Oxford History of Western Music: Richard Taruskin

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Oxford History of Western Music: Richard Taruskin

Preface

Chapter: MUSIC IN THE LATE TWENTIETH CENTURY
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Many believe that all history is about the present, in that our present dilemmas are what impel our interest in the past. I would not necessarily go that far. I see no need to insist that no one studies the past—especially the remote past—for its own sake. When I lived to perform medieval and Renaissance music, I was not conscious of any ulterior purpose (other than wealth, fame and power). But when my interests began to turn toward the more recent past, I was very much aware that I was motivated by my discontent with the present and my wish to understand its sources as a first step toward amelioration.

If one accepts the premise that the more recent the past, the less disinterested our curiosity about it, then one has an additional explanation for a phenomenon with which all teachers of music history must contend. At the front end of the narrative, everyone seems to teach the same material, but by the time one reaches the twentieth century, and particularly the later twentieth century, one has to cut one's own swath through the jungle, and no two treatments of the period ever duplicate one another's choice of topics or examples. This situation is usually attributed to the increasing, eventually bewildering, abundance of sources as one moves through time or to the relative stability of consensus about the early phases. But, in fact, consensus has been significantly destabilized in recent years, even for the early periods, and noting the proliferation of sources does nothing to account for the swath one has chosen to cut through them.

The theme governing this volume's coverage is the cold war and its as yet insufficiently acknowledged (not to say tendentiously minimized) impact on the arts. The cold war was a period of political and cultural polarization—a polarization that is all too readily apparent in terms of musical style, but one that is rarely explained in any way other than by appealing to what Leonard B. Meyer called "fluctuating stasis" or "delight in diversity." Yet even as pluralism took hold, significant evolution continued, and the late-twentieth-century diversity was not generally experienced as delightful. No period was ever more contentious, be it the late nineteenth century, with its Brahms versus Wagner brawling, or the early twentieth, with its Schoenberg–Stravinsky rows. The contention has by no means abated even now, which turns any attempt to treat the last fifty years of music history into a polemic or at the very least something that will attract polemical responses. The reception of *The Oxford History*, following its original (2005) publication in six volumes, is sufficient evidence of that.

Among the factors that made for contention was the emphasis—the willfully exaggerated emphasis, in the eyes of British and Western European reviewers—on events in America and their musical repercussions. I, of course, acknowledge the obvious prominence of matters American in this account, but it is hardly exaggerated. The United States unquestionably inherited musical leadership during this period from Europe—at first by default, as a gift from Adolf Hitler, thanks to whom Schoenberg, Stravinsky, Bartók, Hindemith, Krenek, Korngold, Milhaud, and many others had, by 1945, joined Rachmaninoff, Varese, and Bloch in America, many of them remaining and becoming citizens. The conditions that stimulated the rise of the postwar European avant-garde were largely created by the Office of Military Government, United States (OMGUS), the American occupying force that, for one particularly telling example, financed and at first administered the Darmstädter Ferienkurse, at which total serialism, European-style, was born—in far more direct response to Soviet arts policy than has ever been publicly admitted. Thereafter, it was the music of the American avant-garde, chiefly represented by John Cage and Morton Feldman, and enthusiastically propagated by lavishly subsidized West German radio stations (which, in the words of Björn Heile, "competed for prestige but not for resources"), that set the tone for European experimentation. (This unprecedented, much vaunted public support for avant-garde music lasted, of course, only—and exactly—as long as the cold war; it came to an abrupt end with German reunification.) Still later, minimalism became the first style of literate music making originating in America to have the same transformative impact on European musicians

that earlier European innovations had previously had on Americans, especially those studying abroad. Even here, there was a significant postwar cross-current, with many European composers coming to the United States for training as well as employment. The main impetus, moreover, for the countervailing trends toward eclecticism, postmodernism, and rapprochement with commercial genres came likewise from the United States, having originated in American youth culture and the social turbulence of the 1960s, which spread from America to Europe rather than the other way round. My emphases have been predictably ascribed to chauvinism by Europeans, but I am sooner inclined to see chauvinism in their resistance, for their accusations have not been accompanied by rebuttals or counterexamples.

American leadership in directions musicians in the West have regarded as progressive (and therefore worthy of claiming by others) is offset, of course, by Soviet leadership in directions the same musicians tend to stigmatize as reactionary. But the very use of such terminology is the best proof that esthetic judgments during the period of the cold war had been tacitly politicized. It is one of the missions of the present account to make that politicization explicit, to force it into consciousness as a necessary prelude to exorcism. That the national protagonists of this account should, in fact, turn out to be the postwar superpowers, rather than the older musical leader nations left fatigued and impoverished at war's end, only confirms the truer correspondence of this account to historical realities.

Thus, the present account is offered not in a spirit of contention, but rather one of corrective. That, of course, is the most contentious claim of all.

R. T.

November 2008

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Oxford History of Western Music: Richard Taruskin

CHAPTER 1 Starting from Scratch

Music in the Aftermath of World War II: Zhdanovshchina, Darmstadt

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

A NEW AGE

"*I can't go on. I'll go on.*"

—Samuel Beckett, *The Unnamable* (1953)

The Second World War ended with a bang the likes of which the world had never seen. The atomic bombs dropped by the United States Army Air Forces on the Japanese cities of Hiroshima and Nagasaki in August 1945 instantly reduced them to rubble. Between them they ended some 114,000 lives in seconds. Those who justified the bombing cited the far greater number of casualties that would have inevitably followed upon an Allied invasion of the Japanese home islands; those who condemned it held that balancing military casualties against civilian ones was a barbarian calculation that wiped out the moral superiority of the Allied cause.

What everyone had to recognize, and somehow cope with, was the fact that the history of humanity had entered a new and potentially terminal phase. People living in the atomic age could no longer believe in the permanence of anything human. Individual human lives and destinies were irrevocably marked as fragile, and as expendable. Living with the constant threat of annihilation was the war's lasting legacy. It cast a long shadow over the second half of the twentieth century. It was that period's dominant fact of life. No aspect of human existence or activity could possibly escape its impact.

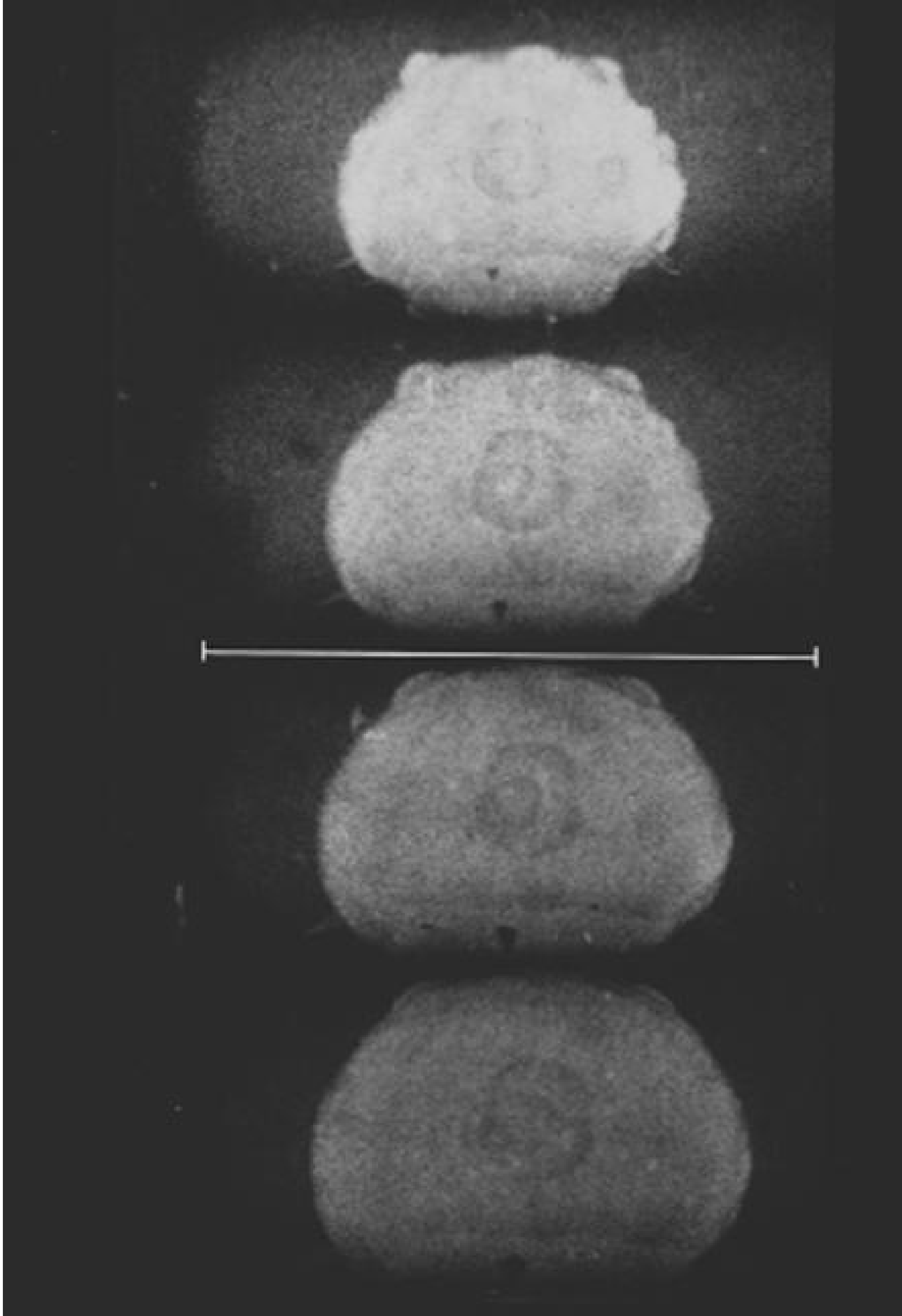

fig. 1-1 Nuclear bomb test, three weeks before the bomb was dropped.

The nervous strain of mid-twentieth-century existence in the shadow of the bomb is perhaps best summarized in the harsh but highly influential philosophy of existentialism put forth by Jean-Paul Sartre (1905–80) and other French writers in the aftermath of the war, according to which man's freedom is a curse from which there can no longer be any refuge in faith. Cut adrift from all moral certainty in an amoral and indifferent universe, man is nevertheless morally responsible; but one's choices, however dreadful (like the decision to drop the bomb), can be justified only on the basis of one's voluntary, fallible, and constantly threatened personal principles, principles in which one can have no a priori faith. We have no choice but to choose.

One can never invoke external legal or ethical standards that absolve oneself from the onus of personal

responsibility (as many who served the Nazis tried to do). One cannot look to others for validation, for they, too, are fallible and corruptible. Only by shouldering the risks of choice can one hope (against hope) to achieve *essence*: authentic, rather than merely contingent, being. A pitiless and puritanical philosophy, it offered some small comfort in the face of perceived helplessness, but only at the price of all moral security and easy pleasure. No wonder, as the title of the psychoanalyst Erich Fromm's best-selling existentialist primer proclaimed, people sought “Escape from Freedom.”

These shattering perceptions and the ensuing malaise were somewhat delayed, especially on the victorious side, by the immediate exhilaration of triumph. The triumph, moreover, was of a novel character. For it was not force of arms per se that finally decided the outcome of the war in the Pacific; it was superior technology. Science had won the war and saved mankind from the fascist threat. J. Robert Oppenheimer (1904–67), the American physicist who directed the atomic energy research project at Los Alamos, New Mexico, where over the years 1942–45 the bombs that would vanquish Japan were designed and produced, was widely regarded as a war hero, and thereafter as a culture-hero. His later political disgrace, over issues of national security, fairly epitomizes the neurotic suspicions that eventually came to the fore as the ghastly price of victory was realized; but in the immediate postwar period, science and technology enjoyed an unprecedented prestige.

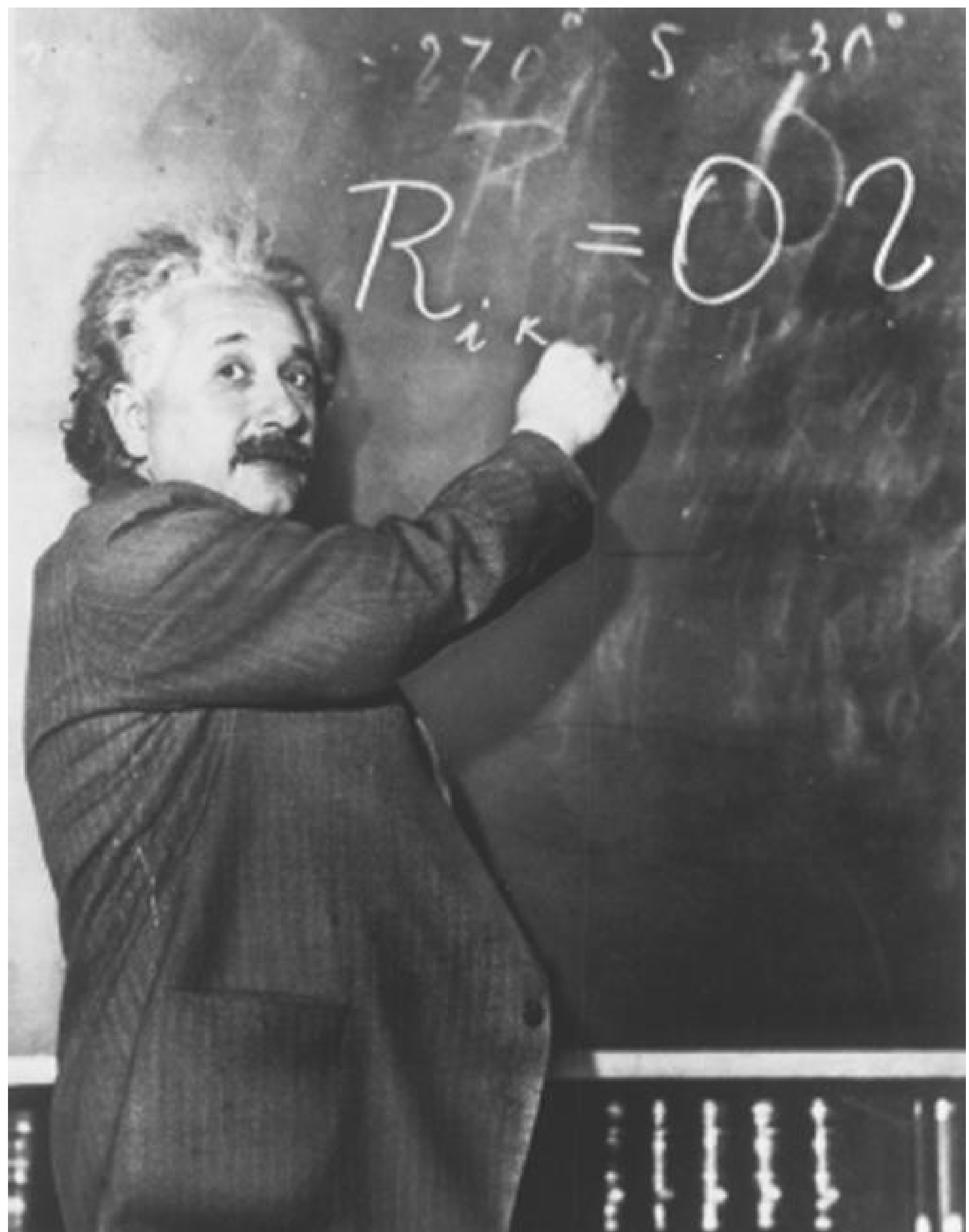

fig. 1-2 Albert Einstein.

That prestige was symbolized by the figure of Albert Einstein (1879–1955), the outstanding German physicist whose presence in the United States as a refugee from the Nazis was seen as indirectly responsible for the Allied victory, since it was his letter to President Roosevelt that first brought the military potential of atomic power to the attention of the government. Einstein became a household name, synonymous with intellect, and his grand-fatherly, bushy-haired, walrus-mustached countenance became a household icon. His status, and that of science itself, was symbolized and enhanced by the folk saying, “In all the world only twelve men understand Einstein.” The reconditeness of “advanced” modern science was taken as an implicit proof of its value; the winning of the war on the basis of arcane formulas like $E = mc^2$ (which also, in its way, became a folk saying) was more tangible proof.

The contradictory or “dialectical” themes broached in these introductory paragraphs—triumph vs. insecurity, responsibility vs. escape, science-as-savior vs. science-as-destroyer, esotericism vs. utility, intellect vs. barbarism, faith in progress vs. omnibus suspicion—will be the cantus firmi of the next several chapters, along with the all-pervading image of rubble and waste, and the paralyzing (or inspiring) prospect of rebuilding. All of the bizarre and contradictory musical events and phenomena to be recounted must be understood as counterpoints against these intractable and irresolvable dilemmas that unbalanced the world's mind.

A foretaste of the ambivalences to come can be read in the story of Aaron Copland's Third Symphony. Written between the summer of 1944, right after the American landing in Normandy (“D day”), and the summer of 1946, it was the Great American Symphony to end all great American symphonies. Third Symphonies by American composers had always inclined Beethovenishly toward the “heroic”; in Copland's case that tendency (already heightened, perhaps, by his rivalry with Roy Harris) was abetted by the mood of euphoria that accompanied the end of the war.

That mood is embodied in hymns and fanfares. The scherzo (second movement) is based on a marchlike idea Copland discarded on the way to the *Fanfare for the Common Man*, his 1942 contribution to wartime morale; and the finale is based on the *Fanfare* itself, developed in the coda into a grandiose peroration (Ex. 1-1) that some commentators have compared with the climax of the “Ode to Joy” in Beethoven's Ninth. A huge orchestra with triple and quadruple winds, augmented by a piano, two harps, and a clangorous percussion section manned by six players, reaches full tilt with a sudden halving of the tempo in every way comparable to the climax that capped the first movement of *Copland's Music for the Theater* some twenty years before—in every way, that is, except context. For whereas the earlier climax had scandalized the Boston Symphony audience by evoking a sexy bump-and-grind, the new one brought the very same audience to its feet at the premiere (under Serge Koussevitzky, Copland's longstanding patron) on 18 October 1946. One critic immediately ranked it with Harris's Third as “the two finest works in the form by American composers.”[1] Koussevitzky himself broke the tie by flatly declaring Copland's symphony the greatest.[2] Virgil Thomson showed his envy in a mixed review titled, somewhat sardonically, “Copland as Great Man.”[3]

Twice as slow, in 4
Twice as slow, in 4

ex. 1-1 Aaron Copland, Symphony no. 3, IV climax (original version)

But something festered beneath the praise. Copland's composer friends were uncomfortable with the overly triumphant tone, or became so as the euphoric mood of 1946 gave way to a somewhat hung-over sobriety in 1947 (the year in which Sartre's *L'existentialisme* was published in English translation). Leonard Bernstein (1918–90), Koussevitzky's main conducting protégé, led the European premiere at the World Youth Festival in Prague on 25 May 1947; two days later he wrote to Copland, “Sweetie, the end is a sin.”[4] Arthur Berger (1912–2003), another fellow composer, who was also Copland's first biographer, complained in a 1948 review of the finale's “pomp and overstatement.”[5] Bernstein wrote again, from the newborn state of Israel in November 1948, to say that he now thought the work “quite magnificent,” but then confessed that he had “made a sizable cut near the end and believe me it makes a whale of a difference.”[6]

In fact he had taken out the first eight measures of Ex. 1-1. Copland was at first as miffed by Bernstein's “nervy”[7] deed as one might have expected. “Being a careful and slow worker,” he told an interviewer, “I rarely felt it necessary to revise a composition after it was finished, and even more rarely after it was published.” But amazingly enough, he went on to say that “I came to agree with Lenny and several others about the advisability of shortening the ending,” and had the publisher remove the offending passage from subsequent printings of the score; it has never been recorded commercially. Even in its toned-down form, the finale is an effective memento of its euphoric time; but the squeamishness that so swiftly forced revision (little noticed or commented on at the time, since the publisher never announced the change and the small first printing was quickly sold out) is perhaps a more significant token.

By the end of 1946, victors' euphoria had given way to mutual suspicion among the erstwhile Allies. The United States and Soviet Russia, united during the war by a common enemy, now saw their foreign policies diverge irreparably into antagonism. The Soviet Union, which had suffered betrayal and invasion in 1941, and sustained heavy losses in the war (as many as twenty million lives), had insisted at the Yalta Conference, held shortly before the German surrender, and the Potsdam Conference shortly afterward, on a buffer of friendly states (that is, Communist-dominated governments) along the length of its European frontiers.

The compromise reached at the conferences fell short of these demands, and the Soviets felt justified in sealing off the areas of the former German Reich that were occupied by the Red Army, and fomenting coups d'état in other Eastern European countries. As early as March 1946, less than seven months after the war's end, former British Prime Minister Winston Churchill could speak, in a speech delivered in the United States, of an “Iron Curtain” that had descended over Europe dividing East from West. The coining of this famous phrase was a defining moment. The Cold War had begun.

Notes:

(1) Cyrus Durgin, *Boston Daily Globe*, 19 October 1946, quoted in Howard Pollack, *Aaron Copland*, p. 417.

(2) *Time* magazine, 28 October 1946; quoted in Aaron Copland and Vivian Perlis, *Copland since 1943* (New York: St. Martin's Press, 1989), p. 68.

(3) *New York Herald Tribune*, 24 November 1946; this is one of the few Thomson reviews that was never collected for publication in book form.

(4) Leonard Bernstein to Aaron Copland, 27 May 1947; reproduced in facsimile in *Copland since 1943*, p. 70.

(5) Arthur Berger, “The Third Symphony of Aaron Copland,” *Tempo*, no. 9 (Autumn 1948): 25.

(6) Bernstein to Copland, 8 November 1948; quoted in *Copland since 1943*, p. 71.

(7) *Copland since 1943*, p. 71.

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COLD WAR

Chapter: CHAPTER 1 Starting from Scratch
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Author(s): Richard Taruskin

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fig. 1-3 Cold War military alignments.

The Cold War, which lasted at full terrifying strength at least until the early 1970s, and remained a major factor in Euro-American foreign policy and internal politics until the collapse of the Soviet Union in 1991, was a period of intense political and ideological rivalry between the United States and its European allies, on the one hand, and the Soviet Union and its "satellites," on the other. After the Soviets successfully tested an atom bomb of their own in 1949, the Cold War constantly threatened to erupt into an actual military engagement with the potential to destroy civilization. In a widely used phrase of the time, the world was permanently poised on "the brink of World War III." It was widely assumed in "the West" that the Soviets had been aided toward their scientific achievement by espionage, some of it carried on not by the Soviets themselves but by Westerners under Communist discipline. (Some, indeed, were detected: in the United States Julius and Ethel Rosenberg were convicted and executed for passing "atomic secrets"; in Great Britain, Guy Burgess and Kim Philby were exposed but escaped to the USSR.) Political suspicion, directed not only at the potential enemy, but at fellow citizens, now became a fact of life in East and West alike.

The same year that the Soviets exploded their atomic bomb, "the West" collectively adopted and implemented the policy of "containment"[8] (so named after a famous memo by the American diplomat George F. Kennan). To check any further Soviet expansionist efforts in Europe the North Atlantic Treaty Organization (NATO) was established, the members of which were pledged to consider an armed attack on any one of them an attack against them all. Despite its name, the North Atlantic Treaty's guarantee of mutual defense extended far beyond the North Atlantic. Its signatories included Italy and Denmark, countries without an Atlantic seacoast, and (after 1952) Greece and Turkey as well (where Communist coups had nearly succeeded in the Cold War's early days).

Needless to say, the Soviet Union regarded the formation of NATO as an act of aggression and countered with the Warsaw Pact, a mutual defense treaty signed in 1955 by the USSR and the countries that by then formed the "Soviet bloc" of buffer states: Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and the German Democratic Republic or "East Germany," namely the part of Germany that had been assigned to the Soviet Army of occupation at Yalta, and that Stalin refused to give up when the rest of Germany was united under a demilitarized government called the Federal Republic of Germany.

Naturally, "West Germany" was admitted, in retaliation, to NATO, thus putting the border between East and West right in the middle of the old common foe. A decade after the war, all of Europe and North America was a virtual armed camp—or rather, two hostile armed camps, each with the power of "mutual assured destruction" (MAD) against the other. Local conflicts—over the political status of Berlin, over a border clash in divided Korea that was interpreted by NATO as a Soviet-inspired invasion, over the political status of newly independent states in Africa—were all magnified into superpower confrontations that threatened world destruction.

The mutual threat of annihilation, it was widely agreed, was the only effective deterrent against deployment of thermonuclear weapons, and so the United States and the Soviet Union became embroiled in an economically draining and psychologically intolerable arms race, stockpiling weapons of mass destruction that now included hydrogen bombs with many times the annihilative power of the bombs dropped on Japan. When a 1959 revolution in Cuba put that island neighbor of the United States in the Soviet camp, tensions reached their peak. The "Cuban missile crisis" of October 1962, brought on when a Soviet missile base was detected in Cuba (installed as a countermeasure to NATO installations in Turkey), was the closest the "nuclear superpowers" actually came to the well-named MAD-point.

Notes:

(8) George F. Kennan, "The Sources of Soviet Conduct," *Foreign Affairs*, July 1947 (originally signed "X," this memo is now widely known as "The 'X' Article").

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DENUNCIATION AND CONTRITION

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Amid the kind of chronic anxiety to which Cold War tensions gave rise, triumphant rhetoric in the arts took on an air of saber-rattling, producing not euphoria but heightened apprehension. It was to the beginnings of that mood that Copland's critics, and eventually the composer himself, were surely reacting when he allowed himself to be persuaded to tone down the end of his Third Symphony. The effects of incipient Cold War anxieties were felt much more directly by artists in the Soviet Union, the surviving (and spreading) totalitarian state, where the government saw the regulation of all society as its proper responsibility.

The war itself (known in Russia as the “Great Patriotic War of 1941–1945”) had, paradoxically enough, been a period of relatively free expression in the Soviet Union. The early and easy victories of Hitler's armies in White Russia and the Ukraine, where the local populations often greeted the invaders as liberators, had frightened Stalin into a relaxation of censorship and political repressions in an effort to regain the good will of intellectuals and mobilize them for war propaganda. Dmitry Shostakovich's Seventh Symphony, dedicated to the city of Leningrad, with a first movement that graphically portrayed the fascist invasion and its heroic repulsion, had been microfilmed and sent via Tehran and Cairo to America, where it was broadcast by Toscanini and the NBC Symphony in the summer of 1942 in a frenzy of media publicity.

Shostakovich became the recipient of high state honors. His Eighth Symphony (1943), a monumental work without program, but unquestionably grim, was received with equal fervor and praise, even though its implied “dramaturgy” was far from the sort of optimistic, “life-affirming” declaration normally demanded by the doctrine of socialist realism. It was accepted on the basis of its “truthful” reflection of the horrors and losses of war, as were some ponderous works of Sergey Prokofieff, like his Seventh (1942) and Eighth (1944) Sonatas for piano, and his Sixth Symphony, in the dark key of E-flat minor, composed immediately after the war and first performed on 25 December 1947.

Full Stalinist controls were reimposed, and with a vengeance, as the Cold War gathered impetus. Responsibility for taming the arts was delegated to Andrey Zhdanov, the old theorist of socialist realism. Now the Leningrad Party leader and a full member of the ruling Politburo, Zhdanov was one of the main architects of the Soviet Union's paranoically anti-Western postwar foreign policy, and the chief organizer of the Cominform (Communist Information Bureau), the successor to the Comintern (dissolved by Stalin in 1943 in a gesture to the wartime Allies) as the central agency that managed and coordinated the activities of communist parties abroad. Next to Stalin himself, Zhdanov was the most powerful politician in the growing Communist world.

Working through the creative unions managed by the Ministry of Culture, Zhdanov convened a series of extraordinary conferences at the headquarters of the Central Committee of the Soviet Communist Party. They amounted to political hearings at which charges were brought against deviant artists in the fields of literature

(1946), film (1947), and finally music. The conference on music opened on 10 January 1948. The immediate pretext was discussion of the shortcomings of an opera, *Velikaya druzhba* ("The great friendship"), by Vano Muradeli (1908–70), a minor composer of Georgian birth, which was accused both of historical inaccuracies in its portrayal of events connected with the Russian Revolution, and of an excessively modernistic musical style that rendered it inaccessible to nonprofessional audiences.

Over the next three days, however, the designated scapegoat was forgotten as twenty-seven musical figures took the floor in a frightening ritual of denunciation and contrition. The chief targets were the so-called "Big Four" of Soviet music: Prokofieff, Shostakovich, Nikolai Myaskovsky (a prolific composer of symphonies), and Aram Ilyich Khachaturian (1903–78), a composer of Armenian heritage and Georgian birth, famous in the West for some colorful concertos and a ballet suite containing a rousing "Sabre Dance" that had become a jukebox hit. All were charged with "formalism," a vague term with a checkered history, defined in a post-1948 Soviet music encyclopedia as "an esthetic conception proceeding from an affirmation of the self-sufficiency of form in art, and its independence from ideological or pictorial content."[9] In practice it was code for elite modernism, something that the doctrine of socialist realism expressly forbade.

Shostakovich, who had already been singled out for political attack in 1936, received the roughest treatment. Vladimir Zakharov, the director of the leading Russian professional ensemble for folk song and dance, rose on the first day to render judgment on behalf of "the people." Never mind *The Great Friendship*, he told the assembled musicians and political functionaries:

> That's not the point. Muradeli's opera is actually one of the more intelligible pieces. But if you look at our symphonic music, you'll see that some big names have gradually arisen among us, very famous both here and abroad. But I must say that the works of these composers are altogether alien and unintelligible to our Soviet people. Debate continues among us about whether Shostakovich's Eighth Symphony is good or bad. In my opinion, the question is meaningless. I reckon that from the people's point of view the Eighth Symphony is not a musical work at all, but a "work" that has nothing whatever to do with the art of music.[10]

As Zakharov's remarks continued, they led into even more sinister terrain. "We read in the papers about the heroic deeds that are being accomplished by the workers in our factories, on our collective farms, and so forth," he reminded his listeners. "Ask these people whether they really like the Eighth or Ninth Symphonies of Shostakovich." And after thus insinuating that Shostakovich, in his "formalism," was an "enemy of the people," the most dangerous of all Soviet epithets, Zakharov went on to impugn his loyalty to the Soviet state:

> Several of these composers think that they enjoy success abroad, or even that they are taken there to represent the highest achievements of Soviet musical culture. But let's take a look at the question. Let's say that, for example, the Eighth, the Ninth or the Seventh Symphonies of Shostakovich are looked upon abroad as works of genius. But who, exactly, is looking upon them? There are lots of persons living abroad. Besides the reactionaries whom we struggle against, besides the bandits, the imperialists, and so on, there are also the people. It would be interesting to know with whom these compositions are having such success. With the people? I can answer that wholly categorically: no, it cannot be.

After hearing all these calumnies, after being branded alien to the people but congenial to reactionaries, bandits, and imperialists, Shostakovich was obliged to mount the podium and express his thanks for the constructive critique he had received. "In my work I have had many failures," he admitted to the meeting,

> even though, throughout my career, I have always thought of the people, of my listeners, of those who reared me; and I always strive that the people should accept my music. I have always listened to criticism, and have always tried to work harder and better. I am listening to criticism now, and shall

continue to listen to it and shall accept critical instructions.[11]

Since his death, Shostakovich's friends have disclosed that in the aftermath of the “Zhdanov flap” (*Zhdanovshchina*), as it became popularly known, the composer had contemplated suicide. To many observers, however, particularly those abroad, the most dreadful humiliation was not Shostakovich's; it was Prokofieff's. For Prokofieff, unlike any other major Soviet composer, was a former émigré. He had had a brilliant cosmopolitan career and had many friends in the West who esteemed his talent and achievements, and who had assumed (as Prokofieff himself must have assumed) that his international reputation would insulate him from bureaucratic meddling. The presumption that he was promised immunity is the only way to make sense of Prokofieff's decision to return home in 1936, the very year in which Shostakovich was disgraced and threatened for the first time, thus the year that ushered in the most draconian period in Soviet arts policy.

Even at that, Prokofieff's powers of denial were impressive. In 1939, for example, the famous director Vsevolod Meyerhold, who had already collaborated indirectly with the composer on the opera *The Love for Three Oranges*, disappeared (that is, was arrested and condemned) just as he and Prokofieff were working intensively on the staging of *Semyon Kotko*, Prokofieff's first Soviet opera. Yet Prokofieff was untouched, just as he had not been mentioned in the attacks on Shostakovich, and his opera's production proceeded on schedule (albeit with big disfiguring changes in the libretto made necessary by the infamous Hitler-Stalin pact). Crazy as it seems in retrospect, Prokofieff had read good omens in all of these events. The Zhdanovshchina took him completely by surprise.

But now, less than three weeks after the brilliant premiere of his Sixth Symphony, Prokofieff heard himself denounced at the headquarters of the Communist Party's Central Committee as a composer “who has even now not yet outgrown the childish dogma of innovation for the sake of innovation, who still practices artistic snobbism, who still suffers from a mistaken fear of the commonplace or ordinary.” As for the Sixth Symphony, “it was quaint to hear the way one Prokofieff struggled with another in it: the penchant for broad melody and vivid thematic development is constantly interrupted and overthrown by the crude, unprovoked intrusion of the nasty, antisocial Prokofieff.”[12] In particular, Prokofieff was faulted for spurning the resources of folklore—not only an unpatriotic move, but one bound to lessen the accessibility of his music to ordinary listeners.

Prokofieff, too, was obliged to make a public recantation and express his thanks to the Party for its “precise directives,” which “will help me in my search of a musical language accessible and natural to our people, worthy of our people and of our great country.”[13] Owing to his greater age and his precarious health, he was spared the ignominy of a personal appearance before his judges. Instead, he wrote (or at least signed) a letter that was published as a response to the “Resolution on Music” that the Communist Party issued on 10 February 1948.

This Resolution decreed that Soviet composers henceforth favor vocal music over instrumental; program music over “absolute”; shun the use of modernistic techniques that shut out nonprofessional listeners; make liberal use of folklore; and actually emulate the styles of the great Russian composers of the nineteenth century. Never before, not even in Nazi Germany, were composers ever enjoined so literally to isolate themselves from the rest of the musical world and turn back the stylistic clock. But style was not the main issue. The Resolution's demands, especially for concrete musical “content” embodied in texts and programs, were at bottom an attempt to render musical compositions more easily censorable.

The Zhdanovite directives were quickly disseminated to the “fraternal republics” that were forming in Eastern Europe. The Resolution was paraphrased, if anything in even stronger terms, in a proclamation drafted in German by Hanns Eisler at the Second International Congress of Composers and Music Critics, held in Prague in May 1948, three months after the Communist coup d'état in Czechoslovakia. The crisis in “the music and the musical life of our times” it was there declared, can only be overcome if composers renounce “bourgeois individualism” once and for all, so that “their music becomes the expression of the great new progressive ideas and feelings of the masses.”[14]

Works by the Soviet Big Four, not to mention countless lesser fry in all the countries of the burgeoning Soviet empire, that were not considered to be in conformity with the Resolution (and that meant most of them) were banned from performance. Many composers suffered reprisals. Shostakovich, ever the main scapegoat, was fired from his post as professor of composition at the Moscow Conservatory. All were required to make propitiatory offerings. Shostakovich's included an oratorio, *Pesn' o lesakh* ("Song of the forests," 1949), and a cantata, *Nad rodinoy nashey solntse siyayet* ("The sun shines over our motherland," 1952), both to texts by the poet Yevgeniy Dolmatovsky (1915–94), a dependable Party hack who was best known for writing lyrics for "mass" (propaganda) songs.

Both works feature a children's chorus, as do two of Prokofieff's offerings, a suite called *Zimniy kostyor* ("Winter bonfire," 1949–50) and an oratorio called *Na strazhe mira* ("On guard for peace," 1950), both to texts by Samuil Marshak (1887–1964), a poet and translator best known for his children's verse. Prokofieff's last symphony, the posthumously performed Seventh (1952), a work in which he expressly simplified his style to a point that privately embarrassed him as "childish," won a government prize that formally rehabilitated his name, but only after an even more "optimistic" ending (fast and jolly instead of dreamy and nostalgic) had been demanded and supplied.

The Soviet music of what might be called the post-Zhdanov half-decade, lasting from the 1948 Resolution until the death of Stalin (the same day as Prokofieff's) in 1953, is the work of gifted and extremely well trained composers. Much of it is highly palatable stuff that compares favorably with the 50- to 100-year-old Russian "classics" it forcibly imitated. But of course when one knows its actual date, and the fear and trembling that stood behind its folksy pleasantries and its smooth or stirring platitudes, it can turn quite indigestible. As always, inevitably, subtexts of a kind not intended either by the composers or by those who compelled their output have grown into the works over the course of their histories.

But their immediate and intended subtext, now grown faint perhaps, is no less historically significant. The emphasis on childhood themes—themes of reassurance, innocence, and calm bright futures—is clearly a response to the same anxieties of the early Cold War that we have so far examined mainly from the "Western" side. In Russia, too, the triumphant mood of the immediate postwar moment had modulated into one of insecurity. Where in 1945 Prokofieff could compose an "Ode to the End of the War" for wind band (including six flute and six trumpet parts), four pianos, eight harps, four saxophones, and augmented percussion (and Khachaturian could outdo him with a *Simfoniya-Poàma* for orchestra, organ, and twenty-three obbligato trombones), his oratorio of 1950 included a Lullaby for a solo mezzo-soprano who croons to her child (and to the country at large), "Sleep, don't be afraid, your life and quiet home are guarded by a great friend who lives above us all in the Kremlin." Shostakovich, for his part, had shown a squeamishness about "Ninth Symphony" rhetoric even earlier than Aaron Copland did. At the end of the war he was up to his own Symphony no. 9, but found he could not bring himself, after Hiroshima, to compose the glorious choral symphony, replete with personal praise of Stalin, that many were awaiting from him.

Instead, his cold feet sent him in the opposite direction: his Ninth Symphony is for the most part a slight and whimsical opus in the spirit, the composer suggested, of Haydn. It became another point against him at the Zhdanov conference.

The mood of calm and comfort that Shostakovich and Prokofieff were now seeking, at the Party's behest, to communicate was not so far, ironically enough, from that of Shostakovich's unexpectedly good-humored and diverting Ninth. Yet not everybody was consoled. Prokofieff's former colleagues in the West were appalled. As we know from letters and memoirs, composers like Francis Poulenc and Arthur Honegger, who had known Prokofieff in Paris, were dismayed at his mistreatment and disillusioned with the society for the sake of which he had forsaken them, and which until then had continued despite everything to be for many idealists a beacon of hope. Stravinsky, who was under no illusions where Soviet totalitarianism was concerned, was nevertheless shocked out of his complacency about "benevolent despotisms." The former admirer of Mussolini, now living in

Hollywood, remarked to a friend about the Europeans, “As far as I am concerned, they can have their Marshals and Fuehrers; leave me Mr. Truman and I'm quite satisfied.”[15]

Notes:

(9) “Formalizm,” in *Muzïkal'naya èntsiklopediya*, ed. Yuriy M. Keldïsh, Vol. V (Moscow: Sovetskaya Entsiklopediya, 1981), col. 907.

(10) Quoted in Alexander Werth, *Musical Uproar in Moscow* (London: Turnstile Press, 1949), pp. 53–54.

(11) *Musical Uproar in Moscow*, p. 86.

(12) Victor Aronovich Belïy, quoted in *Musical Uproar in Moscow*, p. 72.

(13) Quoted in Nicolas Slonimsky, *Music since 1900* (4th ed.; New York: Scribners, 1971), p. 1374.

(14) “Declaration of the Second International Congress of Composers and Musicologists in Prague, 29 May 1948,” quoted in Slonimsky, *Music since 1900*, p. 1378.

(15) Quoted in Nicolas Nabokov, “1949: Christmas with Stravinsky,” in *Stravinsky: A Merle Armitage Book*, ed. Edwin Corle (New York: Duell, Sloan and Pierce, 1949), p. 143.

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Oxford History of Western Music: Richard Taruskin

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BREAKING RANKS

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

One of the most poignant reactions was that of the German composer Stefan Wolpe (1902–72). An ardent Communist in "Weimar" Berlin, he followed the example of Hanns Eisler in renouncing his elite training for the sake of political activism, conducting choruses at demonstrations and rallies, and composing militant mass songs (*Kampflieder*) and revolutionary cantatas and oratorios. He first became famous in 1931 as the composer of the incidental score for *Die Mausefalle* ("The mousetrap"), the maiden production of Die Truppe 31, a workers' theater collective led by the director Gustav von Wangenheim. It was scored for a shoestring cabaret "jazz" ensemble of trumpet, saxophone, piano, and percussion. Wolpe was actively promoted as an activist composer by the Comintern. His *Kampflied* "Ours Is the Future" (also known as *Rote Soldaten* or "Red Soldiers") appeared in the New York Composers Collective's *Workers Song Book No. 2* and many other Communist publications of the 1930s.

When Hitler came to power in 1933, Wolpe fled to Vienna, where he took some lessons in orchestration from Webern. In 1934 he went to Jerusalem to head the theory and composition faculty at the newly founded Palestine Conservatory. But Wolpe's continued, flamboyant commitment to leftist politics (flaunting red bandanas and preaching revolution to his pupils) cost him his job there and helped precipitate his move, in 1938, to the United States, where he was no longer in demand as a revolutionary. Instead, he carried on as a much sought-after private composition teacher. His works, too, grew more "private" and abstract (although they still often embodied tacit political programs).

After the war, Wolpe's retreat into abstraction continued, now in response to the suspicion with which left-leaning artists were held in America with the coming of the Cold War, but also in response to something else. Wolpe was painfully disillusioned by the postwar political crackdown in the Soviet Union and horrified by the persecution and humiliation of Prokofieff. In a sense his disillusion only confirmed and intensified his commitment to political and artistic avant-gardism; but the status quo he now opposed encompassed all entrenched power, which, he now saw, was by definition reactionary and intolerant of difference.

And so when he went back on a visit to his native Berlin, now the capital of "East Germany," in 1957, Wolpe found himself unable to comply with an invitation from his old collaborator Wangenheim (now a decorated state-subsidized artist) to play over his old Kampflieder. In the postwar context such music no longer seemed to represent protest, but instead political hegemony and repression. And so, feigning forgetfulness, he played his host instead a recording of his two-movement Quartet (1950) for trumpet, saxophone, piano, and drums, and was met with incomprehension.

Although the performing ensemble was the very same as the combo that used to accompany the Truppe 31 plays, which made the Quartet to that extent nostalgic, the musical content was altogether different. The jazz it now echoed was be-bop, a postwar New York elite or "avant-garde" style that many jazz lovers found as incomprehensible as their "classical" counterparts found twelve-tone music. And sure enough, the Quartet, like most of the music Wolpe had written in America (and would continue to write until his death) was composed using a modified twelve-tone technique, formerly the bête noire of all socially committed musicians.

Whether the lively second movement of Wolpe's Quartet (Ex. 1-2) was composed with a specific program in mind is open to question. Wolpe gave it two different story lines in conversation with different interviewers. On one occasion he said that it had been inspired by Henri Cartier-Bresson's famous photograph of children playing amid the rubble of the Spanish Civil War, a famous metaphor of optimism in the face of political catastrophe. On another, he said that it celebrated the victory of the Chinese Communists in 1949 over the regime of Chiang Kai-shek (and that the grim first movement memorialized Mao Tse-tung's famous Long March, an equally potent symbol of resolution in the face of privation).

Either or both stories could be true, and there is no reason to doubt the sincerity of the composer's inspiration. But the music no longer communicates with the directness of a Kampflied. A listener would be hard pressed to paraphrase its “message,” or guess its precise motivation, with any confidence. But if it thus frustrated willing listeners, it also frustrated would-be censors, and that may well have been the point. The hermeticism of Wolpe's postwar—or rather, Cold War—music was a deliberate and demonstrative refusal to comply with the directives of the Zhdanovshchina. And yet, the question nags, how did an artist with Wolpe's social conscience feel about a decision, however honestly arrived at, to insulate his artistic integrity within a music that eventually became so abstract that its content would be a riddle, its style so advanced that few except fellow musicians could take pleasure in it, and so demanding of its performers that almost no one could play it?

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Serialism

Anton Webern

ZERO HOUR

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

ex. 1-2 Stefan Wolpe, Quartet (1950), II, mm. 1–5

The tension and frustration inherent in Wolpe's position was characteristic of the time, and contributed to many a strange turn of events that could never have been predicted before the war's end. The most noteworthy was the unexpected resurgence of twelve-tone composition—or “serialism,” to use the postwar term—from what many considered to be a moribund, sectarian status into something that began to look like stylistic dominance among “serious” composers in Western Europe and America. (The word *serious*, now widely recognized as an invidious standard and an enforcer of conformity, is nevertheless the word to use in this context, for it was the word then used: it derived from German usage, in which the distinction between “classical” and “popular” music was couched as one between *ernste Musik* or “E-Musik”—that is, “serious music”—and *Unterhaltungsmusik* or “U-Musik,” meaning “entertainment music.”) For such a thing to happen, a complex and remarkable convergence of circumstances and personalities was required.

Perhaps the best place to begin surveying it would be with a book that appeared in Paris in 1946, bearing a most un-Parisian message. *Schönberg et son école: L'état contemporaine du langage musical* (*Schoenberg and His School: The Contemporary Stage of the Language of Music*), by René Leibowitz (1913–72), was the first extended treatment on the work of the Viennese atonalists to appear in a language other than German, and the first anywhere since the rise of Nazism. The author was a Polish-born musician—equally active and significant as composer, conductor, and teacher—who had lived in Paris since 1929 but claimed to have studied in the early 1930s with Schoenberg in Berlin and Webern in Vienna. He spent the war years hiding from the Nazis in unoccupied (Vichy) France. A widely admired figure, he had many pupils who went on to important careers.

