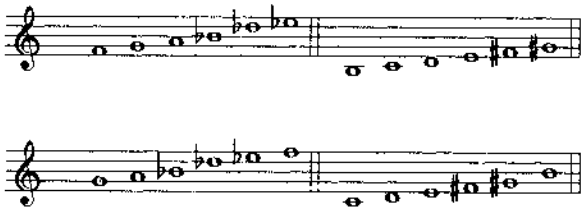
It is curious that Krenek accounted for twelve-tone technique as "merely one more tie between our atonal music and music of the pretonal, ecclesiastical kind," implying that he recognized many more connections to "scholastic music" already in existence. Note, too, in the following quotation how Krenek sees a renewed spiritual vitality in twelve-tone expression:

> [It] is just as easy, and much more plausible, to associate the twelve-tone technique with the Catholic philosophical thoughts of the Middle Ages, with Thomas Aquinas and the *philosophia perennis*. I shall not go so far as to assert that the many parallels between our music and that of medieval times must bring out a new close connection with a definite religious credo. But the retreat from the crass, spectacular attitude of which we have been speaking is doubtless related to a strong spiritual tendency, and to a turn in the direction of problems and substances which are akin to religious thoughts and sentiments. (Krenek 1939, 190–191)

Is this "retreat from the crass" and a return to "a strong spiritual tendency" not the same spoken of by Farwell as the turning away from "the hopelessness, cynicism, technic- and idiom-worship, [and] neo-paganism" towards a renewed "spiritual attitude and direction" (Farwell 1927, 97)?

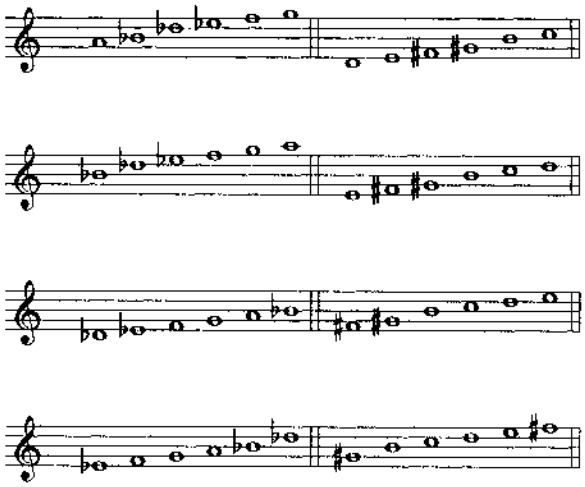
In relation to Krenek's form of twelve-tone modality, the most striking feature is its resemblance to the Church modes, in both their structure and application. In his *Lamentatio Jeremiae Prophetae* (composed 1941–42), Krenek states that he "made an attempt to integrate certain technical principles of the twelve-tone technique with those of ancient modality" (Krenek 1943, 90–91). In doing so, Krenek began by dividing a chosen row into two hexachords and then applying the operation of rotation to each grouping, as shown in Figure 1 below.[1] These hexachords collectively comprise the "diatonic" collection since they only contain a reordering of the same pitch classes.

Fig. 1: Ernst Krenek's "diatonic" species of hexachordal modes



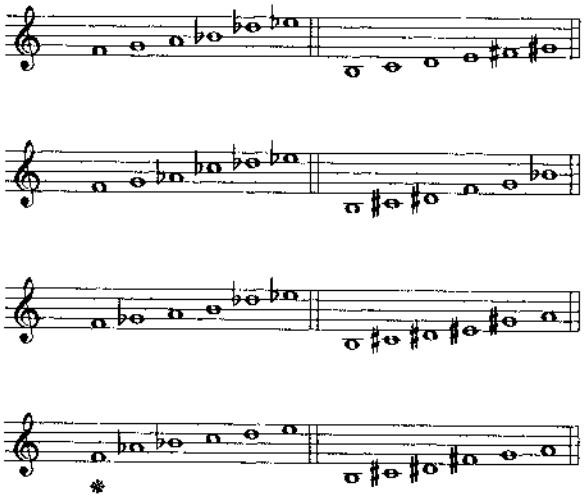
[1]In addition to his article "New Developments in Twelve-Tone Technique" on which most of my commentary here is centered, Krenek published the same diatonic and chromatic modal scheme of the *Lamentatio* in "Extents and Limits of Serial Techniques" (Krenek 1960, 71). Krenek's presentation of the modes in this later publication is complete and somewhat easier to read than the abbreviated version offered in "New Developments."

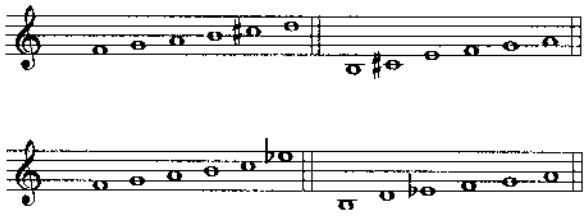
It is interesting that in the later article, Krenek claims to have composed the *Lamentatio* a year earlier (1940–41) than stated in the first paper. Krenek, who believed himself to be the first to use rotational techniques in twelve-tone music, was embroiled in the same kind of concern for priority with Stravinsky over rotation as Schoenberg and Hauer had argued over with twelve-tone technique. While this confusion of dates may suggest a revisionism on Krenek's part in order to seemingly "arrive" first at rotation techniques, this view could only be maintained if Stravinsky had written such works in the early 1940s; however, Stravinsky's serial "period" does not appear until the 1950s, and, therefore, does not chronologically contest either of Krenek's dates. Thus, it would seem that Krenek's temporal adjustment is the innocent mistake of a composer recalling events that transpired twenty years earlier. For a review of this controversy between Krenek and Stravinsky, see David Carson Berry's unpublished paper "Krenek *Contra* Stravinsky: Parallel or Parallax" (Berry 1995).



In addition, Krenek transposes the five pairs of hexachords produced by rotation so that all the initial tones begin on F and B creating what Krenek calls the "chromatic" forms: all twelve pitches of the chromatic aggregate appear at least once in both F- and B- hexachordal groupings. These forms are listed in Figure 2:

Fig. 2: Ernst Krenek's "chromatic" species of hexachordal modes





Hence, in this diatonic and chromatic division, Krenek creates a corpus of modes analogous to the authentic and plagal modes employed by Medieval and Renaissance composers.

After revealing his modal collections, Krenek provides an analytical excerpt from the *Lamentatio* demonstrating how he employed these structures. In the accompanying description, Krenek states:

> In applying these "modes" in my composition, I assigned to them the quality of motifs, or melodic units, rather than of scales, that is, I did not treat them as stepwise arrangements of the tonal material on hand, allowing myself to use the tones of each group in arbitrary order, but I always maintained their order of succession as exhibited in the above examples [as shown in Figs. 1 and 2], *i.e.* following the rules of the "classical" twelve-tone technique.[2] (Krenek 1943, 91)

Yet Krenek is not quite as strict in retaining order position as he claims to be. Although most of the sections he highlights in his excerpt tend to fulfill this assertion, a few instances arise in which the composer has demonstrated some measure of order flexibility. For example, in the very first section circled by Krenek in his example, the soprano and alto present the pitches classes {568t024}. This hexachord is derived by taking the chromatic mode {58t024}—marked with an asterisk in Figure 2—, rotating pc 5 to the sixth (last) order position, {8t0245}, and then applying the operation of retrograde inversion. Such permutations

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[2]Krenek's choice of terminology is interesting here since, in "Is the Twelve-Tone Technique on the Decline" (Krenek 1953), he dismisses the view that such a thing as a "classical" or "orthodox" method of twelve-tone serialism exists.

would seem to be evidence of "following the rules of the 'classical' twelve-tone technique." However, the order of this modal hexachord is not retained: in the soprano, the first three notes are pitch-classes <86t> and in both the soprano and alto are instances where pc 6 is omitted in skips between pcs 5 and 8. Clearly, these occurrences are not cases of "always" maintaining the "order of succession" as listed in the modal tables.