Schönberg et son école was a militant reprise of the neo-Hegelian position first asserted ninety years before by the historian-spokesmen of the New German School. The subtitle already said it all, simply in the way it used the definite article. *The* language of music is a universal language that has undergone a single historical development, of which *the* most advanced contemporary stage is perforce *the* only historically valid and viable language at any given time. That stage, as of 1946, was the stage reached by the Schoenberg school; any music not at that level of historical evolution was of no historical account and consequently of no serious interest. As Leibowitz put it at the very outset, twelve-tone serial music was “the only genuine and inevitable expression of the musical art of our time.” Indeed, unless one has recognized this basic fact, he went so far as to allege, one had no right to call oneself a composer at all.

> If the activity of composing or making music is carried on with the intention of solving those profound problems which have confronted the consciousness of the individual, that individual has a chance to become a composer, a true musician. In the case of the composer, this sudden consciousness comes at the moment when, in the work of a contemporary musician, he discovers what seems to him to be the language of his epoch, the language which he himself wants to speak. Up to that point, he may have assimilated, in more or less accurate fashion, the language of the past; he may have believed that he has profited from certain excursions into a style which seems to him to furnish fresh possibilities. But his real consciousness of *being a composer* cannot be foursquare and unshakable until some master of our time brings him the assurance, the irrefutable evidence of the necessity and authenticity of his personal language.[16]

Aaron Copland, asked to review Leibowitz's book on its publication in English translation in 1949, was shocked at its “dogmatic” and “fanatical”[17] tone; indeed, the authoritarian subtext is palpable, and in stark contradiction to the lip service the text paid (in good existentialist fashion) to the responsible “individual.” Phrases like “master of our time” had disquieting resonances, to put it mildly, in a world just rid of Hitler, and one where Stalin's ascendancy was still encroaching. And yet the book's message was heard and widely obeyed—even by Copland, who only a year later, and against his own expectations, began sketching his first twelve-tone composition (see chapter 3 for details). Clearly, it was not just Leibowitz's authoritarianism that invested his words with authority.

There was also the fact that in territories under Nazi control, the work of Schoenberg and his school had been banned. That gave it not only the aura of forbidden fruit, but something more as well. Twelve-tone music became a symbol of resistance (embodied, too, in Leibowitz's wartime activities, which included the making of a clandestine recording of Schoenberg's Wind Quintet, an early twelve-tone piece), and, by extension, a symbol of creative freedom. As it happened, this last perception was based on a historical error: Schoenberg's music was banned by the Nazis because it was “Jewish,” not because it was twelve-tone. In fact, there had been an officially tolerated Nazi school of twelve-tone composers; nor were all twelve-tone composers anti-Nazi. But factual accuracy is never the decisive factor in the creation of a legend.

Serial music was also viewed by many as a symbol of incorruptible purity, precisely because it was (to use the Soviet term) so “formalist.” Because it seemed to deal only with “purely musical” relationships of structure rather than with “extramusical” considerations of expression, it was a music that seemed incapable of being commandeered for purposes of propaganda. Its only political stand seemed to be the rejection of politics and the affirmation of the right of the individual to turn away from the coercive public sphere. What Theodor Wiesengrund Adorno called its “dialectics of loneliness”[18] made twelve-tone music seem an embodiment of Sartre's existentialism.

Adorno made his famous remark in *Philosophie der neuen Musik* (“Philosophy of new music”), a book he published in 1949, shortly after returning to Germany from his wartime exile in the United States. This book, which added an existentialist argument to the older doctrine of progress, proved even more influential than Leibowitz's. If, as the existentialists argued, authenticity can only be personal and justified from within, never collectively asserted or justified from without, then a music that by virtue of its difficulty shunned popularity had to be a more authentic music than one that potentially spoke for the many. Responding only to what Adorno called “the inherent tendency of musical material”[19] rather to any call from the wider world, twelve-tone music seemed to embody a perfect artistic “autonomy.” That autonomy easily translated into personal and political autonomy—that is, individual integrity—in the minds of many who were emerging from decades of oppression, an oppression that was still going on in the East.

There was a telling difference between Adorno's idea of musical value and Leibowitz's. Adorno's ideal of “autonomy” clearly owed a lot to romanticism and its glorification of subjective feeling. He regarded the autonomy of Schoenberg's twelve-tone music as a sublimation of the composer's earlier Expressionism; that is why, despite its abstractness, it remained for Adorno the most humane of all contemporary musics. For Leibowitz, his sincere reverence for Schoenberg notwithstanding, the culmination was Webern. Indeed, his book was for most readers their first exposure to the work of a composer who during his lifetime had remained an obscure and esoteric name, and whose music was still, much of it, unpublished.

Leibowitz emphasized Webern's radicalism and his purity. Obviously, he had no idea (and neither did anyone else at the time) of Webern's actual political sympathies, which would have sorely disconcerted him and undermined his argument. Nor was he (or anyone else at the time) inclined to reflect on the relationship between radical artistic purisms and their political cousins. He was content to celebrate Webern's “projection of the Schoenbergian acquisitions into the future,” which made him “the incarnation of the most radical side of Schoenberg,”[20] implying the rejection of what remained conservative in Schoenberg's outlook (particularly the useless “subjective” component). According to Leibowitz, Webern alone understood that the proper task of a composer was to “attack the most fundamental and radical problems of the evolution of music.” To understand Webern is to understand “the *necessity* of such purity,” and the “necessity of carrying an experience so far”[21] that it cannot be carried further. It is on Webern, Leibowitz argued, that hopes of a “great renewal” of music must be pinned, although “it is evident that such a renewal cannot take place without a violent reaction.” The words are chilling; substitute politics for music, and they might have been written by Joseph Goebbels, Hitler's Minister of Propaganda.

But they chimed ideally with the dislocated, amnesiac mood of the times, particularly in Germany and the other

parts of Western Europe, like Leibowitz's northern France, that had been occupied by the Nazis. Those who looked to the future in the defeated parts of Europe saw the present as a *Stunde Null*, a "zero hour," meaning a time without a past. The necessity to start from scratch, to reject the past in its totality as something tainted if not actually destroyed in the Holocaust of World War II, was a watchword. "During those immediate postwar years," wrote Hans Werner Henze (b. 1926), a leading German composer then just beginning his career,

> no one believed how it could have been possible for a nation to have sunk so low—into a disgrace that centuries could not wash clean. We were assured by senior composers that music is abstract, not to be connected with everyday life, and that immeasurable and inalienable values are lodged in it (which is precisely why the Nazis censored those modern works which strove to achieve absolute freedom)....
>
> Everything now had to be stylized and made abstract: music regarded as a glass-bead-game, a fossil of life. Discipline was the order of the day. Through discipline it was going to be possible to get music back on its feet again, though nobody asked what for. Discipline enabled form to come about; there were rules and parameters for everything. Expressionism and Surrealism were mystically remote; we were told that these movements were already obsolete before 1930, and had been surpassed. The new avant-garde would reaffirm this. The audience, at whom our music was supposed to be directed, would be made up of experts. The public would be excused from attending our concerts; in other words, our public would be the press and our protectors.[22]

Thus the "Webern cult" became the musical expression of an anxious age. "We realized," wrote Henze, "that dodecaphony and serialism were the only viable new techniques: fresh, and able to generate new musical patterns"[23] without recalling the dead disgraceful past. Willed amnesia, however, is not quite the same as amnesty, which implies contrition and forgiveness. It can be a dangerous game: it offers solace, but it can also offer cover. And repressed memory, not only psychoanalysts but countless playwrights and novelists have warned, is the breeding ground of phobias.

Notes:

(16) René Leibowitz, *Schoenberg and His School*, trans. Dika Newlin (New York: Philosophical Library, 1949), p. x.

(17) *New York Times Book Review*, 27 November 1949; quoted in Anne C. Shreffler, "Who Killed Neo-Classicism: The Paradigm Shift after 1945," paper read at the Sixty-second Annual Meeting of the American Musicological Society, Baltimore, 8 November 1996.

(18) Theodor W. Adorno, *Philosophy of Modern Music*, trans. Anne G. Mitchell and Wesley V. Blomster (New York: Seabury Press, 1973), pp. 41–46.

(19) *Philosophy of Modern Music*, pp. 32–37.

(20) Leibowitz, *Schoenberg and His School*, pp. 210–25.

(21) *Ibid.*, p. 211.

(22) "German Music in the 1940s and 1950s," in Hans Werner Henze, *Music and Politics: Collected Writings 1953–81*, trans. Peter Labanyi (Ithaca: Cornell University Press, 1982), p. 40.

(23) *Ibid.*, p. 36.

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See also from Grove Music Online
Pierre Boulez

Béla Bartók

POLARIZATION

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

All of this can be seen in the ultimate statement of the *Stunde Null* position: "Schoenberg est mort" ("Schoenberg is dead"), a manifesto published in February 1952, seven months after Schoenberg's death, by Pierre Boulez (b. 1925), a young French composer who had studied officially with Messiaen, and with Leibowitz on the side. The violence that Leibowitz had predicted certainly came to the fore in Boulez's frantically coercive and intolerant rhetoric. No one who has read the article has ever forgotten its frightening climax, expanded in a somewhat later squib into a battle cry: "Since the Viennese discoveries, any musician who has not experienced—I do not say understood, but truly experienced—the necessity of the dodecaphonic language is USELESS. For his entire work brings him up short of the needs of his time."[24]

Not even Zhdanov had ever voiced a judgment more categorical or intransigent (and indeed it is obvious that Boulez's rhetorical model was the Communist journalism of his day). There were Nazi resonances as well. Herbert Eimert (1897–1972), a once-persecuted member of the first generation of atonalists, declared a few years later, in response to a frequent complaint, that "if we say that only composers who follow Webern are worthy of the name, it is no new 'totalitarian order' but a simple statement of fact." Nazi race theory, too, had once been a simple fact by similar decree. In any event, it was clear that, conventional "esthetic" opinion notwithstanding, musicians were not going to be exempt from the world's dire postwar polarization; on the contrary, like everyone else they were to be participants in it and contributors to it.

The most vivid early symptom of musical polarization was the fierce postwar controversy about Bartók, who had died in New York in September 1945, only a month after the end of the war. Over the next few years, Bartók's legacy, like Europe itself, was ruthlessly partitioned into Eastern and Western zones. In his native Hungary, as in the rest of the Soviet bloc, those of his works in which folklorism seemed to predominate over modernism were touted by the cultural politicians as obligatory models and the rest were banned from public performance or broadcast. Since Bartók's modernist peak came in the middle of his career, he became (for one often joked-about example) the composer of two quartets, the First and the Sixth.

The Western avant-garde, meanwhile, made virtual fetishes out of the banned works, particularly the Fourth Quartet, which some critics, including Leibowitz, tried to read as proto-serial. The rest they rancorously consigned to the dustbin of history, sometimes in very sinister terms, as when Leibowitz (writing in *Les temps modernes*, a journal edited by Jean-Paul Sartre himself) attacked Bartók in 1947 for having "compromised" himself during the war with stylistically accessible pieces like the popular *Concerto for Orchestra*.[25] That was the undisguised language of political denunciation, a cruel insult to Bartók's principled antifascist commitment and the bitter sacrifices it had entailed.

Bartók's alleged moral failure was held against him in exactly the way that "passive collaborators" with the Nazis were blamed in the wake of the so-called Nuremberg trials. "The very fact that our purity or compromise in matters of composition depend only on our choice implies that it is our duty to create the one and avoid the

other," wrote Leibowitz.[26] Bartók, looking for social approval rather than facing his lonely historical obligation, had not met this challenge, his stern posthumous accuser now asserted, very much in the spirit of the new existentialism.

But the most shocking provocation (and the most potent) remained Boulez's. For the violence that Leibowitz had somewhat smugly foreseen in the form of reaction had instead taken the form of a slander addressed to the new revolution's very figurehead. There was logic in the position: if all the past had to be rejected, then Schoenberg had to be rejected too. (Had he not advertised himself as an upholder of the great tradition?) But Boulez exaggerated the difference between Schoenberg and Webern into one of kind rather than degree, and this gave him a pretext to dismiss Leibowitz along with Schoenberg and displace him as the leader of the young serialists. Danton had given way to Robespierre.

"Schoenberg is open to bitter reproach for his exploration of the dodecaphonic realm," Boulez alleged, "for it went off in the wrong direction so persistently that it would be hard to find an equally mistaken perspective in the entire history of music."[27] The great mistake had been the effort to reconcile the new means of tonal organization with traditional "classic" forms and traditional "expressive" rhetoric: "all those endless anticipations with expressive accent on the harmony note, those fake appoggiaturas, those arpeggios, tremolandos and note repetitions that sound so terribly hollow."[28] Thus Schoenberg was lumped together with the other neoclassicists of the interwar period as a practitioner of what Adorno called the "*gemässigte Moderne*," or "moderate modernism,"[29] and tainted with the dishonor of the "moderate liberals" who could not stave off the rise of Nazism. It was Webern who pointed the way, in works like his Symphony and his Piano Variations to actual "serial structures" based on "serial functions." Forgetting Schoenberg, Boulez advised,

> we might, like this Webern, investigate the musical *evidence* arising from the attempt at generating structure from material. Perhaps we might enlarge the serial domain with intervals other than the semitone: micro-intervals, irregular intervals, noises. Perhaps we might generalize the serial principle to the four constituents of sound: pitch, duration, dynamics/attack, and timbre. Perhaps…perhaps…[30]

Notes:

(24) Pierre Boulez, "Eventuellement…," in *Stock-takings from an Apprenticeship*, trans. (as "Possibly…") by Stephen Walsh (Oxford: Clarendon Press, 1991), p. 113.

(25) René Leibowitz, "Béla Bartók ou la possibilité de compromis dans la musique contemporaine," *Temps modernes* III (1947–48): 705–34; trans. Michael Dixon, as "Béla Bartók, or the Possibility of Compromise in Twentieth-Century Music," *Transitions 1948* (Paris) no. 3 (1948): 92–122.

(26) Leibowitz, "Bartók," *Transitions 1948*, no. 3, p. 120.

(27) Boulez, "Schoenberg Is Dead," in *Stocktakings from an Apprenticeship*, p. 211.

(28) *Ibid.*, p. 213

(29) Adorno, "Das Altern der neuen Musik" (1954), trans. Susan H. Gillespie (as "The Aging of the New Music"), in T. W. Adorno, ed., *Essays on Music*, Richard H. Leppert (Berkeley and Los Angeles: University of California Press, 2002), pp. 197–98.

(30) "Schoenberg Is Dead," p. 214.

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Darmstadt

Darmstadt School

DARMSTADT

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Although Boulez cast them all as hypotheticals, some of the new extensions of serialism he was proposing had already been put into practice by 1952, both by Boulez himself and by some of the other musicians who had been meeting every summer at a unique institution that had been set up in 1946 in Darmstadt, a town located in the state of Hessen in central Germany, which is to say in the American zone of occupation. These International Summer Courses for New Music (*Internationale Ferienkurse für Neue Musik*) were founded by Wolfgang Steinecke (1910–61), a music critic, and Wolfgang Fortner (1907–87), a composer, first with the permission, later with the active financial backing of the United States military government as channeled through Everett Helm (1913–99), an American composer and musicologist who held the position of chief music officer with the Theater and Music Branch of the American Military Government. (Fortner, who had been active and successful throughout the Nazi period but was now an ardent "post-Schoenbergian," was perhaps the most conspicuous of those seeking cover in the "zero hour" myth.) The courses had two main goals: first, to propagate American political and cultural values as part of the general Allied effort to reeducate the German population in preparation for the establishment of democratic institutions; and second, to provide a meeting place where musicians from the former fascist or fascist-occupied areas of Europe — chiefly Germany/Austria, France, and Italy — might further their musical reeducation through exposure to (and instruction in) styles and techniques that had been prohibited or otherwise silenced during the fascist years. The first of these aims was mainly that of the American backers. The Summer Courses, in their earliest phase, have been compared with the Congress for Cultural Freedom, an anti-Communist organization headed by the composer Nicolas Nabokov, which was secretly funded by the United States government's Central Intelligence Agency as an instrument of American foreign policy. (The difference was that the source of the Summer Courses' financial support was never a secret.) The second aim, more insularly professional, was primarily that of the Germans. Each took advantage of the other's interests — a classic case of mutual "co-option." During the first few years, the American presence was strongly pronounced at the "Darmstadt school" (as the Courses quickly became known). Lectures by American musicians were frequent, as were those by Germans who had fled to America such as Leo Schrade, a famous musicologist who, though primarily a medievalist, spoke at Darmstadt about Charles Ives, and Stefan Wolpe, whose leftist commitments had been muted in the wake of the Zhdanovshchina. Music by Ives, Harris, Copland, Walter Piston, Wallingford Riegger, and other "Americanist" composers were performed at Darmstadt, as was the music of Paul Hindemith, who had become an American citizen.

During the first session, in 1946, Henze conducted a performance of Brecht and Hindemith's *Lehrstück vom Einverständnis* ("Lesson in Acquiescence"), a work that had been banned under Hitler for political rather than stylistic reasons. The fact that Hindemith's music was not all that different, stylistically, from the music played under Hitler eventually made it seem superfluous at Darmstadt. It did not further the politically important purposes of the "zero hour" myth. But the most decisive change of course came after (and as a result of) the Zhdanovshchina, news of which was followed at Darmstadt with horrified fascination.

fig. 1-4 Pierre Boulez, Bruno Maderna, and Karlheinz Stockhausen at Darmstadt, 1956.

The urgent wish, especially after 1949 when administration of the courses passed from the American occupying force to the new West German government, was to provide the musicians of the avant-garde with a protected space free from all social or political pressures ("avant-garde" now being defined entirely in esthetic rather than political terms—in other words, no more Brecht!). It became imperative, in short, to foster at Darmstadt, in the name of creative freedom, exactly that which was subject to repression in the Soviet bloc. And that made, as if in obedience to some Newtonian law of culture, for equal and opposite repressions.

Henze has left a vivid recollection of Darmstadt in 1955 that well captures the grim irony whereby the very thing most feared was reproduced. The dominating presences by then were three young composers who had first come in 1951–1952. One was Boulez; the others were Karlheinz Stockhausen (1928–2008), a German who had moved to Paris early in 1952 to study with Messiaen, and Bruno Maderna (1920–73), an Italian composer and conductor who had originally come as a member of the paid faculty, teaching conducting and analysis in addition to composition. In 1955, the composition class was taught by Henze, Maderna, and Boulez. "Things had become pretty absurd," Henze recalled:

> Boulez, who saw himself as the supreme authority, was sitting at the piano, flanked by Maderna and myself —we must have looked like reluctant assistant judges at a trial, as young composers brought their pieces forward for opinion. Anything that wasn't Webernian, he brusquely dismissed: "If it isn't written in the style of Webern it's of no interest."

> My antipathy was directed not against Webern's music, but against the misuse and misinterpretation of his aesthetic and, indeed, of his technique and its motivation and significance. Thanks to the initiative of Boulez and Stockhausen this had become institutionalized as official musical thinking, whose maxims the body of lesser mortals now had to put into practice with religious devotion, *esprit de corps* and slavish obedience…. There was constant talk of law and order. Just imagine: it was being bureaucratically determined how people should compose, in which style and according to which criteria.[31]

It was an irony that was being played out in all walks of life during the early cold war. (Just to cite the most obvious example, it was paranoiac antagonism to expanding Soviet totalitarianism that led to the most serious breaches of democratic process in the United States during the so-called “McCarthy” period, named after Senator Joseph McCarthy, who in pursuit of traitors led aggressive and destructive investigations into the lives of many innocent Americans.) But this particular irony, while revealing, is far from all-explaining. Some investigation of the actual music produced at or for Darmstadt during the years 1949–54 will show another irony: its considerable actual distance from Webern, whose meticulous control over his materials was now systematically sacrificed in the interests of something more urgent that Webern, in his prewar or wartime world, never thought to seek. Identifying and assessing this discrepancy will shed the sharpest light on the world the war's survivors inherited.

Notes:

(31) Henze, “German Music in the 1940s and 1950s,” p. 43.

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Oxford History of Western Music: Richard Taruskin

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Olivier Messiaen

Messiaen: Musical elements

FIXATIONS

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

The earliest actual piece of music that can be securely identified as belonging to the "Darmstadt school" was not by any of the composers recalled by Henze, nor was it even a twelve-tone piece. It was a work for piano by Messiaen called *Mode de valeurs et d'intensités* (roughly, "Scheme of note values and dynamics"), which he composed (or began composing) during the summer of 1949 while engaged as an instructor at the Summer Courses. Published the next year as the second in a set of four *Études de rhythme*, it is in fact a study in "hypostatization," the total determination ("fixing") of a limited assemblage of sonic elements or events. This idea had a direct precedent in Webern, who in his Symphony, his String Quartet, and his Piano Variations had experimented with the fixed assignment of particular pitches to particular registers. As his title suggests, Messiaen thrust this principle of fixed assignment into three additional domains.

This piece uses a scheme of 36 pitches, 24 note values, 12 attacks, and 7 dynamic levels. It is written entirely according to the scheme.

Attacks: 1 2 3 4 5 6 7 8 9 10 11

(with the neutral, unsigned attack, this makes 12.)

Dynamics: *ppp* 1 *pp* 2 *p* 3 *mf* 4 *f* 5 *ff* 6 *fff* 7

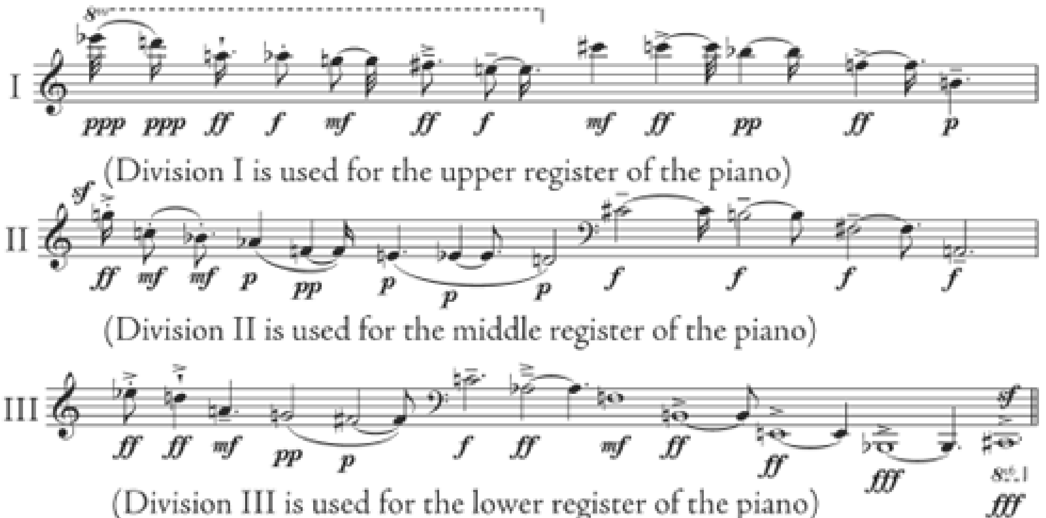
Tones: The scheme comprises 3 Divisions, or melodic groupings of 12 tones, each extending through several octaves, with overlaps. Tones of the same name differ in pitch, duration and loudness.

Division I: chromatic degrees from 1 to 12 (| | | | etc.)

Division II: chromatic degrees from 1 to 12 (| | | | etc.)

Division III: chromatic degrees from 1 to 12 (| | | | etc.)

Here is the scheme:



ex. 1-3 Olivier Messiaen, *Mode de valeurs et d'intensités*, prefatory table

The material out of which Messiaen assembled the composition consisted of thirty-six different notes, each characterized by a unique combination of pitch, duration, loudness, and attack. They are all systematically catalogued in a table (Ex. 1-3) that precedes the score. The thirty-six pitches are laid out in three overlapping registral domains (or "divisions," as Messiaen calls them) containing all twelve notes of the chromatic scale, each represented once. In the score, of which the first page is given in Ex. 1-4, each division has a staff to itself. No pitch appears in the same register in more than one division. Within each division, a given pitch is assigned a duration from another set of three overlapping "divisions." The first consists of all the durations between a thirty-second note and a dotted quarter (= twelve thirty-seconds), laid out in thirty-second-note increments: a sort of "chromatic scale" of thirty-seconds. The second division doubles everything: a chromatic scale of

sixteenths, from one to twelve (= a dotted half); and the third doubles everything again: a chromatic scale of eighths, from one to twelve (= a dotted whole note).

ex. 1-4 Olivier Messiaen, *Mode de valeurs et d'intensités*, mm. 1–10

Within each domain there is thus a fixed correspondence between pitch and duration, and a systematic lengthening of durations as pitches descend. The highest note in the piece is also the shortest, and the lowest the longest. In addition, each note is assigned a mode of attack from an arbitrary list of twelve (the number corresponding again with the number of elements in the chromatic scale) and a loudness from an incremental list of seven. Thus every “pitch-class” (or “note-name,” e.g. A, B♭, B, etc.) is represented in three different registers, each time with a different duration, loudness, and mode of attack. But since no combination of pitch, duration, loudness, and attack ever recurs within the scheme, every note is a completely discrete element. No

special significance attaches to octave equivalency; the texture is utterly "atomized." The only notes that recur in melodic conjunction are the ones that come under slurs (the first two in Division I; nos. 2–3, 4–5 and 6–8 in Division II; nos. 4–5 in Division III). To be fastidiously exact, then, the number of "elements" in the piece is thirty: twenty-five single notes, four two-note groups, and one three-note group.

ex. 1-5 Olivier Messiaen's scheme reduced to a single succession (after R. S.Johnson)

The music consists of a ceaseless "counterpointing" of elements drawn from the stringently limited menu just described, individual hypostatized objects in seemingly fortuitous relationships. Stockhausen called it "a mosaic of sound." Calling it a sonic "mobile" might come even closer to its effect. Some sense of overall progression emerges from the general tendency of all three domains to descend and slow down; the thundering low C♯ at the end of Division III comes three times and seems to divide the piece into three sections, the last time (in the words of the critic Paul Griffiths) effectively "stopping the music in its tracks."[32] (Not much of a surprise, really; ending a piece with a long loud low note is not exactly unheard of.) Different registers, regardless of "division," have characteristic attack and loudness features as well, as may be seen in Ex. 1-5, a summary devised by the pianist and Messiaen scholar Robert Sherlaw Johnson, in which the complete array of "particles" is laid out in a single succession. Finally, the middle staff, with its three slurred groups, possesses in consequence a certain amount of "motivic consistency," so that despite the arbitrariness of its constituent elements and its atomized texture, the music never sounds entirely random.

Still, one may fairly wonder why Messiaen would have wished to court an impression of randomness; or (perhaps more to the point) why one would wish to plan such an apparently haphazard outcome in such meticulous detail. (Even when the three staves line up on a plain old diminished triad, as happens in m. 56, it's just a "happening," and more likely to be spotted by eye than by ear; see Ex. 1-6.) In the case of Messiaen himself, answers are probably to be sought in his religious philosophy, in which the incomprehensible results of unknowable plans can symbolize the relationship of man and God.

ex. 1-6 Olivier Messiaen, *Mode de valeurs et d'intensités*, mm. 54–56

Arcane structures, reminiscent of medieval speculations in sound, were an old story with Messiaen. They conveyed the "charm of impossibilities" — sublime truths that we may apprehend only with our minds, not our senses. Shortly after composing the *Mode de valeurs et d'intensités*, Messiaen wrote an organ piece called "Soixantequatre durées" ("Sixty-four durations," the seventh and last item in his *Livre d'orgue* or Organ Book); its title refers to a "chromatic" series of note values, increasing from one thirty-second all the way to a breve (or "double whole note"), which makes the divisions in *Mode de valeurs* seem like child's play. Is a listener expected to distinguish a duration of 57 thirty-seconds from one of 56 or 58? Or is all the elaborate rational calculation a "theological" ploy to boggle (yet somehow comfort) the mind?

But *Mode de valeurs et d'intensités* was special in its obsession with the number twelve; and that made it a sign of the times. As laid out in the preliminary table, the three pitch "divisions" looked like tone rows, even though in practice they were unordered rather than ordered sets. Moreover, by conceiving the durations as "chromatic scales," and mapping them onto the pitches in a one-to-one relationship, Messiaen seemed (or could seem) to be doing something about that perceived gap between serial pitch structure and garden-variety "classical" rhythm that so bothered his pupil Boulez.

Notes:

(32) Paul Griffiths, *Olivier Messiaen and the Music of Time* (Ithaca: Cornell University Press, 1985), p. 151.

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Serialism

Pierre Boulez

Boulez: Compositional style

"TOTAL SERIALISM"

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

That is how the Darmstadt "class of 1951" chose to interpret Messiaen's purpose, at any rate, when he played them his recording of the piece. Boulez in particular found the work inspiring, not only for the way in which it seemed to integrate "the four constituents of sound" as he listed them (surely under the influence of Messiaen's "divisions") in "Schoenberg Is Dead," but also for the way in which the whole piece arose out of a set of axioms, or what Messiaen scholar Peter Hill called its "fantastically detailed set of a priori rules."[33] It promised a new utopia: "total" or "integral" serialism.

All one had to do was introduce strict serial ordering into the four Messiaenic domains. And that is just what Boulez did in *Structures* for two pianos (1951). He paid tribute to Messiaen's example, and declared his intention to realize explicitly what Messiaen had been content merely to imply, by adopting the pitch succession of Division I in *Mode de valeurs* as an actual tone row in *Structures*, turning what had been for Messiaen a quarry of "stones" for a mosaic into a rigorously ordered pitch and intervallic sequence. Next, Messiaen's twelve chromatically graded durations were likewise put in a definite and rigorously maintained order, derived from the pitch order but operating independently. The method of derivation is what mathematicians call "mapping," that is, a system of one-to-one correspondences. The starting point, as before, is Messiaen's Division I of note values, in which each successive pitch is assigned the next successive "degree" of the "chromatic scale of thirty-second notes." Thus E♭ (pitch 1) is associated with the thirty-second note, D (pitch 2) with the sixteenth note, A (3) with the dotted sixteenth, A♭ (4) with the eighth note, and so on.

But where Messiaen maintained this pitch/duration association as a constant throughout *Mode de valeurs*, Boulez related the pitch-classes and durations independently to the order positions (the numbers in parentheses). This allowed him to create twelve "permutations" of the rhythm series that corresponded demonstrably (if only numerically) to the twelve possible transpositions of the pitch series, and to deploy the pitch and rhythm series independently of one another, like the color and talea in a medieval "isorhythmic" motet. The result is a truly fantastical set of a priori rules — fantastical in that the principle of correspondence is purely conceptual, devoid of any aurally perceivable relationship to the principle of pitch transposition on which it was based.

Here is why. As we know, when any twelve-tone pitch series is transposed— down, say, by one semitone — the result is a new ordering of pitch classes that preserves the same intervallic relationships as the original one. (One of the most basic aspects of twelve-tone technique, then, is that a "tone row" is really an "interval row" since it is the succession of intervals — the all-important motivic *Grundgestalt*—that remains constant when the row is subjected to its various transformations.) In Ex. 1-7 a, the stated transformation of the *Structures* row (transposition down a semitone) is set down twice, each time both in terms of letter names and in terms of the reordering of the pitch numbers:

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

down a semitone, becomes

D C♯ A♭ G F♯ F E♭ C B A E B♭
(2) (8) (4) (5) (6) (11) (1) (9) (12) (3) (7) (10)

and down another semitone, becomes

C♯ C G F♯ F E D B B♭ A♭ E♭ A
(8) (9) (5) (6) (11) (7) (2) (12) (10) (4) (1) (3)

ex.1-7a Transformation of Pierre Boulez's *Structures* row

In Ex. 1-7 b, the same mapping operation is shown for the durational "scale," each time maintaining the original assignment of durations to pitch numbers:

ex. 1-7b Transformation of Pierre Boulez's *Structures* durational "scale"

Boulez's whole "precompositional strategy" can be represented as a pair of "magic squares" (Ex. 1-8). Running across the top and down the left side of the first square are the numbers corresponding to the original pitch/duration order of Messiaen's "Division I" as set forth in the preceding example. Note that in these squares, the number 1 always refers to E♭ (pitch 1 of the original series) and to a thirty-second note (the first "degree" of the chromatic scale of durations); the number 2 always refers to D (pitch 2 of the original series) and to a sixteenth note (the second "degree" of the durational scale); the number 3 to A (pitch 3) and a dotted sixteenth (the third "degree"), and so on. Thus the "transpositions," reading down the left-hand column, are not by successive semitones (as in the explanatory example) but by the actual order of intervals in the row.

1	2	3	4	5	6	7	8	9	10	11	12
2	8	4	5	6	11	1	9	12	3	7	10
3	4	1	2	8	9	10	5	6	7	12	11
4	5	2	8	9	12	3	6	11	1	10	7
5	6	8	9	12	10	4	11	7	2	3	1
6	11	9	12	10	3	5	7	1	8	4	2
7	1	10	3	4	5	11	2	8	12	6	9
8	9	5	6	11	7	2	12	10	4	1	3
9	12	6	11	7	1	8	10	3	5	2	4
10	3	7	1	2	8	12	4	5	11	9	6
11	7	12	10	3	4	6	1	2	9	5	8
12	10	11	7	1	2	9	3	4	6	8	5

1	7	3	10	12	9	2	11	6	4	8	5
7	11	10	12	9	8	1	6	5	3	2	4
3	10	1	7	11	6	4	12	9	2	5	8
10	12	7	11	6	5	3	9	8	1	4	2
12	9	11	6	5	4	10	8	2	7	3	1
9	8	6	5	4	3	12	2	1	11	10	7
2	1	4	3	10	12	8	7	11	5	9	6
11	6	12	9	8	2	7	5	4	10	1	3
6	5	9	8	2	1	11	4	3	12	7	10
4	3	2	1	7	11	5	10	12	8	6	9
8	2	5	4	3	10	9	1	7	6	12	11
5	4	8	2	1	7	6	3	10	9	11	12

ex. 1-8 Pierre Boulez, *Structures Ia*, “O” and “I” matrices

If the twelve columns in the first square, reading from left to right across or down from top to bottom, represent the twelve possible transpositions of the original row, then the same columns read from right to left or bottom to top represent the twelve possible retrogrades. The columns of numbers in the second square (from left to right or top to bottom) represent the twelve inverted row forms, and (from right to left or bottom to top) the retrograde-inversions. The relationship between these pitch rows and their associated durational rows is again mediated by the numbers. Under these rules a given series of durations can be called the “inversion” of another only by this arbitrary set of numerical correspondences—that is, only by an ad hoc definition or convention.

The remaining “constituents of sound” for which Messiaen had provided unordered “modes” are serialized in Boulez's composition according to a procedure that is even more arcane (so arcane, in fact, that it was not detected until 1958). Messiaen's collection of seven degrees of loudness was easily expanded to twelve, simply by making the gradations finer:

1	2	3	4	5	6	7	8	9	10	11	12
pppp	ppp	pp	p	quasi p	mp	mf	quasi f	f	ff	fff	ffff

And Messiaen's collection of twelve attacks could also be taken over (albeit with slight modifications for reasons that will soon become apparent).

The deployment of loudnesses and attacks was geared not to the individual notes, as in Messiaen's *Mode de valeurs*, but to the overall “structure” of *Structures*, which consisted of a single complete traversal of the pitch and durational “matrices” contained within his magic squares. Each section would contain forty-eight row statements, twenty-four for each piano. Boulez derived a series of twenty-four loudnesses for each piano by taking the right-to-left diagonals of each square. The diagonal from the square based on Messiaen's original series (the “O” matrix) governed the loudnesses for piano I, and the diagonal from the other square (the one based on inversions, or the “I” matrix) governed the loudnesses for piano II.

These diagonals formed “Webernian” palindromes, which must have been Boulez's reason for selecting them. To arrive at a full forty-eight elements Boulez constructed additional palindromes by taking the identical left-to-

right diagonals from the seventh order position both at the top and along the side of each square, and running them back-to-front then front-to-back. Thus (for the "O" matrix):

Right-to-left diagonal across:											
12	7	7	11	11	5	5	11	11	7	7	12
ffff	mf	mf	fff	fff	quasi p	quasi p	fff	fff	mf	mf	ffff

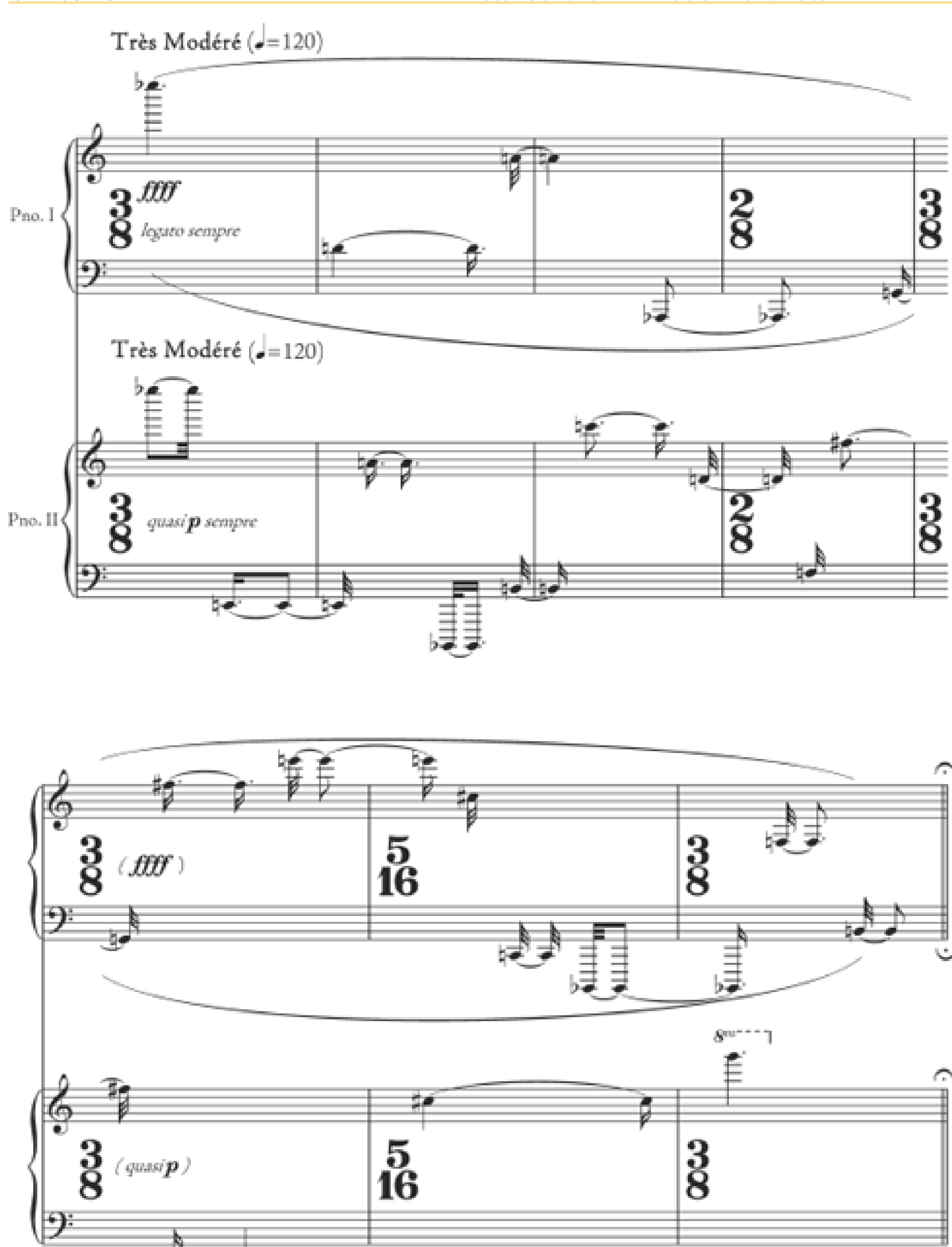
Left-to-right diagonals from 7th place:											
					←	→					
2	3	1	6	9	7	7	9	6	1	3	2
ppp	pp	pppp	mp	f	mf	mf	f	mp	pppp	pp	ppp

The series of attacks is coordinated with the pitch/duration series by taking the opposite diagonals (full across from upper left to lower right and, from the sixth position, from upper right to lower left). What Boulez apparently did not foresee is that the numbers 4 and 10 happen to be absent from all the diagonals he selected. In the case of the dynamic series he fudged a bit to incorporate the levels in question (*p* and *ff*). In the case of the attack series he simply left them out, resulting in a "row" of only ten members.

The only decisions that remained concerned the order of presentation of the concurrent (but independent) pitch and durational series. With the magic squares in hand these choices could be planned in fairly mechanical fashion, after which the composer could sit back, as it were, and let the music write itself. The real work, in short, was all "precompositional." Thus, at the beginning of *Structures* (Ex. 1-9), Piano I simply goes through the twelve transpositions of the basic pitch series in the order given by the numbers read from left to right across the top of the "I" matrix as they match up with Messiaen's old Division I: 1 (= E♭) 7 (= E) 3(= A) 10(= B♭) 12(= B) 9(= C) 2(= D) 11(= F) 6(= F♯) 4(= A♭G♯) 8(= C♯) 5(= G). (The pitches in parentheses are the starting pitches for Piano I's row forms through m. 64; Ex. 1-9 shows only the first two row forms.) Then, in similar mechanical fashion not shown in the example, Piano I goes through the twelve transpositions of the retrograde in an order determined by the numbers read from right to left across the bottom of the same magic square: 12(= B) 11(= F) 9(= C) 10(= B♭), and so on.

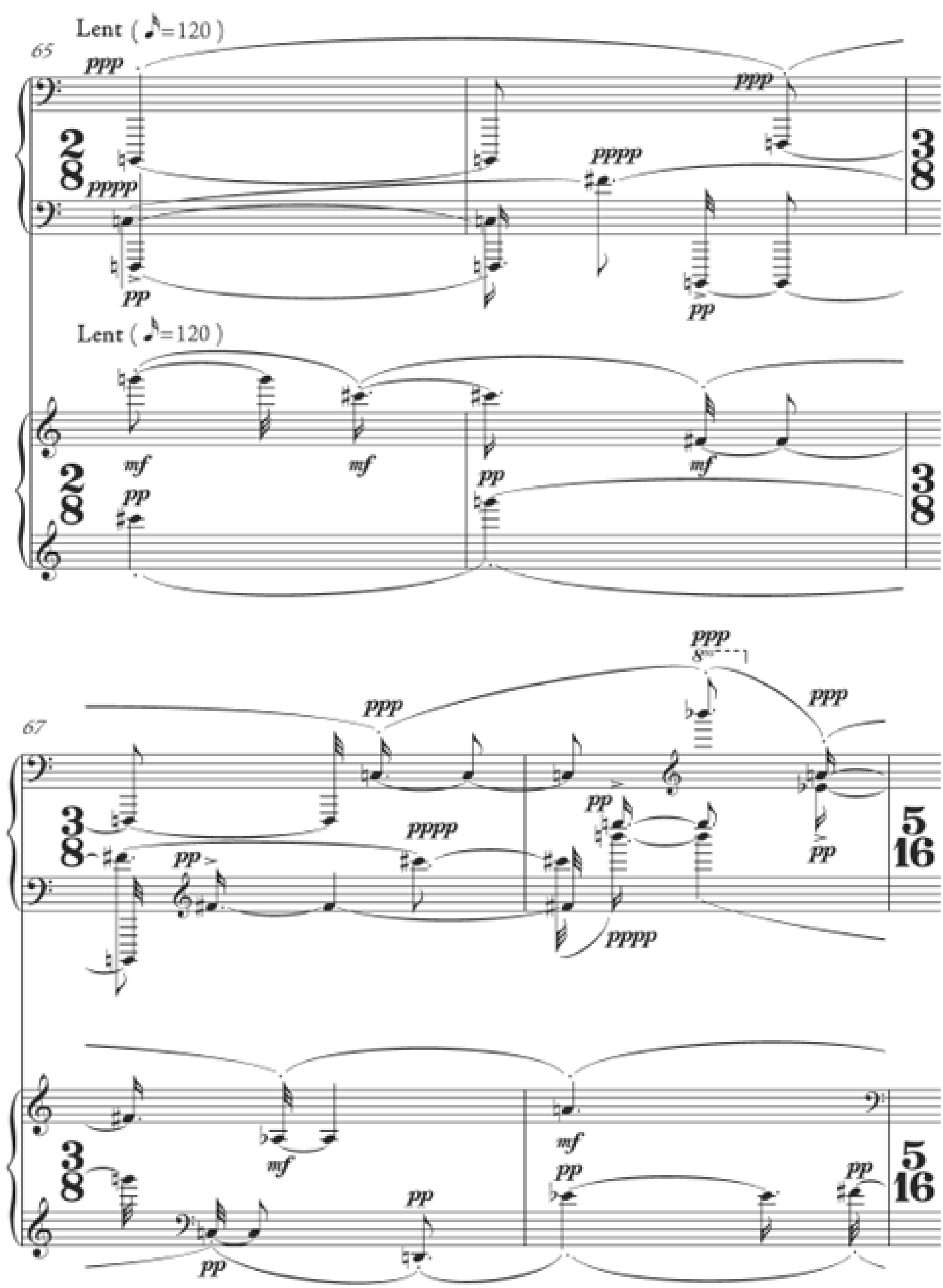
Piano II performs exactly the "opposite" (that is, reciprocal) set of operations. First it goes through the twelve inversions in an order determined by the numbers read from left to right across the top of the "O" matrix (i.e., Messiaen's original series), and then (from m. 65) it traverses the twelve retrograde inversions in an order determined by the numbers read from right to left across the bottom of the same magic square: 5 (= G) 8 (= C♯) 6(F♯) 4(G♯A♭), and so on.

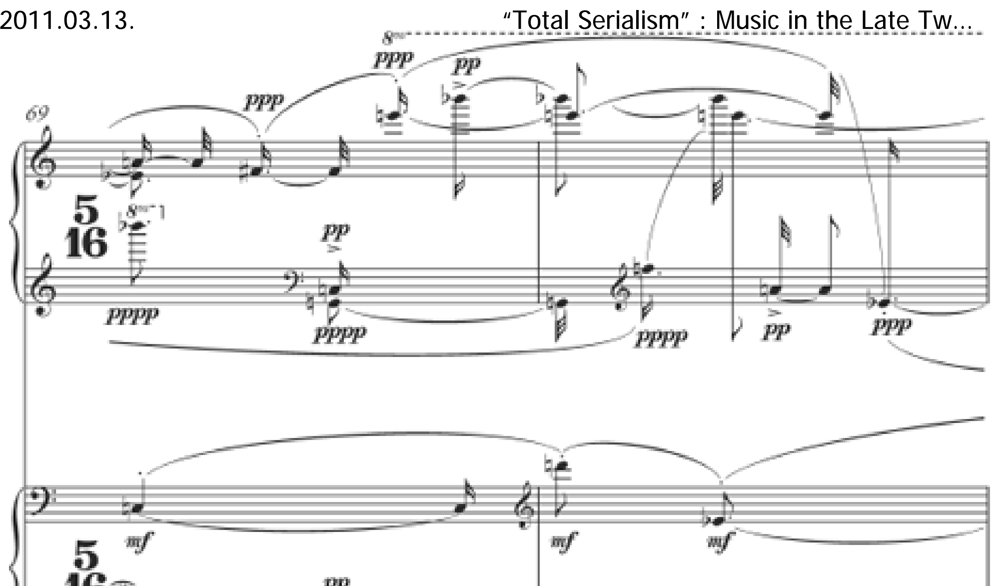
As for the durational series, their order is determined, first, by taking the rows or columns in sequence according to their positions in the squares, and then (from m. 65) in an order determined by the size of their first components. Again each piano reciprocates the other's operations. The first durational series in Piano I, as shown in Ex. 1-9, is , which corresponds to the numbers either read from bottom to top along the right edge of the "I" matrix or from right to left across the bottom; the second, , corresponds to the next column to the left (or the next row from the bottom); the third (no longer shown in Ex. 1-9 but easily predictable, i.e., , corresponds to the next column or row in the same direction and so on. (When the articulation is staccato, the durations are measured from attack to attack rather than in sustained sound.)


Très Modéré (♩=120)
Pno. I
ffff
legato sempre
Très Modéré (♩=120)
Pno. II
quasi p sempre
(ffff)
(quasi p)
8va

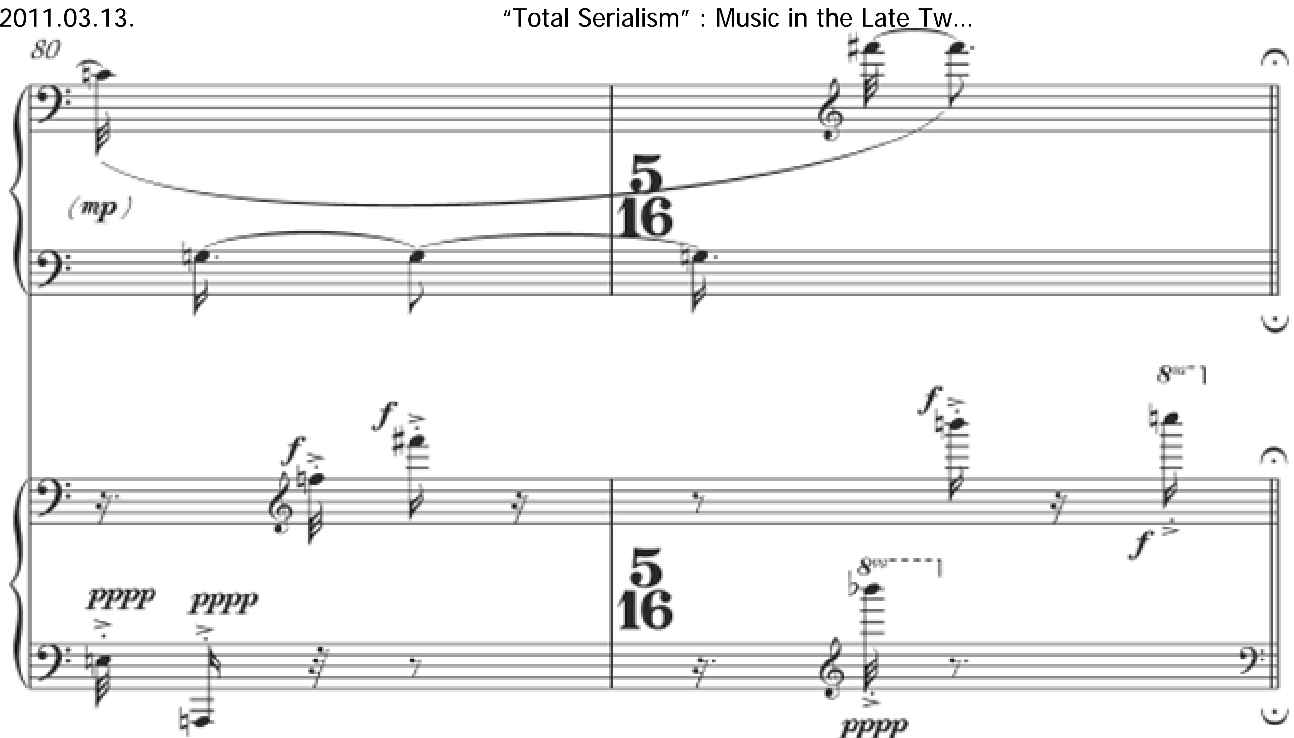
ex. 1-9 Pierre Boulez, *Structures Ia*, mm. 1–15

At m. 65 (Ex. 1-10), Piano I shifts over to a contrapuntal combination of three row forms. The one marked *ppp* uses the "I" matrix series that begins with 12 (the fifth column from the left or the fifth row from the top); the one marked *pp* uses the series that begins with 11 (eighth column from the left or row from the top); the one marked *pppp* uses the series that begins with 10 (fourth column from the left or row from the top). At m. 73, the single line played by Piano I uses the series that begins with 9 (sixth column from the left or row from the top), and so it goes, all the way down to 1.


Lent (♪=120)
65
ppp
pppp
pp
Lent (♪=120)
mf
pp
67
ppp
8va
pppp


69
8va
ppp
pp
ppp
5
16
pp
pppp
pppp
pppp
pp
ppp
mf
mf
mf
pp

Modéré, presque vif (♪=144)
mp legato
Modéré, presque vif (♪=144)
(mp)



ex. 1-10 Pierre Boulez, *Structures Ia*, mm. 65–81

Piano II, meanwhile, has started with the sequence of durational series beginning with the right-hand column (read bottom to top) or bottom row (read right to left) in the "O" matrix, and progressing thereafter across to the left or up to the top. At m. 65 (Ex. 1-10), the pattern reverses: now Piano II's durational series are chosen from the left-to-right rows or top-to-bottom columns. But the order of selection is no longer governed by a simple predetermined rule (or "algorithm," to use the mathematical word). Here, and only here, in other words, Boulez seems to have chosen the order of presentation "freely"—that is, spontaneously, in the act of composing. (For the record, the order, counting the rows from top down, is 5/8, 6/4, 2/11, 12/9, 10, 7/1/3, with numbers grouped by slashes representing row forms that are played simultaneously, in counterpoint.) Boulez never acknowledged this spontaneous choice, but he did acknowledge others. One was "density," as he called it, meaning the number of row forms deployed simultaneously in any given subsection of the piece. The number of contrapuntal lines varies from one to three in each piano (which means, potentially, four to six in toto). Even here, Boulez seems to have followed "rules" where he could. Consecutive row forms that are assigned by the "diagonals" to the same dynamic level are often played together. But not always; and the inconsistency must count as a "liberty." The other conspicuous "liberty" is registral distribution. Although the score seems to be notated like conventional piano music, there is no a priori assignment of the players' right and left hands to the top and bottom staves, nor does the assignment of a note to the upper or lower staff imply anything about its register. Instead, the contrapuntal lines so frequently cross, and leap so capriciously from register to register (often extreme ones) that it is impossible to hear the texture as consistently linear, the way one can hear the texture of Messiaen's *Mode de valeurs*. Thus Boulez's composition is not at all like Messiaen's, its putative model, in aural effect. There is no consistent "hypostatization" to which the ear can grow accustomed. Since Boulez treats his "four constituents of sound" as independent variables, any pitch can occur in any register at any loudness and with any duration or attack.

Not only that, but whereas Messiaen clearly imagined his musical "atoms" or "particles" as sounds, and took acoustical factors (like the greater loudness and sustaining power of the low end of the keyboard) into account in devising his algorithms, Boulez's are entirely abstract or "conceptual." Boulez's series of twelve dynamic gradations, in particular, is entirely utopian, both in its assumption that the twelve levels can be manipulated as discrete entities on a par with pitches and durations, and also in the way levels are assigned to pitches regardless

of register.

When the texture becomes dense, moreover, so much interference is caused by the mixing of registers that there can be no hope of grouping the individual notes into contrapuntal lines by ear, hence no way of perceiving by listening the relationship between the sounds heard on the "surface" of the music and the axioms that motivated their choice. In bluntest terms, then, the paradox created by "total serialism" is this: once the algorithms governing a composition are known (or have been determined), it is possible to demonstrate the correctness of the score (that is, of its component notes) more decisively and objectively than is possible for any other kind of music; but in the act of listening to the composition, one has no way of knowing (and, no matter how many times one listens, one will never have a way of knowing) that the notes one is hearing are the right notes, or (more precisely) that they are not wrong notes.

Indeed, by excluding beams from the notation, Boulez makes it difficult to gain this knowledge even by eye. (Hence, too, not only the arduousness but also the tediousness of the foregoing explanation; the reader is forgiven for skimming.) The extreme fragmentation of the texture into atomic particles insures that, paradoxically, all the meticulous "precompositional" planning—the music's basic theoretical justification—is lost on the listener, and even on the score reader. The music yields its secrets—that is, its governing algorithms or a priori rules—to nobody's senses, only to the mind of a determined analyst (which is why so much of it remained secret for so long).

The value of technical analysis as a separate musical activity, therefore, experienced an unprecedented boom. (Boulez was overheard at Darmstadt to say that the age of the concert had passed; scores need no longer be played, just "read"—i.e., analyzed.) Along with the growth of integral serialism, then, there grew up a new musicological specialization, that of music analyst (sometimes loosely identified with the much older and broader calling of music theorist), and a number of outlets for the practice in the form of specialized journals. The first to appear was *Die Reihe* ("The row"), widely regarded as the unofficial Darmstadt house organ, issued between 1955 and 1962 by the Vienna publisher Universal Edition, and coedited by Stockhausen and the equally intransigent Herbert Eimert, who as early as 1924had published a little practical method for twelve-tone music, the first of its kind. An English translation of *Die Reihe*, published in the United States between 1958 and 1968, retained the German title (though it might have been called *The Row* or *The Series*).

Notes:

(33) Peter Hill, "Piano Music II," in *The Messiaen Companion*, ed. P. Hill (Portland, Ore.: Amadeus Press, 1995), p. 319.

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Pierre Boulez

Luciano Berio

DISQUIETING QUESTIONS

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

But why was all this considered desirable, or if not desirable at least inevitable? To this question many different (often contradictory) answers have been given; over it many battles have been fought. Many resented on social grounds the idea of a music that disclosed so little to an ordinary listener, associating it with the arrogant rhetoric of manifestos like “Schoenberg Is Dead,” with elitism (that is, the use of a willfully difficult style to create a social elite that excluded the noninitiated), and with the misappropriation of scientific prestige. (All of these criticisms could just as well have been leveled at the medieval troubadours, but they weren't, since the idea of social elites in those days required no apology, least of all in artistic circles.) On the other side, the music, the rhetoric, and the cult of difficulty were all upheld as necessary protections against those who would regulate art, and curtail the freedoms of artists, on social or commercial grounds. Back came the retort that there could be no greater regulation or regimentation of art than that of “total serialism” (or, more generally, any method of composing by algorithm). Yet a discipline one imposes on oneself, no matter how zealously one may exhort others to follow suit, ought not, perhaps, to be equated with a discipline imposed by political authority. Was it just puritanism, then?

Boulez's own answer, given long after the fact to a sympathetic interviewer (and long after he had given up the utopian dream of “total serialism”), invoked something milder: experimental curiosity. He wanted, he said, “to find out how far automatism in musical relationships would go.”[34] The idea of taking things to their limits has always had an appeal to modernists, as we have known, so to speak, since the days of Mahler and Scriabin. We also know that Messiaen, Boulez's teacher, had been a rare keeper of the maximalist flame all through the reign of irony. But why should there have been such a resurgence of maximalism among so many young composers precisely at this time? And what was the appeal of algorithmic methods—what Boulez called “automatism,” or what the Italian composer Luciano Berio (1925–2003), another important alumnus of Darmstadt, called “writing music without being personally involved”?

Boulez was not unaware of the paradox inherent in a process of composition that applied the most stringent controls, only to bring forth a product that, as far as even the most educated listener was concerned, might as well have been the product of chance. “From the prescriptions we have been examining in detail,” he wrote toward the end of an article in which he gave a preliminary analysis of *Structures*, “there arises the unforeseen.”[35] (Indeed, he went on, characteristically, to turn the remark into a dogma: “There is no creation except in the unforeseeable becoming necessary.”) That begins to approximate the terms of existentialist thought, with its meditations on the relationship between free will and necessity, on the one hand, and between free will and contingency, on the other. Still, what did it mean (or could it mean) freely to decide, as the music theorist Roger Savage has put it, to “hand the work's structure over to the serial operations which control it”? What did that say about agency and responsibility?

Notes:

(34) Boulez in conversation with Celestin Deliège, quoted in Dominique Jameux, *Pierre Boulez*, trans. Susan Bradshaw (London: Faber and Faber, 1991), p. 52.

(35) Boulez, “Possibly…,” in *Stocktakings*, p. 133.

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Ernst Krenek

Serialism

DISQUIETING ANSWERS

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

An unusually frank and revealing answer to these difficult questions was given in 1960 by Ernst Krenek, a composer who won his first fame as the author of *Jonny spielt auf*, the most popular European opera of the "jazz age." Over the intervening decades, Krenek's career had gone through some intense vicissitudes, and so had his compositional approach. From having been the darling of a brash materialistic society, Krenek had become a political refugee, unexpectedly committed to twelve-tone composition as a symbol of "the loneliness and alienation of humanity,"[36] and regarding it, perhaps reluctantly, as the only morally valid form music could take.

fig. 1-5 Ernst Krenek.

Practically alone among his generation, Krenek was strongly attracted to the reconditeness and the rigors of "total serialism" as preached and practiced by the young composers at Darmstadt—all the more so when he found that they mistrusted his commercially successful past and, practicing some fairly brazen generational politics, rebuffed his friendly overtures during the summers of 1954and 1956, shutting him out and making him feel doubly isolated. (In 1961 Darmstadt witnessed a little scandal when the students and staff of the summer course turned out in force to jeer a work of Krenek's that was being performed at the local opera house.) Personal hostility kept Krenek out of the "Darmstadt school" per se; by the time he got around to it, moreover, the official Darmstadt line was that total serialism was passé. Yet these circumstances made his embrace of total serialism all the more significant, for they showed that its appeal was not just a sectarian or a passing phenomenon but a

genuine sign of the times.

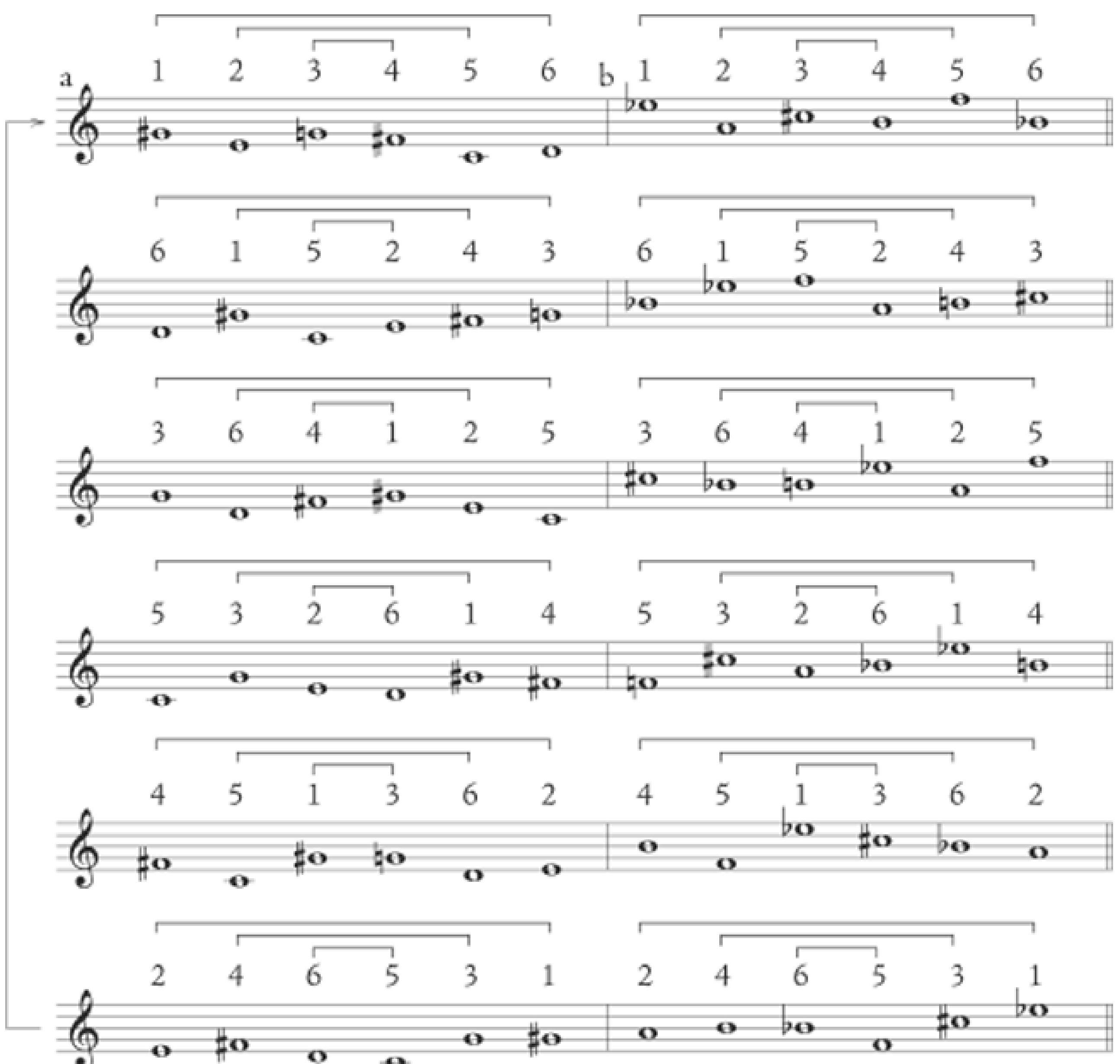
Krenek's most rigorously organized serial composition was *Sestina* (1957) for soprano and ten instruments. The text, by the composer himself, was a meditation on the notorious philosophical problems we are now considering. It was cast in an elaborately organized medieval verse form, Krenek (a part-time musicologist) having noticed the similarity, alluded to above, between the hermeticism of the new music and the *trobar clus* or “exclusive poetry” of the troubadours. Krenek had learned about the sestina form from R. P. Blackmur, a literary critic on the faculty of Princeton University, who hosted a series of lectures the composer had been invited to deliver on “Recent Advances in Musical Thought and Sound.” Supposedly invented by the troubadour Arnaut Daniel, the sestina consisted of six six-line stanzas in which the end-words of every stanza were the same, but presented each time in a different order.

The six orderings of the end-words were obtained through a process of permutation that, Krenek immediately saw, could be adapted to the permutations of a tone row. The order established in the first stanza (1 2 3 4 5 6) was rearranged in successive stanzas by continually pairing the last with the first, the next-to-last with the second, and the third- from-last with the third: **1 2 3 4 5 6 → 6 1 5 2 4 3 → 3 6 4 1 2 5 → 5 3 2 6 1 4 → 4 5 1 3 6 2 → 2 4 6 5 3 1**; and here the process must stop because the next (seventh) permutation would reproduce the first. Instead, the poem ends with a three-line *tornada* or refrain that uses all six words, two to a line.

Krenek's poem, composed in his native German even though the performances were to take place in New York, ponders the esthetic and existential problems of “total serialism” by adopting a set of relevant terms for permutation at the line-endings: *Strom* (flow or stream), *Mass* (measure or measurement), *Zufall* (chance), *Gestalt* (shape), *Zeit* (time), and *Zahl* (number). The *tornada* summarized the issues:

Wie ich mit *Mass*	As I with measurement
bezwinge Klang und *Zeit*,	master sound and time,
entflieht *Gestalt*	Shape recedes
im unermessnen *Zufall*.	in unmeasured chance,
Kristall der *Zahl*	The crystal of number
entlässt des Lebens *Strom*.	releases the stream of existence.

To represent musically the endless or cyclic permutation symbolized as well as pondered in the poem, Krenek divided the tone row into its constituent hexachords, which he then modified (or as he put it, “rotated”) numerically as shown in Ex. 1-11, the pitch numbers standing for the end-word numbers displayed above in the sestina scheme. The resulting stream of numbers, further permuted by the usual serial procedures (cancrizans, inversion, retrograde inversion), could then be adapted to the serialization of duration, loudness, and attack, according to a set of algorithms comparable to those that Boulez had employed in *Structures*. And just as in *Structures*, as the composer was well aware, the algorithms produced sound sequences that could not be parsed as relationships by a listening ear, only by an inquiring mind.



ex. 1-11 Cyclic permutation in Ernst Krenek, *Sestina*

Performed and recorded in March 1958 and published shortly afterward, Krenek's *Sestina* made little impression at first. But in 1959 the composer was invited back to Princeton to participate in a seminar in "advanced musical studies" and gave a paper there entitled "Extents and Limits of Serial Technique," in which, among other things, he commented on several of his recent works, including *Sestina*. His remarks, considered overly and even offensively candid by several in attendance, attracted wide attention when they were published (along with several others from the seminar) in a special issue of *The Musical Quarterly* (April 1960) that was reissued two years later as a book called *Problems of Modern Music*.

Recalling a statement made by Stockhausen at a Darmstadt lecture—"Boulez's objective is the product; mine is the process"—Krenek endorsed the implied emphasis on the composer (the maker) rather than the audience (the passive receiver) and as much as wrote the latter out of the picture. In describing one of his earlier experiments in total serialism, he asserted that "whatever occurs in this piece at any given point is premeditated and therefore technically predictable"; but immediately qualified the statement with what many regarded as a stunning admission. "While the preparation and the layout of the material as well as the operations performed

therein are the consequence of serial premeditation," he allowed, "the audible results of these procedures were not visualized as the purpose of the procedures. Seen from this angle, the results are incidental."[37] It didn't matter, in other words, what the music sounded like.

After describing the algorithms employed in *Sestina*, Krenek made an admission even more alarming to those who had thought of total serialism as a means of securing maximum control over the musical material:

> If the succession of tones is determined by serial regulation (as is the case in the classical twelve-tone technique) and, in addition to this, the timing of the entrance into the musical process of these tones is also predetermined by serial calculation (as, for example, in the case of the *Sestina*), it is no longer possible to decide freely (that is, by "inspiration") which tones should sound simultaneously at any given point. In other words, the so-called harmonic aspect of the piece will be entirely the result of operations performed on premises that have nothing to do with concepts of "harmony," be it on the assumption of tonality or atonality or anything else. Whatever happens at any given point is a product of the preconceived serial organization, but by the same token it is a chance occurrence because it is as such not anticipated by the mind that invented the mechanism and set it in motion.[38]

This much had been acknowledged before, if not quite so forthrightly. But Krenek went on to answer the question posed above—"Why is this desirable?"—in equally forthright terms, and this had never been done before. He took as the "text" for his sermon a recent analysis of *Structures* in *Die Reihe* that had at last uncovered its algorithms, thus implying that his comments were not merely the personal reflections of an aging and isolated figure but characterized the attitudes of the younger European composers as well. (The author of the analysis, György Ligeti, was a Hungarian composer who had emigrated to Austria at the time of the Hungarian revolt against Communist rule in 1956.) Krenek began by explaining why he had put derisive quotation marks around the word "inspiration" in the passage just quoted:

> Actually the composer has come to distrust his inspiration because it is not really as innocent as it was supposed to be, but rather conditioned by a tremendous body of recollection, tradition, training, and experience. In order to avoid the dictations of such ghosts, he prefers to set up an impersonal mechanism which will furnish, according to premeditated patterns, unpredictable situations. Ligeti characterizes this state of affairs very well: "We stand in front of a row of vending machines ("Automaten") and we can choose freely into which one we want to drop our coin, but at the same time we are forced to choose one of them. One constructs his own prison according to his wishes and is afterwards freely active within those walls—that is: not entirely free, but not totally constrained either. Thus automation does not function as the opposite of free decision: rather free selection and mechanization are united in the process of selecting the mechanism." In other words, the creative act takes place in an area in which it has so far been entirely unsuspected, namely in setting up the serial statements (selecting the slot machines). What happens afterwards is predetermined by the selection of the mechanism, but not premeditated except as an unconscious result of the predetermined operations. The unexpected happens by necessity. The surprise is built in.[39]

On one level this looked like the *reductio ad absurdum* of the modernist attitude in its "zero hour" extremity: better a random or meaningless product than one that bears traces of the past. That truly seemed like pursuing novelty at all costs—specifically, at the exorbitant cost of "recollection, tradition, training, and experience," the very sources of consciousness, especially artistic consciousness, and of the capacity to act responsibly. The renunciation was so extreme, and so telling, as to attract the attention of contemporary philosophers. Stanley Cavell, a philosopher then on the faculty of the University of California at Berkeley (and a trained musician as well) responded almost immediately to Krenek's paper, in a paper of his own read in December 1960 and reworked into a celebrated essay, "Music Discomposed," that was published in 1965 and widely anthologized thereafter, becoming the subject of commentary and debate in its own right.

Cavell's immediate reaction to Krenek's position was an impulse to mock it: "This is not serious, but it is meant,"[40] was his much-repeated quip. Reading more widely in the professional arts literature of the day, he was forced to acknowledge the position as "symptomatic" of a "dissonant and unresolved emotion"[41] that was felt not just in music but in all the contemporary arts. He recognized the language, or jargon, of existentialism: "It is scarcely unusual," he observed, "for an awareness of determinism to stir philosophical speculation about the possibilities of freedom and choice and responsibility." But there was a big, unprecedented difference. "Whereas the more usual motivation has been to preserve responsibility in the face of determinism, these new views wish to preserve choice by foregoing responsibility (for everything but the act of 'choosing')."[42] It was the ultimate "escape from freedom." Cavell cast the paradox of total serialism in terms of a familiar antithesis. "In denying tradition," he observed, "Krenek is a Romantic, but with no respect or hope for the individual's resources; and in the reliance on rules, he is a Classicist, but with no respect or hope for his culture's inventory of conventions."[43] Exposing so fundamental an incoherence, the philosopher thought, would undermine such a music's claim to validity—or at least the validity of the justification now being offered for its existence. "Such philosophizing as Krenek's does not justify it," Cavell asserts, "and must not be used to protect it against aesthetic assessment."[44] But just as he delivers the intended deathblow, Cavell suddenly and, it seems, unwittingly identifies the source of the music's validity—or rather, identifies the reason why the practice proved so appealing (or consoling) and was so widely taken up by rational musicians in full awareness of the attendant paradoxes.

"What in fact Krenek has come to distrust," the philosopher alleges, "is the composer's capacity to feel any idea as his own."[45] Cavell calls this "nihilism,"[46] for it contradicts what he sees (in an argument that ultimately goes back to Immanuel Kant) as the ultimate value of any work of art: "A work of art does not express some particular intention (as statements do), nor achieve particular goals (the way technological skill and moral action do), but, one may say, celebrates the fact that men can intend their lives at all (if you like, that they are free to choose), and that their actions are coherent and effective at all in the scene of indifferent nature and determined society."[47] Total serialism, "by calling something musically organized (let alone totally organized) on grounds unrelated to any way in which it is, or is meant to be, heard," must therefore express "contempt for the artistic process"—and by extension, it expresses contempt for (or disbelief in) the "fact" that the artistic process is meant to celebrate. We cannot "intend our lives" any more, such music seems to say. "Nothing we now have to say, no *personal* utterance, has its meaning conveyed in the conventions and formulas we now share,"[48] it dispiritingly implies. Therefore, "taste must be *defeated*"[49] as a justification for art or indeed for any human action, since taste in any consensual sense must rest on beliefs that have become untenable.

Cavell decries this nihilistic defeatism. Yet rather than an expression of simple nihilism, or belief in nothing, the renunciation total serialism demanded might rather be seen as expressing existential despair. It was the passionately intense reaction of artists who could no longer believe in the supreme value of the individual self, the "autonomous subject" exalted by romanticism, at a time when a hundred thousand selves just as individual as theirs might vanish at the push of a button. There was no point in having intentions or expressing feelings at a time when the best laid plans seemed so futile, and personal feelings so trivial, in the face of such destructive power. That had to be what Boulez meant when he "decreed" that art had to transcend persons. The authoritarian manner was bravado in the face of impotence.

One took refuge instead in what Ligeti frankly called a "compulsion neurosis"[50] —elaborate mechanical methods that put one in touch with something less vulnerable than personal wishes and tastes, or subjective standards of beauty. The contempt that Stanley Cavell discerned in Krenek's pseudo-technical writing is even more evident in Boulez's determination "to strip music of its accumulated dirt and give it the structure it had lacked since the Renaissance." But it is also evident that the contempt is directed not merely at traditional art, or the traditional audience, but at the whole idea that art is for the sake of people. One's only solace was to strip away all personality, feelings, and expressive intention. That was the "dirt." And the artist's own personality and feelings were not exempted. After Hiroshima everyone felt like dirt. The only responsible decision left was to face that miserable contingency and find a way of composing that would stamp out the artist's puny person and allow

something "realer" to emerge. And what could be realer than number?

The desperate antihumanism of the early atomic age, then, sought its consolation in an ancient prehumanism—something far older than what is usually called "the Renaissance." Behind that imprecise formulation, as we know, Boulez had the music of the fourteenth-century Ars Nova in mind, and the isorhythmic motets of Machaut and Du Fay. In one of his earliest manifestos, Boulez actually revealed as the source of his inspiration a passage from the foreword to a then recent edition of Du Fay's complete works (the author, Guillaume de Van, was actually a transplanted American, William Carrolle Devan, who had compromised himself by heading the music division of the Bibliothèque Nationale in Paris during the German occupation):

> Isorhythm was the finest expression of the fourteenth-century musical ideal, the *arcanum* which only the few could penetrate, and which constituted the supreme test of the composer's ability…. The limitations imposed by the rigid dimensions of a plan which determined beforehand the tiniest details of rhythmic structure, did not stint the composer's inspiration, for his motets give the impression of free, spontaneous compositions, while in fact the isorhythmic canon is strictly observed.[51]

But while Boulez called this elite *arcanum* "the most rational attitude to rhythm in our Western music," and cited it as "precedent for modern research,"[52] it rested on a Platonic (and before Plato, a Pythagorean) faith in number as the ultimate and imperishable reality, as memorably expressed in the ninth-century *Scholia enchiriadis*, the textbook that stands at the very wellspring of the continuous tradition of music theory in the west. "Notes pass quickly away," the book proclaimed; "numbers, however, though stained by the corporeal touch of pitches and motions, remain."[53]

Notes:

(36) Quoted in Edward Rothstein, "Ernst Krenek, 91, a Composer Prolific in Many Modern Styles" (obituary), *New York Times*, 24 December 1991.

(37) Ernst Krenek, "Extents and Limits of Serial Techniques," in *Problems of Modern Music: The Princeton Seminar in Advanced Musical Studies*, ed. Paul Henry Lang (New York: Norton, 1962), p. 83.

(38) *Ibid.*, p. 90.

(39) *Ibid.*, pp. 90–91.

(40) Stanley Cavell, "Music Discomposed," in *Must We Mean What We Say?: A Book of Essays* (Cambridge: Cambridge University Press, 1976), p. 195.

(41) *Ibid.*, p. 187.

(42) *Ibid.*, pp. 194–95.

(43) *Ibid.*, p. 196.

(44) *Ibid.*, p. 196.

(45) *Ibid.*

(46) *Ibid.*, p. 202.

(47) *Ibid.*, p. 198.

(48) *Ibid.*, p. 201.

(49) *Ibid.*, p. 206.

(50) György Ligeti, "Pierre Boulez: Entscheidung und Automatik in der Structure Ia," *Die Reihe* IV (1958): 60.

(51) Quoted in Boulez, "Stravinsky Remains," in *Stocktakings from an Apprenticeship*, p. 109.

(52) *Stocktakings*, p. 109.

(53) *Scolica enchiriadis* (ca. 850 ce), trans. Lawrence Rosenwald, in P. Weiss and R. Taruskin, *Music in the Western World: A History in Documents* (2nd ed., Belmont, CA: Thomson/Schirmer, 2007), p. 34.

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Karlheinz Stockhausen

Darmstadt School

SOLACE IN RITUAL

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

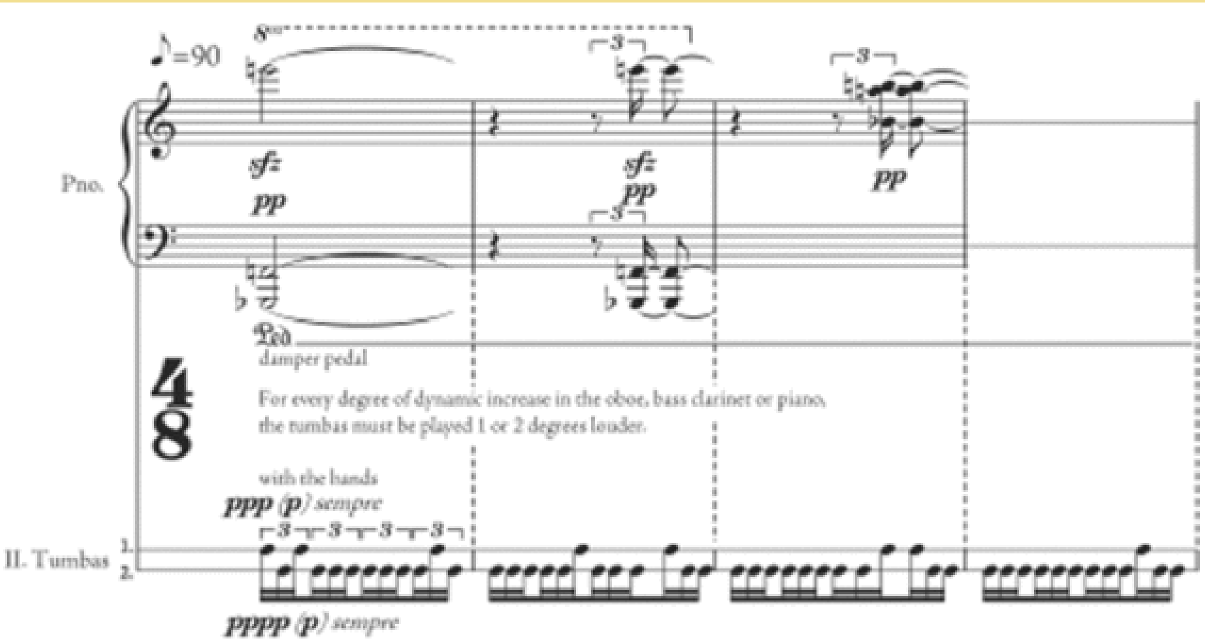
It was that faith that total serialism tried—vainly, of course—to revive, by excluding the corporeal (which is to say the perishable, threatened by time and doomed to eradication), and the all-too-human, as far as was humanly possible. In the end, for all its vaunted rationalism, it was at bottom something of a religious revival, and its roots in Messiaen's avowedly pious art no longer seem so anomalous. As religions find expression in ritual, it seems fitting to end our consideration of the Darmstadt “zero hour” with a look at *Kreuzspiel* (“Cross-play,” or “Crossing game”), Stockhausen's immediate response to his experiences there in the summer of 1951.

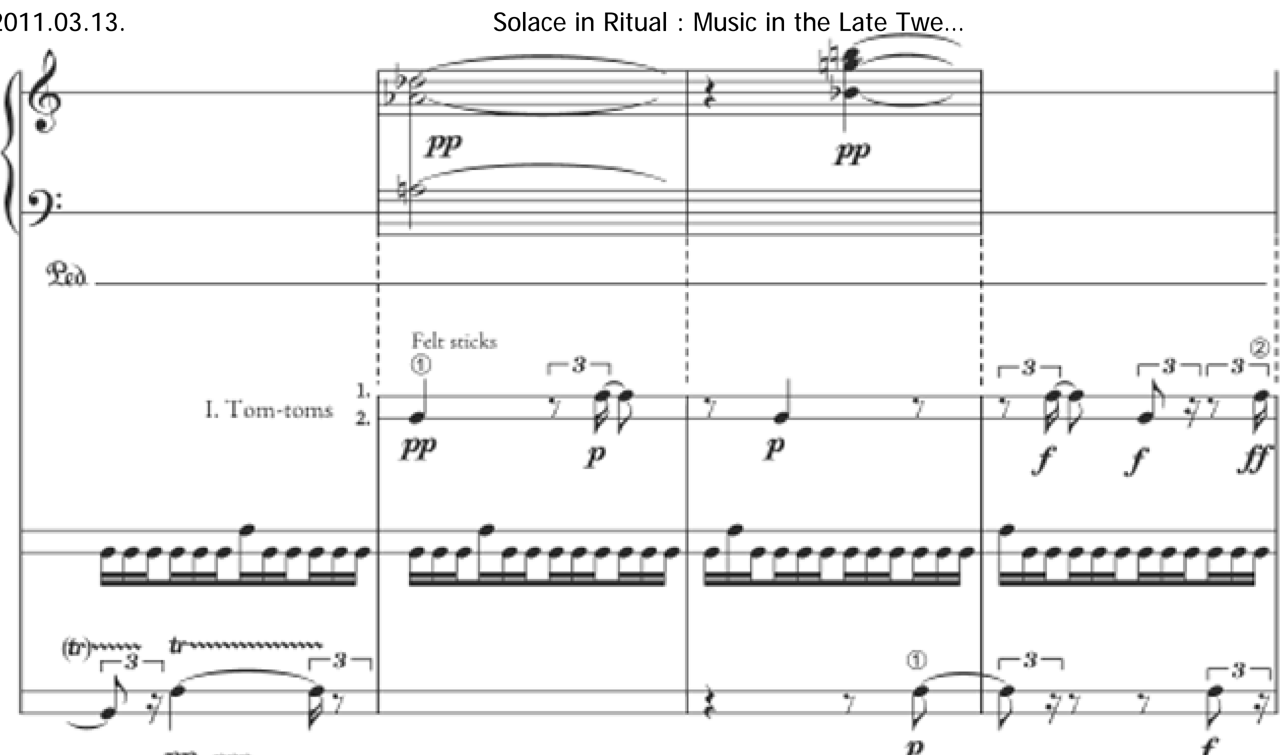
Stockhausen had a traditional Catholic upbringing (as did both Krenek and Boulez) and from childhood was unusually devout. For him the Nazi years were above all a time of religious conflict, and his experience of “zero hour,” colored by the loss of his father in the last days of the war, was one of religious rededication. It was now an unconventional religion to which he devoted himself, heavily influenced by a reading of the novel *Das Glasperlenspiel* (“The glass-bead game,” or “Magister Ludi”) by the pacifist author Hermann Hesse (1877–1962), whose writings were informed by an interest in Asian religions, especially Buddhism. Stockhausen identified strongly with Joseph Knecht, the protagonist of the novel, who like him was an orphan boy with musical gifts studying at the Cologne Musikhochschule (Conservatory), and who dedicates himself to the “glass bead game” of the title, a quasi-monastic exercise that combines the disciplines of “science, reverence for the beautiful and meditation.” Such activity, Stockhausen came to believe, connected the callings of musician with that of “spiritual servant.”[54] He had found his own path to a prehumanistic musical ideal, and became a zealous proselytizer for it. (The reference to “a glass-bead-game” in Henze's description of the zero-hour sensibility, quoted earlier, was surely an allusion to Stockhausen's exhortations.) Stockhausen's initial exposure to twelve-tone music came by way of Herbert Eimert, who lived in Cologne and gave him a copy of his 25-year-old textbook, banned by the Nazis. It was Eimert, too, who advised him to attend the 1951 Summer Courses at Darmstadt, where he heard the recording of Messiaen's *Mode de valeurs* and immediately sensed its kinship to Hesse's imaginary bead game. In his excitement over that discovery he found that the orgiastic “Dance of the Golden Calf” from Schoenberg's unfinished opera *Moses und Aron*, the sensation of the Darmstadt season, seemed altogether passé. For Stockhausen too, Schoenberg was dead.

He explained that impression to Adorno, who had taken over the composition class that Schoenberg was supposed to have taught himself but for his final illness, and who inquired about the development of motives in an embryonic total-serial piece that another student had submitted, by replying, “Professor, you are looking for a chicken in an abstract painting.”[55] The remark became a Darmstadt legend, not merely for its sassiness but for its charisma. Attesting so impressively to the unknown young composer's self-assurance, it immediately attracted disciples to his side.

Like *Mode de valeurs* or *Structures*, Stockhausen's *Kreuzspiel* replaces “chickens” (conventional motives for development) with “sound atoms,” to use Stockhausen's term. But whereas Messiaen's and Boulez's compositions displayed their component particles in static arrangements, Stockhausen's embodies a dynamic process of

unfolding, in which the tones can be likened to actors, or participants in a ritualized action that has no other goal than its own completion—hence *spiel* ("game"). What is predetermined is not just how things *are*, but what they seem to *do*, and what they will *become*.





ex. 1-12 Karlheinz Stockhausen, *Kreuzspiel*, mm. 1–13

The work is scored for two woodwind players (on oboe and bass clarinet), a pianist (who also plays woodblock), and three percussionists who together play on eight tuned drums (pitched, like so much early modernist harmony, at intervals of alternating perfect fourths and tritones) and four suspended cymbals of varying size, for an obviously significant total of twelve instruments. Its temporal unfolding consists of three main parts, distinguished from one another by tempo changes and connected with transitional passages. During the first thirteen bars (the "slow introduction," Ex. 1-12), the piano and the percussion introduce their respective "chromatic" domains. The piano, concerned with pitches, gives out a series of twelve-tone aggregates arranged into three-note chords, of which the first, at the registral extremes, remains constant. The drums give out a pair of rhythmic series, expressed by alternations between the high and low tumbas (or conga drums): each time the higher drum is struck, a different number of pulses on the lower drum must intervene before the next time until all twelve "chromatic" degrees have been sounded. The second of these series (beginning in the middle of m. 7) is just a "chromatic scale" à la Messiaen: 1 pulse, then 2, then 3, and so on to 12. In the one given at the outset, the order has been scrambled: 2 8 7 4 11 1 12 3 9 6 5 10. Counting pulse-groups throughout the first section would reveal that no two orderings are alike, but all are permutations of the full "chromatic" spectrum of durations. The same principle of constant permutation goes for the pitch series in the piano and, eventually, the winds. The "cross-play" of the title follows a complicated set of algorithms or precompositional rules, but its result is easily observed. In the piano's first "linear" statement of the pitch series, at m. 14 (Ex. 1-13a), the twelve pitches are associated by extreme registers into two hexachords: E♭, D, E, G, A, and A♭ in the high treble and D♭, C, B♭, F, B, and G♭ in the low bass. In the last statement of Part I, which begins precisely in the middle of m. 85 (Ex. 1-13b), the registral positions are reversed, the first hexachord now sounding in the bass and the second in the treble.

ex. 1-13a Karlheinz Stockhausen, *Kreuzspiel*, mm. 14–20

ex. 1-13b Karlheinz Stockhausen, *Kreuzspiel*, mm. 85–91

That is the most obvious of the “crossings”; there are many others, involving timbre, dynamics, and rhythm, to which only arduous analysis rather than sensory perception can give access. In this sense the workings of *Kreuzspiel* are just as arcane, just as mysterious and obscure, as those of *Structures*. But the constant pulse and the contrasting, obviously interacting timbres give the piece a sense of “narration” or progression through time that turns the algorithms into enactments. That, plus its exotic scoring and its “hockety” texture (reminiscent at times of jazz percussion), give the piece a somewhat less ascetic or forbidding aspect, even a “stain of the corporeal.” Within the ascetic world of “total serialism,” at any rate, *Kreuzspiel* counts as easy listening. That may be one reason why Stockhausen suppressed constant pulsation in the works that followed, and also withheld *Kreuzspiel* from publication for nearly a decade, despite positive audience reactions. We have seen that

audience appeal could be stigmatized, in the tense political atmosphere of the early cold war, as “compromise.” At the very least, a lapse of moral purity could cost an avant-garde composer his intellectual prestige, which is to say his political capital, and ultimately (paradoxically enough), his access to patronage and promotion.