Generally, Krenek's modes organize the music into small, textural blocks that encompass two or more voices. This method deviates from Medieval practice in which the modes, derived from the melodic formulae of chant, were generally assigned to the individual parts defining each part's pitch material (*gamut*) and the range (*ambitus*); consequently, compositions of the High Middle Ages and Early Renaissance tended to feature in the parts an alteration between the authentic and corresponding plagal forms of a particular mode. In short, then, the Medievalists applied the modes polyphonically to the individual voices or parts whereas Krenek's modes seem to define quasi-harmonic regions.

Another deviation of the *Lamentatio* from Medieval practice is that Krenek's modes do not participate in the formation of cadential patterns. Referring to his analytical excerpt demonstrating the presentation of the various chromatic forms of the F and B modal hexachords, Krenek observes that "neither F nor B are much in evidence as points of orientation, in form of finals or otherwise" (Krenek 1943, 93). Although Krenek does not elaborate on just what constitutes "the otherwise," the concept of a mode's final seems to have held special significance in Krenek's adaptation of neomodality. In "A Study on Cadential Formations

in Atonal Music,"[3] Krenek applied the premise that since "the mediaevalists . . . stated that a mode could be told only by ascertaining its final, that is, by examining the cadence," perhaps "an investigation of a great number of phrase endings in atonal music . . . would warrant the assumption of modal formations as underlying the process . . ." (Krenek 1943, 82). After reviewing the evidence, Krenek is obligated to conclude that such a hypothesis is invalid: no such modally cadential phenomena exist in the form of finals. Comparing the conclusions of this earlier research to the *Lamentatio*, the absence of modally derived cadential idioms from a context that borrows heavily from the Medieval period is striking; however, the use of finals would either establish or at least imply a tonal center, thus contradicting the atonal medium which twelve-tone technique and Krenek's derivative of modal hexachords were designed to organize.

All the "New Developments" which Krenek surveys in his article account in one form or another for various modal concepts that he and other composers had gleaned from Schoenberg's twelve-tone method. In addition, Krenek includes room in his paper for composers not specifically associated with twelve-tone serialism but who nonetheless are interested in applying modal theory to an atonal context. Following the analysis of the *Lamentatio*, Krenek takes up a discussion of Roy Harris's Third String Quartet which, having "no connexion with the twelve-tone technique proper," is "based on a revival of the mediaeval modes" (Krenek 1943, 94). Among the modal characteristics Krenek enumerates are Harris's use of polymodality, a kind of *musica ficta*, the presence of finals, and the role of the *ambitus* in the texture;

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[3]A paper delivered to the Greater New York Chapter of the American Musicological Society on 13 November 1940.

furthermore, Krenek cites Nicholas Slonimsky's record notes describing Harris's color ethos—a kind of spectral continuum of the "brightness" and "darkness" of the Church modes.[4] Krenek's reference to Harris's modal approach supplies evidence that the organizational possibilities of the ancient modes attracted the interest of more than just a handful of composers adopting twelve-tone techniques. And it may be that Krenek's ultimate goal in describing Harris's use of modality was to position his *Lamentatio* at a kind of compositional crossroads between two twentieth-century musical trends: the neopolyphonic as represented in Schoenberg's method and the neomodal as depicted in Harris's composition.

Returning to the twelve-tone modality displayed in the *Lamentatio*, one is tempted to ask why Krenek believed the tone row played such a necessary role when it is relegated to the most marginal status of the pre-compositional phase. Initially, the row provides the two hexachords from which the diatonic and chromatic forms are derived; yet, on the basis of Krenek's examples alone, the series does not seem to specifically generate the motivic, thematic, or harmonic aspects of the work. Could not the modes, then, have been derived quite independently from Schoenberg's construct? While such operations as rotation, retrograde, inversion, etc., are employed, the concern for aggregate or hexachordal completion before pitch repetition is permitted is not maintained. To such questions, Krenek responds:

> The obvious objection that such passages could very well have been written without the aid of the series does not hold good as they actually have been written by using the series. Since in this kind of formation the motivic substance in evidence has little or no traceable relationship with the series, since however the series is nonetheless an agency taking part in the generation of these phenomena, the series seems here to unfold a function which one may call the extra-motival function. (Krenek 1943, 82)

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[4]From Slonimsky's brief description, Harris's color ethos, like Hauer's, seems to derive from the influence of Goethe's *Farbenlehre*. For a discussion of Hauer's ideas, see "Hauer's Theory of Tone-Color and the Melos Aesthetic" in John Covach's *The Music and Theories of Josef Matthias Hauer* (Covach 1990).

The concept of an "extra-motival" function (elaborated further in my subsequent discussion of George Perle's modal theory) demonstrates a shift in the structural role of the series. In addition, while stating four years earlier that "the twelve-tone series which forms the groundwork of composition in twelve-tone technique has nothing to do with scales" (Krenek 1939, 171), Krenek's method of deriving his modes would seem to be evidence to the contrary. Although Krenek's modal formations still only indirectly tie the row to a mode or scale, his process is but a small step away in establishing this equivalence, a condition already under way by two of his colleagues, Richard S. Hill and George Perle.

In the opening paragraphs of Krenek's "New Developments," the author makes the remark that "One of the most far-reaching impulses inaugurating some new developments in the twelve-tone technique did not emanate from a new composition, but from a theoretical paper" (Krenek 1943, 81). Krenek admits that his present article and the earlier "Study on Cadential Formations," which both address ideas of atonal modality, were written as a direct response to Hill's paper, "Schoenberg's Tone-Rows and the Tonal System of the Future."[5] Even Krenek's pupil George Perle, in an attempt to establish priority for his theory of twelve-tone modality, defensively claims that "it was without any previous knowledge of Mr. Hill's theoretical paper that I came to the same idea, through the creative

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[5]Published in the January 1936 issue of the *Musical Quarterly*. Earlier versions of this paper were delivered to the Western New York Chapter of the American Musicological Society entitled "Some Theoretical Aspects of Schönberg's 'Composition with Rows,'" on 25 May 1935 and to the Greater New York Chapter (AMS) as "Schönberg's Rows" on 3 November 1935.

processes of musical composition"[6] (Perle 1941, 275). Regardless of the issue of influence, the fact alone that both composer-theorists Krenek and Perle acknowledge Hill's paper warrants a review of Hill's ideas.

Although many sources describing Schoenberg's method were published in the mid 1920s and early 1930s, most of those cited by Hill are German publications (Hill 1936, 23–24). Hence, Hill, a Cornell- and Oxford-graduate musicologist, reveals in his bibliographical note the paucity of English sources on Schoenberg's method. Hill's article, then, emerges as one of the first comprehensive English writings on twelve-tone technique, not only serving as a synthesis of these German sources, but providing the full spectrum of musicological inquiry in regard to dodecaphonic serialism,—i.e., history, theory, analysis, criticism, and speculation on its future development.

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[6]This remark, if taken at face value, is highly suspect. Before Perle engaged him as his teacher of composition in 1939, Krenek had become increasingly enthusiastic during the previous three years about the modal suggestions advanced by Hill's article. Krenek had wanted to employ some method of Hill's modality in his ongoing project, the opera *Karl V*, but concluded that such a compositional method would seem out-of-character in relation to sections already composed. Therefore, Krenek turned to writing his Sixth String Quartet (op. 78) completed in 1936 in which began exploring the modal frontiers. By early 1939, Krenek, still moved by Hill's ideas, had established a correspondence with Hill in which his interpretation of Hill's theory was further refined.

With Krenek acknowledging Hill's paper as a major influence upon his own compositional career, Perle's statement that he had no prior knowledge of Hill's paper is difficult to accept unless Krenek had refused to share with his student his knowledge of Hill's ideas. However, John Stewart casts Krenek's and Perle's relationship as an active, open interaction between equals rather than that of teacher-student:

> Among the students in the composition class was George Perle, who . . . had heard Krenek lecture in Chicago and resolved to study with him. Gifted with exceptional powers of analysis, Perle, then only twenty-three, engaged Krenek in deep discussions of the twelve-tone technique and suggested ways of varying the row that would soon form the basis for speculations and experiments in Krenek's own music. (Stewart 1991, 220)

Lastly, certain aspects in the form of Perle's paper show similarities to that of Hill's, particularly in regard to each author's outlining of the scale theory of Joseph Yasser (described below, pages 52–53 and 66). For further discussion on Hill's influence of Krenek, see Stewart 1991, 190–193, 198, 200, and 224–227.