Notes:

(54) Michael Kurtz, *Stockhausen: A Biography*, trans. Richard Toop (London: Faber and Faber, 1992), p. 24.

(55) *Ibid.* p. 36.

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Oxford History of Western Music: Richard Taruskin

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György Ligeti

Erno Lendvai

Electronic music

Karlheinz Stockhausen

POSTER BOY

Chapter: CHAPTER 1 Starting from Scratch
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

"In the arts an appetite for a new look is now a professional requirement, as in Russia to be accredited as a revolutionist is to qualify for privileges,"[56] wrote Harold Rosenberg, a champion of avant-garde painting, in 1960. He was calling attention to some of the unintended ironies that resulted from the politics of the cold war, the chief one being the political and commercial exploitation of the very stance of apolitical and noncommercial unexploitability that was supposed to be the distinguishing feature of the "Western" side in the debate over the meaning and purpose of art.

If we wish to examine the musical side of this curious yet telling state of affairs, the focal figure for the 1950s would have to be György Ligeti (b. 1923), the Hungarian composer with whose widely heralded analysis of *Structures* we are already acquainted. The dynamics of his career will offer an ironic counterpoint, or perhaps provide an inverted mirror-reflection, to the tribulations that befell the legacy of his countryman Bartók around the same time.

Ligeti finished his musical education and began his composing career precisely at postwar Hungary's most stringently "Zhdanovite" moment. He graduated from the Liszt Conservatory in Budapest in 1949, the very year the Hungarian Communist Party gained absolute power and began regulating the arts in accord with its Soviet prototype's Resolution on Music. As a Jew, he had lived in terror and ultimately in hiding during the war, and greeted the arrival of the Soviet liberators in Hungary with joy. Like many formerly left-leaning Eastern European intellectuals, as he has told interviewers, he found that it took the experience of living under Soviet power to turn him into an anti-Communist. ("So many people believed in this utopia, and then they were so completely disappointed—more than disappointed."[57]) It also turned his composing predilections, in a spirit of defiance, away from Bartók and Stravinsky and toward the avant-garde, which in the Hungarian context still meant Schoenberg.

There was no possibility of performance or publication of such music in Hungary at the time, so Ligeti began doing as some Soviet composers also did—writing utilitarian music (folksong arrangements and school choruses) for pay and "serious" works for the drawer. One of them, in the composer's words, was "completely twelve-tone and rhythmically machine-like."[58] Even behind the "iron curtain," composers felt the paradoxical need to surrender their decision-making faculties to algorithms—in the name of freedom.

Ligeti seized his chance to leave Hungary in the wake of the failed 1956 rebellion, which briefly toppled the Communist regime before being crushed by the Soviet army. He crossed into Austria in December, and fetched up in Cologne in February 1957. He had been corresponding with Eimert and Stockhausen, and they arranged a stipend to pay his living expenses so that he could work at a new-music studio Eimert had set up at the state-supported radio station in that city. That year, too, Ligeti spent the first of seven summers at Darmstadt. The

first item he produced in the West, however, was not a musical composition but the analysis of *Structures*, which his hosts, being the editors of *Die Reihe*, were eager to publish.

The ironies and ambivalences of the cold war situation—the simultaneous escape into and escape from freedom, about which existentialist philosophers and psychologists wrote interminably—is nowhere more poignantly summed up than in that essay, where the recent refugee from Soviet tyranny wrote happily about “choosing one's own prison according to one's wishes,” and being “free to act within those walls.” In an equally remarkable conclusion, the fugitive from the world of “historical materialism”—where the sacrifice of present happiness to future utopia was mandated by the state, and the independence of the “esthetic” and the “artistic” as autonomous categories was disputed in the name of social progress—called for just such a sacrifice in the name of technical progress.

> Since in music a pure structure can only be achieved through time, composition at the serial level has become work with time. Thus composition ceases to be essentially “art-work”; to compose now takes on an additional character of research into the newly-discovered relationships of material. This attitude may strike people as negative, “inartistic”—but there is no other way for the composer of today, if he wants to get any further.[59]

Certainly Ligeti's first year in Germany had the character of research. “I soaked things up like a sponge,” he told an interviewer; “for several months I did nothing but listen to tapes and discs.”[60] The Boulez analysis was in its way what in Germany is called a *Habilitationsschrift* or “inaugural thesis,” a formal demonstration of mastery and a ticket of admission to an academy. The first few musical pieces were of a similar kind, in which the newcomer from the “backward” or “retarded” East demonstrated that he was no bumpkin. The big one was *Apparitions* for orchestra, a maximalist effort in every way, requiring a score with sixty-three staves. It was specifically, and consciously, a maximalization of the most radical aspects of Bartók's music as they were then understood by Hungarian musicians, and an adaptation of that view of Bartók to the reigning ideologies and methodologies of Darmstadt.

In 1955 two important books on Bartók were published in Budapest, both by a single author, Erno Lendvai (1925–93), a musicologist who lectured on analysis at the Liszt Academy of Music in Budapest, where Ligeti also worked up to the time of his emigration.[61] The books were systematic demonstrations of Lendvai's thesis that Bartók's works were formed according to what the architects of the Italian Renaissance called the Golden Section (or Divine Proportion), a ratio that supposedly governs the proportions of natural objects and is for that reason naturally pleasing to the mind.

(The two segments of a line divided according to the Golden Section will have the same ratio of length as the ratio between the larger segment and the whole line. Like “Pi,” the ratio between the circumference and diameter of a circle, the Golden Section cannot be exactly expressed in the decimal system, but only approximated, usually as 1.618. It is progressively approached by the ratios produced by pairs of numbers along a Fibonacci series, the sequence formed by adding two successive members to find the next member: for example 1, 1, 2, 3, 5, 8, 13, 21, 34, etc. In other words, the values of the ratios 1/2, 2/3, 3/5, 5/8, etc. approach the Golden ratio.)

Lendvai analyzed many works of Bartók to show that Bartók transferred the ratios of the Fibonacci series and the Golden Section to the temporal domain in order to govern the length of the component sections in his works and thus generate their form. His theory has not gained wide acceptance among musicologists, but in 1956 it became the basis for an entirely inappropriate political denunciation (on grounds of “formalism”) that led to Lendvai's dismissal from his position at the Academy. As a demonstration of solidarity with his former colleague, whose tribulations made the defense of a “formalist” view of Bartók seem more politically urgent than ever, Ligeti deliberately proportioned the first of the two movements in *Apparitions* on the Fibonacci series throughout, applying it as a typically Darmstadtian algorithm with far greater rigor than Lendvai ever suspected Bartók of doing (but, as it happened, in a way that another avant-garde musician, Iannis Xenakis, a Greek-born Parisian

who had actually trained as an architect, was beginning to do).

The pitch material of the movement was developed from tone clusters, the harmonic effect that, as used in such works as the Fourth Quartet or the piano suite *Szabadban* ("Out of doors"), symbolized Bartók's radical extreme in another musical dimension. What was of greatest immediate importance was the way in which Ligeti developed the implications of Bartók's musical ideas, as he understood them, in a context completely devoid of folklore, siding decisively with those who wanted to see the great Hungarian composer as a universal modern master on a par (however difficult it might be for his German hosts to accept such an idea) with Schoenberg and Webern. In any event, it was a view that utterly opposed the image of Bartók that the Communist government was promoting back home, and was therefore a contribution in actual music to the ongoing debate about Bartók's legacy that was such a conspicuous aspect of the cold-war musical scene.

But the West, too, participated in cold-war image-making and promotions, and this was an important factor in Ligeti's own reception. In addition to *Apparitions*, during his first years in the "free world" Ligeti composed two short pieces in a new medium, "electronic music," that had only existed since the war, and was therefore enormously attractive to musicians who saw themselves as re-creating the art of music from scratch. Eimert had set up a studio for electronic music—the first in Europe—at the Cologne Radio, and Stockhausen had been busy there since 1953.

The early history of electronic music will be sketched in chapter 4, but it will be worthwhile, in the present context, to say a few words in advance about Ligeti's electronic studies of 1957–58. The medium attracted him long before he came West, he has said, because the composer of electronic music realizes the actual sounding composition in the act of creating it, so that there is no need for performers, publishers, or any social mediation at all. That could make it seem the misanthrope's delight, perhaps, but from Ligeti's perspective (or that of any composer growing up in the Soviet bloc) it promised a way of making music beyond the reach of bureaucratic interference.

Ligeti's second electronic composition, *Artikulation* (1958), arose out of a preoccupation shared by several of the musicians and technicians working at the Cologne studio: the age-old question of the relationship between music and speech. They approached it in characteristically "atomistic" fashion, not in terms of sentences or words but in terms of phonology—that is, individual phonetic units—according to a classification system for "sound signals" worked out by the communications theorist Werner Meyer-Eppler, whose lectures at the University of Bonn had been an inspiration to Stockhausen. Ligeti's piece was a collage of "sound atoms" selected from a big Meyer-Epplerish menu according to a set of algorithms that grouped forty-four sound-types into ten categories or "texts," thence modified into "words," thence into "languages," thence into "sentences" with intonational contours reminiscent of speech. Another set of algorithms divided the music among four antiphonal recorded tracks. The results were further mixed down to two stereophonic channels to enable publication in the form of a recording.

There was no score (and no possibility, therefore, for analysis of the result), for the composer had worked by ear on the basis of rough charts. There was no need for a prescriptive notation since electronic music, once fixed on tape, required no performers at all, just playback equipment. One of the most significant if initially unsuspected aspects of electronic music, it eventually dawned, was that it produced the first fundamental alteration of the relationship between composition and notation in a thousand years, pointing the way (not that anyone was looking for it then) toward musical "postliteracy." This will be a big theme, in fact the biggest, in the closing chapters of this book.

And yet a dozen years later, in 1970, the German publishing house of Schott, the most powerful firm in Europe, celebrated its "acquisition" of Ligeti by commissioning from a technician named Rainer Wehinger what it was pleased to call a "Hörpartitur" or "aural score" of *Artikulation*. Like any score, it could be followed while listening to the piece, but it served no other practical purpose—not even for analysis, since the sounds were not

represented with enough specificity as to their exact frequency or duration. Instead, they were rendered impressionistically, by fancifully executed shapes of arbitrary design that corresponded with various timbres and attack characteristics.

These shapes appear from left to right in the order in which the little sounds in *Artikulation* are heard, their spatial frequency coordinated with a grid that marks elapsing seconds. The antiphonal effects are indicated by the little circles above the "score," which are divided into quadrants that stand for the four stereophonic tracks. Perhaps deliberately, Wehinger's shapes are reminiscent of the unidentified objects one might see in a modern painting, say by the Spanish painter Joan Miró (1893–1983), whose quirky surrealistic images Ligeti had in mind (according to his biographer Richard Toop) while composing the piece.[62] In that case, the peculiarly named "Hörpartitur" (which isn't actually required for hearing anything) is more a sort of parallel objet d'art—an impression that becomes all the stronger when one learns that, in addition to the conventionally bound score, Schott also published the Hörpartitur of *Artikulation* in the form of a large poster in bright colors, suitable for hanging on the wall. It was in effect a work of visual art founded on, or determined by, a piece of music.

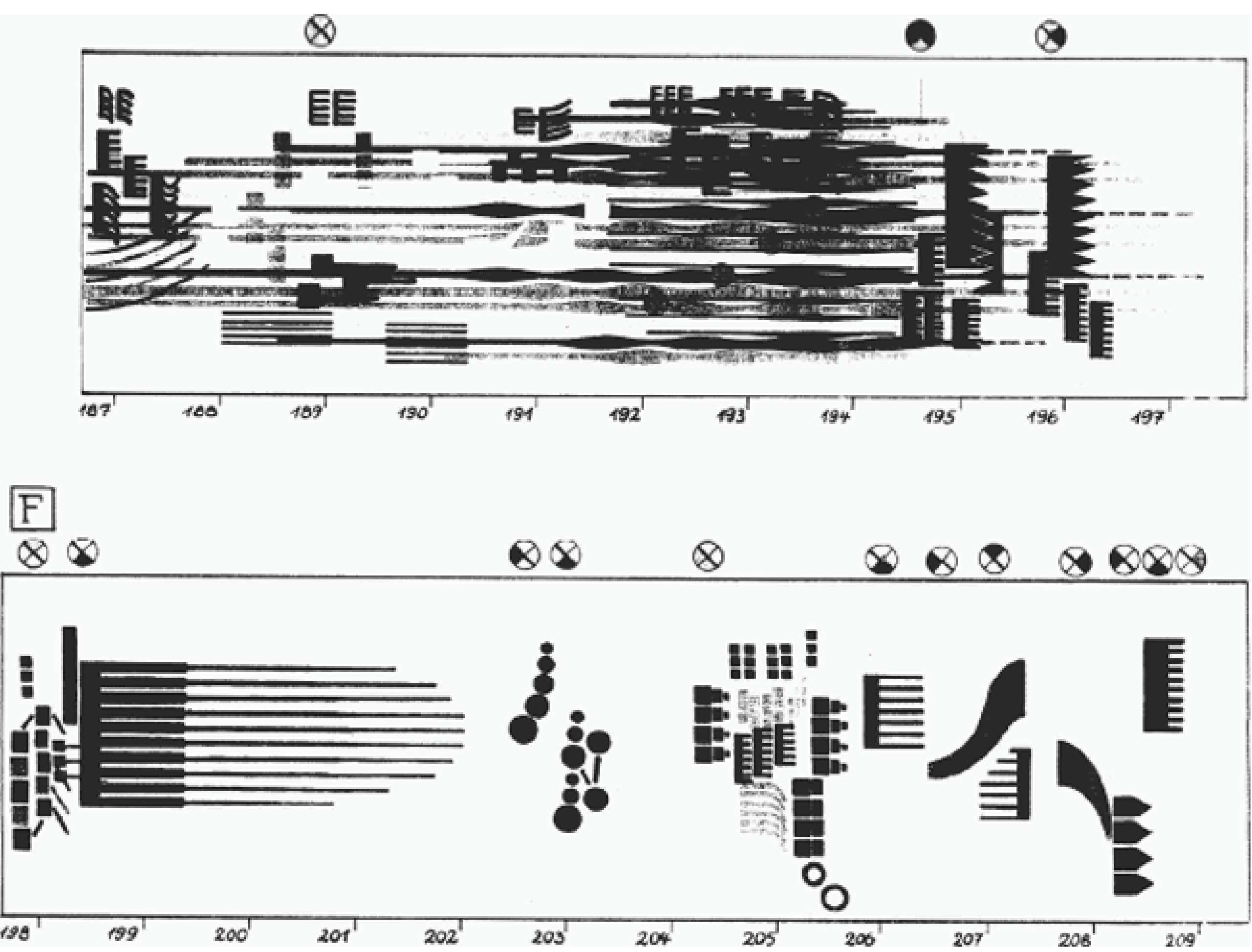

fig. 1-6 Page from the "Hörpartitur" by Rainer Wehinger for Ligeti's *Artikulation* (Mainz: B. Schott's Söhne, 1970).

Thus the score serves a decorative or celebratory purpose rather than a practical one. It is a "production value" meant to enhance the status of the work and its author, and reflect prestige on the publisher, evidence that Ligeti had become the focus of a "cult of personality" of a kind far more common in the marketing of commercial pop music than in the "serious" "classical" sphere. His emblematic status derived in large part from the dramatic circumstances of his career, with its spectacular move from East to West. To put it very crudely, Ligeti's fame

had turned him into a sort of cold-war trophy or poster boy, a status that then fed back into his fame. And with that, we arrive back at our starting point, the political polarization of the cold war now yielding exploitable goods.

Ligeti could not have achieved such a position had he not joined forces with the Western avant-garde. Andrzej Panufnik (1914–91), a composer and conductor who made a comparable defection to the West from the Soviet bloc around the same time, sank like a stone. A much-honored figure in his native Poland, he sought asylum from the Communist regime in England during a 1954 concert tour, and, as he put it ruefully in retrospect, "leapt from my Polish position of Number One to no one at all in England."[63]

Compared with the Darmstadt avant-garde, Panufnik's music could be described as "gemässigte Moderne." Cast for the most part in traditional forms—overtures, symphonies, and the like—that had been anathematized at Darmstadt but not at home, it lacked propaganda value. By the 1970s, the cold war waning, Panufnik found some champions, most notably the veteran conductor Leopold Stokowski (1882–1977) who in 1973, after a long career in the United States, moved back to his native England. In 1991, near the end of his life, Panufnik was honored by his adopted country with a knighthood. But without the cachet of stylistic as well as political "dissidence," an Eastern European composer could not attract much sympathetic attention during the years of political stress.

Stockhausen, the most flamboyant of the Darmstadt avant-gardists, was the other charismatic figure of the age. His publisher, Universal Edition, gave him the same sort of star treatment as Schott gave Ligeti, posters and all, and he eventually became a minor cult figure in the pop world. His *Klavierstück XI* (1956), whose many component fragments could be played in many different orders, had to be custom-printed on a gigantic piece of heavy paper to eliminate the need for page turns. Not only did the publishing house accommodate with a beautifully engraved score packaged as a roll inside a cardboard cylinder, it also provided a custom-designed folding music-stand with clips that would hold the unwieldy thing in place atop the piano.

No other "serious" composers of the period could expect that kind of aggressive promotion from commercial publishers. It testified impressively to Stockhausen's and Ligeti's standing as culture heroes and to the publishers' willingness to take a loss for prestige purposes. But all that prestige, and the attendant "commodification" of the pieces so lavishly produced, did rather alter the status of the "Darmstadt school" as an avant-garde. When capitalist enterprises began engaging in cold-war cultural politics alongside governments, the cultural message could not remain unaffected. By the 1980s, Darmstadt had become a sleek establishment indeed; a book published in 1991 listed the sponsors of the famous summer courses as including "music publishers, automobile manufacturers, radio and television stations, and an impressive number of state and city officials." That co-opting of the enterprise will be something to keep in mind when it comes time to assess the inevitable reaction against it, widely billed as the "death of the avant-garde." Its demise was already implicit in the nature of its success.

Notes:

(56) Harold Rosenberg, *The Tradition of the New* (Chicago: University of Chicago Press, 1982), p. 9.

(57) Quoted in Paul Griffiths, *György Ligeti* (London: Robson Books, 1983), p. 11.

(58) *Ibid*. p. 14.

(59) Ligeti, "Pierre Boulez: Entscheidung und Automatik in der Structure Ia," p. 63.

(60) Quoted in Griffiths, *György Ligeti*, p. 22.

(61) Ernő Lendvai, *Bevezetés a Bartók-müvek elemzésébe* (Introduction to the analysis of Bartók's works); *Bartók stílusa* (Bartók's style) (both Budapest: Zenemukiadö, 1955).

(62) See Richard Toop, *György Ligeti* (London: Phaidon, 1999), p. 57.

(63) Quoted in Adrian Thomas, “Panufnik, Sir Andrzej,” in *New Grove Dictionary of Music and Musicians*, Vol. XIX (2nd ed.; New York: Grove, 2001), p. 46.

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Oxford History of Western Music: Richard Taruskin

CHAPTER 2 Indeterminacy

Cage and the "New York School"

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

MEANS AND ENDS

The American counterpart to the postwar avant-garde in Europe was a group of composers and performers gathered around the charismatic figure of John Cage (1912–92). Their methods differed so radically from those of the Europeans as to hide their basic affinities from many contemporary observers. What they shared, however, went much deeper than their differences, for both groups sought "automatism," the resolute elimination of the artist's ego or personality from the artistic product. It was a traditional modernist aim (compare Josè Ortega y Gasset's ideal of "dehumanization", enunciated in a celebrated essay of 1925), pushed to a hitherto unimaginable extremity.

The Americans went about the task with such stunning directness as to put themselves almost wholly outside what anyone could possibly think of as the musical mainstream. Cage in particular, an inveterate maverick, was long thought of as a joker—or at least a "dadaist"—on the margins of the legitimate musical world. The postwar existentialist mood, however, and especially the European "zero hour," brought the mainstream round to him, and he became for a while perhaps the most influential musician in the world.

Like Henry Cowell, his early mentor, Cage was born and grew up in California, far from the power centers of the Eurocentric mainstream. Almost his entire formal music education consisted of childhood piano lessons. He never attended a conservatory, and never acquired the basic skills in ear training and sight singing normally thought necessary for creative work in music. He audited some of Schoenberg's theory courses at UCLA and the University of Southern California beginning in the summer of 1935, and thereafter called himself a Schoenberg pupil,[1] but as a composer (except for some sporadic private lessons with Adolph Weiss, a genuine Schoenberg pupil who was the first American to use the twelve-tone system) he was self-taught—a "primitive." "The whole pitch aspect of music eludes me,"[2] he once cheerfully told an interviewer, no doubt exaggerating for effect. But it could be fairly said that his whole career was devoted to countering the supremacy of traditional pitch organization—harmony, counterpoint, and all the rest—as the basis for making music. A few unpromising apprentice works aside, his earliest original compositions, beginning with a Quartet composed in 1935, were for percussion ensembles that included pots and pans and other household items ("Living Room Music," as he actually titled one piece) in addition to more conventional percussion instruments.

In composing them, Cage was putting into practice a theory that he enunciated, in an astonishingly developed form, in a lecture called "The Future of Music: Credo," first delivered in Seattle in 1940, under the auspices of Bonnie Bird, a dancer who had hired him to accompany her classes, when he was a twenty-eight-year-old unknown. "The present methods of writing music, principally those which employ harmony and its reference to particular steps in the field of sound, will be inadequate for the composer, who will be faced with the entire field of sound."[3] Where Schoenberg had "emancipated the dissonance," in other words, Cage now proposed to complete the job and emancipate noise. This was the basis for his interest in percussion music.

But the implications went much further. Having envisioned a music that might include, as he put it, "a quartet for

explosive motor, wind, heartbeat, and landslide," and anticipating objections from those for whom "the word 'music' is sacred and reserved for eighteenth- and nineteenth-century instruments," Cage suggested that the word be abolished for new creation and replaced with "a more meaningful term: organized sound." From this emerged an even more radical thought:

> The composer (organizer of sound) will be faced not only with the entire field of sound but also with the entire field of time. The "frame" or fraction of a second, following established film technique, will probably be the basic unit in the measurement of time. No rhythm will be beyond the composer's reach.[4]

So the music of the future, as Cage envisioned it, would not merely replace one type of sound with another on its sounding surface, but would entail an entirely new ordering of the musical elements, with duration rather than pitch as the fundamental organizing principle. Duration, Cage argued, was the fundamental musical element, since all sounds—and silence, too—had it in common. And therefore, he could aver, he was the only contemporary musician who was dealing newly with music on its root (i.e., "radical") level. Accordingly, most of Cage's early percussion pieces, like most of the music he would write forever after, were based on abstract durational schemes—"empty containers," he called them, to be filled with sounds—that replaced the abstract harmonic schemes of the classical tradition.

Imaginary Landscape No. 1 (Ex. 2-1), composed in 1939, was the first piece in which Cage filled an empty container with sounds. The container consisted of four sections each comprising fifteen (3 × 5) measures, separated by interludes that grow progressively in length from one to three measures, and followed by a four-measure coda to complete the growth progression. (Ex. 2-1 shows the first two sections and the first two interludes.) The sounds were furnished by a quartet consisting of a muted piano, a suspended cymbal, and two variable-speed turntables on which single-frequency radio test records were played at various steady speeds and also sliding between speeds in siren-like glissandos. The title came by its surrealist ring honestly; Cage had been commissioned to provide music to accompany a performance of Cocteau's *Les mariés de la tour Eiffel*, the very skit for which the composers of Les Six had a written a ballet in 1921. For Cage, the idea of the "imaginary landscape" was a striking spatial analogy for his preplanned temporal schemes; he used it as a title several times.

♩=60
Player 1
Player 2
Player 3
Player 4
A
B
C
D
E

ex. 2-1 John Cage, *Imaginary Landscape No. 1*, beginning

In later percussion compositions, Cage incorporated instruments or sonorities associated with various kinds of Asian and Caribbean repertoires, like the Indonesian *gamelan*, an orchestra of metallic percussion (compare Cage's two *Constructions in Metal*, composed in 1939 and 1940), or Afro-Cuban pop music, in which elements of West-African drumming were combined with the rhythms of syncopated Latin-American ballroom dances. An inventory of percussion instruments in Cage's collection, drawn up in 1940when he formed a regular touring ensemble to perform his own percussion music and that of other composers, included a large assortment of Afro-Cuban instruments (bongos, *quijadas* or rattles, *güiro* or scraped gourd, *marimbula, maracas, claves*, etc.).[5]

Cage's performances with his ten-piece percussion ensemble (whose members included his wife Xenia and Merce Cunningham, later a prominent modern dancer) culminated in a concert at the New York Museum of Modern Art on 7 February 1943. It was widely written up in the press, including a picture spread in *Life* magazine, and won him his first fame. The program on that occasion, which featured Cage's *Constructions* alongside works by the

Cuban composer Amadeo Roldán (1900–39), was covered mainly for its exotic curiosity value. The musicians dressed formally and behaved with punctilious decorum. But it is already evident that, although his manner was polite and friendly, Cage had anticipated the intransigent renunciations of the postwar avant-garde, turning his back on virtually the whole European art-musical tradition while claiming a place within it.

Even before that concert, Cage had taken a step that would bring him additional notoriety, and see him creatively through the 1940s. One of Bonnie Bird's pupils, an African-American dancer named Syvilla Fort, had worked up a neoprimitivist dance solo called *Bacchanale* for her graduation recital in 1940 and asked Cage to provide an accompaniment for it. The performance space was too small to accommodate a percussion ensemble, so (recalling Cowell's experiments in extended piano technique) Cage ingeniously turned an ordinary piano into a one-man percussion band by inserting metal screws, pencil erasers and other homely devices between the piano strings to deaden the pitch or otherwise alter the timbre. He called his invention the "prepared piano"; skeptics called it the "well-tampered clavier."

A glance at the score (Ex. 2-2) is enough to verify that Cage's neoprimitivism was of the conventional, ostinato-driven sort established for all time (or so it seemed) by Stravinsky's *Rite of Spring* What cannot be gleaned at all from the score is any idea of what the piece sounds like in terms of pitch or timbre, since the sounds of a prepared piano no longer have any predictable relationship to the keys that activate the strings. In this sense a prepared piano score is like an old "tablature" for lute or keyboard, of a kind widely used in the sixteenth and seventeenth centuries. It prescribes the player's actions directly, the resulting sounds only indirectly (based on the tuning of the lute or, in Cage's case, the specifications for piano-preparation that come with the sheet music).

Between 1940 and 1954 Cage produced some two dozen works for his new percussive medium. They constitute a major body of twentieth-century keyboard music. At first they were mainly orgiastic, rather patronizingly neo-Africanist dance pieces like the original *Bacchanale*—for example, *Primitive* or *Totem Ancestor* (both 1942)—but around 1944 Cage began using the medium to write pieces meant not for dance accompaniment but for "pure" concert use. The summit of his achievement in the medium was an hour-long set of *Sonatas and Interludes* (1946–48), in which the sonatas were of the Scarlattian type (single binary-form movements, with repeats) and the interludes consisted, very often, of very sparsely filled time-containers. It was Cage's single concession to then-fashionable neoclassicism.

In terms of its significance within his career, however, the most important of Cage's prepared-piano compositions was a six-movement suite called *The Perilous Night* (1944), which carried, and sought to convey, a strong emotional charge. Cage always referred to it as his "autobiographical"[6] piece, and his biographer David Revill has convincingly associated it with the traumas associated with Cage's sexual reorientation, culminating (1945) in divorce from his wife and the beginning of a monogamous homosexual partnership with Merce Cunningham that lasted to the end of his life.

It may be difficult in more tolerant times to recall the stigma once associated with homosexual liaisons, and the emotional trials that reordering one's life on less than socially respectable terms then entailed. At any rate, *The Perilous Night* was Cage's attempt to express, and thereby relieve, the anxieties he was experiencing in his private life. One can understand his distress, then, when a frivolous critic, who could not get over the shock of the novel prepared-piano timbres, dismissed this most intimately confessional of all Cage's works with the remark that it sounded like "a woodpecker in a church belfry."[7] The wounded composer talked about this experience for the rest of his life. Thenceforth, he once told an interviewer, "I could not accept the academic idea that the purpose of music was communication."[8] Another time, even more strongly, he said that after the *Perilous Night* fiasco, "I determined to give up composition unless I could find a better reason for doing it than communication." One might say that the bruise that Cage received from an uncaring philistine equipped him with the resentment and aggression that a truly avant-garde artist needs.

Piano Preparation

Tone	Material	String (left to right)	Distance From Damper
	small bolt	2-3	circa 3"
	weather stripping*	1-2	**
	screw with nuts & weather stripping*	2-3 1-2	** **
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**
	weather stripping*	1-2	**

*fibrous

**determine position and size of mutes by experiment

ex. 2-2 John Cage, *Bacchanale*, "piano preparation" chart and first page of musical notation

Notes:

(1) On Cage's claim to have studied composition with Schoenberg, see Michael Hicks, "John Cage's Studies with Schoenberg," *American Music* VIII (1990): 125–40.

(2) Alan Gillmor, "Interview with John Cage (1973)," quoted in David Revill, *The Roaring Silence. John* Cage: *A Life* (New York: Arcade Publishing, 1992), p. 30.

(3) John Cage, "The Future of Music: Credo," in *Silence: Lectures and Writings by John Cage* (Cambridge: The

M.I.T. Press, 1966), p. 4.

(4) *Ibid.* p. 5.

(5) "List of Percussion Instruments Owned by John Cage" (2 July 1940), now at the John Cage Archive, Northwestern University Music Library; handout accompanying Tamara Levitz, "The Africanist Presence in John Cage's *Bacchanale,*" University of California at Berkeley musicology colloquium, 24 March 2000.

(6) See Revill, *The Roaring Silence*, p. 84.

(7) *Ibid.* p. 88.

(8) *Ibid.* p. 89.

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Oxford History of Western Music: Richard Taruskin

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John Cage

Pierre Boulez

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WHOSE LIBERATION?

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

What better reasons did he find? The one that he liked to offer was spiritualistic and vaguely "oriental," borrowed in the 1940s from an Indian friend, Gita Sarabhai, with whom he was exchanging music lessons, and from whom he learned about the Indian concept of *tala*, a predetermined rhythmic structure (comparable, as already observed in connection with Messaien, to the talea of the medieval motet) in which he saw reflected his own ideas about "containers." The purpose of music, she told him (quoting her own Indian music master) was "to sober and quiet the mind, thus making it susceptible to divine influences."[9]

Pressed by a skeptical interviewer, Cage produced a less "churchy" version: "The function of music is to change the mind so that it does become open to experience, which inevitably is interesting."[10] Stripped to its essentials, Cage's doctrine ultimately comes down to what philosophers call particularism or "naive realism": the resolute avoidance of theory, or any mental act of generalization, so as to experience and enjoy the "real" or external world as it is in all its variety, and to perceive things (sounds, for instance) in all their individuality.

Ultimate purposes, however, do not produce a program of action. For managing his creative career from day to day and work to work, Cage embraced the model—inherited, he said, from his father, an inventor—of experimental science. Rather than communication, then, Cage adopted the purposes of research: not the kind of theoretical research in which many modernist artists engaged, which resulted in the extension and rationalization of known techniques toward precisely envisioned aims (e.g., the development of twelve-tone technique to extend and rationalize the principle of *Grundgestalt*, or Webern's refinement of Schoenberg's twelve-tone methods) but truly experimental research in which the outcome of one's actions was unpredicted and, as far as possible, unplanned. Henceforth, Cage's abundant ingenuity would be lavished on strategies to frustrate the planning of results, so that the object he produced would be completely free of his own wishes, preferences, tastes. He envisioned, in short, and strove to achieve, the complete liberation of sound.

But the liberation of sound was in no sense the liberation of the composer, or of any other person. In fact it was more nearly the opposite. Although Cage often described the elaborate methods he devised to realize his new purposes as involving indeterminacy or chance, they were anything but anarchic. In seeming (but only seeming) paradox, the liberation of sound demanded the enslavement, indeed the humiliation, of all human beings concerned—composer, performer, and listener alike—for it demanded the complete suppression of the ego.

Cage came to these precepts, he claimed, through immersion in the quietistic philosophy of Zen Buddhism, a fashionable preoccupation among Euro-American intellectuals in the late 1940s and early 1950s. It seems clear enough in retrospect that the general fascination, just then, with Zen was related to the interest in existentialism described in the preceding chapter, and that both were indirect responses to the stresses of the atomic age and the emergent cold war. Cage was only one of many New Yorkers who flocked to Columbia University, beginning in 1945, to hear the American-educated Daisetz Suzuki (1869–1966), Zen's chief ambassador abroad, give his

well-publicized, soothing lectures on the subject. Among Suzuki's other auditors was Jack Kerouac (1922–69), the author who by his example defined the "beat generation," a group of bohemian artists and intellectuals whose seemingly anarchic quest for artless authenticity through irrational behavior and unconsidered experience was also a self-declared adaptation of Zen thinking.

Japanese for "meditation," Zen is an anti-intellectual mental discipline that aims at sudden spiritual illumination by systematically rejecting the illusory safety of rational thought, which it regards as contrary to nature. Its chief methods are *zazen*, long sessions of ritualized contemplation with the mind cleared of all expectation, and *koan*, deliberately paradoxical riddles and sayings, sometimes accompanied by corporal punishments for incorrect (i.e., would-be logical) answers as a form of aversion therapy. The principle of nonexpectation is clearly, if perhaps superficially, related to Cage's ideal of experimental music; and as some of the quotations from his writings and interviews may have already suggested, Cage loved to express his ideas in the baffling manner of a koan.

Around the same time that Cage was absorbing Zen, in 1950, an aspiring composer named Christian Wolff (b. 1934), the son of a well-known publisher, brought Cage (from whom he was taking lessons) a copy of his father's new edition of the *I Ching* or "Book of Changes," an ancient Chinese manual of divination, the art of reading portents to gain knowledge unavailable to reason. The user of the *I Ching* would toss three coins (or six sticks) six times to determine which of sixty-four possible hexagrams (combinations of six continuous or broken lines) to consult in answer to a question about the future or some other unobservable thing (see Fig. 2-1 for the first sixteen of the possible sixty-four). By associating the hexagrams with musical parameters (pitch, duration, loudness, attack, etc.) Cage was able to convert the coin-tossing method into a means of eliminating his habits or desires (or as he put it, "memories, tastes, likes and dislikes"[11]) as factors in making compositional decisions. Once he had decided how the coin tosses would determine the musical results, he could relinquish control of the process and compose "non-intentionally," as Zen prescribed.

Although it may look like some kind of esoteric religious syncretism, and although that may have been its justification in Cage's own mind, his mixture of Zen with *I Ching* was a practical stroke of genius. The predetermination of the relationships between the divination charts and the musical results was precisely the sort of music-producing algorithm that Boulez and Stockhausen and their Darmstadt colleagues had been seeking via the multiple application of the twelve-tone serial principle. The difference was simply that whereas Boulez, having determined the broad outlines of structure, handed the specific contents of his work over to the serial operations designed to control it, Cage handed the specific contents of his work over to Dame Fortune (alias Lady Luck). His was a much more direct route to the "automatism" that the times demanded.

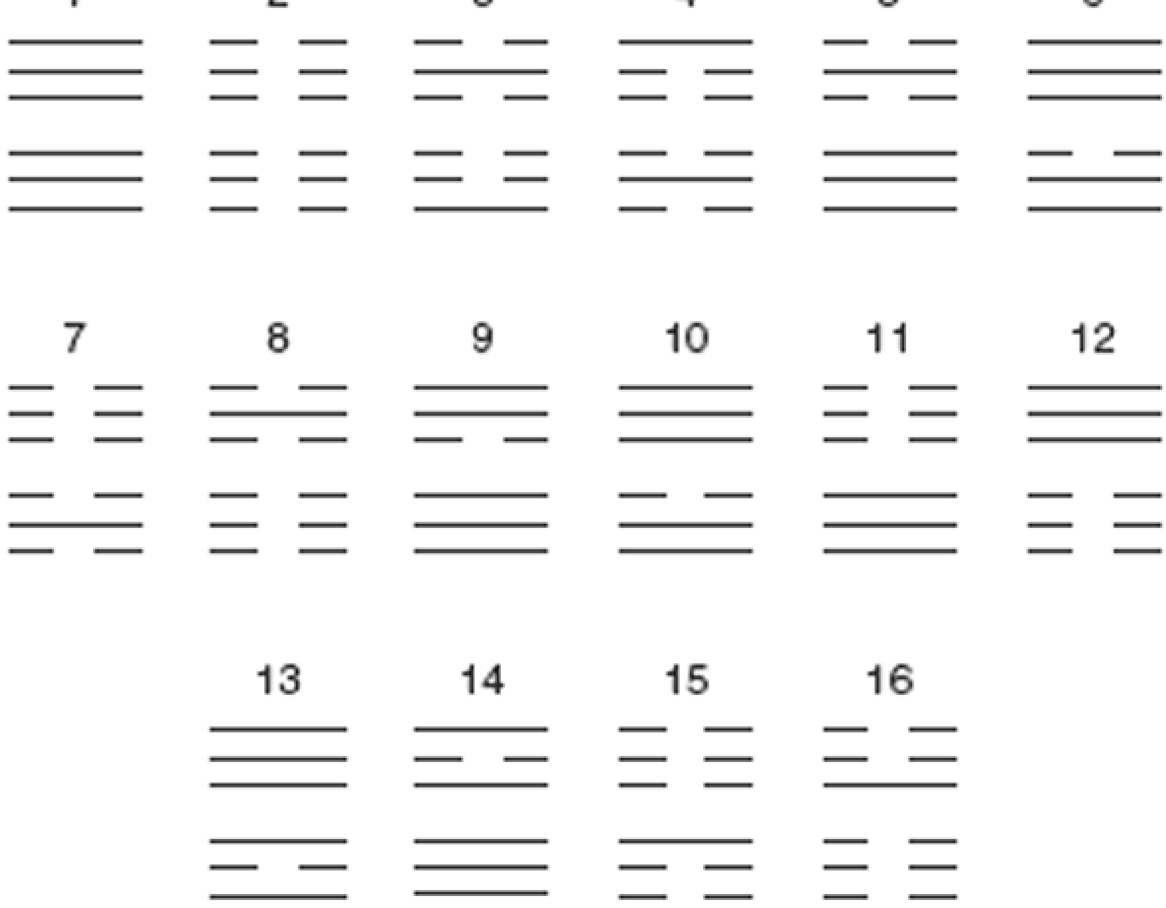

fig. 2-1 Hexagrams from the I Ching. Each design is a combination of unbroken (*yin*) and broken (*yang*) lines.

Indeed, for all their differences in background and method, Cage and Boulez immediately recognized that they were kindred spirits. They met in Paris in 1949, when Boulez had just written his Second Piano Sonata, a sprawling work that deals at Schoenber-gian length with tiny Webernian pitch cells, building up saturated but inchoate motivic textures that in their fragmented, "pointillistic" approach to pitch register, dynamics, and articulation never coalesce into any recurrent or otherwise memorable thematic substance and never harden into any generic formal mold. It was in effect a fierce manifesto against neo-classicism, against all musical "business as usual." Cage, fresh from his *Sonatas and Interludes*, was left "trembling in the face of great complexity"[12] after hearing Boulez play it. Christian Wolff's fortuitous gift, the *I Ching*, gave him the means of equaling, in fact surpassing, Boulez's iconoclastic tour de force.

The first work Cage composed by tossing coins was titled, appropriately enough, *Music of Changes* Like Boulez's Sonata, it was a huge, monumentally serious work for piano in several movements in an atomized or pointillistic style. Boulez and Cage kept up a lively, now published correspondence while Cage was at work on the *Music of Changes* and Boulez, partly under Cage's influence, worked on *Structures*, his most automatistic piece. Their letters contain joyously detailed technical descriptions of their elaborate methods, conveying tremendous excitement and providing a wonderful source for historians and analysts. Sometimes Cage would write a relatively skimpy letter, for which he would apologize by reminding Boulez, as he put it in one of them, "that I

spend a great deal of time tossing coins, and the emptiness of head that that induces begins to penetrate the rest of my time as well."[13] The elegance of the phrasing shows how much personality and cultivated intellect Cage was willing to renounce in his quest for musical "reality." Boulez was respectful of that, and perhaps a little envious. It led eventually to a break. For whereas Boulez's serial operations established multifarious arbitrary relationships among the events that took place in the score, Cage's chance operations generated truly atomistic sequences in which every event was generated independently of every other. His methods explicitly destroyed relationships ("weeded them out,"[14] he crowed) because attention to the fashioning of relationships, being egoistic, defeated the impersonalism demanded not only by Zen but by the "zero hour" mood in which (as Boulez himself loudly insisted) everyone alive to the tenor of the times had to participate. Music that contained lots of significant abstract relationships defeated the whole nature (or "reality") of music, Cage declared. Instead of listening, one analyzed.

"Composers," he gibed, "are spoken of as having ears for music which generally means that nothing presented to their ears can be heard by them."[15] Boulez's product, being full of relationships, could be parsed in traditional ways. Its events could be reduced to general principles. Its methods could be rationally deduced. All of that gave reassuring evidence, despite the zero-hour rhetoric, of an "ear for music," a controlling intelligence, a respectable moral accountability. By incorporating chance operations into the composing process, Cage was issuing a challenge to really stand behind the rhetoric and give up all traditional artistic values. (In a way, the best proof that Cage practiced what he preached, unquestioningly accepting the gifts of chance, is the presence in *Music of Changes* of occasional triadic harmonies that a serial composer would have been sure to purge from the score—see the "d-minor triad in first inversion" in the first measure of Ex. 2-3.) That much renunciation was too much for the Europeans. Boulez and Stockhausen each made token gestures in the direction of Cageian "indeterminacy," Stockhausen with his *Klavierstück XI* (1956), described in the previous chapter, and Boulez with the Third Piano Sonata (1955–57) a five-movement work in which the order of the movements (or "formants," as Boulez called them) could be rearranged around the central "Constellation," and in which the order of sections within movements were also subject to some limited variation. (Cage had anticipated this idea, too, in his *Music for Piano* 4–19 of 1953, consisting of *I Ching*-derived material notated on a sheaf of sixteen unbound and shuffleable pages that "may be played as separate pieces or continuously as one piece or:" [*sic*].)

Boulez published a manifesto of his own, called "Aléa" (from the Latin for dice), in which he described the "open form" concept his new Sonata exemplified, carefully tracing its origin not to Cage but to the French literary avant-garde from Stéphane Mallarmé to the contemporary novelist Alain Robbe-Grillet (1922–2008). His main contribution to the evolving theory of musical contingency was the word "aleatoric," now often used to describe music composed (or performed) to some degree according to chance operations or spontaneous decision. The degree of indeterminacy that Boulez and Stockhausen found admissible, however, never approached Cage's; and by thus exposing the limits to their avant-gardism (or, to put it the other way around, exposing their residual conservatism) Cage became for them a threatening presence.

The high point of their association came in 1958, when Cage and the pianist David Tudor (1926–96) visited Darmstadt, where they gave concerts and Cage directed a seminar on experimental music. (An earlier appearance, in 1954, at the old European new-music festival at Donaueschingen had been a jeered fiasco.) Cage proved a charismatic presence at Darmstadt. An oft-reproduced photograph, taken at the Brussels World Fair that summer (where the Philips audio company maintained a pavilion and commissioned some composers of the European avant-garde to create a sonic ambience that would show off its sound equipment) shows Cage comfortably at home in the presence of his European counterparts (Fig. 2-2). That fall he spent some months at Milan, at the invitation of Luciano Berio, a Darmstadt alumnus who made his experimental music studio at the state-subsidized radio station available to Cage.

Relations inevitably cooled thereafter. The Europeans, with their sense of inherited tradition (try as they might to repudiate it), could never reconcile themselves to the randomly generated sounds with which Cage, the innocent American, was happy to fill his time containers. Cage loved to tell the story of the Dutch musician who

said to him, “It must be very difficult for you in America to write music, for you are so far away from the centers of tradition.” Of course Cage replied, “It must be very difficult for you in Europe to write music, for you are so close to the centers of tradition.”[16]

ex. 2-3 John Cage, *Music of Changes*, II, fourth page of score (diamond note-heads indicate keys silently depressed)

Cage's audience, both at home and abroad, was increasingly drawn from the tolerantly eclectic worlds of visual arts and modern dance rather than the tense musical establishment, even the established avant-garde. He was just too effortlessly further-out-than-thou, or so it seemed to them. “I like fun,” the poet John Hollander sneered in an American new-music magazine, “but I shall resist the impulse to have as much fun being a critic as Mr. Cage has being a composer.”[17] Yet Cage was not just having fun. His schemes were just as complicated, just as

exacting, just as pitiless as a total serialist's. Chance operations were anything but labor-saving. Cage's motives did not differ from those of the composers who were now writing him off, and his product (as long as he was writing for conventional instruments) resembled theirs far more than they were prepared to admit. All that differed were the means. But the means seemed, in the eyes of many, to outweigh motives and ends. And that says a lot about modernism.

fig. 2-2 The assembled transatlantic avant-garde at the Philips pavilion, Brussels World's Fair, 1958: John Cage is supine on the floor. Kneeling above him are (left to right) Maricio Kagel (1931–2008), a German composer of Argentine birth; Earle Brown; Luciano Berio; and Stockhausen. Standing hehind them are Henk Badings (1907–1987), a Dutch composer; André Boucourechliev (1925–1997), a Bulgarian-born French composer and writer on music; Bruno Maderna; Henri Pousseur (b. 1929), a Belgian composer and music theorist; Mlle. Seriahine of the Philips Company; Luc Ferrari (b. 1929), a French composer; and Pierre Schaeffer.

Notes:

(9) *Ibid*. p. 90.

(10) Gillmor, "Interview with John Cage (1973)," quoted in Richard Kostelanetz, *Conversing with Cage* (New York: Limelight Editions, 1988), p. 43.

(11) Cole Gagne and Tracy Caras, *Soundpieces: Interviews with American Composers* (Metuchen, N.J.: Scarecrow Press, 1982); quoted in Kostelanetz, *Conversing with Cage*, p. 91.

(12) Quoted in Revill, *The Roaring Silence*, p. 99.

(13) John Cage to Pierre Boulez, summer 1952; Jean-Jacques Nattiez, ed., *The Boulez-Cage Correspondence*, trans. Robert Samuels (Cambridge: Cambridge University Press, 1993), p. 133.

(14) Paul Hersh, "John Cage," *Santa Cruz Express*, 19 August 1982; quoted in Kostelanetz, *Conversing with Cage*, p. 79.

(15) John Cage, "45' for a Speaker," in *Silence*, p. 155.

(16) John Cage, "History of Experimental Music in the United States," in *Silence*, p. 73.

(17) John Hollander, "*Silence* by John Cage," *Perspectives of New Music* I, no. 2 (spring 1963): 138.

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Oxford History of Western Music: Richard Taruskin

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Avant garde

Absolute music

Aleatory (indeterminacy)

NE PLUS ULTRA (GOING AS FAR AS YOU CAN GO)

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

It also says a lot about Romanticism. Cage's activity, more than that of any other individual, reveals the latent continuity between the Romantic impulse and the impulses that drove modernism, even (or especially) its most intransigent, avant-garde wing. His unsettling presence on the scene replayed the esthetic battles of the nineteenth century, splitting the avant-garde all over again into what the German poet Friedrich Schiller had called "naive and sentimental poets" in a famous essay of 1795. Sentimental poets were the kind "whose soul suffers no impression without at once turning to contemplate its own play."[18] Such artists were egoists, forever proclaiming their purposes and analyzing their methods, even when consciously directing their purposes and methods toward the elimination of ego. Hence the need for magazines like *Die Reihe*, the organ of the "sentimental" Darmstadt school, full of scientific or pseudoscientific explanations, formal justifications and, above all, rationalizations.

Naive poets (in Schiller's words) celebrated "the object itself," not "what the reflective understanding of the poet has made." Or as Cage put it, "the division is between understanding and experiencing, and many people think that art has to do with understanding, but it doesn't."[19] To relinquish rational reflection, Schiller said, leads to "tranquillity, purity and joy." Or as Cage put it, "the highest purpose is to have no purpose at all. This puts one in accord with nature in her manner of operation."[20] In saying this Cage thought that he was expressing the main principle of Zen, even though the aphorism itself was a paraphrase of one he had come across in the writings of the Indian art scholar Ananda Coomaraswamy (1877–1947). But appropriating and paraphrasing "oriental" philosophy was nothing new. Cage was doing exactly what Arthur Schopenhauer, the German Romantic writer who had exerted such a decisive influence on Wagner a hundred years before, had done; Schopenhauer, too, had claimed that he was bringing the wisdom of Hinduism and Buddhism to the West, when in fact he was pioneering a new Romantic esthetic.

Cage's principle of "purposeful purposelessness," whatever its remote links to Hinduism or Buddhism, was the direct descendent (or, to put it musically, an inversion) of the "purposeless purposefulness" (*Zweckmässigkeit ohne Zweck*[21]) by which Immanuel Kant had defined the brand-new Western concept of "the esthetic" in his *Critique of Judgement*, published in 1790. Like Cage, Kant was after purity. The esthetic, in Kant's definition, was a quality of beauty that wholly transcended utility. Esthetic objects existed—that is, were made—entirely for their own sake, requiring "disinterestedness" and zealous application on the part of the maker, and a corresponding act of disinterested, self-forgetting contemplation on the part of the beholder. As we have known, so to speak, for two hundred years, autonomous works of art occupied a special hallowed sphere, for which special places were set aside (museums and concert halls, "temples of art"), and where special modes of reverent behavior were observed, or, when necessary, imposed.

As we have also long known, music, inherently abstract to some degree owing to its lack of an obvious natural model, quickly became the Romantic art of choice, the most sacred of the autonomous arts. Not only for that reason, but also because it was a performing art in which a potentially meddlesome middleman stood between the maker and the beholder, "classical" music developed the most ritualized and the most hierarchical social practices. Like many artists, especially in liberal and democratic America, Cage consciously opposed this notoriously oppressive social practice: "The composer," he told an interviewer, "was the genius, the conductor ordered everyone around and the performers were slaves."[22] (And the listener? An innocent bystander.) As we shall see, though, his work went on upholding it in spite of himself.

The composer's status was enhanced, and the performer's demeaned, precisely because the new romantic concept of the autonomous artwork sharply differentiated their roles and assigned them vastly unequal value. The composer created the potentially immortal esthetic object. The performer was just an ephemeral mediator. Musical works that were too closely allied with egoistical performance values (virtuoso concertos, for example), or that too obviously catered to the needs or the whims of an audience, or even that too grossly represented the personality of the composer, were regarded as sullied because they had, in Kant's terms, a *Zweck*, a utilitarian purpose that compromised their autonomy. The only truly artistic purpose was that of transcending utilitarian purpose.

The art that most fully met this prescription, as we have long known, was "absolute music." It fell to Cage to magnify and purify the notion of absolute music beyond anything the romantics had foreseen. In his compositions of the 1950s, romantic art reached the most astounding, self-subverting purism of its whole career. In this way, Cage's "Zen" period paradoxically represented a long-heralded, if little recognized, pinnacle of Western art. In so doing, it reexposed with unprecedented boldness the problematic and self-contradictory aspects of the idea of absolute music, the West's most cherished esthetic tenet.

Cage reopened all the old questions: How does an art form that is inherently temporal achieve transcendent objectification? What is the actual ontological status (i.e., the status as "object") of a musical work? How does "the work" as such (or as an idea) relate to its performances? To its written score? The Polish philosopher Roman Ingarden once teasingly summed up all of these pesky ontological questions when he asked, "Where is Chopin's B-minor Sonata?"[23] Cage provided the most cogent, and therefore the most unsettling, answers.

We have seen that the essential structure, the "workhood," of a formalistic composition like Boulez's *Structures* can have rather little to do with its aural experience. Cage's highly determined "containers" were even more arcane, because they had even less to do with the often wholly indeterminate sounds that now filled them. Cage was fully aware of these problems, and engaged with them both playfully and in deadly earnest in his "Lecture on Nothing" of 1959, which begins with a sort of Zen koan that on repetition becomes a mantra: "I have nothing to say and I am saying it and that is poetry."

The Lecture is not really a lecture, though; it is a typical Cage composition consisting of a predetermined time-container. The filling in this case consists of familiar words in grammatical sentences that chiefly concern the filling process itself. Here is an excerpt, which the reader is invited to recite aloud, pausing in accordance with the spatial layout:

Here we are now   at the beginning of the

eleventh unit of the fourth large part   of this talk.

More and more   I have the feeling

            that we are getting

nowhere.   Slowly   ,   as the talk goes on

, we are getting nowhere

and that is a pleasure

. It is not irritating to be where one is

. It is only irritating

to think that one likes to be somewhere else.

Here we are now

, a little bit after the beginning

of the eleventh unit of the

fourth large part of this talk.

More and more we have the feeling

that I am getting nowhere

Slowly ,

as the talk goes on , slowly

, we have the feeling

we are getting nowhere

.

That is a pleasure

which will continue .

If we are irritated ,

it is not a pleasure .

Nothing is not a pleasure

if one is irritated , but suddenly

, it is a pleasure ,

and then more and more it is not irritating

(and then more and more and slowly).

Originally , we were nowhere ;

If anybody is sleepy , let him go to sleep

. Here we are now at the beginning of the

thirteenth unit of the fourth large part

of this talk. More and more

I have the feeling that we are getting

nowhere.

Cage's *Imaginary Landscape No. 3* (1942) is scored, in the manner of its time, for several audio-frequency oscillators, two variable-speed turntables, an electric buzzer, and several other pieces of audio equipment. Nine years later, after his encounter with Zen and the *I Ching*, Cage returned to the surrealistic genre he had invented and found a way, by tossing his coins, to compose a fully determined score that would produce a completely indeterminate, hence completely autonomous performance.

The work that accomplished this breakthrough was *Imaginary Landscape No. 4* (1951), scored for twenty-four players playing twelve radios under the direction of a conductor. Two players are assigned to each radio: one controls the volume knob, the other the tuner. The score, notated in fairly conventional notation that looks quite intricately contrapuntal, directs that the players turn the knobs at specified times to specified frequencies (where there may or may not be a broadcast signal) and amplitudes (many much softer than comfortable listening volume).

The conductor executes all kinds of tempo changes that relate only to the “work” as notated, not to the aural experience, which depends on entirely unpredictable and uncontrolled factors. His elaborately choreographed actions, often eliciting no discernable result, pointedly signal the abstractness and the autonomy of the work-concept. The first performance, which took place late at night when there was very little on the air, was an apparent fiasco, but its very sparseness illustrated all the more forcefully how unstable the ontological relationship between the prescribed work (as an ideal object) and the actual physical performance could be.

Any whiff of spoof—there is always nervous laughter at performances—is definitely an illusion. When Virgil Thomson told Cage he didn't think a piece like that ought to be performed before a paying audience, Cage took extreme umbrage and it caused a permanent rift in their relationship.[24] Perhaps needless to say, the piece has never been recorded. What would be the point?

Strangely enough, however, the celebrated *4′33″* (1952), Cage's most extreme experiment in indeterminacy, has been recorded several times, icon that it has become. Its subtitle is “Tacet for any instrument or instruments,” and Cage (who according to his biographer always spoke of it “reverentially”[25]) called it his “silent piece.” But that is a misnomer. It is, rather, a piece for a silent performer or performers who enter a performance space, signal the beginnings and the ends of three movements whose timings and internal “structural” subdivisions have been predetermined by chance operations, but make no intentional sound. (Usually the performer is a pianist and the signals are given by most carefully and noiselessly closing and raising the keyboard lid.) The piece consists of whatever sounds occur within a listener's earshot during these articulated spans.

This might seem on the face of it the very antithesis of an autonomous work of art, since the sounds are wholly contingent, outside the composer's control. (Cage often maintained that his aim in composing the piece was to erase the boundary between art and life.) But sounds are not the only thing that a composer controls, and sounds are not the only thing that constitutes a musical work. Under the social regimen of modern concert life, the composer controls not just sounds but people, and a work is defined not just by its contents but also by the behavior that it elicits from an audience. As the philosopher Lydia Goehr has observed,

> It is because of Cage's specifications that people gather together, usually in a concert hall, to listen to the sounds of the hall for the allotted time period. In ironic gesture, it is Cage who specifies that a pianist should sit at a piano to go through the motions of performance. The performer is applauded and the composer granted recognition for the "work." Whatever changes have come about in our material understanding of musical sound, the formal constraints of the work-concept have ironically been maintained.[26]

And she comments tactfully, in the form of a question, "Did Cage come to the compositional decisions that he did out of recognition that people will only listen to sounds around them if they are forced to do so under traditional, formal constraints?"

It is a profound political point. A work that is touted as a liberation from esthetics in fact brings an alert philosopher to a fuller awareness of all the constraints that the category of "the esthetic" imposes. Sounds that were noise on one side of an arbitrary framing gesture are suddenly music, a "work of art," on the other side. The esthetic comes into being by sheer fiat, at the drop of a piano lid. The audience is invited—no, commanded—to listen to ambient or natural sounds with the same attitude of reverent contemplation they would assume if they were listening to Beethoven's Ninth.

That is an attitude that is born not of nature, but of Beethoven. By the act of triggering it, art is not brought down to earth in the least. On the contrary, "life" is brought up for the duration into the transcendent. *4′33″* is thus the ultimate esthetic aggrandizement. Like any other musical "work," it has a published, copyrighted score. The space on its pages, measured from left to right, corresponds to the elapsing time. Most of the pages have vertical lines drawn on them, denoting the chance-calculated time articulations on which the duration of the piece depends. One of the pages, bypassed by these markers, remains blank. If copyrighting a blank page is not an act of esthetic grandiosity, what is?

So Cage's radical conceptions were as much intensifications of traditional practices, including traditional power relations, as departures from them. And they kept up a tradition of art-as-philosophy that was wholly a phase of the Western romantic tradition. The most obvious predecessor to *4′33″* was a work of visual rather than musical art: *Fountain* (1917) by the painter Marcel Duchamp (1887–1968), who later became a close friend and mentor to Cage. Asked to submit a work for a jury-free exhibition organized by an avant-garde artists' society of which he was a prominent member, Duchamp purchased a commercially manufactured porcelain urinal, signed it "R. Mutt," and sent it in. On its rejection he noisily resigned from the society, turning his "readymade" or found object into a much-exhibited cause célèbre, paradoxically one of the most famous artworks of the early twentieth century (Fig. 2-3).

fig. 2-3 Marcel Duchamp, *Fountain* (1917); replica, 1964.

The immediate effect of Duchamp's *Fountain* was similar to that of Cage's early chance pieces: it exposed the residual or "invisible" restrictions that continued to operate behind a self-advertised facade of liberation, forcing even the most extreme modernists to acknowledge their sentimental ties to the past or stand convicted of hypocrisy. Once exhibited, however, the work acquired a new meaning: a test, or limit-case, to define the nature of art not just according to the artist's intent but according to the mode of its reception.

If people walked by his signed urinal and, rather than using it as its manufacturer intended, looked at it the way they looked at the more conventional art works in the gallery, then their act of "disinterested" contemplation defined it as—or, more strongly, transformed it into—a work of art. Even if, as was sometimes claimed, it was Duchamp's signature (the signature of a recognized "genius") that turned a piece of plumbing into art, the act required the public's collusion. They were free to reject his gesture, but they did not. Art is defined, as in the case of *4′33″*, by the behavior that it induces. All that it takes to make art these days, cynics muttered (and philosophers admitted), was a frame.

But there was nothing as inherently provocative in *4′33″* as the selection of something normally fouled by body waste for transformation into art. On the contrary, Cage's conception of the piece (and by now the reaction of most audiences as well) was entirely one of reverence—the reverence that was due not only to sacralized nature, but also to sacralized art in the Beethovenian tradition. In keeping with that tradition, it was left to a musician to achieve the ultimate transcendence of life into art. For music did not necessarily carry automatic "life" associations the way a urinal (or any other physical object) did.

Especially in the age of recordings, music had no necessary physical presence at all. (Was it a coincidence that the length of Cage's piece was exactly that of a 12-inch 78 RPM "side"?) Even if one exhibited an empty frame in a museum *gallery*, there would be a physical object, and a "normal" utilitarian association, to limit the viewer's reaction. Paintings and frames were not only art objects but life objects as well. *4′33″* was literally a blank, a void, on which anyone could inscribe anything. To an extent unavailable to any other art medium, Cage's silent performance was divorced from surrounding "life," which normally contains lots of music. But all of that music was specifically excluded by the "silence."

Notes:

(18) Friedrich von Schiller, *Naïve and Sentimental Poetry; and, On the Sublime: Two Essays*, trans. Julius A. Elias (New York: Frederick Ungar Publishing, 1966), p. 129.

(19) Thomas Wufflin, "An Interview with John Cage," *New York Berlin* I, no. 1 (1985); quoted in Kostelanetz, *Conversing with Cage*, p. 115.

(20) John Cage, "45' for a Speaker," in *Silence*, p. 155.

(21) See Immanuel Kant, *Critique of Judgment*, Vol. I, §17: "*Beauty* is the form of the *purposiveness* of an object, so far as this is perceived in it *without any representation of a purpose*."

(22) Interview with Arlynne Nellhaus, *Denver Post*, 5 July 1968; Kostelanetz, *Conversing with Cage*, p. 106.

(23) Roman Ingarden, *The Work of Music and the Problem of Its Identity*, trans. Adam Czerniawski, ed. Jean G. Harrell (Berkeley and Los Angeles: University of California Press, 1986), pp. 2–6.

(24) Revill, *The Roaring Silence*, p. 196.

(25) *Ibid*. pp. 166–67.

(26) Lydia Goehr, *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (Oxford: Clarendon Press, 1992), p. 264.

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Cage: Dance, percussion, prepared piano

Prepared piano

Cage: Later work

PURIFICATION AND ITS DISCONTENTS

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

That excluded music was the utilitarian music that accompanies our everyday lives and that does not require special temples for its contemplation, including all popular music. Cage's attitude in *4′33″* was just as purified of the popular as any other kind of midcentury sacralized art (say, a Beethoven symphony recorded by Toscanini), and it was an especially poignant purification in Cage's case since his early percussion and prepared-piano music had been so full of popular-music resonances. Once Cage became a prophet of purity, a “Beethoven,” his earlier life was rewritten as myth, a myth that no longer contained any reference to the Asian or Afro-Cuban musics that had inspired Cage in his West Coast youth, although it did anachronistically prefigure his discovery of nonintention and chance.

Here, for example, is an abridgment of Cage's own account, published in 1973 and titled like a fable or a fairy tale, of his first prepared-piano composition:

> HOW THE PIANO CAME TO BE PREPARED
>
> In the late thirties I was employed as an accompanist for the classes in modern dance at the Cornish School in Seattle, Washington. These classes were taught by Bonnie Bird, who had been a member of Martha Graham's company. Among her pupils was an extraordinary dancer, Syvilla Fort. Three or four days before she was to perform her *Bacchanal*, Syvilla asked me to write music for it. I agreed.
>
> At that time I had two ways of composing: for piano or orchestral instruments I wrote twelve-tone music (I had studied with Adolph Weiss and Arnold Schoenberg); I also wrote music for percussion ensembles: pieces for three, four, or six players.
>
> The Cornish Theatre in which Syvilla Fort was to perform had no space in the wings. There was also no pit. There was, however, a piano at one side in front of the stage. I couldn't use percussion instruments for Syvilla's dance, though, suggesting Africa, they would have been suitable; they would have left too little room for her to perform. I was obliged to write a piano piece.
>
> I spent a day or so conscientiously trying to find an African twelve-tone row. I had no luck. I decided that what was wrong was not me but the piano. I decided to change it.
>
> Besides studying with Weiss and Schoenberg, I had also studied with Henry Cowell. I had often heard him play a grand piano, changing its sound by plucking and muting the strings with fingers and hands. I particularly loved to hear him play *The Banshee* To do this, Henry Cowell first depressed the pedal with a wedge at the back (or asked an assistant, sometimes myself, to sit at the keyboard and hold the pedal down), and then, standing at the back of the piano, he produced the music by lengthwise friction on the

> bass strings with his fingers or fingernails, and by crosswise sweeping of the bass strings with the palms of his hands. In another piece he used a darning egg, moving it lengthwise along the strings while trilling, as I recall, on the keyboard; this produced a glissando of harmonics.
>
> Having decided to change the sound of the piano in order to make a music suitable for Syvilla Fort's *Bacchanal*, I went to the kitchen, got a pie plate, brought it into the living room, and placed it on the piano strings. I played a few keys. The piano sounds had been changed, but the pie plate bounced around due to the vibrations, and, after a while, some of the sounds that had been changed no longer were. I tried something smaller, nails between the strings. They slipped down between and lengthwise along the strings. It dawned on me that screws or bolts would stay in position. They did. And I was delighted to notice that by means of a single preparation two different sounds could be produced. One was resonant and open, the other was quiet and muted. The quiet one was heard whenever the soft pedal was used. I wrote the *Bacchanal* quickly and with the excitement continual discovery provided. [...]
>
> When I first placed objects between the strings, it was with the desire to possess sounds (to be able to repeat them). But, as the music left my home and went from piano to piano and from pianist to pianist, it became clear that not only are two pianists essentially different from one another, but two pianos are not the same either. Instead of the possibility of repetition, we are faced in life with the unique qualities and characteristics of each occasion.
>
> The prepared piano, impressions I had from the work of artist friends, study of Zen Buddhism, ramblings in fields and forests looking for mushrooms, all led me to the enjoyment of things as they come, as they happen, rather than as they are possessed or kept or forced to be.[27]

Cage has given himself here an entirely European musical ancestry, one that included Schoenberg, of all contemporary composers the one who most insistently claimed a lineage from Beethoven, but whose influence actually had no bearing at all on Cage's neoprimitive *Bacchanale* And of Cowell's magnificently eclectic legacy (one that encompassed all the “Music of the World's Peoples,” to cite the title of Cowell's popular course at the New School and the once fairly big-selling record set that came out of it) Cage chose only the Irish mythological side, the most European side, to admit to his self-constructed narrative. In later life, Cage even replaced the Indian and Japanese sources of his spiritual philosophy with European and Euro-American ones, claiming a lifelong latent kinship with James Joyce and Henry David Thoreau. At the same time, Cage began to embrace aspects of mainstream culture he had formerly eschewed.

He became fascinated with “big science,” the government-subsidized scientific projects of the cold war period, especially computer technology and the exploration of space. Enlisting the help of Lejaren Hiller, a computer engineer and early experimenter with music-writing programs at the University of Illinois, Cage devised a flamboyant mixed-media performance called *HPSCHD* (computerese for “harpsichord”). The piece had been commissioned by a Swiss harpsichordist, Antoinette Vischer, who had little idea of what she was letting herself in for. Her money enabled Cage to buy mainframe computer time and hire a programmer. Programming a computer to make the *I Ching* coin tosses for him enabled Cage to make enough random decisions—more than a million—to keep seven keyboard players (one of them Mme Vischer), fifty-two tape recorders playing random computer-generated “tunes” in fifty-two different tuning systems, fifty-two film projectors and sixty-four slide projectors (showing scenes of space travel, some from old science-fiction movies) constantly busy for four-and-a-half hours in a University of Illinois campus auditorium on the evening of 16 May 1969 (Fig. 2-4).

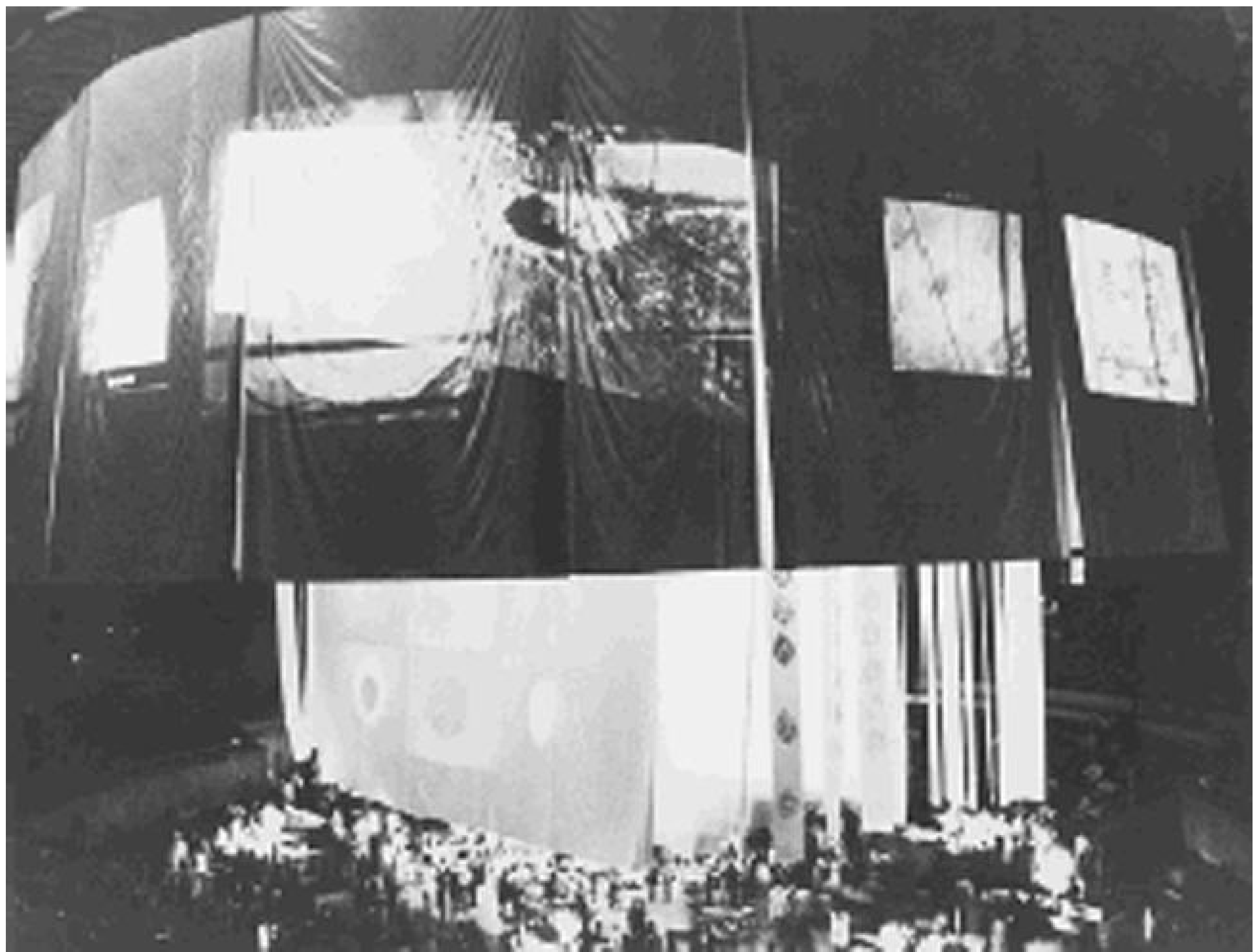

fig. 2-4 Premiere of *HPSCHD* by John Cage and Lejaren Hiller, University of Illinois at Cham-paign-Urbana, 1969.

Another space-age extravaganza was *Atlas eclipticalis* (1962), in which Cage derived eighty-six instrumental parts that could be played in whole or in part, for any duration and in any combination from soloist to full orchestra, by projecting sidereal charts ("star maps") on huge sheets of music paper and inking in a note wherever there was a heavenly body, later deciding with the aid of the *I Ching* which staves carried which clefs, and how they were to be assigned to the various instruments of the orchestra. Leonard Bernstein, then the conductor of the New York Philharmonic-Symphony Orchestra, selected *Atlas eclipticalis*, the only Cage piece as of then that could enlist his whole band, for a performance in February 1964 that would introduce the work of the avant-garde to an unprecedentedly large audience. (A piece by Cage's avant-garde colleague Earle Brown was also scheduled, together with Vivaldi's *Four Seasons* and Chaikovsky's *Pathétique* Symphony.)

The performance was a fiasco, compared by many to the scandalous first night of Stravinsky's *Rite of Spring* There was a significant difference, however: the orchestra rebelled along with the audience. When Cage took his bows he heard their hissing behind him; and at the last performance they engaged in sabotage, playing scales or banal tunes instead of their prescribed parts, and singing or whistling into the contact microphones attached to their instruments. A few players were so enraged that they threw their microphones on the floor and stamped on them, obliging Cage to replace them out of pocket.

These were regrettable discourtesies, but their explanation may be something more than mere philistinism on the part of unimaginatively conservative musicians, as is usually alleged. Far more frequently than any other modernist composer, Cage got into confrontational situations with performers at various points over the course

of his career, and with orchestral musicians in particular. After a performance of another Cage orchestral work by the Los Angeles Philharmonic in 1977, one of the members wrote to the *Los Angeles Times* to complain that “no musical training is necessary for this quasi-intellectual trash, only the ability to make noise for thirty embarrassing minutes. I felt ashamed to sit on stage and be a part of it.”[28] As noted earlier, Cage himself has acknowledged, and at times decried, the way in which the social practices that have grown up around the sacralized work-object since the advent of Romanticism have tended to dehumanize performers, especially those who play under conductors. The only way in which such musicians are able to retain a sense of personal dignity is by believing in the esthetic of communication or self-expression (expanded to encompass a notion of collective self-expression), the very notion that Cage devoted his career to discrediting. When asked to perform works based on the principle of nonintention, the contradiction has been for many musicians unendurable, because such works present performers with a set of especially arbitrary, hence (potentially) especially demeaning, commands. They are intolerably deprived of their normal sense (or illusion) of creative collaboration.

The contact mikes in *Atlas eclipticalis*, which fed each player's sound into a mixing console that, operating on the usual chance principles, added an extra dimension of unpredictability to the proceedings, were a special outrage. As Earle Brown explained, “Even if you were making your choices with diligence, you might be turned off. Maybe you were heard, maybe you weren't.”[29] The composer, though ostensibly (and, from his own perspective, sincerely) aiming to efface his ego—and ostensibly (and equally sincerely) opposed, as Cage put it, to “the conventional musical situation of a composer telling others what to do”—became more than ever the peremptory genius, the players more than ever the slaves. By forcing others to efface their egos along with his, he had become an oppressor. His effacement was voluntary; theirs wasn't.

Even soloists devoted to Cage have recognized the paradoxical reinforcement that his work has given to the old hierarchies. By the use of chance operations, Cage said, he was able to shift his “responsibility from making choices to asking questions.”[30] When the work is finished, he said, he had the pleasure of discovering it along with the audience. The only one who cannot share the pleasure is the performer, to whom the buck is passed, who cannot evade the choices, but must supply laborious answers to the composer's diverting questions.

The pianist Margaret Leng Tan, an outstanding exponent of Cage's keyboard music (including the prepared-piano works), has complained of being cut out of the fun. Her freedom in performing “chance music” is not enhanced but diminished: “By the time you've worked out all this material, can you really give a spontaneous performance? It's a discovery for him [that is, Cage] if he's hearing it for the first time, but it's not a discovery for me.”[31] Once again the composer's authority over the performer is paradoxically magnified. The grandiosity of genius is affirmed. If that is something to rebuke in Beethoven, it is something to rebuke in Cage as well. But the main paradox or contradiction is the one that maximalists have always faced. At some point quantity inevitably, and subversively, transforms quality. At some point—but what point?—the disinterestedness of the artist and the transcendence of the artifact inevitably metamorphose into indifference and irrelevance. That has been the fate and the tragedy of “purist” modernism, and Cage was (or became) the purest of the pure.

Notes:

(27) John Cage, *Empty Words: Writings ’73 to ’78* (Middletown, Conn.: Wesleyan University Press, 1979), pp. 7–9.

(28) Letter to the editor, *Los Angeles Times*, 30 January 1977; quoted in Revill, *The Roaring Silence*, p. 207.

(29) Quoted in Revill, *The Roaring Silence*, p. 208.

(30) Quoted in Kathan Brown, “The Uncertainty Principle,” *The Guardian* (London), 3 August 2002.

(31) Quoted in Revill, *The Roaring Silence*, p. 190.

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Oxford History of Western Music: Richard Taruskin

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Morton Feldman

Iannis Xenakis

Stochastic music

PERMISSION

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

The New Grove Dictionary of American Music (published in 1986) claimed flatly that John Cage "has had a greater impact on world music than any other American composer of the twentieth century."[32] That is certainly possible if his impact is measured by the number of artists (not just musicians) who have acknowledged Cage as an influence or an enabler. "He has immense authority," the art dealer Leo Castelli, an energetic promoter of avant-garde painters and sculptors, said of Cage. "He is, after all, a guru; and just the fact that he was there with his fantastic assurance was important to us all."[33]

The painter Robert Rauschenberg (b. 1925), one of Cage's closest friends, said it was Cage's example that "gave me license to do anything,"[34] especially when what he wished to do defied the established modernists of the day. The composer Morton Feldman (1926–87), a close associate of Cage who was also friends with many painters, claimed that Cage gave not only him but everybody "permission."[35] Cage's joyously accepting attitude, "naive" in the special philosophical sense discussed above, made him a charismatic facilitator, not to say a liberator. It was a role comparable in many ways to that played by Liszt a hundred years earlier with respect to the "New German" avant-garde.

Yet many if not most of the artists and musicians who venerated Cage and thought of themselves as his disciples seem to have misunderstood him in a very significant way. The art movement usually linked with the composers in Cage's orbit is the one called abstract expressionism, which flourished in New York from the mid-1940s until the 1970s, exactly the period of Cage's most intense activity, and which established New York as an international artistic center on a par with Paris. It was the first American school of painting to have a significant influence on European artists, and in this, too, it parallels the influence of Cage, who after his Darmstadt lectures had many European disciples.

But as the movement's very name suggests, abstract expressionist painters were primarily interested in freedom of personal expression and intensity of emotional communication, the very things Cage had renounced. The turbulent "action paintings" of Cage's exact contemporary Jackson Pollock (1912–56), in which the artist hurled and spattered pigments on a canvas stretched out on the floor, were often regarded as a "liberation of paint" in much the way Cage liked to speak of the "liberation of sounds." But the comparison was misguided. Pollock sought greater freedom of action, sometimes described as greater freedom from form, the better to express his individuality of feeling through the medium of color. To invoke Nietzsche's old Wagnerian dualism, Pollock's was the quintessential "Dionysian" art. Cage looked for the very opposite: ever more stringent ways of constraining his actions so as to free the sounds he produced from his own wishes and feelings and so achieve greater harmony with nature. His was "Apollonian" art at its most extreme.

A similarly Apollonian impulse, and a similar commitment to philosophical realism (or particularism) drove the work of Iannis Xenakis (1922–2001), one of the European composers most often compared with Cage. A

Romanian-born Greek-speaking composer resident in France, Xenakis had a thorough training in mathematics and engineering before he decided on a musical career. His expertise in these technical fields was sufficient to land him a job as assistant to the celebrated modern architect Le Corbusier (real name Charles Jeanneret, 1887 – 1965). Xenakis strove to base his musical practice directly on classic mathematical formulas, the most impersonal and transcendent of all truth-concepts. It was he who, in collaboration with Le Corbusier, designed the Philips Pavilion at the 1958 Brussels World's Fair on principles already embodied in several of his compositions.

Xenakis is best known for what he called “stochastic music,” deriving the adjective from mathematical probability theory. Rejecting the over-determined causality of “integral serialism”[36] (which, he alleged in an inflammatory article written in 1954 and published in 1961, only succeeds in sounding aimless and unintelligible) and the underdetermined contingencies of “aleatoric” music (which, he declared, was an abdication of creative responsibility), he sought a music that would create an intelligible shape out of a multitude of seemingly random musical events, much as a multiplicity of chance occurrences—like Cage's beloved flipped coins—makes a gradual approach to a predictable outcome (equal numbers of heads and tails).

It is the response of a composer who had spent the war years in the Resistance movement (and with a blind eye to show for his pains) to the dilemma of reclaiming free will and the possibility of meaningful action in the face of existential pessimism—a pessimism that, in music, had led to various kinds of abject submission, whether to voluntary regimentation (symbolized by total serialism) or to fatalism (symbolized by chance operations). The events in Xenakis's stochastic music are planned in the large but unpredictable in the small. Its individual elements are insignificant but they make a strong collective statement. Its governing political metaphor was expressed most directly in the dedication of one of Xenakis's works to the “unknown political prisoners” and “the forgotten thousands whose very names are lost,” but whose uncoordinated and singly ineffectual contributions to the cause of freedom were collectively decisive.

Xenakis's *Metastasis* (first performed at the Donaueschingen Festival in 1955) consisted entirely of a complex texture of glissandos, interacting in time and space, in which every single member of the forty-four-piece string section had a separate part, so that nobody's line was individually conspicuous. All, however, contributed equally to an overall impression of smoothly rising and lowering curves of pitch. The same principle of endless curvature (or displacement—metastasis—from straightness) governed the shape of the Philips pavilion. In Fig. 2-5a–d, a page from the sketch score of *Metastasis* is juxtaposed with one of Xenakis's architectural sketches for the pavilion, and then both sketches are juxtaposed with their realizations (the finished score, the actual building). In the sketches it is especially noticeable how the curves are the overall product of an indeterminate multiplicity of straight lines, as the victory over fascism was the product of an indeterminable multiplicity of individual sacrifices.

Pithoprakta (1956) was the first composition in which Xenakis used the “cloud” effect that became synonymous with his name. The title means “actions through probabilities”; the goal on which all the seemingly random sounds converge is the emergence of conventionally recognizable musical tone out of “noise,” as controlled by various mathematical formulas. The fifty-piece orchestra includes a couple of trombones that play glissandos as before, and a percussionist who contributes seemingly random and disruptive punctuations on xylophone and woodblock; but the main sonority is that of forty-six solo strings, now making extremely discontinuous sounds—pitchless tapping on the instruments, gradually giving way to pitched pizzicato—organized into processes of continuous change.

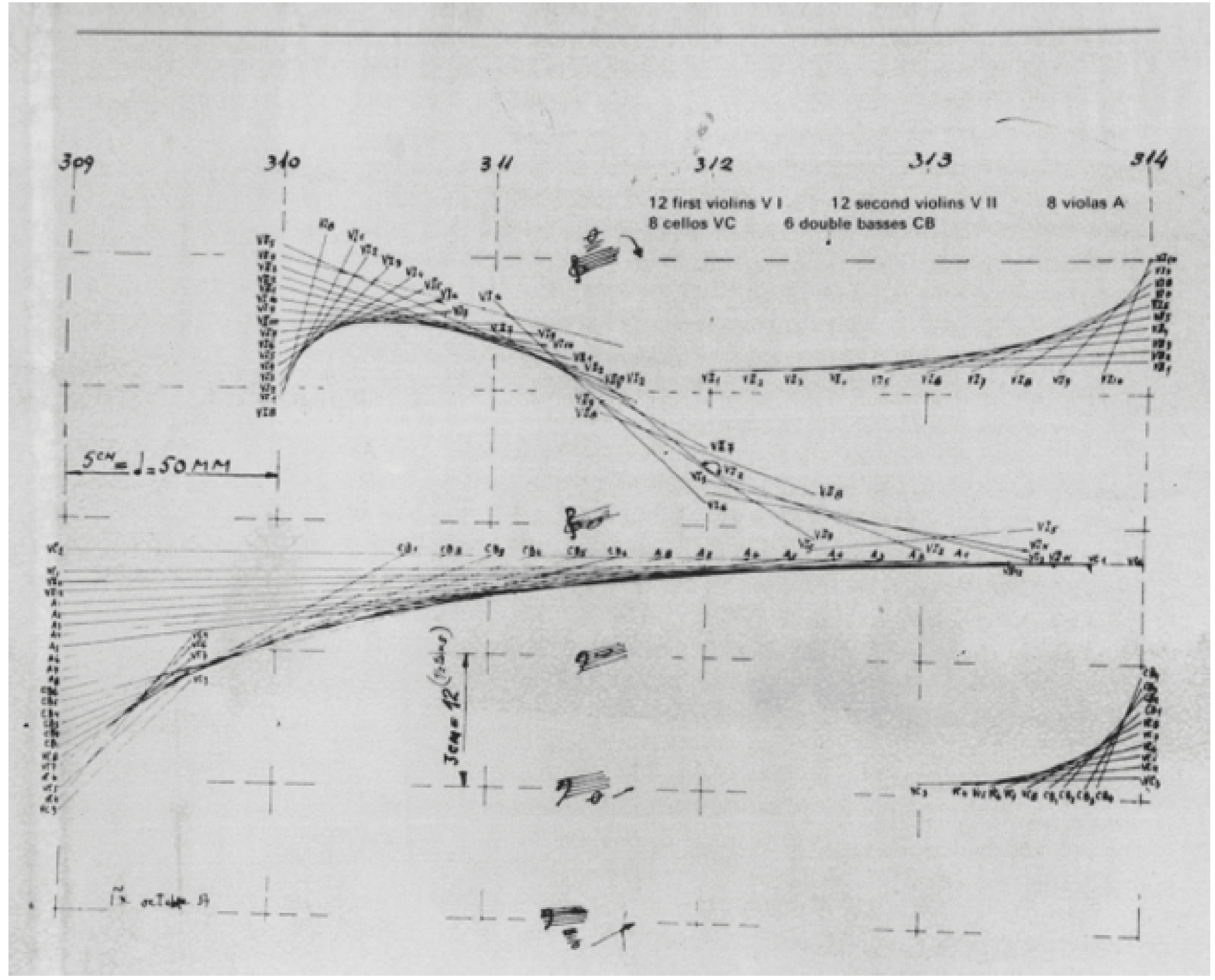

fig. 2-5a Iannis Xenakis, sketch for *Metastasis* (1953).

What gives a sense of progression through time is the variable density of these swarming musical particles, creating the impression of a shifting nebulous shape, calculated according to the so-called Maxwell-Boltzmann law, which predicts the behavior of gas molecules at various pressures and temperatures. The composer, as it were, adjusts conceptual pressure valves and thermostats, to which the musical molecules, individually maintaining what seem to be random trajectories, nevertheless “react” collectively according to the law's predictions.

Xenakis's music can be interpreted as a negative critique of “Darmstadt” serialism. Listening to it (as he put it to an interviewer in 1980),

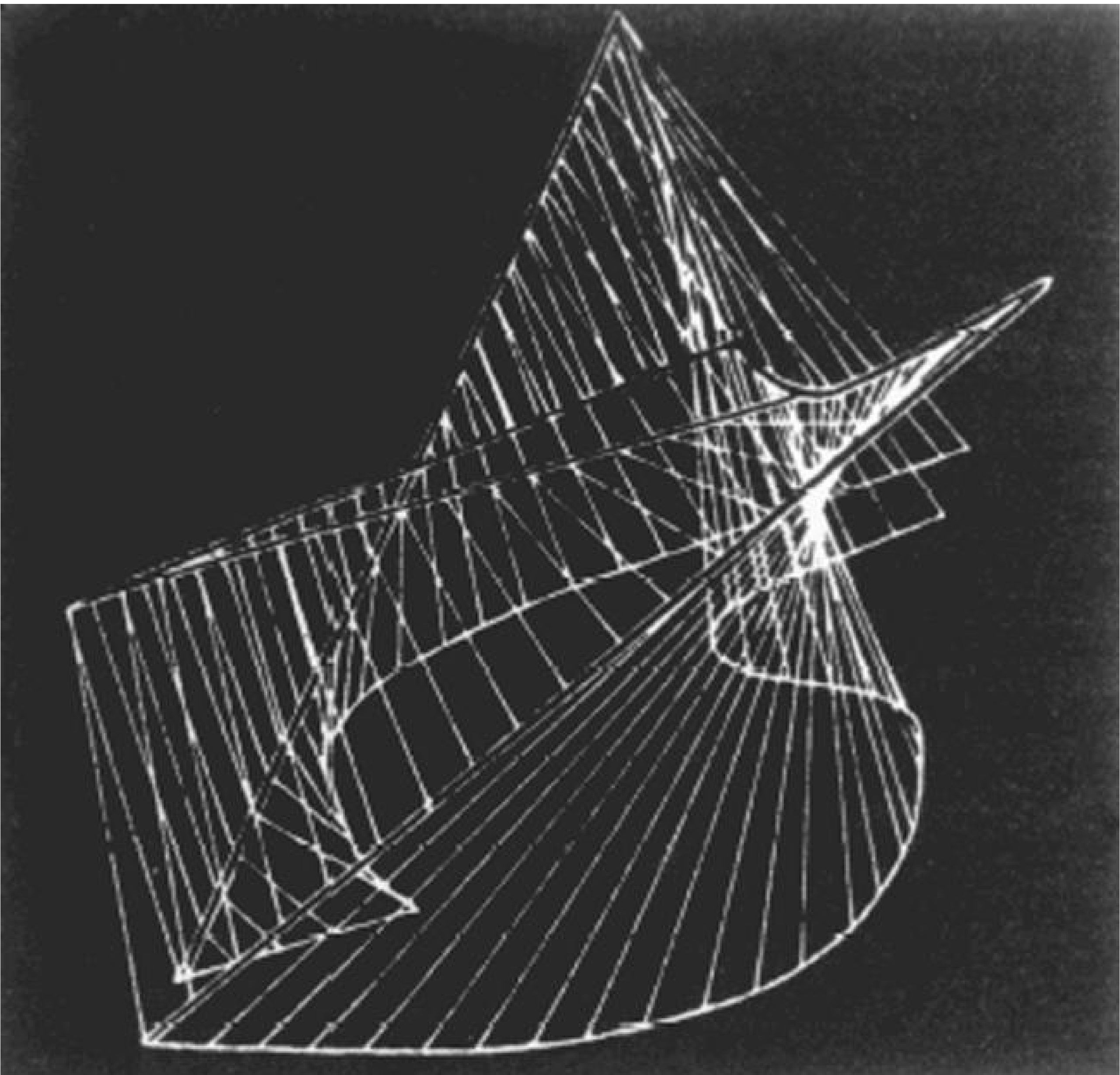

fig. 2-5b First model of Philips pavilion.

fig. 2-5c Corresponding page from the score of *Metastasis* (1954).

our attention is unable to follow all the various events, so instead we form a general impression. That's simply how our brain reacts to mass phenomena—there's no question of scientific computations. Our brain does a kind of statistical analysis! We have to reckon with the same thing as in the kinetic gas theory.[37]

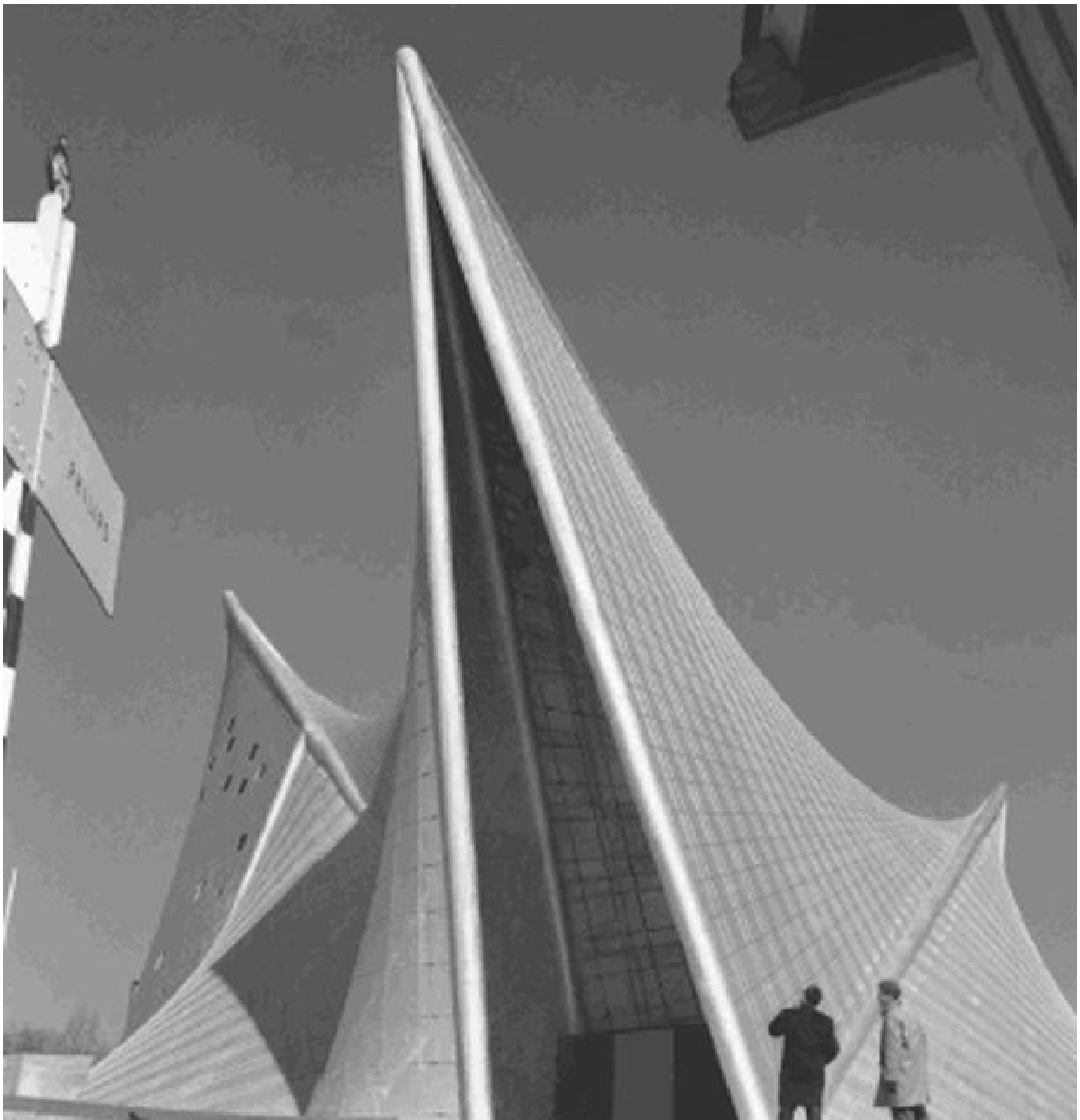

fig. 2-5d Philips pavilion (1958).