Hill's thesis can be summarized as follows: modern composers have sought to assert new tone collections in their compositions in order to escape the now "stereotyped" tonal relationships firmly established by eighteenth- and nineteenth-century practice. Of the various systems proposed by contemporary composers, twelve-tone composition—particularly that featuring Schoenberg's concept of the "row"—seems to possess the most potential for the future. Hill organizes his response to this premise into three general divisions (discussed at length below), although ideas of certain sections appear in the others. In the first division (15–24), Hill reconciles contemporary twelve-tone composition to the past, basing his argument in a then recently published theory of musical evolution. Next, the author guides his reader through a methodological explanation of Schoenberg's row theory (25–32), describing both row structure and permutation as well as providing tables and musical examples which depict the row in its various contrapuntal and harmonic guises; in other words, the author furnishes a succinct account of Schoenbergian theory and practice. Hill's analysis and criticism of the *String Quartet* (op. 30) near the end of this section introduces the final division of the paper (32–36) where both the evolutionary theory discussed in the first part and the characteristics of the row in the second are fused to forecast the next evolutionary stage of music, a stage drawing its model from Medieval modality.

In order to refute the claim that Schoenberg's row theory and its precursor, turn-of-the-century atonality, were not radical departures from tradition, Hill delineates the theory of scale evolution recently proffered by Joseph Yasser. In *A Theory of Evolving Tonality*[7]

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[7]For a summary of his theory, see Joseph Yasser, "The Future of Tonality," *Modern Music Supplement* (Supplement to vol. 7, no. 1), 1931: 1–24.

(Yasser 1932), Yasser postulates that new scales are created by the gradual annexation of auxiliary tones to the diatonic collection. For example, Medieval heptatony (and its maturation into the major-minor system) seems to have emerged by incorporating the tones F and B, initially used for mere ornamental purposes, to the diatonic tones of the pentatonic scale (C, D, E, G, A); consequently, all seven tones were perceived as equal partners in creating a new diatonic, seven-tone scale. Conscious, however, that much of this pentatonic development occurred in notational prehistory, Hill cautions that "no definite instance can be cited . . . that the seven-tone diatonic scale was produced [in this way]" although he concludes shortly thereafter that this process "appears so eminently logical that justification seems ample for accepting it at least tentatively" (Hill 1936, 15). By extension, the next mutation ensues in which as the centuries progressed the five chromatic tones of the seven-note scale competed more aggressively for equal, diatonic status. This process, most acute in the harmonic mannerism of nineteenth-century modal mixture, culminated around 1900 with the genesis of a new diatonic set composed of all twelve tones. Hence, in light of such an "eminently logical" process, Hill can claim that twelve-tone atonality "is no arbitrary freak" and that, in essence, the context of works of Bartok, Stravinsky, and the "twelve-tone school" was predestined (Hill 1936, 18).

Complementing this gloss on Yasser's hypothesis of scale development, Hill argues that the advent of tonal function begins once the diatonicism of a given scale is accepted. As with scale evolution, Hill again cites tradition, in this case the historical development of tonal function, to speculate upon the future:

> The diatonic scale, in its early incarnations, also had few enough harmonic functions, as an examination of most compositions down to the fifteenth century will clearly show. Melodically, the modes had their finals and reciting tones, but their harmonic organization was practically non-existent. It took them centuries to grow into the richly dowered system of the end of the nineteenth century; and it will take years, opportunity, and much habituation before the twelve-tone system can arrive at a similar state. Meanwhile, we have an untrammeled constellation[8] of twelve-tones, rich only in its possibilities. (Hill 1936, 17)

Clearly, Hill has high expectations of twelve-tone theory. If one recalls the anticipation expressed by writers cited earlier of a progressive era initiated by the return of polyphonic concerns, the same thinking is in evidence here. Hill is in no way equivocal: the twelve-tone method will found another common practice. The present lack of functionalism in the atonal movement is, therefore, not an evolutionary setback if confined to the short term. Hill realizes the modern composer's need to deny that which is so prominent in the recent musical past in order that he not be "continually haunted by familiar memories" (Hill 1936, 14). Nonetheless, this intentional absence of tonal structure in contemporary music must not be perceived as an aesthetic end in itself. After recounting some of early atonal efforts of Scriabin, Golyscheff, and, Hauer, Hill concludes:

> [The basic structure of atonal music is] something of the idea of simultaneity—all twelve tones are to hover as a harmonic unit in that unexplored part of the mind in which concepts, models, patterns and the like wait to be used . . . . This whole, in itself, has no specific interior organization, and its parts cannot conceivably have any independent functional life, since, although any group of tones may occur together, they must be immediately followed by all the rest.
>
> Negation of scale, mode, and functional organization of the parts is unquestionably a reaction against the highly *differentiated* functional organization of diatonic harmony. In uncritically accepting a totally *undifferentiated* aggregation of tones . . . the exponents of twelve-tone music have elevated the amorphous nature of the glomerate into a position of cardinal importance for their method—a position it cannot well sustain. As a passing stage, an over-compensation for the immediate past, the acceptance is both understandable and necessary. But the undifferentiated aggregation should never be considered more than a temporary and arbitrary convention. (Hill 1936, 18–19; italics Hill's)

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[8]Mann, too, refers to the twelve-tones as a kind of chromatic constellation imbued with astrologically magical powers: see Mann 1948, 191–194.

Despite modern composers' efforts to establish a permanent progeny in free atonal composition, Hill judges that by 1914 extinction was already looming for their species. This was the year, Hill informs us, when Golyscheff composed "the first unequivocal twelve-tone music, although little of this was published" (Hill 1936, 18); furthermore, once the antithesis to tonality was attained, what more could be achieved in the atonal style? In short, Hill asserts that the foundation of a musical style must be made of sterner stuff than mere historical reaction. One of two outcomes is inevitable if a movement is so grounded: on the one hand, the style will suddenly disappear, regarded by history as a stylistic aberration; or, on the other hand, the style will squander itself upon uncritical assertions and begrudgingly return like the prodigal son to the embrace of paternal tradition.

Indicative of this crisis in atonal style, Schoenberg in that same year, 1914, suspended publication of his works and embarked on his nine-year methodological quest for atonal organicism. Although the concept of the row was the culmination of this search, it seems clear in Hill's later statements that the arrival of row theory per se should not be considered a satisfying realization of the goal, but a kind of experimental plateau somewhat preparatory of a higher aim. As Hill recounts the stages of Schoenberg's development, it is not hard to imagine a kind of middleground retelling of the story of Moses: the initial wandering in the atonal desert, the journey up the mountain of experimentation where the new law and order are gradually divulged, the writing of opp. 23–35—a kind of carving in musical stone of the new atonal commandments—, and the messianic expectation that Schoenberg's method will eventually lead modern music on its long awaited exodus out of the bondage of imperceptible atonal disorganization toward the compositional promised

land of function and structure. This last characterization is given further support, in addition to the quotation above (top of page 54), in the author's concluding remarks to this section of the article: "Schoenberg has given no sign of abandoning the row, but the likelihood that the recent period of silence will be broken only by a work exemplifying a radical development of the row technique can hardly be doubted" (Hill 1936, 24).