Such a listening process, Xenakis asserted, is natural; a music that elicits it is a realistic (or scientifically "true") music. The impracticably detailed listening process presupposed by serialism was, by implication, utopian and (given the limitations of our mental processing) a falsehood. Not surprisingly, Xenakis was sympathetic to Cage, who also appealed to nature (though more the nature we experience with our senses than nature as it is understood by scientific theory) to justify his version of avant-gardism. Xenakis, in fact, was one of the first Europeans to support Cage, whom he regarded as an amiable exotic: "I liked his thinking, which is of course a characteristic product of American society," he recalled to an interviewer. "I was attracted by the freedom and lack of bias with which he approached music." He thought the "mystical color" Cage claimed to have inherited from Asian philosophy naive, and his lack of overt political commitment all too typical of what Europeans often regard as American complacency, but "at least he tried to do something different and in opposition to the

absolutist trend of the serialists."[38] But then he went on:

> **Cage's music can be interesting, until he relies too heavily on the interpreters, on improvisation. That's why I've kept aloof from this trend. In my opinion it is the composer's privilege to determine his works, down to the minutest detail. Otherwise he ought to share the copyright with his performers.**

Xenakis had made the commonest, most obvious of all mistakes with regard to Cage, seeing him as a liberator of people rather than sounds, never realizing that Cage shared his horror of improvisation (if not for all the same reasons), and that Cage, too, determined his most influential works down to the minutest detail (although he sometimes sought to disguise the fact in conversation and interview). This misunderstanding was as typical of Cage's admirers and colleagues as of his critics and adversaries. As we are about to discover, even some of Cage's most ardent disciples made the same mistake about his aims. And yet misunderstandings of this kind are common in the history of art. They can be inspiring. Indeed, we often "need" to misunderstand those we follow, so that their authority can become an enabling rather than a restraining force.

Notes:

(32) Charles Hamm, "Cage, John (Milton, Jr.)," in *New Grove Dictionary of American Music*, Vol. I (London: Macmillan, 1986), p. 334.

(33) Leo Castelli, in "John Cage: I Have Nothing to Say and I Am Saying It," American Masters documentary directed and coproduced by Allan Miller, written and produced by Vivian Perlis; PBS broadcast 16 December 1990.

(34) Robert Rauschenberg, *Ibid*.

(35) Morton Feldman, "Liner Notes," in *Give My Regards to Eighth Street: Collected Writings of Morton Feldman* (Cambridge, Mass.: Exact Change, 2000), p. 5.

(36) Iannis Xenakis, "La musique stochastique: Éléments sur les procédés probabilistes de composition musicale," *Revue d'esthétique* no.14 (1961).

(37) Bálint András Varga, *Conversations with Iannis Xenakis* (London: Faber and Faber, 1996), p. 78.

(38) *Ibid*. p. 55–56.

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Oxford History of Western Music: Richard Taruskin

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Aleatory (indeterminacy)
Christian Wolff
Frederic Rzewski

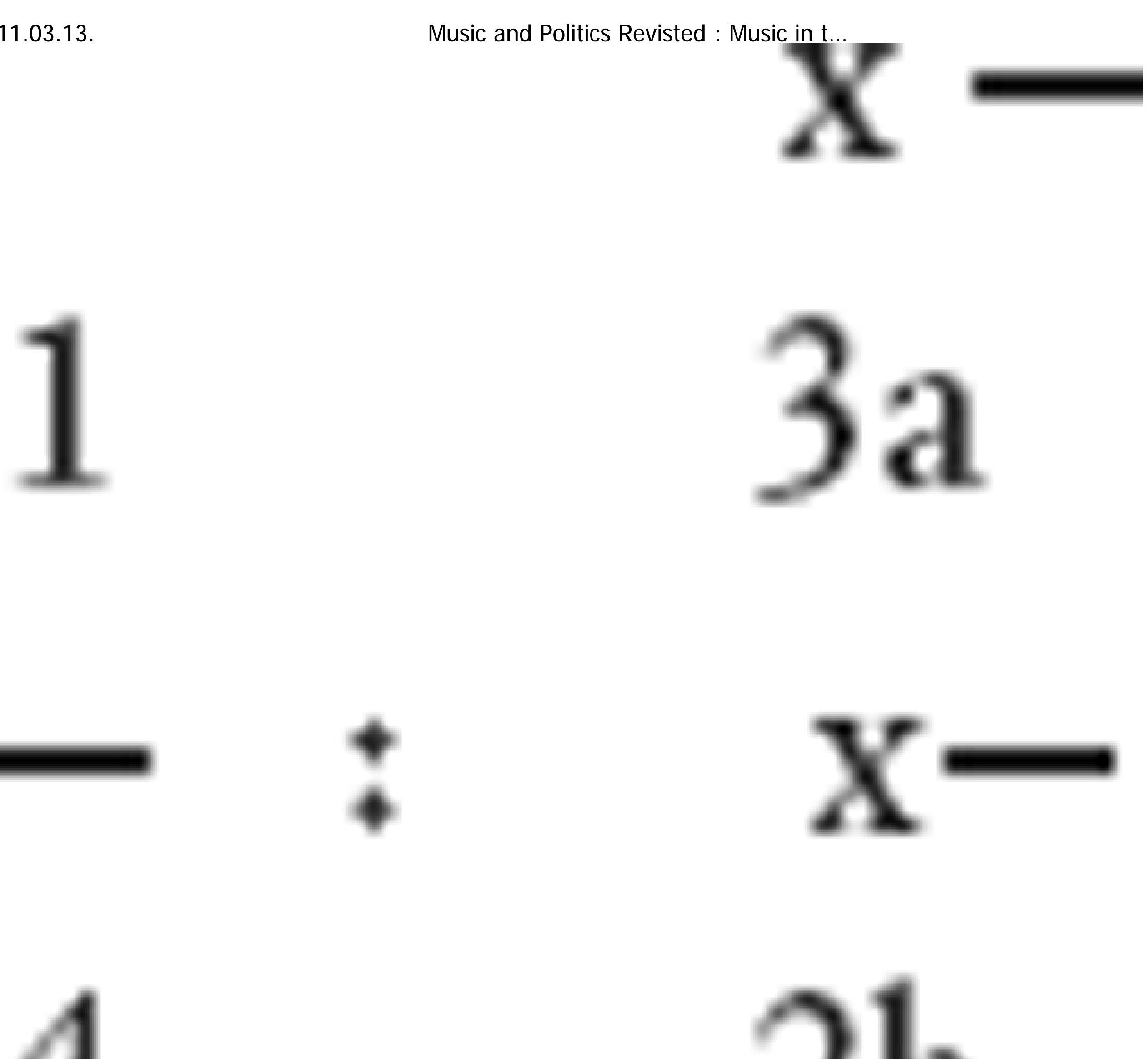
MUSIC AND POLITICS REVISTED

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Artists who justified their personal freedom by citing Cage's example managed to forget just what it was that Cage had liberated, and from whom. Not that this mattered in the long run. Messages sent are not always the ones received, and the history of art is full of examples of would-be followers who became innovators by misreading their predecessors' intentions. A celebrated theory of literary history advanced in the 1970s by the critic Harold Bloom (b. 1930) elevated creative misreading of this kind to the status of main determinant, or driving force, behind all creative evolution.[39] Nor does the fact that an artist misreads the example he claims to follow necessarily reflect in any way on the authenticity or value of his own work or that of his ostensible "guru." Nevertheless it is curious that the musician most interested in reining in the impulses of human beings so as to keep them out of the way of sounds, and who never gave performers (or listeners) any real freedom of choice, should have been regarded as a human liberator. It testifies to the power of suggestion, to the allure of liberation as concept for artists brought up with the rhetoric of American democracy ringing in their ears, and to the paradoxical need most artists share with the rest of humanity to justify their freedom on the basis of authority. By merely using the word liberation at a time when systems ruled, Cage gave those lacking his fantastic assurance permission to follow their own inclinations. It is a paradox that went all the way back to Rousseau's *Social Contract*, with its troubling call to liberate mankind, if necessary, against its will, forcing freedom on the comfortably enslaved.

Christian Wolff, for example, who inadvertently midwifed Cage's adoption of chance operations by presenting him with a copy of the *I Ching*, has been mainly concerned in his own compositions with giving performers what he called "parliamentary participation," the freedom to choose among alternatives, as opposed to the "monarchical authority" of the composer or conductor.[40] In his *Duo for Pianists II*, for example, the notation is deliberately left incomplete, so that the players (originally Wolff himself and the American pianist Frederic Rzewski) are forced to decide for themselves matters of detail usually decided by the composer: now exact duration, now exact pitch, now register. As in Stockhausen's *Klavierstück XI*, the music is written down in discrete chunks whose order of performance is left indeterminate. Each performer makes choices on the basis of what the other has last chosen.

The notation below from the *Duo* score is typical. Numbers before the colon indicate spans of time in seconds. Those after the colon indicate the number of notes to be played in the allotted time, selected from "source collections" of predetermined pitches, while the sign *x*, appearing above and/or below, directs the player to higher or lower keyboard registers. Thus, the configuration



means that in the space of a quarter of a second the pianist must choose three pitches from source collection a and two from source collection b, making sure to play them in a higher or a lower register than the last time the same pitches were chosen. Whether to play the pitches singly or in chords (and if singly, whether closely spaced like a melody or leaping "pointillistically" among far-flung registers), whether to play them loud or soft, and how their individual durations shall compare, are all decisions left to the quick-thinking performer.

Quick-reacting, too, since each player's choices are determined in part by cues given, according to a prearranged scheme, by the other player. The piece amounts to an exciting game for the players that allows (in the composer's words) for "precise actions under variously indeterminate conditions." Since "no structural whole or totality is calculated either specifically or generally in terms of probabilities or statistics," the outcome of the game is never predictable. "The score makes no finished object, [something regarded as] at best hopeless, fragile, or brittle. There are only parts which can be at once transparent and distinct."

In his later music, Wolff's notation became less and less determinate, the necessity of performer choice ever greater, to the point where the performers virtually improvise within loosely defined limits. Wolff has justified his practices on explicitly political grounds. A composition, in his view, must "make possible the freedom and dignity of the performer." Yet having declared that "no sound is preferable to any other sound or noise" (which

sounds vaguely Cageian), Wolff allows performers to exercise their own preferences in choosing sounds, which is as un-Cageian as can be.

Unlike Cage, Wolff is interested in explicit political analogies. The unusual appearance of his scores, and the freedoms he delegates to performers, are intended “to stir up,” as he has put it, “a sense of the political conditions in which we live and of how these might be changed, in the direction of democratic socialism.” These convictions have led him back, in his most recent work, to the use of material borrowed from labor and protest songs in the manner of Hanns Eisler or the members of the New York Composers Collective in the period of the Great Depression. (Cage, by contrast, was resolutely consistent in his principle of quietism or noninterference. His most explicit political pronouncement has become notorious: “There is not too much pain in the world; there is just the right amount.”[41]) A similar impulse led Frederic Rzewski (b. 1938), Wolff's sometime duo partner, out of the avant-garde altogether. Born in Massachusetts and educated at Harvard, Rzewski lived in Europe during the 1960s, at first in the orbit of Stockhausen, of whose *Klavierstück X* Rzewski (a virtuoso pianist) gave the first performance. The political upheavals of the later 1960s (to be considered in greater detail in chapter 7) convinced Rzewski of the irreconcilable contradiction between the private games of the avant-garde and the social purposes to which he was dedicated. The eventual result, in the early 1970s, was a series of virtuoso variation sets for piano on workers’ songs in a traditionally “heroic” style modeled expressly on that of Beethoven's monumental “Diabelli” Variations.

Rzewski's *The People United Will Never Be Defeated*, 36 variations on the Chilean protest song “¡El pueblo unido jamás será vencido!” (1975, Ex. 2-4a), while obviously (and successfully) directed—as political exhortation—at the broad concert public that favors virtuoso piano recitals, nevertheless retains features of the composer's earlier avant-garde idiom, now smoothly integrated, in a fashion that the avant-garde had once declared impossible, into a politically—and, of course, commercially—exploitable idiom. The first variation adapts the simple melody of the song to the radically disjunct “pointillistic” texture by then long associated with the piano music of Stockhausen and Boulez (Ex. 2-4b).

Notes:

(39) See Harold Bloom, *The Anxiety of Influence* (New York: Oxford University Press, 1973), and *A Map of Misreading* (New York: Oxford University Press, 1975).

(40) William Bland and David Patterson, “Wolff, Christian,” in *New Grove Dictionary of Music and Musicians*, Vol. XXVII (2nd ed.; New York: Grove, 2001), p. 504.

(41) Cage, *Silence*, p. 93.

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INTERNALIZED CONFLICT

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Rzewski's politically (or at least esthetically) efficacious "compromise" with tradition exposed a fault line within the politicized avant-garde of the late 1960s. On one side were those determined to remain true despite their political commitments to the esthetic principles of avant-gardism that had by then become a tradition in its own right; on the other were those for whom the political commitments of the so-called "new left" outweighed the esthetic. Sometimes the two commitments battled one another within the same unhappy creative personality.

ex. 2-4a Frederic Rzewski, "The People United Will Never Be Defeated!," theme

ex. 2-4b Frederic Rzewski, "The People United Will Never Be Defeated!," first variation

The most extreme case was that of Cornelius Cardew (1936–81), an English composer who after a conventional elite training at the Royal Academy of Music went to Cologne and worked for three years (1957–60) as Stockhausen's assistant at the equally (though differently) elite electronic music studio maintained by the German Radio. In 1967 he was appointed to the faculty of the Royal Academy, but by 1969, under the influence of the Cultural Revolution instigated in China by Mao Tse-tung and his Red Guards, Cardew renounced his advanced musical techniques as "bourgeois deviationism." Together with some friends and like-minded musicians, he formed an organization called the Scratch Orchestra, "a gathering," as Cardew later put it, of "musicians, artists, scholars, clerks, students, etc, willing to engage in experimental performance activities."[42] The willingness in question meant readiness to submit to a radically egalitarian discipline, bordering on anarchy, in which no a priori standard of quality could be asserted. "No criticism before performance"[43] was the group's motto. Their main activity consisted of group improvisation, for which members prepared by writing and teaching to the rest of the group examples of Scratch Music, something "halfway between composing and improvising."[44]

It was defined in the Orchestra's draft constitution as "accompaniments, performable continuously for indefinite periods."[45] An accompaniment was defined as "music that allows a solo (in the event of one occurring) to be appreciated as such," notated "using any means—verbal, graphic, musical, collage, etc." The only condition was that a piece of Scratch Music "be performable for indefinite periods of time." A necessary proviso was that "the word music and its derivatives are here not understood to refer exclusively to sound and related phenomena (hearing, etc); what they do refer to is flexible and depends entirely on the members of the Scratch Orchestra."

For outsiders, further definition had to await the publication of *Scratch Music* (1972), an anthology edited by

Cardew, containing examples by himself and fifteen other members of the Orchestra. Very few Scratch pieces employed musical notation as normally defined. Many consisted of drawings that, without oral explanation, could not readily be translated into the sort of continuous action the constitution specified. Some, however, consisted of verbal prescriptions that occasionally suggested vivid musical (or at least sonic) results. “Take a closed cylinder (empty pepsi-cola tin),” one began. “Bang it. Drop things through the holes the pepsi came out of.”[46] A more elaborate recipe for action, entitled “Scratch Orchestral Piece with Gramophone” (i.e. phonograph or record player) read as follows:

> A gramophone record of an orchestral composition, known to have a scratch in it such as will cause infinite repetition of one groove, is taken and played. The (live) orchestra accompanies the record, repeating the music heard to the best of its ability. (What will come out is a sort of canon between the recorded and live performance.) The record should preferably not be a popular classic. The performers must play quietly to avoid losing touch with the record, which should not be played loudly.
>
> When the record arrives at the repeating groove, the performers should, after a few repetitions, be able to play in unison with the record. The general volume level will probably rise here. When a member loses touch with the record, he may go over to the gramophone and jerk the needle on. This action should be plainly visible to the other performers, who must immediately resume their low volume and follow the record as before. The performance ends a) (if the gramophone is automatic) when the gramophone switches itself off, b) (if the gramophone is manually controlled) at any time after the record has ended. The audible click which sometimes occurs as the needle moves around the innermost groove may be taken as part of the record, in which case a similar situation to the one described above may obtain.
>
> The piece could be played by any performer(s), in which case the record should match as far as possible the instrument(s) or voices(s) used.[47]

The book culminated in a list titled “1001 Activities, by members of the Scratch Orchestra” (Fig. 2-6). Some, perhaps most, are entirely “conceptual” in the sense that they can be more or less vaguely imagined but not literally realized. It is not clear whether the performable items in the list were actually performed as Scratch Music; but in any case, by the time the list was published the Scratch Orchestra had disbanded. It lasted only two years and is probably best categorized as one of the many failed experiments in utopian living that proliferated during the late 1960s.

“Did all this have to change? It changed,” was Cardew's Samuel Beckett–like comment in retrospect. He went on to describe how

> the internal contradictions in the Scratch got sharper and sharper until, possibly triggered by the civic and press response (we had a concert banned on grounds of obscenity and the press went to town on the scandal) to our Newcastle Civic Centre concert on June 21 1971, I opened the doors to criticism and self-criticism. A collection of the resulting documents was circularized under the title “Discontent.”...The Scratch was saved from liquidation by two communist members. At the August 23/24 discussions of the Discontent documents John Tilbury exposed the contradictions within the orchestra, and proposed the setting up of a Scratch Ideological Group. I and several others were glad to join this group, whose tasks were not only to investigate possibilities for political music-making but also to study revolutionary theory: Marx, Lenin, Mao Tse-Tung. Another aim was to build up an organizational structure in the Scratch that would make it a genuinely democratic orchestra and release it from the domination of my subtly autocratic, supposedly anti-authoritarian leadership.[48]

fig. 2-6 Cornelius Cardew, pages from "List of 1001 Activities" (*Scratch Music*, 1972).

But the group was never reconstituted; its members escaped from freedom. The perennial political contradictions between anarchistic ideals and the realities of leadership were not the only factor. The Scratch Orchestra came up against the perennial dilemma of maximalism: they reached the limit. As one antagonist scoffed, "How can you make a revolution when the revolution before last has already said that anything goes?"[49] The thought was unkindly put, but the truth that it contained was one of the predicaments that led eventually to the eclipse of the avant-garde as a force in contemporary music.

Like Christian Wolff, Cornelius Cardew wound up writing mass songs to incite popular activism, and in 1974 published another, rather disillusioned book called *Stockhausen Serves Imperialism* "Nowadays a Cage concert

can be quite a society event,"[50] he noted sarcastically; and also, more wistfully, that Cage's "emptiness does not antagonize the bourgeois audience which is confident of its ability to cultivate a taste for virtually anything."[51] Even the avant-garde, he had found, could be commercially co-opted, consumed, commodified; the process (exemplified most dramatically by the New York Philharmonic's notorious experience with *Atlas eclipticalis*) had painfully exposed "the sharply antagonistic relationship between the avant-garde composer with all his electronic gadgetry and the working musician."[52]

As for Stockhausen, he had been tamed, his erstwhile disciple charged, by "repressive tolerance,"[53] the insidious and corrupting approval of the establishment. All that was left was shopworn romanticism, the old idealistic religion of art that Cardew now attacked the way Marx had denounced "the opium of the people" in the name of historical materialism.

"Salesmen like Stockhausen," he wrote,

> would have you believe that slipping off into cosmic consciousness removes you from the reach of the painful contradictions that surround you in the real world. At bottom, the mystical idea is that the world is illusion, just an idea inside our heads. Then are the millions of oppressed and exploited people throughout the world just another aspect of that illusion in our minds? No, they aren't. The world is real, and so are the people, and they are struggling towards a momentous revolutionary change. Mysticism says "everything that lives is holy," so don't walk on the grass and above all don't harm a hair on the head of an imperialist.[54]

Notes:

(42) Cornelius Cardew, "Introduction," in *Scratch Music*, ed. Cornelius Cardew (Cambridge: The M.I.T. Press, 1974), p. 9.

(43) *Ibid.* p. 12.

(44) *Ibid.* p. 9.

(45) "A Scratch Orchestra: Draft constitution," in *Scratch Music*, p. 10.

(46) *Scratch Music*, p. 62.

(47) *Scratch Music*, p. 61.

(48) "Introduction," in *Scratch Music*, p. 12.

(49) Charles Wuorinen, interviewed by Barney Childs (1962), in *Contemporary Composers on Contemporary Music*, eds. Elliott Schwartz and Barney Childs (New York: Holt Rinehart Winston, 1967), p. 371.

(50) Cornelius Cardew, "John Cage: Ghost or Monster?" in Cardew, *Stockhausen Serves Imperialism and Other Articles* (London: Latimer New Dimensions Limited, 1974), p. 35.

(51) *Ibid.* p. 36.

(52) *Ibid.* p. 39.

(53) Cardew, "Stockhausen Serves Imperialism," in *Stockhausen Serves Imperialism and Other Essays*, p. 48.

(54) *Ibid.* p. 49.

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Luigi Nono

Fluxus

Avant garde

CONFLICTS DENIED

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

There were those, however, who managed to maintain the frayed analogy between "revolutionary" politics and progressive esthetics and reconcile radical politics with radical art, though they did so by reverting to the nostalgic, by then fairly untenable ideal of what was known in the 1960s as the Old Left. The term referred to idealistic remnants of the revolutionary tide that had made the Russian Revolution, who refused to recognize or acknowledge the way in which that Revolution had been betrayed. At a time when the Soviet Union stood, for all the world to see, on the side of enforced artistic populism, these artists defended the old "revolutionary" ideal on both the political and the esthetic fronts.

Perhaps the most prominent was Luigi Nono (1924–90), who as a young partisan fighter courageously joined the Italian Communist Party during the last days of Mussolini's dictatorship, when membership was a crime, and who was eventually (1975) elected to the Party's Central Committee. Nono, who married Schoenberg's daughter Nuria in 1955, was a committed twelve-tone composer, as convinced as was his father-in-law of the method's historical inevitability, just as he was convinced of the inevitability of Communist revolution. He never recognized a contradiction between his musical idiom, which appealed only to an elite coterie, and his commitment to egalitarian politics. Although he was a loyal upholder of Soviet economic and diplomatic policies to the end (paying his last official visit to the USSR as late as 1988), his music was of a kind anathematized in the Soviet Union in 1948 and never "rehabilitated." The contrast between Nono's political and esthetic commitments is particularly pointed, of course, in his most overtly political works, like *Ein Gespenst geht um in der Welt* ("A specter is abroad in the world"; 1971), a choral setting of words drawn from Marx and Engels's *Communist Manifesto*, accompanied by an orchestra with a colossal percussion section (and with the strings often "percussing" à la Xenakis) (Fig. 2-7). Despite the source of its text and its expressive purpose, entirely comparable to Rzewski's, the work was given its premiere in West Germany rather than the part of Germany where Marx and Engels were honored as founding fathers, but where music like Nono's was unperformable. Nor was the work ever performed in the Soviet bloc.

Nono defended his musical idiom in terms borrowed from Adorno, another Marxist who turned a blind eye to the actual historical consequences of Marxist philosophy. Its dissonance was to be interpreted "dialectically," like Schoenberg's, as a critique of bourgeois society's irreconcilable antagonisms ("disharmonies"). Such a metaphorical interpretation of a musical style was acceptable neither to the Soviets nor to the former avant-gardists of the New Left. To the former it smacked of self-indulgent hypocrisy; to the latter, of sterile utopianism. It was Nono's fate to be best appreciated musically where his ideological commitments were devalued, and vice versa. He had an important like-thinking exponent in the charismatic piano virtuoso Maurizio Pollini (b. 1942), whose concerts became Nono's best attended forum. But Pollini, too, has had to face the contradiction between leftist political sympathies and the realities of musical politics.

At the opposite, somewhat happier pseudo-political extreme were the outwardly carefree revolutionaries who

created "happenings." These were minimally planned performance events, at the border between music and theater, that mixed Cage's "purposeful purposelessness" with the ideology of the "absurdist" theater in which playwrights like Beckett and Eugene Ionesco (1909–94) expressed the bewilderment, alienation, and despair of existentialist philosophy by abandoning all logical plot development, meaningful dialogue, or intelligible character delineation in favor of a gross unpredictable humor that mocked all efforts at making sense of incomprehensible reality. Or perhaps it would be more accurate to say that the perpetrators of happenings repressed their bewilderment and alienation and the rest in a great show of childish fun and aggression.

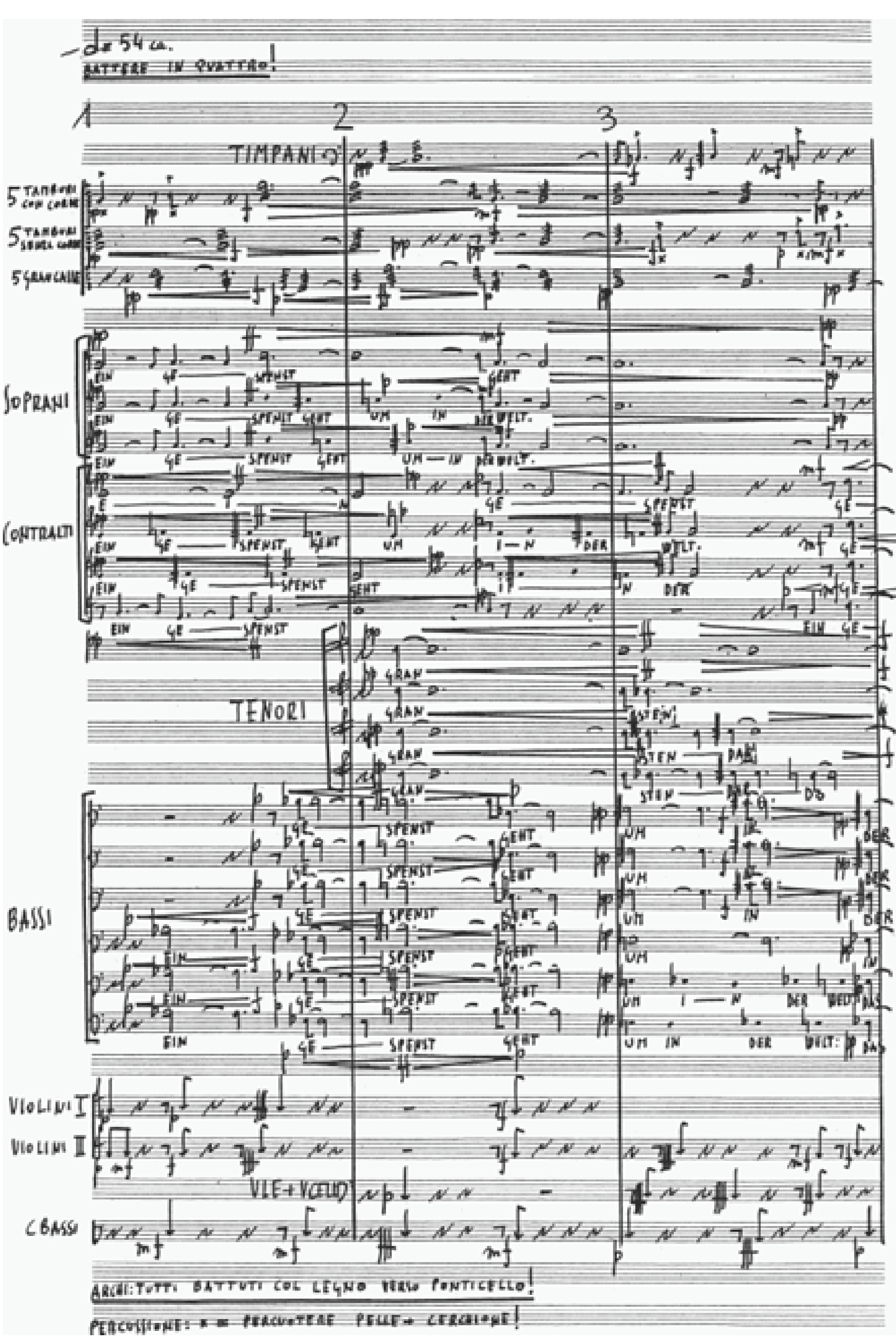

fig. 2-7 Nono, *Ein Gespenst geht um in der Welt*, beginning.

The first—typically solemn, typically misunderstood—happening was engineered by Cage himself at Black Mountain College, an avant-garde retreat in North Carolina, in 1952. It was a variation on the 4′33″ idea. Cage

programmed some overlapping sound containers (or compartments, as he called them this time) in advance by the use of chance operations and allowed himself and his fellow performers to choose an activity to perform during their allotted compartments. Cage himself standing on a ladder, read a lecture that contained some compartments of silence; some poets climbed other ladders when their time came and read; others ran a movie, projected slides, played phonograph records, danced, and played the piano, while Robert Rauschenberg suspended some paintings above the audience's heads. The idea, as in *4′33″*, was to re-create utilitarian reality as autonomous art: “If you go down the street in the city you can see that people are moving about with intention but you don't know what those intentions are,” Cage said, lecturing. “Many things happen which can be viewed in purposeless ways.”[55] The music of life was a perpetual impersonal flux.

Between 1956 and 1960 Cage taught a class at the New School called Composition of Experimental Music. In 1958, the class included a number of poets, painters, and composers — George Brecht, Allan Kaprow, Jackson Mac Low, Dick Higgins — of whom some later participated in a loose performance association called Fluxus. Organized by George Maciunas in 1961–62, Fluxus provided a venue for what Kaprow was the first to call happenings. Brecht, the group's main theorist, disclaimed all theory. “In Fluxus, there has never been any attempt to agree on aims or methods,” he wrote in 1964. “Individuals with something unnameable in common have simply naturally coalesced to publish and perform their work.” And yet he did try to name it: “Perhaps this common something is a feeling that the bounds of art are much wider than they have conventionally seemed, or that art and certain long-established bounds are no longer very useful.”[56] In contrast to Cage's original happening (and his later “musicircuses”), which sought to embrace the macrocosm, setting in motion an uncoordinated, ungraspable multiplicity of events that would create an esthetic analogy to the totality and complexity of life, Fluxus celebrated the microcosm, reflecting that totality and complexity in single, individual *actes gratuits* (as the existentialists would say), acts-without-purpose. At first their happenings were minimally prescribed and modestly executed. Brecht's *Organ Piece*, for example, consists of a single instruction: “organ.”[57] *Piano Piece 1962* consists of another: “a vase of flowers onto a piano.” The Brecht instruction most frequently cited by those seeking to define or illustrate happenings is “Discover or make on (to) a piano.” His best-known composition, *Three Telephone Events*, consisted of the following:

- • When the telephone rings, it is allowed to continue ringing, until it stops.
- • When the telephone rings, the receiver is lifted, then replaced.
- • When the telephone rings, it is answered.[58]

The conceptual kinship with *4′33″* is made explicit in a Performance Note, which reads, “Each event comprises all occurrences within its duration.” It is Brecht's best known piece because Cage made seeming (and typically inaccurate) reference to it when asked to define music. “If the phone rings and you answer, that is not music,” he replied. “If it rings and you listen, it is.” Takehisa Kosugi, a Japanese composer who joined Fluxus a bit later, contributed a piece, *Anima 7*, whose instruction reads, “Perform any action as slowly as possible.”[59] La Monte Young (b. 1935 in Idaho), the best-known composer ever associated with the group, had a big influence on its style and esthetic with a set of instructions called *Compositions 1960*, which included one of the few such compositions to incorporate conventional musical notation (see Fig. 2-8a). Another from the set consists of the instruction, “push the piano to the wall; push it through the wall; keep pushing.”[60] In *Composition 1960 #3*, specially designated performers are dispensed with. Instead, the audience is instructed that for a specified period of time they may do anything they wish.

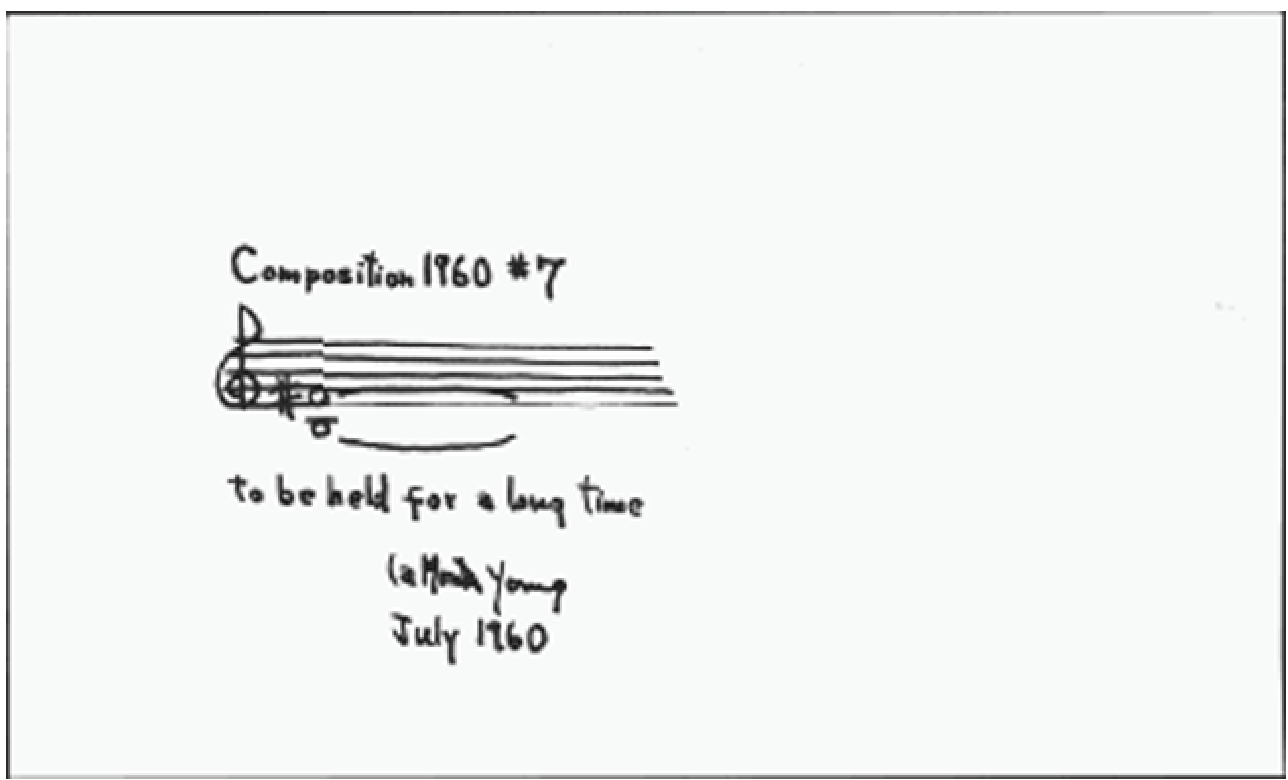

fig. 2-8a La Monte Young, *Composition 1960 #7*

Over time, the group's activities followed the usual maximalist course into flamboyance and aggression, and acquired notoriety. A Fluxus composer named Ben Vautier composed a number of *Audience Pieces* that came close to psychological abuse. One involved locking the audience into the theater; the piece was over when (if) they escaped. Richard Maxfield (1927–69) created the emblematic *Fluxus* happening, "Concert Suite from *Dromenon*," during which La Monte Young determined to set a violin on fire. The peak of aggression against the audience was reached by Nam June Paik (b. 1932), a Korean-born composer whose *Hommage à John Cage* consisted (as described by Al Hansen, a fellow Fluxian) of "moving through the intermission crowd in the lobby of a theater, cutting men's neckties off with scissors, slicing coats down the back with a razor blade and squirting shaving cream on top of their heads."[61] At one performance the recipient of Paik's attention was Cage himself, who, unamused, was led (in the words of the critic Calvin Tomkins, to whom he confided) "to wonder whether his influence on the young was altogether a good one."[62] Afterward, as Merce Cunningham recalled, "the piece went on for quite a while, and then Nam June disappeared. And we all sat and waited, and some time later, he telephoned from someplace to tell us the piece was over."[63] Cunningham, looking back on the experience, told a reporter that "it was wonderful." Others, sitting and waiting to no apparent purpose, may have been perplexed at their strange imprisonment by the rules of concert decorum. Exposing them may have been Paik's purpose. Or perhaps it was sheer aggression.

fig. 2-8b Nam June Paik.

But aggression, too, is a purpose; and acts like Paik's, therefore, do not seem quite as innocent in practice as they do in theory. Dick Higgins faced up to the dilemma—meanwhile putting Fluxus, in its maximalist phase, into a historical perspective of sorts—when he commented, in terms that other members may not have approved, that the group had a purpose after all, and that purpose was (or had become) the reintroduction of a sense of danger that had been lost to modern music. “A sense of risk is indispensable,” he wrote in 1966,

> because any simple piece fails when it becomes facile. This makes for all the more challenge in risking facility, yet still remaining very simple, very concrete, very meaningful. The composer is perfectly well aware of the psychological difficulties which his composition may produce for some, if not all, of the audience. He therefore finds excitement in insisting on this, to the point of endangering himself physically or even spiritually in his piece.[64]

The motivating emotion seemed to have become envy of the scandals of the past, which led composers actively to court the sort of hostile response from audiences of which legends (like that of *The Rite of Spring*) were made. One concert the author of this book remembers attending did succeed in provoking a violent counter-demonstration from its tiny audience. It was sponsored by a Fluxus spin-off group called Tone Roads, a name derived from a series of compositions by Charles Ives, and took place at the New School during the 1964–65 season. The last composition on the program, by Philip Corner (b. 1933), ended with a trumpet player and a trombonist standing at center stage, each unrelentingly emitting the highest and loudest note he could maintain steadily, until most listeners had fled.

The remaining spectators either watched in bemusement to see how and when the performance would end, or tried to interfere with it. Paper airplanes were launched in profusion. Audience catcalls began to rival in volume the noise the musicians were making. One sincerely irate patron jumped on stage and snatched the music off the

players' stands, as if that would silence them; the trombonist pursued the would-be disrupter and snatched it back. The piece finally ended when the building custodian ordered everyone out of the hall. By then there were two on stage and five in the auditorium. (The author suspects that the intended ending was the departure of the last audience member.)

Paik produced the biggest scandal in 1967 , with a happening called *Opéra sextronique* The performance was heralded by a poster, proclaiming (in the spirit of the *Communist Manifesto*) that

> After three emancipations in twentieth-century music (serial, indeterminate, actional) I have found that there is still one more chain to lose. That is PRE-FREUDIAN HYPOCRISY. Why is sex, a predominant theme in art and literature, prohibited ONLY in music? How long can New Music afford to be sixty years behind the times and still claim to be a serious art? The purge of sex under the excuse of being "serious" exactly undermines the so-called "seriousness" of music as a classical art, ranking with literature and painting. Music history needs its D. H. Lawrence, its Sigmund Freud.[65]

The performance consisted of a cellist, Charlotte Moorman, appearing on stage "topless" (i.e., bare-breasted, in the media slang of the time). Paik, in Nicolas Slonimsky's untoppable description, "acted as a surrogate cello, his denuded spinal column serving as the fingerboard for Moorman's cello bow, while his bare skin provided an area for intermittent pizzicati."[66] Alerted by the poster, the police were on hand to arrest Moorman on a charge of public indecency. Instantly famous, she became the object of countless "newsmaker" interviews (including an appearance—fully clothed—on the *Tonight Show*, a late-evening television "talk-show" hosted by Johnny Carson) in which she gamely defended the cause of new music as a "First Amendment" (i.e., free-expression) issue.

It was at this point that the artistic avant-garde appeared to meld in common cause with the demonstrations of civil disobedience (sparked by the "Free Speech Movement" at the University of California at Berkeley) that grew with the expansion of the unpopular Vietnam War. Serious political engagement, however, was not motivating Fluxus's or Tone Roads's acts of provocation. Suspected of frivolity at a time of severe political unrest, the avant-garde found its reason for being undermined, and it largely evaporated. Its political energy, as we will see in a later chapter, passed, for most part, into popular culture.

Looking back on his activities in the year 2000, Paik laughed them off as a "kind of stupid avant-garde," the antics of a "groupie" infatuated with Cage and the idea of liberation that he symbolized.[67] The avant-garde to which he had belonged, he now admitted, consisted for the most part of "lucky, middle-class people" who found that inventing meaningful applications of what seemed the easiest idea in the world, total freedom, was in fact bafflingly difficult. "We were just wondering how to be new," he conceded, at a time when novelty had become a debased currency.

But the movement was no laughing matter, really. Underlying it was a negative pathology, perhaps the most extreme artistic symptom of the period's widespread existential despair. Many of its members, having made renunciations just as impressive as Cage's, failed to find any positive outlet for their creative urge. Paik and Young, for example, were Darmstadt refugees with solid academic credentials. Paik had been a pupil of Wolfgang Fortner, the German serialist, while Young had studied in Los Angeles with Leonard Stein (b. 1916), who had served as Schoenberg's teaching assistant at UCLA.

Maxfield was perhaps the most dramatic case. He had worked with Roger Sessions at Berkeley and Milton Babbitt at Princeton before going to Italy on a Fulbright Fellowship to study with the leading Italian twelve-tone composers, Luigi Dallapiccola (1904–75) and Bruno Maderna (1920–73). By the time of his involvement with Fluxus he had already made a name for himself, having "acquired an excellent technique of composition in the traditional idiom before adopting an extreme avant-garde style"[68] (as his entry reads in *Baker's Biographical Dictionary of Musicians*). He was also a skilled and highly paid recording engineer, employed by Westminster

Records, one of the most active independent classical labels of the early LP era. Against this background, Higgins's *Danger Musics*, not to mention acts of outright destruction like violin burning (or taking an axe to a piano, as prescribed in Paik's *Hommage à John Cage*), do not seem merely “gratuitous” but sadomasochistic. Maxfield's final act was literally self-destructive. He committed suicide by jumping out of the window of a Los Angeles hotel room at the age of forty-two.

Notes:

(55) Quoted in Michael Nyman, *Experimental Music: Cage and Beyond* (New York: Schirmer, 1974), p. 61.

(56) Quoted in Nyman, *Experimental Music*, p. 64.

(57) Nyman, *Experimental Music*, p. 66.

(58) Reproduced in Nyman, *Experimental Music*, p. 67.

(59) Quoted in Nyman, *Experimental Music*, p. 13.