Having set the stage both theoretically and historically, Hill turns to a description and analysis of Schoenberg's twelve-tone method. A list of Schoenberg's serial works (opp. 23–35 listed on page 24 of the article) as well as a bibliography of those sources (23) presenting analyses of these compositions introduces this second section of the paper. Following these citations, Hill observes some of the common ways that Schoenberg handles the row. First, Hill highlights the four properties of the directional row forms, describes the series as either a composite structure or open to trichordal or tetrachordal segmentation, reviews transpositional and inversional invariance, and defines the property of combinatoriality. Within his outline of these row properties, Hill offers the would-be analysts an invaluable listing of those opus numbers which possess each of these row manipulations. Next, lest his reader be overwhelmed by the seemingly infinite possibilities of row combination, Hill assures his reader that only three "main types" are predominantly featured by Schoenberg, that is, the contrapuntal, harmonic, and contrapuntal-harmonic settings which, as with his previous outline, lists in rather extensive detail those works demonstrating these three classes. In both these opus lists, Hill demonstrates an exhaustive analytical familiarity of Schoenberg's twelve-tone compositions, a familiarity to be envied even by today's twelve-tone scholars.

As a transition to the final section of the article, Hill discusses at length Schoenberg's refusal to play by his own rules as exhibited in his later compositions. While the contrapuntal or harmonic treatment of the row seems to provide the listener with a reasonable means of comprehending the organization of a given work, the fusion of the two settings cannot be for Hill a comprehensible basis for either listener or composer. The third movement (*Intermezzo*) of the String Quartet (op. 30) is Hill's test case. In his musical example of m. 9, Hill traces the rather convoluted route in which the row is presented among the strings. From such a meandering distribution, the recognition of a particular row is not so easily defined—or perhaps too easily defined: since all twelve tones of the aggregate are locally present, one can arbitrarily assign any tone as the initial pitch and construct by process of elimination any of the forty-eight forms of the referential row. Hill continues this critique of op. 30 by providing another excerpt which presents a more extreme example of this convoluted phenomenon.[9] If Schoenberg's interests lie in employing the row as an organizational device, how, asks Hill, can these sections be justified? Schoenberg had proclaimed that "the analysis of the use of the rows is of no greater importance than this recognition of the motivical structure" (Hill 1936, 23); if this is so, Hill, after analyzing these measures of op. 30, is compelled to conclude that "we can readily see that the motivical significance of the row has been completely destroyed" (Hill 1936, 31). Hill continues:

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[9]In his analysis of these measures, Hill's identification of the rows is somewhat convoluted in its own right. Hill identifies the row <7439056et182> as the P_0 form ("prime untransposed"); next, the row <1t936e054728> is correct correctly label as P_6 ("prime up 6"). Obviously, Hill is counting semitones to arrive at the level of transposition. However, he fails to remain consistent when naming the inversional forms present in the example: the row <90174et56382> receives the label I_9 ("mirror up 9") when, in fact, it should read I_2 (or "mirror up 2"); similarly, the row <3671t54e0928> is labelled as I_3 ("mirror up 3") instead of I_8. In these inversional examples, Hill has carelessly failed to maintain P_0 on the original form beginning on G, but has instead shifted this initial prime to C.

> [These] are by no means exceptional passages—horrible examples to terrify the uninitiated—but are strictly typical of by far the greater part of Schoenberg's later compositions. Obviously, such distributions of the row could not be sensorily perceived and intelligently grasped as motivic structures however much practice the listener may have had in hearing such music. What is more, successive tones are related in so many different ways that it would be utterly impossible for them ever to acquire functional characteristics. The significance—even the importance—of the row as an abstract concept is easy to appreciate, but the utter disregard with which Schoenberg at times twists it about renders it totally meaningless as either a harmonic or melodic structure. Tones, after all, cannot be arbitrarily related. (Hill 1936, 31)

The sources of this problem, asserts Hill, are two premises of row composition, perhaps historically necessary when the system was developing but mistakenly adopted by Schoenberg as "basic laws." The first of these is that "*the row must be used as a complete unit and that parts of it cannot be repeated until all the other parts have been used*"; the second, an extension of the first, states that "*no matter how obliquely stated, the row maintains its validity*" (Hill 1936, 32; italics Hill's). To Hill, the former compositional guideline seems to stifle true motivic development: no one section of music could ever be thoroughly saturated with a particular motive since the remaining pitches of the series would have to be "packed somehow into the other parts" (Hill, 1936 32). Conversely, if the composer departs from the primacy of the row for other, purely musical concerns, then some kind of "strange logic" must be formulated so that the row's integrity is maintained.

But no matter how strong the author inculpates Schoenberg for this illogic, Hill cannot find it within himself to fully indict the composer on these charges, for aside from his rather extensive criticism of op. 30, he is clearly an apologist for the composer's method. Following his analytical dismantling of Schoenberg's serial syllogisms, Hill makes the interesting claim that, while Schoenberg is "an able and ingenious theorist, he is nevertheless misled by concepts picked up by other people, and these concepts have tended to

delay his instinctive advance toward his goal" (Hill 1936, 32). Two questions immediately arise: just who are these "other people," and what is this preordained "goal?" To the first question, Hill evidently transfers the blame to Schoenberg's contemporaries cited earlier in the article,—Paque, Scriabin, Golyscheff. But the onus of culpability is reserved particularly for Hauer. It is Hauer's theory of the *Tropen* in which the first "basic law" was incubated.

> Several *Tropen* are usually associated in any given composition. In other words, melodic freedom is achieved only within relatively limited bounds, since all twelve tones must be played before any may be repeated. Basically, the fundamental characteristic of all this music consists in the persistence with which the composer keeps the whole cluster of twelve tones circling continuously. (Hill 1936, 18)

Hill undoubtedly considers this aspect of Hauer's system as the corruptive evolutionary influence, the defective gene of which Schoenberg is now the carrier.[10]

Schoenberg replies to Hill's comments in a brief, four-paragraph essay written in the same year as Hill's publication. Initially, Schoenberg begins by praising Hill for the time and effort applied to his analyses of the opp. 23–35; however, these commendations are not sincerely expressed, serving instead as the basis for literary irony:

> Mr. Richard S. Hill's article, "Schoenberg's Tone-Rows . . . ," shows a highly astonishing amount of work of research based on much ability and knowledge to find out what he was looking for . . . . I admire very much as well the sagacity and shrewdness which enabled him to resolve these problems with such a security that he can use his results as a basis to criticize them, but appreciate not less the steadiness and diligence applied for such results. But perhaps I am more a composer than, as Mr. Hill calls me, "an able and ingenious theorist," I find this diligence applied in the wrong place. (Schoenberg [1936], 213)

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[10]Hauer is also cited by Wellesz in "The Origins of Schoenberg's Twelve-Tone System" (Wellesz [1957], 177–179) as influencing Schoenberg towards the serial method.

For Schoenberg, Hill has positioned himself too ardently on the side of theory or musical science when he should be inclined more toward the flexibility of art. What is particularly interesting in Hill's criticism is that it is the inverse of the argument most often levelled at Schoenberg. As was stated earlier, Schoenberg's method was perceived as too systematic, as a kind of mathematical formula which generated the composition; consequently, such a system was viewed as antithetical to the idea of music as an art. On the other hand, Hill's examination faults Schoenberg for not being systematic enough! Yet, the distinction seems to be one-in-the-same for Schoenberg, for his response to Hill is the same given to the former argument. In regard to twelve-tone technique, Schoenberg emphasizes that "I did not call it a 'system' but a 'method', and considered it as a tool of composition, but not as a theory" (Schoenberg [1936], 213). Those who fail to realize these differences "always fall into the error of believing their theories to be rules for composers instead of symptoms of the works, rules which a composer has to obey, instead of peculiarities which are extracted from the works" (Schoenberg [1936], 214).

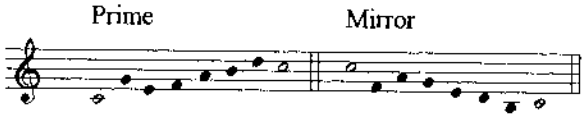
In an essay which takes Hill to task for a too theoretical approach to twelve-tone techniques, it is surprising that Schoenberg *does not* express any opinion whatsoever on Hill's modal theory. This proposal of Hill's serves as the answer to the second question—what is the ultimate "goal" of twelve-tone technique?—which comprises Hill's final section of his paper. This passage is foreshadowed earlier in the article in a passage from his historico-evolutionary narrative. There, Hill draws a distinction between scale and mode. Scale, the mere consecutive inventory of pitches for a given key (much like the arbitrary order of letters in the alphabet), informs one which tones are diatonic, but provides no hierarchical

information regarding the function these tones play in relation to one another. A mode in its original sense is, as Hill explains, a much more functionally oriented, non-consecutive series:

> [The] present manner of representing a mode is purely a convention. The practice probably derives from mediæval terminology. We might conceive of the mediæval word *modus* as used to indicate a structure much like our scale; but, when the mediævilists wanted to indicate the functions of the tones of the modes, they compiled, in addition to their scales, their "Psalm tones"—thereby actually providing a table of basic melodic patterns. We dropped the tables but kept the scales, attaching to them a secondary functional meaning. (Hill 1936, 20)

To further illustrate his meaning, Hill rearranges the pitches of the C-major scale, shown in Figure 3, to show one possible representation of its functional mode as defined by the harmonic idioms of the common-practice:

Fig. 3: Richard Hill's functional mode of C-major



Pertaining to this example, Hill supplies the following explanatory remarks:

> From such a series, one might deduce that certain melodic progressions were basic. Thus, immediately before or after the four *C's* stand the tones *g*, *d*, *f*, and *b*, which at once are the notes that most frequently progress to *c*, and also taken simultaneously, form the dominant seventh chord. The first three notes of the "prime" series give the tones of the tonic triad; and the first three notes of the mirror give the tones of the subdominant. Examination of the two series will reveal other relationships. (Hill 1936, 21)

The similarity in the example above to a twelve-tone row is, of course, not coincidental, and with such words as "prime" and "mirror" employed in his description, it is clear that

Hill desires to apply to twelve-tone theory the similar kind of intervallic template inherent in this functional modality. The first and major obstacle, however, in establishing a system of selected, universal modes is the very reductive process involved. Of all the possible ways that the twelve pitches of the chromatic can be ordered without repetition, the existence of 479,001,600 discreet rows (or 9,979,200 if the equivalent forms transposition, inversion, retrograde, and retrograde-inversion are discounted) is by its very size too large to be equated with a modal inventory. Compositional filtration, therefore, will direct modal evolution:

> [It] should be observed that most music has been based on some sort of a mode. When the system is new and untried, a number of modes are likely to be in use. As the potentialities of the system become more clear, effort is concentrated on a limited number. Twelve-tone composers . . . would at first manufacture their own rows or functional modes—as they, in fact, are now doing. As time went on, a body of these modes would come to be recognized as superior to the rest. These in turn would probably be whittled down until finally only a chief and a couple of subsidiary modes would be left. (Hill 1936, 33)

One can see an extension of Yasser's theory of scale evolution within the concept of the functional mode. Whereas with Yasser, the thesis and antithesis of the diatonic and chromatic notes of a scale formed a new diatonic synthesis, we now have the thesis of common-practice tonal function joined to the antithesis of the atonalist's "undifferentiated aggregate of tones." In Hill's modal forecast, a synthesis of the two is achieved in functional modality. Furthermore, once the functional system is adopted, the possibility of tone repetition and sequence, prohibited by and large by Schoenberg's "basic laws," can once again be reinstated. Generally, that Schoenberg departs from the rigidity of row presentation—again, the very thing for which the author faults Schoenberg—demonstrates, for Hill, that this progression toward function is in process with the founder himself of twelve-tone techniques.

Concerning the modality of Schoenberg's row, Hill was not alone in his theoretical proposal. Egon Wellesz also perceived similarities to the modal past of which Schoenberg's row was a direct descendant:

> Looking back, it is interesting to find that the principle of the series of tones and the twelve-tone row is not an entirely new system, which Schönberg or Hauer invented, but the revival of the technique of formulas which originated in the East, came to the West with plain-chant, and is one of the basic principles of early medieval polyphonic music. These formulas in Byzantine and Gregorian chant do not, as I have shown, presuppose a scale, but are melodic archetypes. Their presence in a melody determines its belonging to a certain group of chants.
>
> If one works out this principle of composition and transfers it from diatonic to chromatic rows of tones, one finally arrives at Schönberg's twelve-tone system. (Wellesz [1957], 181)

Edwin Evans adopts the spirit of Yasser's scale theory by describing the heredity of the Church modes in the complete atonal chromatic:

> Here the effect of recent practice has been to make the diatonic scale commensurate with the chromatic. In other words these "twelve-note" atonal systems must seek another term to describe them, for the diatonic have nowadays every bit as much right to be called "twelve-note" systems. This is the result of the gradual spread of polymodality. It seems a far-off age of innocence when we had only major and minor modes. Long ago we began to speak of major-minor, and minor-major, using scales which, though we pretended otherwise, contained more than seven diatonic notes. Then the old modes, or new modes resembling them, were reinstated, until to-day there is no note within the octave that a composer does not use diatonically on occasion. The sharpened but still diatonic fourth, with its Lydian associations, is of everyday occurrence, and so is the flattened supertonic, which recalls the Phrygian. And since, following upon the major-minor precedent, the modes have reached a general state of coalescence, these and other notes, formerly "accidental," have acquired diatonic status.
>
> It is probably this which so often makes illusory the semblance of atonality. Its doctrinaire exponents profess to treat the twelve notes as absolutely equal in their functional properties, but in practice they can with difficulty bring themselves to do so. (Evans 1931, 64)

In his address to the Royal Music Association "What is Twelve-note Music," Oliver Neighbour states that "Many people believe that some form of dodecaphony will become the universal musical technique, replacing tonality" (Neighbour 1955, 59). Obviously, Hill subscribes to such thinking. As I shall now demonstrate, George Perle, offering his own

extensions of dodecaphonic techniques, takes the next step suggested in Hill's theoretical speculation by specifically formulating a modal theory—a theory that he believed would form the musical foundation for generations to come.

Although I earlier disputed Perle's claim of independence from Hill's ideas, the distinction is but a minor point, for whether Perle was in fact conversant with Hill's essay (via Krenek perhaps) or indeed arrived independently at these ideas, what is important is his interest in the 1930s and 1940s of the modal potential of the twelve-tone series. For Perle, the notion that modality is at all relevant to the atonal medium of dodecaphony is justified in the ties which Schoenberg's method has to the past. Unlike those who perceived the twelve-tone method as a rejection of classical-romantic aesthetics, Perle seems to accept Schoenberg's self-image as a participant in the classical-romantic tradition. Twelve-tone technique, says Perle, "is based on the one conception of tone-material which evolves out of the tonality of the past. Necessarily therefore, it implies the tonal system of the future, whose modal and harmonic possibilities are already discernible" (Perle 1941, 273).

In the contextual setting of "Evolution of the Tone-Row: The Twelve-Tone Modal System" (*Music Review* 1941), Perle draws the distinction between the "motival" and "extra-motival" concepts of the row. The motival approach refers to the strict application of the row from which structures on the immediate foreground (motive, themes, accompaniment) are directly generated. Schoenberg's Wind Quintet (op. 26), in which various forms of the row are equated with the differing themes is a prime example. The extra-motival concept refers to the row as kind of scalar abstraction which is viewed only as the ultimate, indirect

source of musical structures: such structures, then, can be expressed with greater flexibility than the kind of note counting that results from the strict application of the row. Both concepts, motival and extra-motival, cited by Krenek, were also discussed by Hill in his analysis of the Third String Quartet. There, the "torturous combinations" (Hill 1936, 29) of the row which Hill outlines in his examples of m. 19 and mm. 172–175 are only painfully convoluted if one insists on implementing the motival concept; had Hill adopted the alternative interpretation of the series, his criticisms might have been less severe. Aside from his analysis of the quartet, Hill's tentative hypothesizing on the functional modes illustrates a perception towards the extra-motival that finds expression the works of Krenek and Perle.