(60) Reproduced in Nyman, *Experimental Music*, p. 70.

(61) Quoted in Nyman, *Experimental Music*, p. 74.

(62) Quoted *Ibid*.

(63) “Relations: Friends and Allies Across the Divide; Merce Cunningham and Nam June Paik,” *New York Times Magazine*, 16 July 2000, p. 11.

(64) Quoted in Nyman, *Experimental Music*, p. 74.

(65) *Ibid*.

(66) *Baker's Biographical Dictionary of Musicians* (6th ed.; New York: Schirmer, 1978), p. 1279.

(67) “Relations: Friends and Allies Across the Divide: Merce Cunningham and Nam June Paik”

(68) *Baker's Biographical Dictionary of Musicians* (6th ed.; New York, Schirmer, 1978), p. 1118.

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Oxford History of Western Music: Richard Taruskin

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Earle Brown

Notation: 20th-century non-mensural notation

NEW NOTATIONS

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Less obviously contradictory were the efforts of Earle Brown (1926–2002), another early associate of Cage, to free performers from their usual constraints, and make them fully “aware” participants in the making of his music, by means of a “graphic notation” that eventually dispensed with conventional symbols. In *Synergy* (subtitled “November 1952”), conventional note-heads and dynamic markings were deployed on a sheet that was lined from top to bottom. Performers had to decide on instrumentation, place clefs where they wished, choose a mode of attack for each note, and decide both when to play it and how long it would be (within limits suggested by the use of empty and filled note-heads). A month later, in *December 1952*, Brown provided a score consisting of nothing but lines and rectangles on a white background (Fig. 2-9). The symbols represented “elements in space”; the score was “a picture of this space at one instant.” It was for the performer “to set all this in motion,” whether by “sit[ting] and let[ting] it move” or by “mov[ing] through it at all speeds.”

December 1952 was written under the direct impact of Cage's *4′33″*, which had had its premiere (by David Tudor) in August of that year. In its vague and “conceptual” character it did resemble Cage's famous “tacet” piece; but in turning his notation into a kind of “inkblot test” to elicit the performer's associations, Brown was obviously letting back in all the “memories, tastes, likes and dislikes” that Cage had zealously sought to exclude (in keeping, one might note, with the original intention of Dr. Hermann Rorschach, the Swiss psychiatrist who devised the inkblot test on the theory that individuals will project their own unconscious attitudes into ambiguous situations.)

fig. 2-9 Brown, *December 1952*

Brown was the first of many composers who, especially in the 1960s, employed “conceptual” notations to enlist the performers’ imaginations (or their prejudices). The score page in Fig. 2-10 is from *The Nude Paper Sermon* (1969), a “music theater” piece by Eric Salzman (b. 1933), a composer and critic who studied at Darmstadt in the late 1950s. The musicians (vocal soloists, chorus, and Renaissance consort) are asked to “react” physically, on their instruments, to the unconventional graphic shapes, with little or no prompting from the composer. In Europe, the most prominent exponent of conceptual notations was Sylvano Bussotti (b. 1931), whose score pages were frequently hung by admirers as art prints. To reflect the trend toward conceptual notations, and perhaps to abet it, Cage published a compilation, *Notations* (1969), containing reproductions of score pages solicited from 269 composers to show “the many directions in which notation is now going.”[69] The Bussotti page shown in Fig. 2-11, reproduced from Cage's compilation, was actually a New Year's greeting to the compiler.

fig. 2-10 Score page from Eric Salzman's *The Nude Paper Sermon: Tropes for Actor, Chorus, and Renaissance Instruments* (words by John Ashbery), used by the author, who played bass viol at the premiere performance in New York, 20 March 1969.

Cage's own graphic notations, by contrast (and as might be expected), were always precisely specified and tightly controlled. Performers interpreting them found that the composer demanded extraordinary discipline of them, being intolerant of clichés and notoriously difficult to please. Among the many who misunderstood this aspect of Cageian "indeterminacy" was Leonard Bernstein, who prefaced the 1964 concert at which the New York Philharmonic played Cage's *Atlas eclipticalis* with four "improvisations" by the orchestra, redone later as a studio recording, that elicited mainly Kreutzer études from the strings, fanfares from the brass, and "Rite-of-Spring" arpeggios from the winds.

fig. 2-11 Bussotti, score page reproduced in Cage's *Notations*

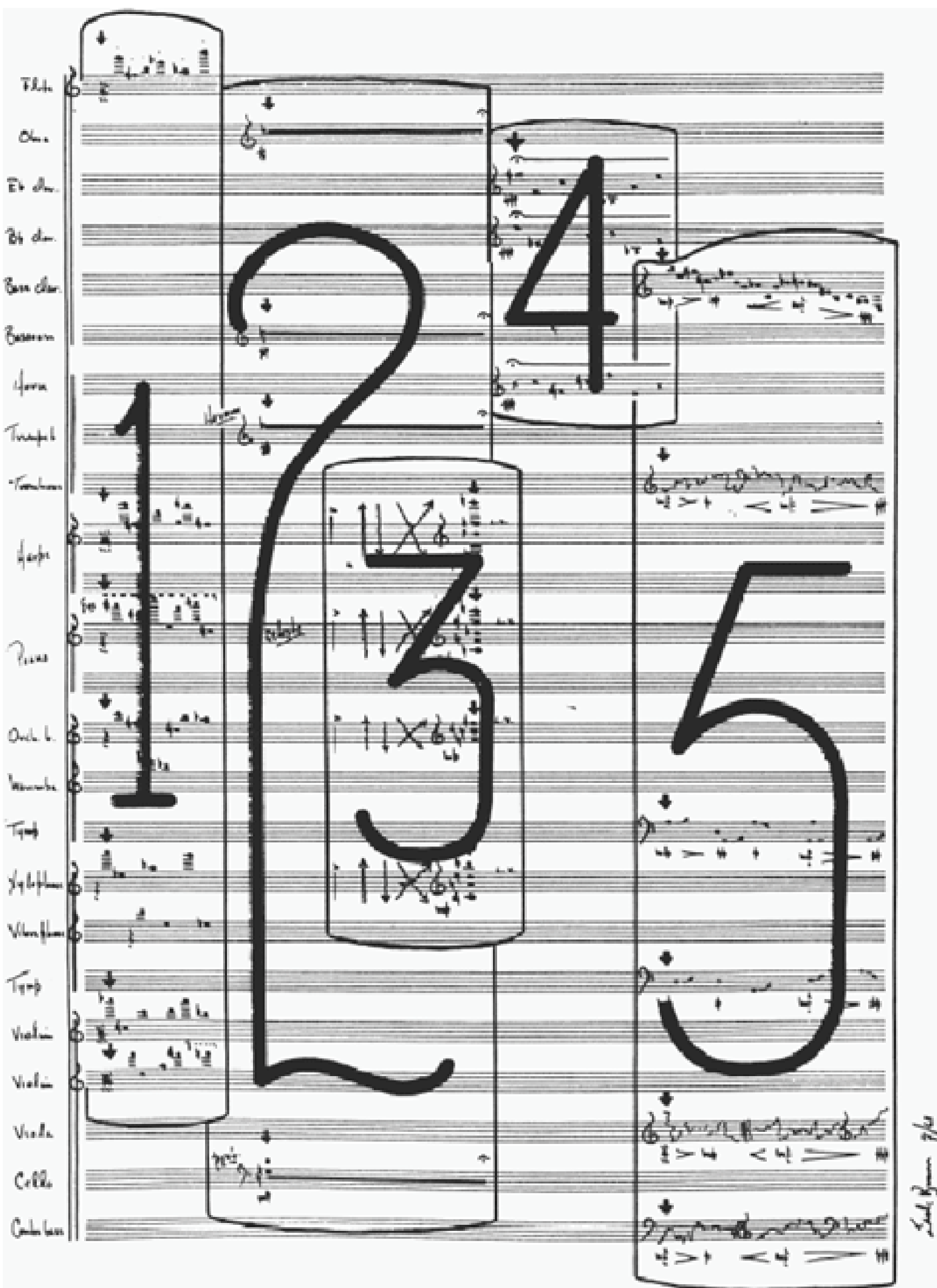

fig. 2-12 Brown, *Available Forms I*

As for Earle Brown, his most widely performed pieces were “open form” compositions (a term of his coining, later applied to the work of many composers), in which sections were treated as “moving parts” like those of a mobile sculpture by Alexander Calder (1898–1976), his acknowledged inspiration. The score of *Available Forms I* (1961), for large orchestra led by two conductors, consists of a sheaf of unbound pages (like the one given in Fig. 2-12) on each of which several “events” are notated, each calling upon a different group of instruments and exhibiting vastly differing characters (some static, others very active; some notated using conventional notes or note-heads, others “conceptually”).

Every member of the orchestra has half of the full set of pages, as does each of the conductors. The order of pages is decided in advance by the two conductors independently. Whenever the page is turned, the conductors

indicate by holding up the fingers of one hand which of the five events is to be played, and by their gestures regulate the speed (steady or variable, at their discretion) at which it is to be executed. Ideally, the work should be performed several times during a concert, to duplicate the effect of the mobile, whose finite set of parts can come into an infinite variety of alignments.

Notes:

(69) John Cage, "Preface," *Notations* (New York: Something Else Press, 1969), n.p.

Citation (MLA): Richard Taruskin. "Chapter 2 Indeterminacy." *The Oxford History of Western Music*. Oxford University Press. New York, USA. n.d. Web. 13 Mar. 2011. <http://www.oxfordwesternmusic.com/view/Volume5/actrade-9780195384857-div1-002009.xml>.
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Morton Feldman

Notation: 20th-century non-mensural notation

PRESERVING THE SACROSANCT

Chapter: CHAPTER 2 Indeterminacy
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

As always, the allowance for discretion (particularly discretionary tempo or *tempo rubato*) reintroduces personal interpretation, even self-expression, into an ideal realm from which Cage, the consummate Apollonian, had sought to exclude it. That realm, as we have seen, is the ideally autonomous artwork. Cage's most zealous competitor in the pursuit of esthetic autonomy was Morton Feldman. Their approaches were very different. Cage's involved a meticulous and demanding methodology. Feldman, who studied in the 1940s with Stefan Wolpe (not a Cageian by any means but also a sympathetic friend of surrealist and abstract expressionist painters), tried more spontaneously to achieve *l'acte gratuit*, the wholly unmotivated gesture.

His earliest pieces ("gestures") were of three kinds: *Projections* (five, 1950–51), *Extensions* (four, 1951–53), and *Intersections* (four, 1951–53). By "projection" Feldman meant an attempt "not to 'compose' but to project sounds into time, free from a compositional rhetoric that had no place here. In order not to involve the performer (i.e. myself) in memory (relationships), and because the sounds no longer had an inherent symbolic shape, I allowed for indeterminacies in regard to pitch."[70] His were in fact the first pieces to make such allowances.

fig. 2-13 Morton Feldman.

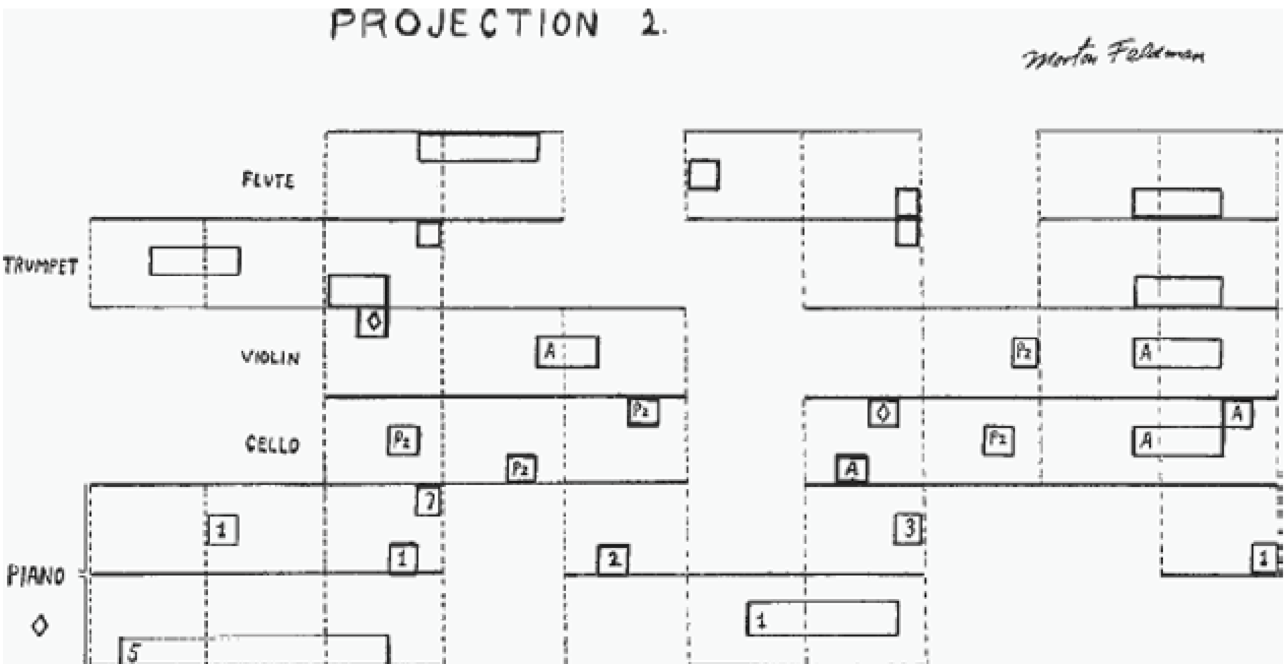

fig. 2-14 Score page from Feldman, *Projections II*

Anticipating Earle Brown by a couple of years, Feldman developed a rudimentary graphic notation so as to avoid specifying exact pitches, which all too easily fell into predictable patterns that reflected the conditioned responses of human beings in society rather than the autonomy of an esthetic object. Instead, he drew boxes of varying length on graph paper to indicate roughly defined high, middle, and low registers, from which the player was free to select any note. Each choice was supposed to be made "blind," or "from scratch," that is, without regard for logical sequence. Most notes were to be played softly, often "just about audible" (to cite a favorite Feldman direction), so that occasional loud notes might appear "for no reason." The composer exercised control over duration, hence overall shape, timbre, and (when the medium was polyphonic) texture. *Projection I* (1950) was for solo cello. *Projection II* (1951), from which Fig. 2-14 is selected, is scored for an ensemble of five instruments.

"Intersections" were pieces in which the players were asked occasionally to make simultaneous attacks so that their individual "lines" intersected, as lines might do on a painted canvas. In the "Extensions" series, conventional notation was occasionally used to set up little repetitive phrases that might go on (extend themselves) for as many as fifty iterations, providing not a narrative or logical continuity but an ambience against which unpredictable events might unfold. These delicate ostinati must come and go, like the occasional loud eruptions, without apparent rhyme or reason. The listening ear must never be allowed to form expectations. Indeed, Feldman once wrote, his music should be listened to "as if you're not listening, but looking at something in nature,"[71] which exists for its own reasons, ignorant and independent of the observer.

Beginning in 1954, however, Feldman abruptly abandoned graphic notation and brought his various gestural series to an end. The reason was simple and significant. Hearing enough performances of his pieces convinced him that his method had an undesirable side effect. As he later put it, "I was not only allowing the sounds to be free—I was also liberating the performer."[72] As Cage had realized before him (and as the experience of the Scratch Orchestra would confirm), liberating people only frees them to follow their habits and whims, which once again deprives the music of its autonomy. Once again it became necessary to put limits on discretion, which meant reverting once again to conventional pitch notation. The difference in musical effect was not great; Cage wryly observed that "Feldman's conventionally notated music is himself playing his graph music."[73] But if performers were now to become the proxies of the composer's own master-rendition, then the paradoxical

social elevation of the composer over the performer threatened to intrude anew.

Feldman tried to get around this by a process of automatic writing. In his *Piece for Four Pianos* (1957 ; Ex. 2-5), the bunch of chords prescribed and arbitrarily repeated seem to have been invented by an unpremeditated 'laying on of hands" at the keyboard. The composer's seemingly random touch is then duplicated by four pianists, all playing at different (but not too different) tempos, and at different (but not too different) levels of soft volume. The music achieves a quality of shimmering reverberation during the more repetitive moments, of inscrutable disclosure during the unique events. The periodic general pauses allow the gathered echoes to disperse and a new set to begin.

The first sound with all pianos simultaneously. Durations for each sound are chosen by the performer. All beats are slow and not necessarily equal. Dynamics are low with a minimum of attack. Grace notes should not be played too quickly. Numbers between sounds are equal to silent beats.

ex. 2-5 Morton Feldman, *Piece for Four Pianos*

Pieces from this phase of Feldman's career are written in what is sometimes called "free-rhythm notation," but that is a misnomer. The effect of the music depends on relative uniformity of action within a limited latitude of variation, the composer counting on his vague performance directions to activate a basically similar response in all performers. Performers and listeners with the capacity for making themselves passive often find the results ravishing; those without it can find the experience maddening. "What was great about the fifties," Feldman wrote, "is that for one brief moment—maybe say, six weeks—nobody understood art. That's why it all happened."[74]

In later years Feldman demanded ever greater reserves of passive endurance on the part of listeners. The music of his last two decades, fully and conventionally notated, entered a time scale unprecedented for "autonomously" conceived instrumental music, maximizing (and thus transforming) the whole centuries-old idea of esthetic autonomy. *For Philip Guston* (1984), a trio for a flutist (doubling alto flute), a pianist (doubling celesta), and a percussionist, dedicated to one of the composer's many artist friends, wends its quiet, basically uniform, yet wholly unpredictable way for four-and-a-half hours. The Second String Quartet (1983), Feldman's longest work, lasts more than six. When listening to one of these pieces, as the critic Paul Griffiths put it in a perceptive review, "all you can say is that you are there; and when it is over, that you were there." The music, "hovering in the rare space between what you can ignore and what you can understand," effectively ignores you.[75]

Yet it is anything but "furniture music." Complete performances of such pieces, in which the traditional concert format and its attendant etiquette are fully maintained, are necessarily infrequent. The Second String Quartet was not attempted complete during Feldman's lifetime. Its first uncut performance, by a young ensemble of Juilliard graduates called the Flux Quartet, took place in October 1999. It was treated by its audience (and heralded by the New York press) as a once-in-a-lifetime event. In this way Feldman managed, even more emphatically than Cage, to preserve the specialness of the esthetic experience during what the critic Walter Benjamin famously called "the age of mechanical reproduction,"[76] when art, by being rendered too easily accessible, had been effectively demystified (or, as Benjamin put it, had lost its "aura").

During a performance of *For Philip Guston*, Griffiths noted, not more than a dozen listeners managed to sit still all the way through. "Perhaps another 20 stayed and moved from place to place. A few others came and went, tiptoeing in and out, like visitors to a long religious ceremony."[77] And with that, the motivation hidden behind the *acte gratuit* is at last revealed. Only by dint of extreme measures could the romantic sacralization of art continue into the age of science. The avant-garde had become a conservative faction, perhaps (as Cornelius Cardew, had he lived, would certainly have charged) the most reactionary faction of them all.

Notes:

(70) Feldman, "Liner Notes," p. 6.

(71) Quoted in Nyman, *Experimental Music*, p. 45.

(72) Feldman, "Liner Notes," p. 6.

(73) Quoted in Nyman, *Experimental Music*, p. 45.

(74) Morton Feldman, "Give My Regards to Eighth Street," in *Give My Regards to Eighth Street*, p. 101.

(75) Paul Griffiths, "A Marathon for 3 Players and the Ears," *New York Times*, 6 April 2000, Section E, p. 10.

(76) See Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" (1936), in Benjamin, *Illuminations* (New York: Harcourt Brace Jovanovich, 1968), pp. 217–53.

(77) Griffiths, "A Marathon."

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Oxford History of Western Music: Richard Taruskin

CHAPTER 3 The Apex

Babbitt and Cold War Serialism

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

CONVERSIONS

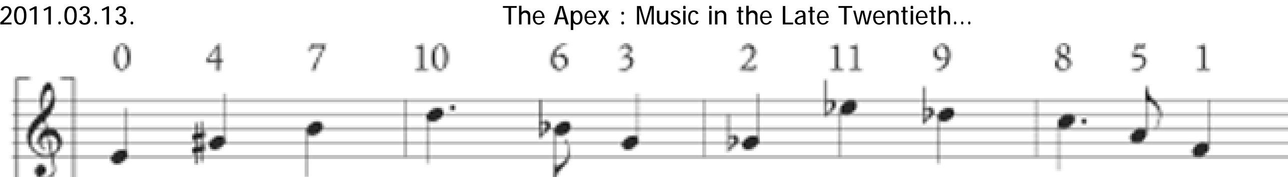
One effect of the postwar avant-garde, in both its "total serial" and its "indeterminate" phases, was to put the more moderate techniques of prewar twelve-tone music much nearer the middle of the stylistic road, making those who resisted them seem all the more embarrassably conservative. During the 1950s and 1960s nearly everyone experimented with twelve-tone methods, partly out of curiosity, partly in response to the constant pressure to keep stylistically abreast as mandated by the historicist ideology to which practically everyone, regardless of stylistic orientation or one's other artistic convictions, tacitly assented at the middle of the twentieth century.

Paul Hindemith, for example, had inveighed fiercely against the "unnaturalness" of Schoenberg's methods in *The Craft of Musical Composition*, a prewar textbook that was issued in English translation in 1942. "Nowhere," he asserted,

> does Nature give us any indication that it would be desirable to play off a certain number of tones against one another in a given duration and pitch-range. Arbitrarily conceived rules of that sort can be devised in quantities and if styles of composition were to be based upon them, I can conceive of far more comprehensive and more interesting ones. To limit oneself to home-made tonal systems of this sort seems to me a more doctrinaire proceeding than to follow the strictest diatonic rules of the most dried-up old academic…. But already a decline is noticeable in the interest manifested in this music based on rules dictated by fashion and contrary to nature.[1]

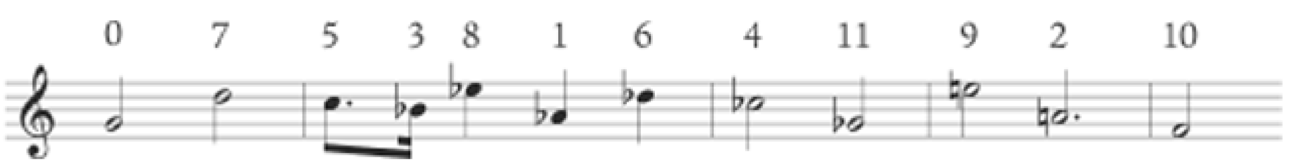
This was a common enough view in 1937, when Hindemith set it down. By 1955, however, even Hindemith was sketching fully chromatic twelve-tone themes or tone rows for use in a sonata for tuba and piano. As Ex. 3-1 shows, by the time the sonata was fully composed, Hindemith had worked the twelve-tone bug out of his system; the theme eventually chosen no longer exactly coincided with a tone row, even if it did contain representatives of all twelve pitch classes. And yet his fleeting susceptibility shows (all the more clearly, perhaps, for his fighting it off) that Soviet composers were not the only ones who felt pressure to conform to a decreed official style. Even Poulenc, surely the unlikeliest of prospects, gave in to it in his *Elégie* (1957) for horn and piano.

ex. 3-1a Paul Hindemith, twelve-tone theme in Tuba Sonata, sketch



ex. 3-1b Paul Hindemith, twelve-tone theme in Tuba Sonata, sketch

ex. 3-1c Paul Hindemith, twelve-tone theme in Tuba Sonata, sketch



ex. 3-1d Paul Hindemith, twelve-tone theme in Tuba Sonata, sketch

ex. 3-1e Paul Hindemith, Tuba Sonata, opening theme as eventually worked out

Beginning in 1956, the year in which the new Soviet leader, Nikita Khrushchev, launched a “de-Stalinization” campaign, young Soviet composers also wrote (clandestine) twelve-tone music. For them it was an act of symbolic nonconformism; for Poulenc it was nearer the opposite. (But nonconformism can itself become a form of conformist pressure when practiced by an elite group.) By the late 1960s, twelve-tone rows—or, to put it neutrally, successions of twelve nonrepeating pitch classes—had even surfaced in the work of Dmitriy

Shostakovich, by then the dean of Soviet composers, as the opening of his Twelfth Quartet (1968) will illustrate (Ex. 3-2). Nor, occurring as they did in the plainly "tonal" context of D♭ major, did they occasion censure. The gesture, becoming commonplace, was losing its shock value.

Several composers, however, underwent more thorough and lasting—and historically significant—conversions to dodecaphonic techniques. One was Aaron Copland, the most prominent representative of the Americanist "populist" style, for whom the adoption of twelve-tone methods was more than a technical advance. It was also a calculated retreat from explicit Americanism and from populism, both of which had paradoxically become politically suspect in the tense early years of the cold war. Copland's unexpected turn to the elite and reputedly forbidding twelve-tone idiom paralleled Stefan Wolpe's, described in chapter 1. It represented the further progress, so to speak, of the cold feet that had led Copland to moderate the ending of his Third Symphony, as described in the same chapter.

ex. 3-2 Dmitriy Shostakovich, Quartet no. 12, Op. 133, I, opening

Beginning in 1947, the American government, acting through the Committee on Un-American Activities of the U.S. House of Representatives, perpetrated a little "Zhdanovshchina" of its own—public hearings at which artists were politically disgraced (the musicians among them actually a little ahead of their Soviet counterparts). The first musical quarry was Hanns Eisler, who had fled Germany for his life in 1933 and had lived continuously in the United States (chiefly in Hollywood) since 1942. He appeared before the Committee in September 1947 and was deported in March 1948 for being, in the words of the Committee's chief counsel, "the Karl Marx of Communism in the musical field."[2] In the course of presenting evidence against Eisler, the chief counsel read excerpts from interviews the composer had given the Soviet press during a visit to Moscow in 1935. One of them called attention to Copland's mass song, "Into the Streets May First". Another reported "a considerable shift to the left among American artists," and added

> I do not believe it would be an exaggeration to say that the best people in the musical world of America (with very few exceptions) share at present extremely progressive ideas. Their names? They are Aaron Copland, Henry Cowell, Wallingford Riegger, the outstanding musical theoretician Charles Seeger, the greatest specialist on modern music Nicolas Slonimsky, and finally the brightest star on the American musical horizon, the great conductor, Leopold Stokowski.[3]

fig. 3-1 Hanns Eisler and his wife, Louise, boarding a plane for Vienna in 1948 after the composer's subpoenaed appearance before the House Committee on Un-American Activities.

Copland's name had been named, to use the expression current at the time, in what had become a highly invidious context. More bad publicity followed the so-called Cultural and Scientific Conference for World Peace, held at the Waldorf Astoria Hotel in New York in 1949, where Copland, there as a member of the National Council of American-Soviet Friendship, a remnant of the wartime alliance, was photographed with the recently disgraced Shostakovich (now traveling as a Soviet cultural ambassador at Stalin's behest). Copland's picture was printed in *Life* Magazine under the headline “Dupes and Fellow Travelers Dress Up Communist Fronts.”

That embarrassment was followed by more sinister events the next year, when Copland's close friend Clifford

Odets, a famous playwright, was called to testify before the House Committee. In March of 1950, Copland was denounced by the American Legion, a veterans organization. In June, he was blacklisted in a notorious publication called *Red Channels: The Reports of Communist Influence in Radio and Television*, albeit without serious consequences to his income, which did not come by way of the entertainment industry. His reaction to the *Red Channels* listing was nevertheless nervous: he withdrew from the NCASF that very month and, over the course of the next few years, severed virtually all his connections with political organizations.

Political pressure on Copland reached its peak in 1953. *A Lincoln Portrait*, a much-promoted product of wartime patriotism, was scheduled for performance by the British-born film star Walter Pidgeon with the National Symphony Orchestra at a Washington concert to celebrate the inauguration of the newly elected President, Dwight David Eisenhower, formerly the Supreme Commander of the Allied military forces that had won the war. Fred Busbey, an Illinois congressman, assailed the choice of Copland's music in a speech delivered on the floor of the House of Representatives on 3 January:

> There are many patriotic composers available without the long record of questionable affiliations of Copland. The Republican Party would have been ridiculed from one end of the United States to the other if Copland's music had been played at the inaugural of a President elected to fight communism, along with other things.[4]

fig. 3-2 President Dwight D. Eisenhower's inaugural parade, 20 January 1953. Aaron Copland's *Lincoln Portrait* was scheduled for, but later scratched from, a commemorative concert that evening. Copland testified before Senator Joseph McCarthy's Permanent Subcommittee on Investigations four months later.

The performance was canceled. The League of Composers, a promotional organization of which Copland had been the executive director from 1948 to 1950, sent a telegram protesting the ban to the *New York Times*, which reported it. Paul Hume, the music critic of the *Washington Post*, went further, defending Copland in an article that appeared under the title "Music Censorship Reveals New Peril," and ending his review of the sanitized concert (which now contained no American music at all) by taunting "the idea that music by various American-

born composers is to be banned if Congressmen protest."[5] The American Civil Liberties Union sent a letter of protest to the inaugural committee, and the historian Bruce Catton published an essay that ridiculed the folly of exercising political censorship in the ostensible name of freedom.

The publicity had on the whole been favorable to Copland; but the little scandal had brought artistic matters to the attention of Senator Joseph McCarthy, whose dreaded Permanent Subcommittee on Investigations had assumed the leading role in exposing and punishing Americans for their "questionable affiliations." Copland's music, along with that of a long list of other American composers against whom "derogatory" allegations had been made, was excluded at Senator McCarthy's urging from promotion by the U.S. Information Agency or from the lending collections at the libraries maintained abroad by the U.S. State Department. Finally, Copland received a telegram summoning him to testify in person before Senator McCarthy's committee on 25 May 1953.

He actually appeared on 26 May, having been granted a day's extension to secure legal representation. He was required to comment on a long list of affiliations to organizations identified by the subcommittee as "Communist fronts," and in particular, to account for his participation in the notorious "Waldorf Conference" in 1949. He was also asked for the names of others with whom he had consorted in the course of his political activities. On the advice of counsel, Copland was a cooperative witness; on the delicate matter of "naming names," particularly of those participating in the Peace Conference, he prepared a statement attesting that, having reread newspaper accounts of the event, "I do not personally remember having seen anyone at the conference who is not listed in those published reports." He kept hidden his indignation (which he confided to his diary) at having, even for the sake of expediency or tactics, to make such admissions when "in a free America I had a right to affiliate openly with whom I pleased; to sign protests, statements, appeals, open letters, petitions, sponsor events, etc., and no one had the right to question those affiliations."[6]

It was during this stressful time that Copland turned to twelve-tone composition. On the one hand, it seemed an unexpected and (to many) even an incomprehensible withdrawal from the large audience that he had won against such heavy odds. Copland had become something of an emblem for that possibility of success (or, depending on how one looked at it, of compromise). In 1948, his commitment to audience appeal had led him into a rather uncomprehending (or even, depending on how one looked at it, a heartless) response to the plight of the Soviet composers under Zhdanov's attack. "They were rebuked," a reporter quoted him as saying, "for failing to realize that their musical audience had expanded enormously in the last several years (you have only to pass a record or radio shop to see that), and that composers can no longer continue to write only for a few initiates."[7] At the 1949 Peace Conference, however, he made a speech, "The Effect of the Cold War on the Artist in the U.S.," that may shed some light on his seemingly paradoxical course of action in the years to come. "Lately," he told the audience,

> I've been thinking that the cold war is almost worse for art than the real thing—for it permeates the atmosphere with fear and anxiety. An artist can function at his best only in a vital and healthy environment for the simple reason that the very act of creation is an affirmative gesture. An artist fighting in a war for a cause he holds just has something affirmative he can believe in. That artist, if he can stay alive, can create art. But throw him into a mood of suspicion, ill-will and dread that typifies the cold war attitude and he'll create nothing.[8]

The status of art as "affirmative gesture" became equivocal at a time when governments demanded conformism. That was the tiny kernel of justice in the otherwise preposterously prosecutorial case that the once-persecuted Leibowitz had mounted against Bartók's "compromises." For T. W. Adorno, the word "affirmative" had become almost tantamount to "fascist." It took the tensions of the cold war to drive the point home to American artists who had never before entertained the possibility that their government might adopt a comparable attitude, let alone try to control or influence their work except by giving them opportunities to receive payment for it.

Works like *A Lincoln Portrait* that affirmed political commitments, even commitments as seemingly uncontroversial as patriotism or identification with one's nation or its greatest president, could easily become political footballs, as the American saying went, when political alignments changed. The nation to which Copland proclaimed his impassioned adherence in wartime was a nation then allied with the Soviet Union ("our gallant Russian allies," as General Eisenhower himself had put it on D day). That all-too-easily forgotten fact tainted the sincere patriotism of many American artists in retrospect, and, as the cold war rewrote history, rendered their patriotic offerings politically ambiguous. At the very least, it was clear in retrospect that if Copland had not composed works with explicit patriotic or national themes, his music would not have been proposed for inclusion in the inaugural concert, and he would have been spared his frightening brush with censorship and possible repression. It was a tormenting dilemma.

While the ivory tower of "pure art" offered Soviet artists scant security, it could look like a haven to their American counterparts, accustomed not to the active support and promotion that totalitarian governments offered in return for cooperative service, but rather to an official attitude of laissez-faire ("leave them be," otherwise known in English as "benign neglect") toward artists, especially those involved in "high culture." When one learns that Copland began sketching his Piano Quartet, the first of his twelve-tone compositions, in March 1950, the same month in which he was targeted by the American Legion, the coincidence of dates prompts the reflection that the composer may have been seeking refuge in the "universal" (and politically safe) truth of numbers, rather than the particular (and politically risky) reality of a national or popular manner.

Notes:

(1) Paul Hindemith, *The Craft of Musical Composition*, trans. Arthur Mendel (New York: Associated Music Publishers, 1942), p. 154.

(2) Robert E. Stripling, quoted in Nicolas Slonimsky, *Music since 1900* (4th ed.; New York: Scribners, 1971), p. 1396.

(3) Hans Eisler, in *Evening Moscow (Vechernyaya Moskva)*, 27 June 1936, read into the Congressional Record by Robert Stripling on 24 September 1947; Slonimsky, *Music since 1900*, p. 1399.

(4) Quoted in Aaron Copland and Vivian Perlis, *Copland since 1943* (New York: St. Martin's Press, 1989), p. 185.

(5) Paul Hume, "Music Censorship Reveals New Peril," *Washington Post*, 25 January 1953; *Copland since 1943*, p. 186.

(6) Quoted in *Copland since 1943*, p. 193.

(7) Copland, interviewed by Mildred Norton in the *Los Angeles Daily News*, 5 April 1948; quoted in Howard Pollack, *Aaron Copland: The Life and Work of an Uncommon Man* (New York: Henry Holt and Co., 1999), p. 283.

(8) Quoted in Pollack, *Aaron Copland*, p. 284.

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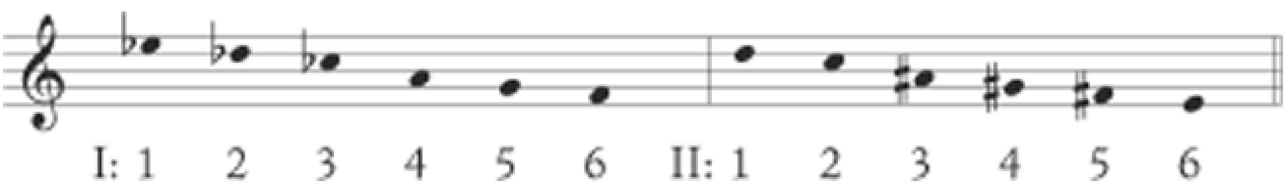
Twelve-note composition

Aaron Copland

“MAINSTREAM” DODECAPHONY

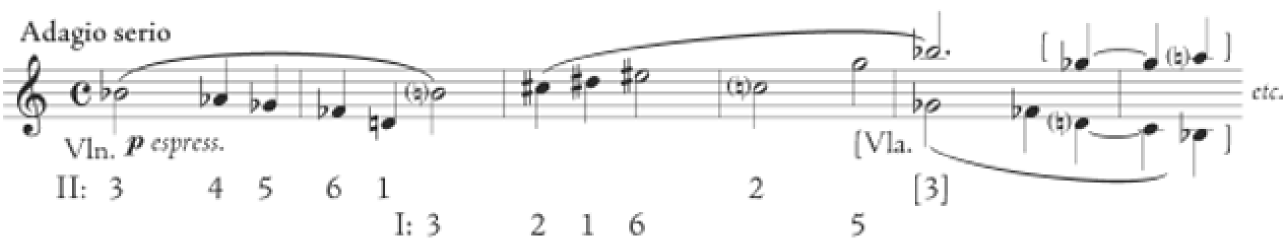
Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

The first movement of the Piano Quartet well exemplifies Copland's “mainstream” or “middle of the road” approach to twelve-tone composition. The row (Ex. 3-3) is used as a theme in the traditional sense, which means that it will be varied according to standard methods of thematic elaboration as well as according to specifically serial procedures. It is constructed on the principle of “whole-tone complementation”—that is, playing off the two mutually exclusive whole-tone scales against one another. Whole-tone scale segments, a familiar sound in music since before the turn of the century, are what the themes present most saliently to the listening ear, and what make them memorable.



ex. 3-3a Aaron Copland, Piano Quartet, development of twelve-tone themes: complementary whole-tone scales

ex. 3-3b Aaron Copland, Piano Quartet, development of twelve-tone themes: main theme of first movement



ex. 3-3c Aaron Copland, Piano Quartet, development of twelve-tone themes: main theme as first heard

ex. 3-3d Aaron Copland, Piano Quartet, development of twelve-tone themes: second theme (pitch content of Example 3-3c transposed and reversed)

ex. 3-3e Aaron Copland, Piano Quartet, development of twelve-tone themes: opening of second movement (violin)

ex. 3-3f Aaron Copland, Piano Quartet, development of twelve-tone themes: third movement, viola and cello in mm. 103-105

The structure of the theme already presents in microcosm the Quartet's chief form-generating procedure: the breaking and eventual completion of patterns. The initial whole-tone descent goes as far as the fifth degree out of six before being interrupted by the other whole-tone scale, ascending through four degrees. The withheld pitch from the first scale is then interpolated into the second, creating an intervallic sequence (perfect fourth followed by perfect fifth) suitable for a diatonic cadence. That traditional cadential resonance will of course be exploited in the music. But it raises a question: why go to the trouble of contriving special ingenious situations within a twelve-tone row only to achieve what would have been so much more easily obtainable using Copland's usual compositional techniques? The question confirms the impression that Copland's use of serial techniques may have been prompted less by the specific “purely musical” possibilities it offered than by the “purely abstract,” hence politically neutral and unquestionable, musical context it provided.

The breaking of the initial whole-tone pattern by the intrusion of its complement within the theme is projected

onto the “macrostructure” of the first movement by withholding the last note of the row on every occurrence of the theme except the last. Example 3-3b, which shows the complete theme, is taken from the piano part at the very end. Example 3-3c, the violin part at the outset, shows the theme as it is heard every other time, with the last pitch replaced by a repetition of the first, as if the theme had been based on an eleven-note row. It is this eleven-note version that is reversed, in “orthodox” twelve-tone fashion (but at an equally “orthodox” tonal transposition to the lower fourth or “dominant”) to provide the second theme (ex. 3-3d).

The remainder of Ex. 3-3 is drawn from the second and third movements, to show how the thematic material of the whole quartet is drawn from the initial row (or at least its whole-tone complementation idea). The main theme of the second movement (Ex. 3-3e), close to a retrograde-inversion of Ex. 3-3c, is another eleven-tone melody with a redundant pitch, here at the beginning rather than the end. The withheld pitch (or “hidden pitch”—*note câchée*—as Nadia Boulanger's pupils tended to call it, it being an old idea of hers) does not make an appearance until the nineteenth measure. Ex. 3-3f, from the third movement's coda, shows how the two whole-tone scales are given a complementary summary in the inner parts to provide harmonic closure as the piece draws to its serene completion.

Returning to the first movement, the piano part midway (Ex. 3-4a), and the string parts at the very end (Ex. 3-4b), illustrate how Copland extracts harmonies, respectively, from the whole-tone and “diatonic” portions of his row-theme, and uses the contrast between them to regulate the harmony of the whole according to a traditional tension-and-release concept. Thus harmonic relations govern the emergent sense of the movement's form just as they had always done in “tonal” music. It was the kind of thing that drew fire from the “left” (that is, from Darmstadt) for representing “compromise” with tradition, and with the nonprofessional audience. It shows that Copland, despite his recourse to serial procedures, still regarded himself as a composer living in, and engaged with, a social network.

ex. 3-4a Aaron Copland, Piano Quartet, I, mm. 55-61

But the Piano Quartet was only the beginning of Copland's serial odyssey. Over the rough quarter-century remaining to his creative career (which ended in the early seventies, although he lived until 1990), he maintained two compositional approaches, one diatonic and the other twelve-tone. He called them his “popular” and “difficult” styles; on occasion he referred to them as his “public” and “private” manners. And yet his largest, most public works of the 1950s and beyond, the kind for which he had originally developed his “Americanist” idiom, were cast more and more dependably in the “difficult” style, with a musical content that tended conspicuously toward the abstract, even the “formalist.” Except for the Third Symphony, Copland's lengthiest and in that sense most ambitious instrumental composition was the twelve-tone *Piano Fantasy* of 1957 , cast in a single tightly woven movement that lasts over half an hour and makes a considerable demand on a listener's

powers of concentration. The opening of the work (Ex. 3-5) lends striking support to Copland's slightly defensive contention that "twelve-tonism is nothing more than an angle of vision.... It is a method, not a style; and therefore it solves no problems of musical expressivity."[9] With its expansive intervallic leaps and its wide-open chord spacing, the music—to anyone who knows the composer's "Americanist" works—sounds palpably "Coplandesque." But what had once been in part a function of subject matter was now entirely a matter of "autonomous" style.

By far the most utterly and essentially "public" composition of Copland's late career was an orchestral piece commissioned by the New York Philharmonic for a 193 gala concert, conducted by Leonard Bernstein, to inaugurate the orchestra's new home at New York City's Philharmonic (now Avery Fisher) Hall, the first building to be completed in the immense complex of performance spaces known as the Lincoln Center for the Performing Arts. The concert, attended by a long list of public figures headed by Jacqueline Kennedy, the first lady of the United States, was televised live and broadcast to a nationwide audience of millions.

ex. 3-4b Aaron Copland, Piano Quartet, I, mm. 98-end

ex. 3-5 Aaron Copland, *Piano Fantasy*, mm. 1-22

fig. 3-3 Philharmonic (later Avery Fisher) Hall, Lincoln Center, New York, inaugurated in 1961.

The honor of receiving such a commission was not only a testimonial to Copland's incontestable stature as a creative figure, but also a recognition of his special relationship to the American public. Perhaps needless to say, Copland's virtually unique status among "serious" composers as a household name derived from his Americanist works of the 1930s and 1940s; and yet the work he produced for this most publicized moment of his career was an especially severe exercise in abstraction. Its very title, *Connotations*, suggested that its tight motivic "argument"—that is to say, its formal procedure—was tantamount to its content; and in the introductory remarks that preceded the broadcast performance, Copland emphasized the strictness with which the entire twenty-minute composition was derived from the "three harsh chords" (Ex. 3-6a) that opened the work (each containing four notes of the governing twelve-tone row). The ending was a series of strident "aggregates"—that is, twelve-note chords that the audience found perplexing, if not downright distasteful (Ex. 3-6b). The immediate reaction was embarrassing: "a confused near silence,"[10] as Copland recollected it.

ex. 3-6a Aaron Copland, *Connotations*, opening (“three harsh chords” and their immediate consequences)

ex. 3-6b Aaron Copland, *Connotations*, ending

The dramatic fashion in which Copland had sacrificed his hard-won, well-nigh unique public appeal for the sake of what seemed (at least in the context of a glittering public gala) an "alienated" modernist stance, seemed to give credence to the idea that the triumph of twelve-tone music was the result of an inevitable and irresistible historical process. Copland himself accounted for his change of style, in a modest comment to Bernstein, by saying that he "needed more chords"[11] —implying, if not the "exhaustion of tonality" that more pretentious commentators had been proclaiming for decades, at least that his own technical or stylistic resources had needed renewal.

There is no reason to expect a composer to look beyond his conscious musical appetites for the sources of his musical behavior. But the corollary, that such appetites are stimulated only spontaneously ("from within"), is contradicted—at least in the present case—by the fact that the idiom Copland had adopted in search of new chords was not his alone, but part of an emergent "period style." It opened him up to charges, in the words of one disapproving critic in the Lincoln Center audience, of having "yielded to conformism."[12] Stated in such an unflattering way, the remark is hostile. But one can put the matter in a less invidious light by quoting a perceptive remark by Copland himself.

It was part of a lecture that Copland gave in 1952 at Harvard University, where he was occupying the same "chair of poetry" that had given Stravinsky a forum in 1939. The title of the lecture, "Tradition and Innovation in Recent European Music," may have been a deliberate attempt to deflect attention away from his own present creative concerns, or those of other American composers. But its contents were nevertheless pertinent to those concerns. "The twelve-tone composer," Copland declared (not letting on that he had lately become one himself), "is no longer writing music to satisfy himself; whether he likes it or not, he is writing it *against* a vocal and militant opposition."[13] The opposition Copland had in mind, of course, was the Communist (or Zhdanovite) opposition, which many former Soviet sympathizers now saw as a deadly threat. But the virtues that twelve-tone music seemed, in its wholly formal purity, to possess in contrast to the mandated political content of Stalinist art were no less attractive as a refuge from attempts to control art in the name of anti-Communism. "New chords" could come from many sources. That special sense of refuge in the discipline of one's art was something only twelve-tone music then seemed to guarantee so reliably.