After defining these terms, Perle goes on to describe that the extra-motival concept emerges even if composers were to solely embrace the purely motivic notion:

> [Concentration] on the purely motival possibilities inherent in a row has broadened the motival concept to a point where its dissolution seems imminent. Any motive at all can be discovered, even in the strictest handling of the row, if sufficient transpositions of the row are simultaneously applied. (Perle 1941, 276)

Furthermore, the compositional restrictions imposed by a strict application of the row can, in the final outcome, hinder a composer's desire to compose a large number of works. Schoenberg and Berg provide plenty of evidence of this problem since as "men of creative genius and amazing technical facility" (Perle 1941, 278), they have nonetheless published only a handful of works in this method—proof of Schoenberg's statement, "Nothing is given by this method; but much is taken away." From the current developments of the motival standpoint, Perle further clarifies his position:

> I do not intimate that . . . the strict application of the row . . . is no longer practicable in composition. In fact, many possibilities, both technical and expressive, still remain to be explored within these means. But I do maintain that their evolutionary potentialities are already completely evident.
>
> Over-development of the motival concept of the row finally results in its disintegration into an inwardly-related series of simple figural units, which is also where we are led by the forces of the extra-motival concept. With the final triumph of the latter the row acquires a modal character . . . . (Perle 1941, 276–277)

Having asserted the inevitable development of the extra-motival phase of twelve-tone composition, Perle outlines his modal theory.

Believing that Schoenberg's twelve-tone method "implies the tonal system of the future," Perle begins his theoretical narrative by first tracing the evolution of tone materials from antiquity to the present day. Starting with the "primitive" pentatonic scale C, D, E, G, A, Perle observes how, if reordered, these tones comprise a segment of the circle of fifths beginning on C, or C, G, D, A, E. Progressing to the seven-tone major scale, Perle notes that this consecutive quintal segmentation is maintained by adding perfect fifths at either end of the pentatonic chain, or *F*, C, G, D, A, E, *B*. Although Perle does not cite Yasser, it is clear that he is familiar with Yasser's theory (or perhaps Yasser's concepts, like Hill's ideas, were arrived at by Perle "without any previous knowledge"). By analogy, the completion of the aggregate follows upon the full revolution of the circle of fifths. Therefore, from this evolutionary history, Perle establishes historical validation for compositional methods, such as twelve-tone serialism, based on diatonic chromaticism:

> In applying myself to the discovery of a twelve-tone mode, it seemed logical to suppose that the interval of a perfect fifth would be the fundamental factor; not simply because it had, in a consecutive series, provided previous scales, but because it is the sole source of our twelve tones. All twelve-tones are therefore rearrangements of the series of fifths. (Perle 1941, 280)

Of course, that the circle of fifths is the "sole source" of the chromatic scale is a statement that can be easily contested. In fact, Perle's various units of interval cycles formulated later in his career tend to refute this remark. In addition to the fifth cycle, the cycle of semitones produces the full chromatic. Furthermore, if one allows for transposition (for which there is no absolute reason why one should not) then the cycles of whole-tones, minor-thirds, major-thirds, and tritones eventually yield all twelve-tones. However, as the basis for a modal theory that Perle views as the most fruitful avenue for future musical development, such preliminary dogma would seem necessary.[11]

Accepting his evolutionary vision regarding fifths, Perle logically extends the role of this interval in the founding of his twelve-tone modes. Initially, if one were to equate the circle of fifths with an extra-motival row, ensuing compositions "would be limited to progressions of the perfect fourth and fifth" since the retrograde and inversion of that series are identical; hence, the composer's situation "would be the most primitive musical condition imaginable" (Perle 1941, 280). Therefore, Perle modifies his approach by combining the two series of the circle of fifths "in space as well as in time"—one ascending in fifths (towards the "sharp" side), the other descending (towards the "flat" side)—, creating the following twenty-four tone hyper-row,

$$(P_0)\quad C\ F\ G\ B^{\flat}\ D\ E^{\flat}\ A\ G^{\sharp}\ E\ C^{\sharp}\ B\ F^{\sharp}\ F^{\sharp}\ B\ C^{\sharp}\ E\ G^{\sharp}\ A\ E^{\flat}\ D\ B^{\flat}\ G\ F\ C,$$

[11]In a modified version of "Evolution of the Tone-Row," Perle's "Symmetrical Adjacency Relationships" features other intervallically cyclic rows, based on semitones and whole tones (Perle 1962, 110–111), than the one dogmatically asserted here based on perfect fifths.

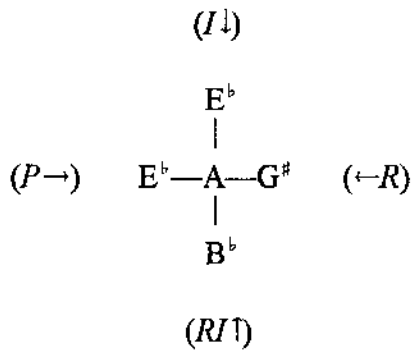
and its inversion,

(I_0) C G F D $B^{\flat}$ A $E^{\flat}$ E $G^{\sharp}$ B $C^{\sharp}$ $F^{\sharp}$ $F^{\sharp}$ $C^{\sharp}$ B $G^{\sharp}$ E $E^{\flat}$ A $B^{\flat}$ D F G C.

One can see that in tracing the circle of fifths in both directions at once in both prime and inversion forms the resultant hyper-rows each comprise two twelve-tone rows, the second the retrograde of the first; or, observed from another perspective, the hyper-row features an internal palindrome with reflective axes at both $F^{\sharp}$ and C. Furthermore, among consecutive dyads of the hyper-rows, Perle notes the presence of all eleven intervals providing the full spectrum of intervallic relationships.

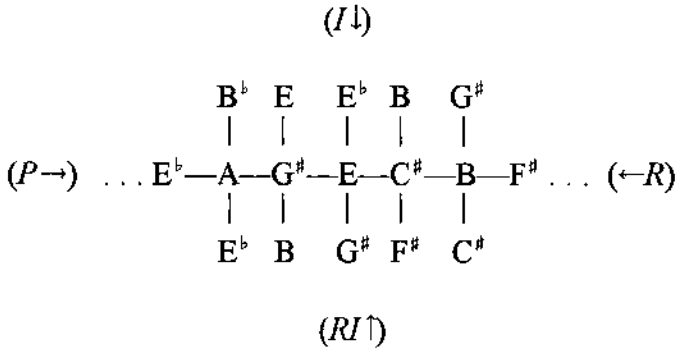
Taking both the prime and inversion forms as this raw material, Perle then applies his concept of the "axis tone" technique in order to arrive at his notion of twelve-tone modality. According to Perle, an axis tone is any note in a series which can pivot to any of the four successive pitches, its "neighbor tones," derived from the prime, retrograde, inversion, and retrograde-inversion forms. In such a collection, the four forms of the row exist simultaneously in the same way that Schoenberg applied these permutations in his "motival" works. For example, from the prime form of the hyper-row above, the pitch A (at order-position 6) has the prime neighbor-tone $G^{\sharp}$ and the retrograde neighbor-tone $E^{\flat}$; in relation to the inversion and retrograde-inversion forms, the pitch A (at order-position 5) has the respective neighbors $E^{\flat}$ and $B^{\flat}$. Thus, collectively, the axis-tone A can be graphically represented (as in Figure 4) with its accompanying neighbor tones:

Fig. 4: Example of George Perle's axis/neighbor-tone complex



If this process where continued to include, for example, the next four tones following A in the prime hyper-row, the interlocking series of axis and neighbor tones could be represented as in Figure 5:

Fig. 5: Sequence of five consecutive axis/neighbor-tone complexes

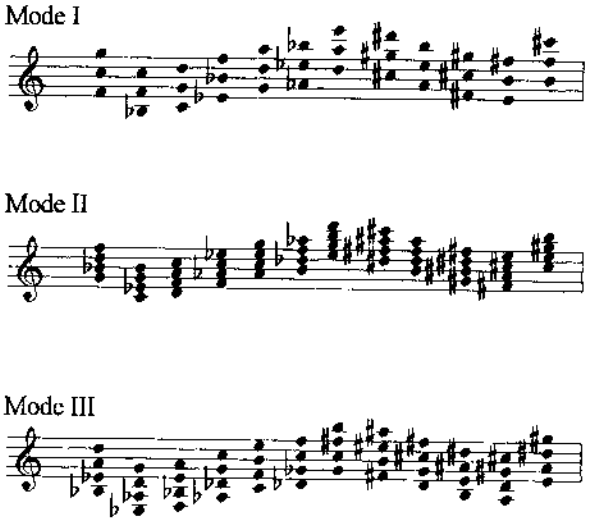


Hence, axis-tone A possesses the neighbor-tones $E^{\flat}$, $G^{\sharp}$, and $B^{\flat}$; axis-tone $G^{\sharp}$, the neighbors A, E, and B; axis-tone E, the neighbors $G^{\sharp}$, $C^{\sharp}$, and $E^{\flat}$, and so on. This process is then consistently applied to all twenty-four tones of Perle's row in the following ways. First, the prime form of the hyper-row (P_0) is held as the source of the axis tones against which

all twelve transpositions of the inversions (I_0, I_1, I_2, . . . I_e) can be plotted to create twelve series of twenty-four collections of neighbor tones. Second, each of the eleven transpositions of the prime form is held fixed while again all transpositions of the inversion are plotted. To this point, 144 axis/neighbor-tone series are generated. Third, steps one and two are repeated with the inversion forms held as the axis-tone generator. Another 144 series are produced creating a total field of 288 series. However, due to a extensive level of redundancy inherent in the symmetrical structure of both prime and inversion forms of the hyper-row, the number of discreet axis/neighbor tone collections reduces from 288 to 36.

Within this reduced collection, Perle observes that only three different series of neighbor-tone complexes exist which he labels as Modes I, II, III. These modes for the transposition or "key" of $CF^{\sharp}$ are listed in Figure 6.

Fig. 6: George Perle's Modes I, II, and III of the key $CF^{\sharp}$

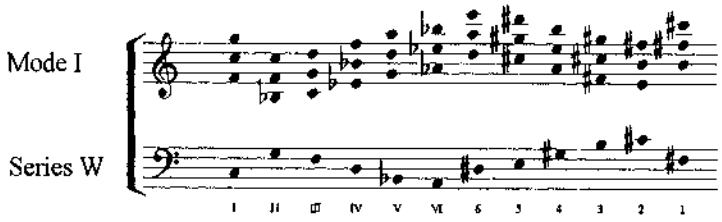


In this CF$^{\sharp}$ transposition, each mode of neighbor tones is generated by four different series of axis tones (what Perle labels as Series W, X, Y, and Z). Hence, the facility of devising chords from this modal system leads Perle to reveal his harmonic method.

> Certain experiments have led me to conclude that in any one modal form each axis-tone will combine with its neighbouring tones to form a chord. The progressions of a chord will depend upon the relationships of its component tones. One of these may serve as an axis-tone for the succeeding chord. Also, since each tone implies its motival (neighbouring) connections at all times, any neighbour of a chord component may serve as the succeeding axis-tone. (Perle 1941, 285)

First, in constructing harmonies, the axis-tone serves as a kind of chord root. In the key CF$^{\sharp}$, the harmonic combination of axis-tone series P_0 (Series W) with neighbor tones of Mode I generates the following chords shown in Figure 7:

Fig. 7: Combination of Mode I with axis-tone Series W (P_0)



Comparing the pitch content of the harmonies, Perle notes that the chords above divide into two palindromic sets separated by tritone transposition (illustrated by the six roman- and arabic-numeral pairs, I–1, II–2, etc.).

Second, from these vertical constructions, the voice-leading and chord-progressional possibilities readily emerge. Any given chord will share at least one identical pitch with that of other chords in the series; therefore, chord progressions are based on common-tone voice leading. For the example above, Perle inventories his chords along this common-tone criteria:

I	may progress to	I, II, III, IV, or V	6	may progress to	2, 4, 5, 6, VI, V, IV, III
II	"	" I, II, III, IV, V, or VI	5	"	" 1, 2, 3, 4, 5, 6, VI, or IV
III	"	" I, II, III, IV, V, or 6	4	"	" 1, 2, 3, 4, 5, 6, VI, or V
IV	"	" I, II, III, IV, V, VI, 6, or 5	3	"	" 1, 2, 3, 4, 5, or VI
V	"	" I, II, III, IV, V, VI, 6, or 4	2	"	" 1, 2, 3, 4, 5, or 6
VI	"	" II, IV, V, VI, 6, 5, 4, or 3	1	"	" 1, 2, 3, 4, or 5

(Perle 1941, 285–286)

Surveying this inventory further, the number of chords which any given chord "may progress to" is not a constant: Chord I has a total of five possible choices for common-tone progression; Chords II and III, a total of six each; and Chords IV, V, and VI, eight each. The same scheme applies for Chords 1–6. Therefore, as Perle explains, a hierarchy of chordal relations exists: for example, "Since Chords One [either I or 1] have the narrowest range, they may eventually acquire the position of finals" (Perle 1941, 286).

Third, in any of the six keys (CF$^{\sharp}$, C$^{\sharp}$G, . . . FB), the twelve combinations of Modes I, II, and III with the W, X, Y, and Z axis-tone series will by their very nature possess common-tone relationships. For example, if in the key of DG$^{\sharp}$, axis-tones Y can combine both with the neighbor tones of Mode II and with the neighbor tones of Mode III: the two sets, IIY and IIIY, will feature therefore the same chord "roots" of axis tones with different neighbor collections; hence, the concept of chord substitution arises much in the way the pitch C may serve as the root of either major, minor, augmented, or diminished triads. The same process applies to the neighbor tones if one were to apply different axis-tone series to the same mode, such as IIX and IIZ in the key of EA$^{\sharp}$. Furthermore, in addition to sharing either the same axis *or* the same neighbor tones, the entire construction of a given chord (*both* axis and neighbor tones) may appear in different keys, in different combinations of Modes I–III with axis-series W–Z. In other words, the concept of the modulatory pivot chord exists in this system as well.

In Hill's explanation of twelve-tone modal theory, the author broadly speculates on the possible modal developments. Although aware of the necessity to reduce the nearly half-billion rows combinations to a handful of functional modes, Hill does not specify or even estimate how many modes are likely to emerge. On the other hand, Perle, in very precise fashion, not only claims the existence of three modes, but also the number of different combinations and transpositions that exist for these modes (36), as well as the one "scale" (the twenty-four note row of alternating fifths) upon which this entire modal system is based. While both Krenek's modally neopolyphonic settings and Hill's theoretical analogy to the Medieval Psalm tones marginalize the influence of common-practice tonality, Perle's twelve-tone modal system seems directed more to a twelve-tone homophony with strong parallels to classical harmonic theory. Speaking two decades later, Perle justifies this emphasis on the harmonic realm as a further refinement of Schoenberg's nebulously-defined vertical manipulations of a row:

> The inadequacy of the verticalization of linear adjacencies as a method of harmonic ordering induced me some years ago to investigate the possibility of a special type of set-structure whose linear adjacencies would appear in some coherent, systematic arrangement, possibly more suggestive of rational harmonic procedures than the haphazard and fortuitous adjacency relationships generated by the general set. (Perle 1962, 109–110)

Aside from any objections one may have of Perle's extra-motival modification of Schoenberg's motival row concept, one can nevertheless appreciate the consistency in the construction and relation of Perle's harmonies; however, both the consistency and simplicity of this theory leads Perle to erroneously suggest that the international adoption of his method is an eventuality with time being the only variable in its widespread acceptance:

> In introducing the twelve-tone modal system, it is not my intention to recommend that it be immediately utilized in composition. Its possibilities must remain hidden until they unfold themselves through necessity. That time will come only when the evolution which lies implicit in the very materials of the twelve-tone technique is recorded in the works of alert creative artists, and can be shown to have progressed to the point where the adoption of the twelve-tone modes is a consistent development.
>
> I do not desire, therefore, to be credited with the "invention" of a scale, but rather with the discovery of one whose existence was already suggested. (Perle 1941, 287)

Here, Perle distances himself from the role of inventor, instead casting his endeavors as those of a kind of twelve-tone neoplatonist who has merely revealed an eternal twelve-tone Idea residing in the metaphysical realm.

And yet, if developments in the last fifty years are any indication, Perle's theory failed to evolve into a universal syntax for other composers. The most obvious reason for this failure lies in the intervallic content of the harmonies themselves: they are too consonant. Of the three neighbor-tone modes which Perle generates, Mode I offers perfect-quintal trichords; Mode II, tetrachords creating what could be described in common-practice terms as minor-minor-seventh chords; and Mode III, quartal tetrachords stacked in the order perfect-fourth–tritone–perfect-fourth. Consequently, the sound of compositions written under Perle's theory would seem to evoke sonorous aspects of turn-of-the-century impressionism.

CHAPTER V

EPILOGUE

As illustrated in the previous chapter, Krenek, Hill, and Perle offered unique models of twelve-tone modality which they viewed as the preliminary unfoldings of a future common-practice. However, the expression of such modal hypotheses did not extend beyond these authors' initial inquiries. Why did these ideas fail to take hold? Two reasons reside in the premises on which neopolyphony was grounded. First, the resurrection of polyphonic textures, forms, and theories was seen as a reaction against the over-secularization of music begun around the late-sixteenth and early-seventeenth centuries. Not only was the lack of a spiritual anchor in musical expression a symptom also arising in the other arts, but this spiritual crisis manifested itself most fully in the decadence of Western civilization. Although spiritual pursuits had by no means fallen into extinction, Western culture throughout the twentieth century has largely remained secularly oriented. Without the corresponding shift of cultural beliefs necessary in restoring the spiritual outlook, neopolyphonic aesthetics would have been regarded as socially irrelevant; consequently, these modal theories, which on a very broad level served a particular agenda of cultural reform, were left unimplemented.

Second, the idea that neopolyphony and the theories stemming from it could renew the progressive nature of musical art was regarded as inherently contradictory. Those composers considering themselves as uncompromising modernists viewed the application of antiquated musical procedures to present issues of compositions entirely antithetical to their

notions of continued evolution. For example, to mid-twentieth-century composers such as Elliott Carter, Milton Babbitt, Roger Sessions, Pierre Boulez, and Karlheinz Stockhausen who were pioneering the great serial frontier, the conservative flavor of Krenek's, Hill's, and Perle's modal systems would have seemed thoroughly banal. Even the founder of dodecaphony himself could not escape criticism on this matter as illustrated in the following sentiments expressed in Boulez's polemical essay, "Schönberg is Dead":

> Paradoxically enough, though Schönberg's work is essentially experimental, it lacks ambition; or if you like we can put it in another way by saying that he pursues his experiments with unyielding ambition, but in terms of an outworn code. As a result of this contradiction our attitude to his music is full of reservations, more or less conscious, more or less intense; yet at the same time we know that his work was necessary. (Boulez 1952, 18)
>
> What, then, was his ambition once the chromatic synthesis had been established by the tone-row, once the *coéfficient de securité* had been adopted? It was to construct works of the same kind as those of the tonal world he had only just abandoned, in which the new technique of composition would prove its possibilities. But, unless some attempt was made to explore the structures specific to twelve-tone composition, how could this new technique yield any satisfactory results? By structure I mean the growth from given material to the form of a composition. On the whole Schönberg was not much preoccupied with the problem of forms that would derive essentially from a twelve-tone basis.
>
> This explains a certain weakness in most of his twelve-tone works. The pre-classical and classical forms ruling most of his compositions were in no way historically connected with the twelve-tone discovery; the result is that a contradiction arises between the forms dictated by tonality and a language of which the laws of organization are still only dimly perceived. It is not only that this language finds no sanction in the forms used by Schönberg, but something more negative: namely, that these forms rule out every possibility of organization implicit in the new material. The two worlds are incompatible, and he has tried to justify one by the other. (Boulez 1952, 20)

If Schoenberg's works, modelled mostly on examples from classical and romantic periods, could not escape such criticism, how could other twelve-tone compositions based on Medieval and Renaissance models have fared any better?

Interestingly enough, as intently concerned as Krenek, Hill, and Perle were in forecasting a twelve-tone common practice, it is surprising that they did not more fully appreciate the remarkably extensive acceptance of Schoenberg's serial techniques. In fact, no other

modern compositional method formulated by the late 1930s and early 1940s (the period of these authors' publications) had attracted more dedicated adherents or even occasional subscribers than Schoenberg's. Not only did Schoenberg directly influence the serial explorations of such composers as Berg, Webern, and Haba (to name just three of his students), but his methods also inspired countless other composers across the globe throughout this century who independently arrived at his serial methods through third-party sources. However, these authors discounted the importance of this vast circulation of Schoenberg's ideas and viewed this condition as only part of the gradual culmination towards a specific, universal twelve-tone style.

This thesis has demonstrated that certain assumptions and speculations voiced by a number of American writers on the music of the early twentieth century collectively comprised the musical movement of neopolyphony: within this analogical context, Arnold Schoenberg's twelve-tone method was incorporated and modified to become one of—if not the most—appropriate means for neopolyphonic expression. As the basis for further research, a number of ideas briefly discussed may themselves be expanded. On the one hand, the systematic, mathematical, and numerologically occult perceptions of dodecaphony could be explored. On the other, each of the three writers of twelve-tone modality discussed in chapter 4 could be explored separately. In addition to his Sixth String Quartet and the *Lamentatio Jeremiae Prophetae*, Ernst Krenek composed a number of other works in the period 1936–1945 which engaged his compositional inquiries of mode. With respect to George Perle, the present paper only reviewed the theoretical side of his modal theory as

articulated in his article of 1941; therefore, analyses of selected works may also provide insights into his application of the axis-tone modes. Aside from the modal speculation offered by Richard S. Hill, his article is undoubtedly one of the first definitive publications on Schoenberg's method in English; consequently, the impact that this paper had on other American theorists and composers besides Krenek and Perle—for example Milton Babbitt and the Princeton serialists of the fifties and sixties—would be a worthwhile investigation. In addition, a comparative study of the works of Ernst Krenek and Arthur Lourie, whom the 1940 edition of *Baker's* described as "devoted . . . chiefly to religious composition, attempting to revive medieval forms through a highly personalized style" (Baker 1940, 682), might be undertaken to show how the latter's compositions (and any theories he may have devised) correspond to or diverge from Krenek's religiously conservative aesthetic. Lastly, on a more literary approach, one might more fully investigate the theme of the musical microcosm vs. the cultural macrocosm as portrayed in Thomas Mann's *Doctor Faustus*. In such a study, one may also wish to include the treatment of this theme in other twentieth-century German novels, for example the monastic isolation of musical thought in the futuristic society of Hermann Hesse's *The Glass Bead Game* (1943).

As Berg appropriated Riemann in his portrayal of Schoenberg, for my concluding remarks I will follow Berg's example and similarly paraphrase a passage from Arthur O. Lovejoy's study in the history of ideas, *The Great Chain of Being*:

> The history of the [twelve-tone idea]—in so far as this idea presupposed for many a complete rational intelligibility of the [atonal] world—is the history of a failure; more precisely and more justly, it is the record of various experiments in musical thought carried on for several decades by many great and lesser minds, which can now be seen to have had an instructive positive outcome. These

> experiments, taken as a whole, constitute one of the most grandiose enterprises of [twentieth-century musical theory]. But as the technical consequences of this most persistent and most comprehensive method became more and more explicit, the more fruitful became its [compositional possibilities]. (Lovejoy 1936, 329)

And so in reviewing this small segment in the reception of Schoenberg's twelve-tone method, perhaps one may learn to more fully appreciate the meaningful, albeit unintendedly mistaken perception of the blind man, who tracing the form of his guide's arm, exclaims "Now I know how looks milk!"

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