Notes:

(9) Aaron Copland, "Fantasy for Piano," *New York Times*, 20 October 1957; quoted in Pollack, *Aaron Copland*, p. 446.

(10) *Copland since 1943*, p. 339.

(11) Leonard Bernstein, "Aaron Copland: An Intimate Sketch," *High Fidelity*, November 1970; quoted in Pollack, *Aaron Copland*, p. 448.

(12) Paul Henry Lang, quoted in Pollack, *Aaron Copland*, p. 501.

(13) Aaron Copland, *Music and the Imagination: The Charles Eliot Norton Lectures 1951–1952* (Cambridge: Harvard University Press, 1952), p. 75.

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Igor Stravinsky

Serialism

Robert Craft

THE GRAND PRIZE

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Or as Igor Stravinsky put it to a Paris reporter, in response to what by 1952 had become an inevitable interviewer's question: "The twelve-tone system? Personally I have enough to do with seven tones. But the twelve-tone composers are the only ones who have a discipline I respect. Whatever else it may be, twelve-tone music is certainly pure music."[14]

Like Copland, Stravinsky left out the most newsworthy part: that he himself had begun to appropriate the system he had long opposed (or, as some grumbled, to be appropriated by it). The "conversion" or "capitulation" of the most celebrated living composer to the serialist cause was an enormous boost not only to the prestige of serial music, but to the whole deterministic view of history that supported its resurgence. Until Stravinsky's death in 1971, that doctrine would be virtually unassailable in the places where history was written. Moreover, the path Stravinsky took to the twelve-tone method was remarkably gradual, incremental, and orderly from a technical point of view. It provided, as if in microcosm, a model of the historical process it was said to embody, and has therefore become one of the most frequently retold stories in the recent history of music.

Between December 1947 and April 1951 Stravinsky wrote by far the longest work of his career: a three-act opera called *The Rake's Progress*, after a set of paintings (later engravings) by the English artist William Hogarth (1687–1764) that depicted the moral and material decline of a rich young wastrel. On the basis of Hogarth's painted scenes, the English poet W. H. Auden (1907–73) had worked out a scenario in collaboration with the composer, and worked it up into a libretto in collaboration with a younger poet named Chester Kallman (1921–75). The libretto, all about free choice and its consequences, was a very timely primer of post–World War II existentialism, turned out in an elegant "period" style to match the opera's eighteenth-century setting.

Striving in his music for a similar ironic parallel between the modern implications of the drama and its period setting, Stravinsky produced what was on the surface his most literalistically "neoclassical" score, replete with harpsichord-accompanied recitatives, strophic songs, da capo arias, and formal ensembles, including a moralizing quintet at the end to draw explicit lessons from the foregoing action, obviously modeled on the sextet at the end of Mozart's *Don Giovanni*. Although composed to an English text, the work had its premiere in Venice, before a cosmopolitan festival audience at the famous eighteenth-century Teatro La Fenice (Phoenix Theater), on 11 September 1951.

The Rake's Progress is now a much admired repertory opera, but it had at first a very problematic reception. The high-society audience that heard it on its first night received it warmly. Among musicians, however, it was widely written off as a trifling, fashionable pastiche. And no wonder: its archly pretty, stylistically retrospective music jarred cacophonously with the bleak "zero-hour" mood, described in chapter 1, that reigned in Europe. Its obsessive stylistic self-consciousness, now easily understood as consciousness of art in crisis, seems just as much a response to its uncertain times as the work of the Darmstadt avant-garde. At the time, though, it seemed

the product of a composer blissfully out of touch with the contemporary requirements of his art. For the first time in his life, Stravinsky found himself rejected by the younger generation of European musicians. The effect of this rejection on his self-esteem was traumatic.

We know about this after effect of the *Rake* premiere thanks to Robert Craft (b. 1923), an aspiring conductor who had made Stravinsky's acquaintance, and impressed him very favorably, at the very start of work on the opera. Their first meeting, in fact, took place on the very day in March 1948 when Auden delivered to Stravinsky the completed libretto of the first act. Stravinsky hired Craft to join him at his California home as an assistant for the summer. One of his jobs was to make a catalogue of Stravinsky's manuscripts, which had just arrived from safekeeping in Europe. Another was to read the *Rake* libretto aloud to Stravinsky so that the composer, for whom English was a fourth language, could hear it idiomatically pronounced. (Craft was at first disconcerted that the composer did not hesitate to set it "wrong"[15] wherever he saw a musical advantage in doing so.) The young assistant never left, but remained a member of the composer's household until Stravinsky's death almost twenty-three years later.

Craft made himself indispensable to Stravinsky in any number of ways. He shared conducting duties on concert tours and rehearsed orchestras before recording sessions. He served as an interlocutor through whom Stravinsky published five volumes of memoirs in dialogue form. Craft's most important service to Stravinsky, however, was in enabling him to weather the post-*Rake* creative crisis by providing a conduit through which the seventy-year-old composer gained access to new modes of musical thinking and writing he had previously ignored, and even scorned. When Stravinsky suddenly felt the need to catch up, Craft (who knew the works of the Viennese atonalists, rehearsed and conducted them in Stravinsky's presence, and procured scores and even textbooks for his employer's instruction) stood ready to abet him. In so doing he made possible the last sixteen years of Stravinsky's active life as a composer.

Stravinsky's assimilation of serial technique, though orderly and eminently traceable, was actually (because it came so late in his career) quite idiosyncratic. In effect, he became a serial composer before becoming a twelve-tone one; indeed his example is what makes it possible to draw this very useful distinction. His first serial work was a "ricercar" for tenor and five accompanying instruments called "Tomorrow Shall Be My Dancing Day." It was part of a *Cantata* on anonymous fifteenth- and sixteenth-century English lyrics, the very next piece Stravinsky composed after *The Rake's Progress*, in 1951–52.

The first item in the *Cantata* in order of composition, a ricercar called "The Maidens Came," for mezzo-soprano and the same accompanying ensemble, was completed in July 1951, before the *Rake* premiere; the rest was written afterward. There is no premonition in "The Maidens Came" that other parts of the Cantata would use a serial technique (unless the eerie fact that Arnold Schoenberg, then Stravinsky's never-visited Los Angeles neighbor, happened to die while it was in progress counts as a premonition). But by the time it came to composing "Tomorrow Shall Be My Dancing Day," Stravinsky had become fascinated with the "discipline" his old rival had pioneered—although on this maiden outing he was content to apply it (recalling his repartee with the Paris reporter) to a "seven-tone" or diatonic context.

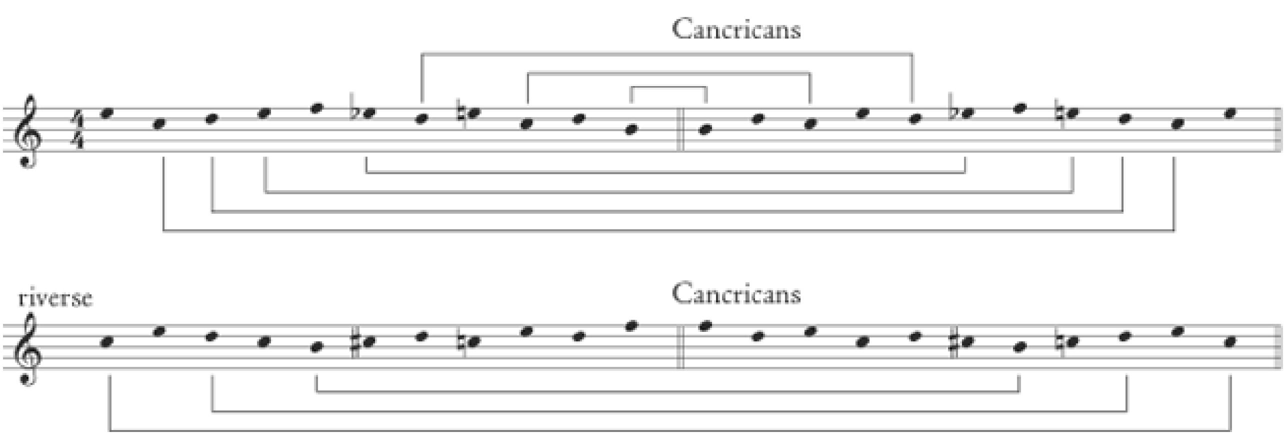
Stravinsky selected a little A-minor phrase, seemingly at random, from "The Maidens Came," transposed it to C major simply by substituting the bass clef for the treble, arbitrarily inserted a tiny chromatic inflection just for spice, and ended up with the eleven-note "row" shown in Ex. 3-7 a. In terms of its contents it is very far from being a twelve-tone row, since it only contains eight different pitches, and two of the eight, C and E, are repeated in succession to give it a pronounced "tonal" focus. But Stravinsky's use of it is quite strictly "serial," for he maintained its intervallic order as a given throughout the new ricercar, which actually consists of a series of canons in which the eleven-note subject is treated the same way Schoenberg treated a twelve-tone row: as originally notated, in reverse, in inversion, and in reversed inversion.

Example 3-7 b reproduces a chart Stravinsky jotted down to guide him in composing his ricercar, in which he

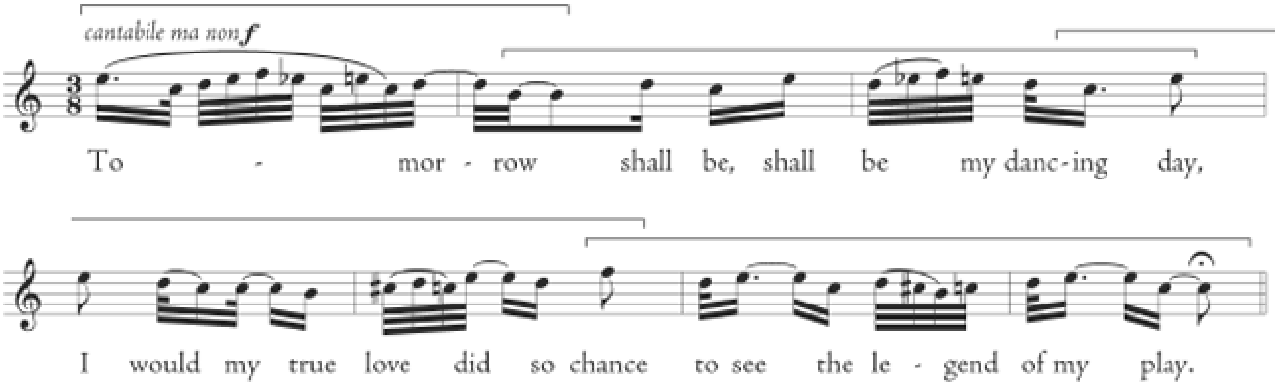
designated the "classical" serial operations using his own idiosyncratic terms. The subject is immediately followed by its "cancricans" or retrograde. Below it is the "riverse" or inversion, followed by *its* "cancricans." The chart's most noteworthy aspect is the pitch level selected for the inversion, a downward transposition by a third that reproduces the opening pitches of the original subject in reversed order, thus insuring that the whole complex stays "in C" and makes its "final cadence" there.

The reason for the transposition is evident from Ex. 3-7c, a musical example that Stravinsky prepared for a program note distributed at the Cantata's premiere performance in the fall of 1952. It is the opening of the tenor part (or Cantus Firmus, as Stravinsky called it), encompassing the first three lines of the poem. The four "serial permutations" have been welded, by the use of overlapping pitches at the joins, into a single C-major melody. Stravinsky drew the brackets himself, to demonstrate the four permutations. What is more surprising, the published score contains similar brackets that call attention to the serial manipulations throughout the piece.

ex. 3-7a Igor Stravinsky, *Cantata*, Ricercar II ("Tomorrow Shall Be My Dancing Day"), derivation of the subject



ex. 3-7b Igor Stravinsky's table of serial permutations in *Cantata*, Ricercar II



ex. 3-7c Igor Stravinsky, *Cantata*, Ricercar II, beginning of the tenor part

In Ex. 3-8, which shows the fourth canon in the ricercar, these brackets are preserved, and labels have been added to assist the reader in identifying the "row forms" according to standard nomenclature: P for prime, R for retrograde, I for inversion, RI for retrograde inversion. Subscripts indicate transpositions, always "upward" by semitones: 1 = a semitone up, 11 = a major seventh [eleven semitones] up or one semitone down, and so forth. Stravinsky's relief at having managed, so late in the day, to assimilate an advanced compositional technique is evident in the pride with which he provided an analysis of the music to go along with the score. His 1952 program note, too, was wholly concerned with a technical description of how the music is made. Here is a sample, describing the music shown in Ex. 3-8:

> In the fourth canon the first oboe follows the second at the interval of a second while the voice transposes the Cantus in inverted form down a minor third to A. In the three last bars, the cello, which has been accompanying with a new rhythmic figure, plays the Cantus in F, original form, while the voice and the first oboe play it in A, original form. The fifth canon is identical with the first. The sixth begins with the Cantus in the voice in original form...[16]

This way of describing the piece, solely in terms of its technical procedures, again chimes with Stravinsky's remark to the Paris reporter ("Whatever else it may be, twelve-tone music is certainly pure music").

But is it quite fair to describe, or conceive of, the second ricercar from Stravinsky's *Cantata* as "pure music"? Can the fact (which Stravinsky never mentioned in his program note) that the piece has a text, and that the text poetically narrates the life of Christ, be considered irrelevant to an esthetic consideration of it? More uncomfortably yet, are the facts that the "fourth canon" (at 18) sets words reflective of an ancient libel against the Jews, and that the composer chose them for setting seven years after the Nazi Holocaust, likewise to be regarded as esthetically irrelevant (implying that to take offense at the act or its product was a philistine—or worse, a Zhdanovite—reaction to fine art)?

Going further yet, is there a correlation between the quest for musical purity that, Stravinsky said, motivated his recourse to the serial method, and the moral evasion at which all these uncomfortable questions seem to point? How shall we define or evaluate that relationship, and how does it compare with the political, social, and moral issues that motivated the adoption of serial technique by the young composers of Europe, as described in chapter 1? Was Stravinsky, too, practicing a willed amnesia? Was Copland? Under what circumstances do (or should) artists have the right to turn away from the cruel facts of life and attend only to "the inherent tendency of musical material"? Do they (or should they) always have social responsibilities?

Notes:

(14) "Rencontre avec Stravinsky," *Preuves* II, no. 16 (1952): 37.

(15) Robert Craft to Sylvia Marlowe, 4 October 1949 (by courtesy of Kenneth Cooper).

(16) As reprinted in Eric Walter White, *Stravinsky: The Composer and His Works* (Berkeley and Los Angeles: University of California Press, 1966), p. 431.

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Oxford History of Western Music: Richard Taruskin

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Stravinsky: The proto-serial works, 1951–9

Ernst Krenek

Twelve-note composition

THE PATH TO THE NEW/OLD MUSIC

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

These questions, always discomforting, achieved special poignancy after the war—and especially in America, where the sheer research and development of musical technique achieved a prodigious, institutionally supported acme that was never approached in Europe. Stravinsky's location in America colored his serial quest in ways he was probably unaware of, conditioning its slow, cumulative, evolutionary—and yes, somewhat academic—progress (in sharp distinction to the sweeping revolutionary gestures of the Darmstadt school, so reminiscent of Stravinsky's own early maximalist phase).

18 CANON
I5
RI8
T.
The Jews on me they made, they made great suit. And with
I10
Ob. I
I8
Ob. II
Vc.
19
P9
T.
me made great va - ri - ance
Be - cause they lov'd dark - ness rath - er
P9
Ob. I
Ob. II
P5
Vc.

ex. 3-8 Igor Stravinsky *Cantata*, Ricercar II, fourth canon

Stravinsky continued to work with “rows” of varying length and content for a while, before settling on the canonical twelve non-repeating pitch classes. The next work after the *Cantata* was a Septet for three woodwinds, three strings, and piano. Its middle movement, a Passacaglia, has a sixteen-note ground bass on which Stravinsky erected an intricate canonic structure like the one in “Tomorrow Shall Be My Dancing Day,” replete with inversions, retrogrades, and retrograde inversions. The last movement, called Gigue (but actually a multiple fugue), is obviously modeled on the Gigue in Schoenberg's Suite, op. 29 (1926), for an almost identical instrumental septet. (Craft prepared a performance of Schoenberg's Suite at UCLA while Stravinsky was at work on the piece, and Stravinsky attended all the rehearsals.) Each instrument in this contrapuntal tour de force has its own “row,” as Stravinsky (misleadingly) put it in the score, meaning that every instrument employs an eight-note “unordered collection” or scale abstracted from the Passacaglia's ground bass, each at its own transposition.

“Musicke to heare” (Sonnet VIII), the first of *Three Songs from William Shakespeare* (1953), gives the serial treatment to a “row” of only four notes; *In Memoriam Dylan Thomas* (1954) uses a row of five. The two large-scale works that followed—*Canticum Sacrum* (1955), a cantata in honor of St. Mark composed for performance at the Venice Cathedral bearing his name, and *Agon* (1957), a “ballet for twelve dancers” commissioned for the choreographer George Balanchine by the New York City Ballet—contain Stravinsky's first compositions using twelve-tone rows of the usual sort. In each, however, the twelve-tone component consists of short, individual, self-contained episodes in what is otherwise a tonally centered, nonserial composition.

At last, with *Threni* (1958), a thirty-five-minute oratorio on texts from the biblical Lamentations of Jeremiah,

Stravinsky turned out a work that was both serial and atonal, and that was composed using twelve-tone rows of standard design throughout. Stravinsky prepared for the task of writing it by working through the exercises in *Studies in Counterpoint*, a textbook on twelve-tone composition (the first in English), which the newly emigrated Ernst Krenek had published in 1940 while teaching composition at Vassar College. Krenek had completed a setting of verses from the Lamentations himself in 1942, and published it in 1957; Stravinsky studied that, too. From it, he appropriated a clever technique of serial manipulation that fascinated him, and that he would make peculiarly his own.

It was inspired by Webern's symmetrical row structures, which Krenek had been among the first to analyze. Krenek called the technique "rotation." More precisely, it was a process of cyclic permutation whereby one varied the intervallic structure of a row, or a portion thereof, by starting on each of its constituent notes in turn and transferring the previous starting note to the end. To gain an extra dimension of symmetrical design à la Webern, Krenek worked the technique on the two complementary halves (or "hexachords") of a row fashioned so that the hexachords were related symmetrically.

ex. 3-9 "Rotation" (cyclic permutation and transposition) in Ernst Krenek, *Lamentatio Jeremiae prophetae*

In the unusually scalar row Krenek adopted for his *Lamentations* setting, the intervallic sequence of the second

hexachord reproduced that of the first in retrograde inversion. Ex. 3-9 shows Krenek's "rotation" technique applied to the *Lamentations* row. The process of cyclic permutation is accompanied in each case by a transposition that keeps the starting pitches for the two respective hexachords the same. In this way the hexachords become "modal scales," as Krenek put it, as one might derive the whole series of diatonic modes or octave species (Dorian, Phrygian, Lydian, and so on) on a given tonic by applying Krenek's rotation method to a major or minor scale. What evidently attracted him to the idea, when writing a modern version of sacred choral polyphony, was the apparent relationship of his "twelve-tone modal system" to the modal system of medieval music theory.

But in the process of transposition, Krenek's modal system stops being a "twelve-tone technique," strictly speaking; it introduces pitch duplications between the hexachords, whose sums therefore no longer necessarily exhaust the twelve pitch classes. As Krenek put it in the essay already quoted in chapter 1, "the purpose of the operation was not so much to make the serial design stricter, but rather to relax it, insofar as the wide variety of available six-note patterns made it possible to remain within the frame of reference of the twelve-tone serial technique without constantly having to use complete twelve-tone rows."[17] Indeed, the technique "relaxes" serial design far more than Krenek admits, since it produces a series of varied arrangements of intervals around a pair of constant pitches (here, D♭ and B), which are in a sense promoted to the level of tone centers. Minimizing this contradiction with the bland remark about remaining "within the frame of reference of the twelve-tone serial technique," Krenek has in effect (unwittingly?) readmitted tonal (or, more neutrally, "centric") relations into the purportedly serial domain.

Krenek may eventually have come to see this feature of his rotation technique as an experimental flaw, or perhaps a feature suitable only for writing updated Palestrina. In any case he did not pursue the method in later works. But it gave Stravinsky just what he was looking for, namely a strategy that enabled him to wangle from the twelve-tone technique a familiar sort of material that suited his longstanding creative predilections. We have seen Copland doing similarly: for both composers it was worth the trouble to find a new and tortuous way back to their customary terrain because for their varying reasons they each felt the need to operate, or to be seen as operating, "within the frame of reference of the twelve-tone serial technique." Beginning with *Movements* for piano and orchestra (1959–60), the next work after *Threni*, Stravinsky introduced a new wrinkle into the technique Krenek had pioneered. He began extracting the pitches from each successive vertical column in his hexachord arrays, and using the groups of pitches thus extracted—he called them "verticals"—as chords. Stravinsky once wrote out a demonstration of the method (shown in Fig. 3-4), using for the purpose the first hexachord in the inverted row of his *Variations* for orchestra (1964), and accompanied it with an idiosyncratic verbal explanation in his version of English:

> Some stressed octaves and fifths and doubled intervals which could be found in this score shouldn't contradict the serial (and not harmonical) basis of the composition; the origin of it lies not in a horizontal contrapunctical accord of different voices but in a vertical simiiltaneous [*sic*] sounding of several notes belonging to a certain number of forms played together.[18]

Despite the octave doublings on A and C♯, in other words, the chord shown below is not a traditional triad with double-inflected third, of a kind Stravinsky often used during his "neoclassical" period, but an authentic artifact of the serial system—at least *his* serial system—since both A and C♯ occur twice in the outlined column of which the chord is a summary.

Stravinsky's squeamishness is revealing, but also concealing. In fact his whole "verticals" technique was designed to give him access to chords like the one outlined in this demonstration. Fig. 3-4 is amplified in Ex. 3-10, which shows all the verticals that can be derived from the array. (Since the first column yields nothing but a single pitch, that column is customarily designated "zero" when doing analyses of this kind.) Ex. 3-11, from the *Variations*, shows the whole panoply of verticals deployed as chords in the actual composition, punctuating a

counterpoint of three trombones that is derived from the rotations of the row's complementary hexachord. (Those looking closely will notice that the chord representing vertical [1] contains an A♯ instead of an F♯; such discrepancies are often noted by analysts of Stravinsky's serial works; opinions differ as to whether they are adjustments for the sake of euphony or slips to be corrected by an editor.)

fig. 3-4 Stravinsky's analytical demonstration of his "verticals" technique.

And what is the special property of all verticals (not just the ones that contain triads) that made them so attractive to Stravinsky? Another look at Ex. 3-9 or Ex. 3-10 will confirm that the successive transpositions of the hexachords exactly mirror the intervals between the consecutive pitches in the original form, or more simply, that the hexachord is being transposed by its own interval content, inverted. Because of this built-in

inversional symmetry, the pitch-content of the verticals produced by any hexachordal “rotation” (permutation-plus-transposition) will invariably be disposed symmetrically around the generating (“zero”) pitch, the latter thus assuming, in the most literal sense of the word, the role of a tone center.

Thus, in Ex. 3-10, verticals 1 + 5, 2 + 4, and 3 (which is necessarily self-inverting) can all be symmetrically displayed around D, the zero pitch. For Stravinsky, who had long ago cut his compositional teeth on symmetrically disposed harmonies mined from the whole-tone and octatonic scales, Krenek's rotation technique, when expanded to include the extraction of verticals, offered systematic access to a greatly expanded vocabulary of symmetrical harmonic constructions, including (but not limited to) all the Stravinskian perennials like the “major-minor triad,” which shows up in the array in Ex. 3-10 not only in position 2 (as demonstrated by Stravinsky himself in Fig. 3-4), but also in position 4, the complementary location.

The same “center” pitches that function as axes of symmetry for the verticals, moreover, continually recur as the “tonics” of the “modal scales” produced by the rotations. By emphasizing these relations, Stravinsky was well aware that he was not abandoning the “tonal system” but rather (as he put it in an interview with Craft) composing in an alternative tonal system (“*my* tonal system”) inspired by and related to, but not entirely congruent with, the more strictly contrapuntal twelve-tone idiom employed by Schoenberg or Webern.

ex. 3-10 Igor Stravinsky, *Variations*, full tabulation of "verticals" from the hexachord rotated in Fig. 3-4

For in an important sense the verticals technique is not a twelve-tone technique at all, or even a serial one. As harmonic constructs Stravinsky's verticals are only very tenuously related to the original row, or "series." In particular they have little or nothing to do with the series qua series—that is, a temporally unfolding sequence or succession of intervals. Instead, that temporal unfolding has been frozen (or "hypostatized") into a static vertical equilibrium, like so many of the harmonies in *The Firebird* or *The Rite of Spring*. In his serial music Stravinsky sought what he had always sought. The new technique made it more difficult to find, but that only added to the virtuousness of adopting the method. Working against greater resistance, according to the existentialist work ethic, gave one's creative products greater "authenticity." They had to be truly chosen from among consciously weighed alternatives, not merely inherited from unthinking adherence to habit, or dictated by conditioned reflex.

Stesso
Ob. I, II
p
I, II
Hn. (in F)
p sord.
III, IV
75
I
Trbn. ten.
in p marc.
II
in p marc.
senza sord.
Trbn. bass
Harp
secco f
(non arpegg.)
Piano
div.
Vln.
f pizz.
div.
Vla.
non div.
Vc.
f pizz.
Verticals:
(cf. Ex. 3-10)
(see Fig. 3-4)

ex. 3-11 Igor Stravinsky, *Variations*, mm. 73-85

Notes:

(17) Ernst Krenek, "Extents and Limits of Serial Technique," in *Problems of Modern Music*, ed. Lang (New York: Norton), p. 75.

(18) Reproduced in Robert Craft, *A Stravinsky Scrapbook, 1940–1971* (London: Thames and Hudson, 1983), p. 120.

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Stravinsky: Final years, 1959–71

Serialism

REQUIEM FOR A HEAVYWEIGHT

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

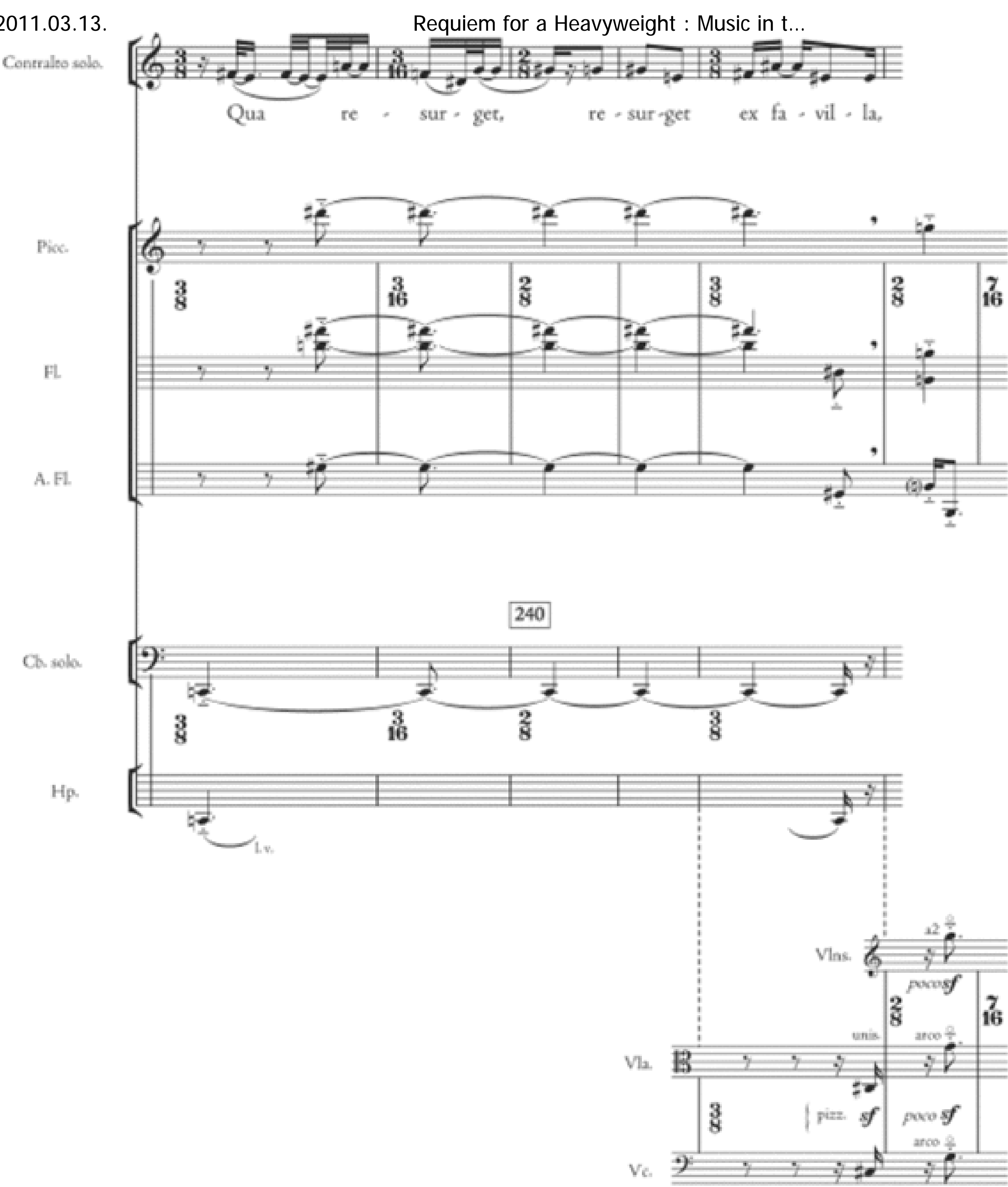
Stravinsky's serial technique can be sampled at its ripest in his last major work, the *Requiem Canticles* of 1966. (Only one composition would follow in 1967, a cute but inconsequential setting for voice and piano of Edward Lear's children's poem, "The Owl and the Pussy-Cat.") This fifteen-minute setting—for contralto and bass soloists, small chorus, and small orchestra—of several short selections from the text of the Mass of the Dead, was completed when the composer himself was eighty-four years old and infirm, and expected that it would be his final work.

Nevertheless, its musical technique remained faithful to the questing spirit of modernism. Stravinsky actually tried a few novel devices out in it for the first time, and several aspects of the work made it at first an enigma for analysts. That was a point of pride for Stravinsky, as for most modernists, since it gave him the sense (particularly important to Stravinsky since his crisis of the early fifties) of being out in front again. "No theorist," Stravinsky boasted in published conversation with Robert Craft, "could determine the spelling of the flute solo near the beginning [of *Movements*], or the derivation of the three Fs announcing the last movement simply by knowing the original order"[19] of the series. The three Fs were just three "zero pitches" from an array like the one in Ex. 3-10;but of course when Stravinsky issued his challenge the only published analysis of such an array was in a long-forgotten (except by Stravinsky) article of Krenek's.

The riddle of the *Requiem Canticles* was why Stravinsky used two different series in alternation for the various sections of this short work, while many longer works (Schoenberg's evening-length opera *Moses und Aron*, for instance) managed to achieve all the variety they needed within the constraints of a single series. Sampling the last three sections of the work will suggest an answer. They sum up the three textures or media found within the *Requiem Canticles*. The Lacrimosa is an accompanied vocal solo; Libera me is choral and chordal; the Postlude, also chordal, is an instrumental commentary.

♪=132
accel.
a tempo
Contralto solo
La - - - - - - cri - mo - sa,
Picc.
mp
Fl.
mp
Alto Fl.
mp
230
Cb. solo
mf
Hp.
sf
l. v.
Vlns.
a2
poco sf
Vla.
pizz.
arco
sf
poco sf
Vc.
pizz.
arco
sf
poco sf

Contralto solo
la - cri-mo-sa di-es il - la,
Picc.
Fl.
Alto Fl.
235
Cb. soli
Hp.
Tbn.
poco marc.
con sord.
poco marc.
come sopra
a2
Vlns.
poco sf
Vla.
poco sf
Vc.
poco sf



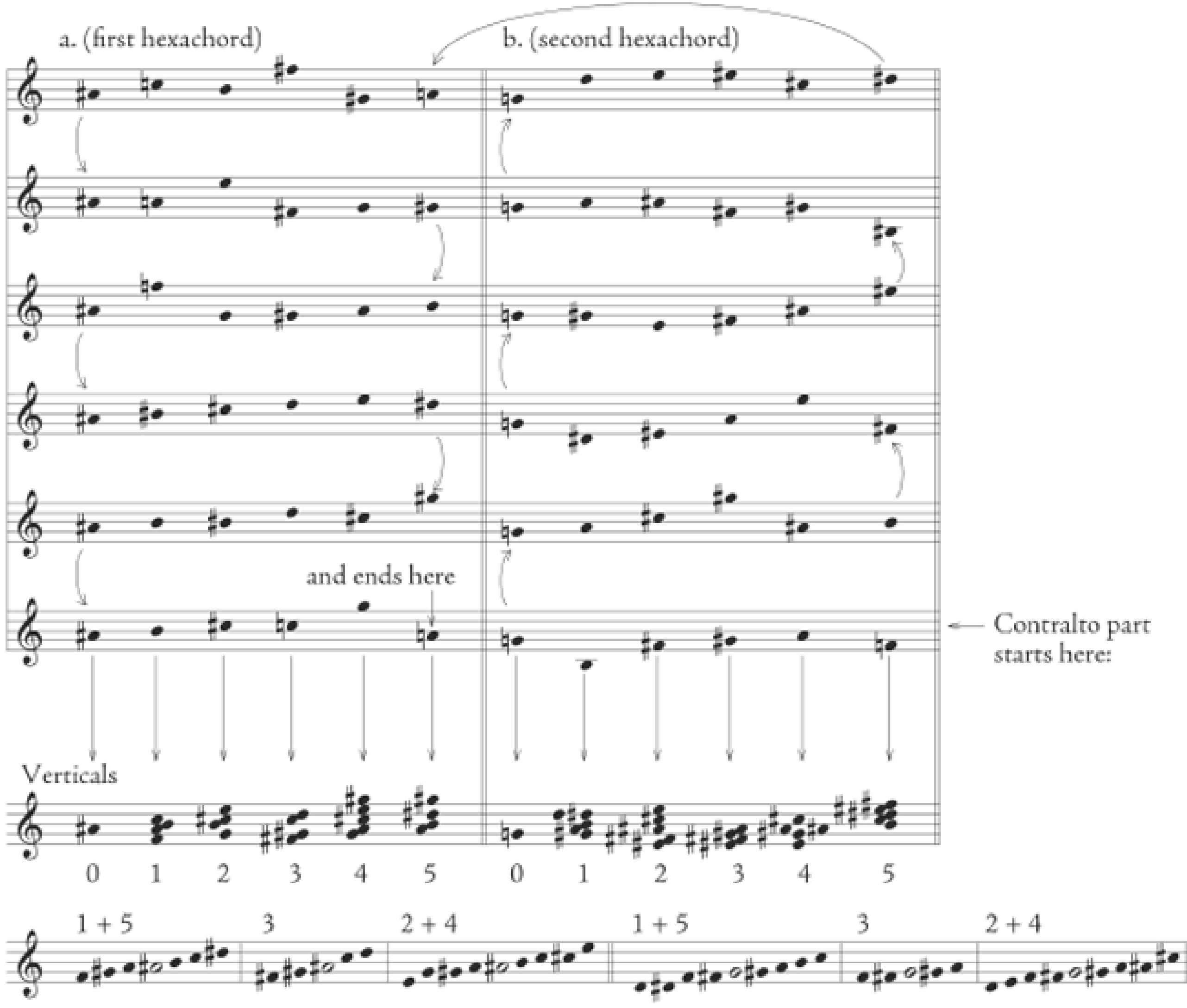
ex. 3-12 Igor Stravinsky, *Requiem Canticles*, Lacrimosa

In the Lacrimosa (Ex. 3-12), the musical material is drawn almost entirely from a "rotational" array like the one in Ex. 3-10, constructed on the inverted retrograde of the second series (see Ex. 3-13). The contralto part begins at the lower right and simply snakes its way up the right-hand column, then across to the left-hand column and down, reading the cyclically permuted and transposed hexachords alternately right-to-left and left-to-right. Meanwhile, the sustained accompanying chords are simply the ten verticals, beginning with those of the second hexachord straightforwardly presented from 1 to 5, and continuing in similar fashion with those of the first. (The multiply doubled G that intervenes at the end of the example is nothing but the second hexachord's "zero" pitch.) The few remaining notes in the piece are derived from another row form, unrotated and untransposed.

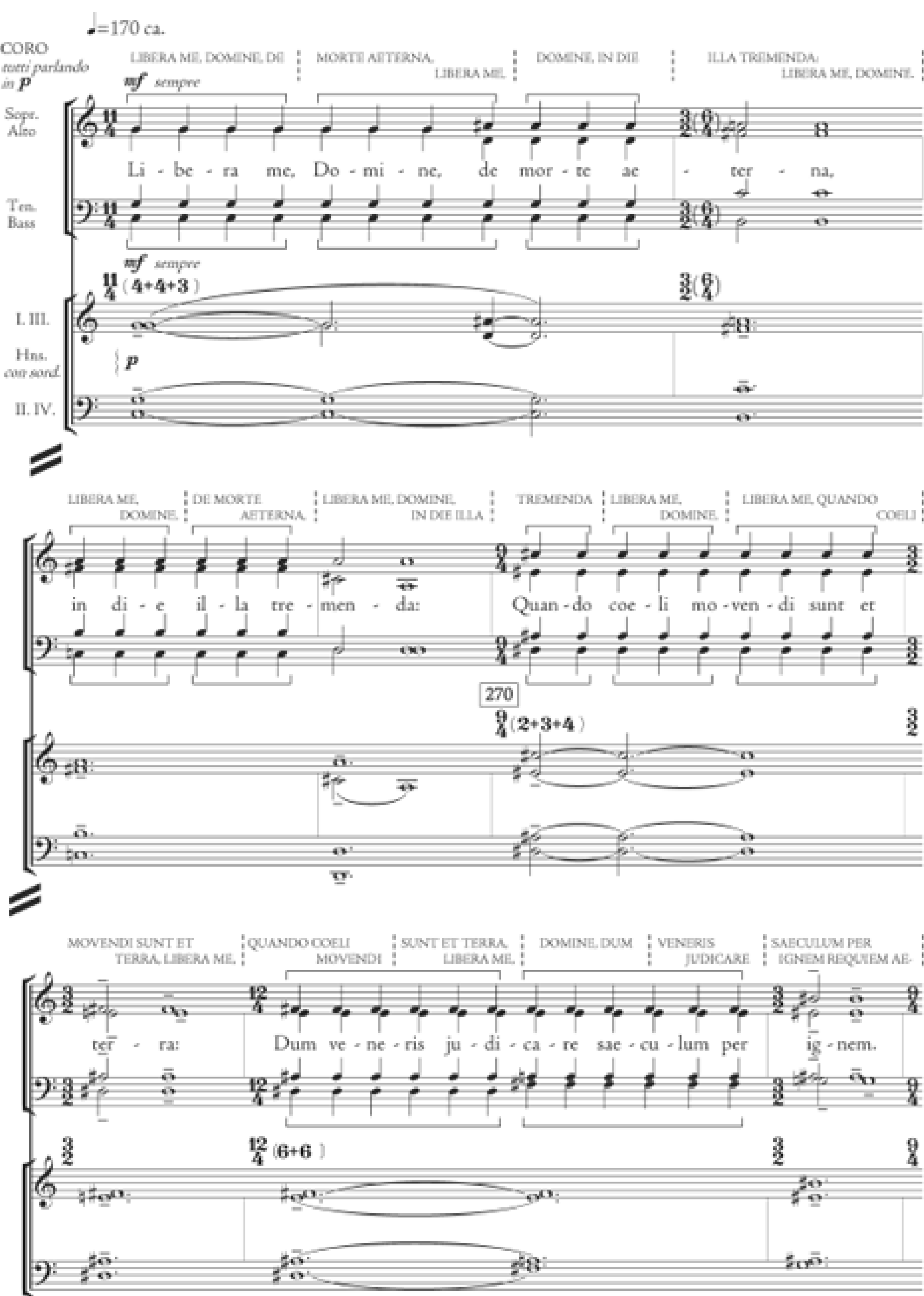
The Libera me (Ex. 3-14) is derived from a similar rotational array based on the inverted retrograde of the first

series, handled much more “freely” (that is, selectively) so as to generate the consonant harmonies that give this chorus, which simulates an actual Orthodox *panikhida* or service for the dead, its “antique” or “liturgical” effect. This movement is especially poignant, not only in its prefiguring the composer's own *panikhida*, five years later, where it was indeed performed, but also because it shows Stravinsky, by dint of an especially elaborate strategy, wresting from the serial method a kind of harmony he might have composed especially easily, without qualm or strain, at an earlier phase of his career. The harmony in the Lacrimosa, too, is ingeniously retrospective, Stravinsky having structured the second series so that five pitches in each of its hexachords are referable to a single octatonic scale—a feature that lends a peculiarly familiar color to the melodic writing and the supporting harmonies alike.

It is in the concluding Postlude (Ex. 3-15) that the two series are used concurrently, as if in synthesis. In a disarmingly artless maneuver, Stravinsky let the two series (Ex. 3-16) simply run side by side together with their inversions to generate the strings of four-part harmonies played by the “mallet percussion” instruments (celesta doubling tubular chimes and vibraphone). The horn F at the beginning is the “zero pitch” from which the four set forms all proceed. Given the intervallic similarity of the two sets, what emerges is a near palindromic sequence of (by definition) self-inverting harmonies symmetrically disposed around the F that starts each of the row forms on its way, here treated as a pedal so that it sounds in harmony with the chords whose symmetrical structures it completes. The chord progressions that follow, less strictly fashioned than the first but sharing its properties, are derived from the combined retrogrades and inverted retrogrades, and from the combined primes and retrogrades. The more complex chords sustained by flutes, piano, and harp are “bitonal” combinations of verticals derived from the two sets.



ex. 3-13 Igor Stravinsky, *Requiem Canticles*, source array for Lacrimosa



ex. 3-14 Igor Stravinsky, *Requiem Canticles*, Libera me

Only by deploying in tandem a pair of sets with a common starting point or “zero pitch” could Stravinsky have generated such an impressive array of self-inverting harmonies—minor seventh chords, augmented triads, whole-tone segments, French sixths, diminished triads and sevenths, plus others without common-practice standing—all motivated by a new syntax to govern their progression. The technique—novel enough, however simple, to elude analytical detection for more than two decades—enabled a new point of contact with a harmonic vocabulary that had provided the stylistic bedrock of Stravinsky's early maximalistic ballets, as a comparison

with a characteristic passage from *The Firebird* (Ex. 3-17), composed fifty-six years earlier, will confirm.

Notes:

(19) Igor Stravinsky and Robert Craft, *Memories and Commentaries* (Garden City, N.Y.: Doubleday, 1960), p. 100.

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Milton Babbitt

Set theory

ACADEMICISM, AMERICAN STYLE

Chapter: CHAPTER 3 The Apex
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Author(s): Richard Taruskin

ex. 3-15 Igor Stravinsky, *Requiem Canticles*, Postlude

ex. 3-16 Igor Stravinsky, *Requiem Canticles*, the two series as deployed in the Postlude

ex. 3-17 Symmetrical harmonies in Igor Stravinsky, *The Firebird*

The *Requiem Canticles* had its first performance (the last Stravinsky premiere) under Robert Craft in October

1966, at a concert that took place on the campus of Princeton University. It was a fitting venue, for over the preceding couple of decades Princeton had become, largely through the efforts of Milton Babbitt, the American stronghold for the theory and practice of serial music. The university administration had actually commissioned the *Requiem Canticles* in 1965, acting on behalf of the family of an alumnus to whose mother's memory the work was dedicated.

Princetonian theory and practice differed critically from that of Darmstadt, with which it was inevitably compared. The difference had to do, certainly, with the personalities involved; but it also reflected differing institutional structures and a difference in the surrounding intellectual, cultural, and economic climate. As we saw in chapter 1, Darmstadt serialism was the fruit of pessimism, reflecting the "zero hour" mentality of war-ravaged Europe. It thrived on the idea of the cleanest possible break with the past. Princetonian serialism reflected American optimism. It rode the crest of scientific prestige and remained committed to the idea of progress, which implied the very opposite attitude toward the past: namely a high sense of heritage and obligation. Where the two coincided was in the conviction that serious artists lived in only history, not in society, and that fulfilling history's mandate meant resisting the temptation of compromise with social pressures and rewards.

Princetonian serialism—or, more generally, American postwar serialism—reflected the remarkable vision of Milton Babbitt (b. 1916), its leading theorist and (at first) its main practitioner. Trained in mathematics and formal logic as well as music, Babbitt quickly saw the possibility of rationalizing the technique of twelve-tone composition, and generalizing its theoretical foundations, on the basis of what mathematicians call "set theory." He formulated his new theoretical approach in a paper, "The Function of Set Structure in the Twelve-Tone System" (1946), which he submitted as a Ph.D. thesis to the Princeton music department. Since there was at that time neither a qualified reader on the music faculty nor an officially instituted Ph.D. program there in music theory or composition, Babbitt was not awarded a doctorate even though he had been hired by the department as a professor, eventually holding an endowed chair in recognition of his achievements. This anomalous and frustrating situation spurred Babbitt to lobby actively for recognition of music composition as a legitimate branch of music research.

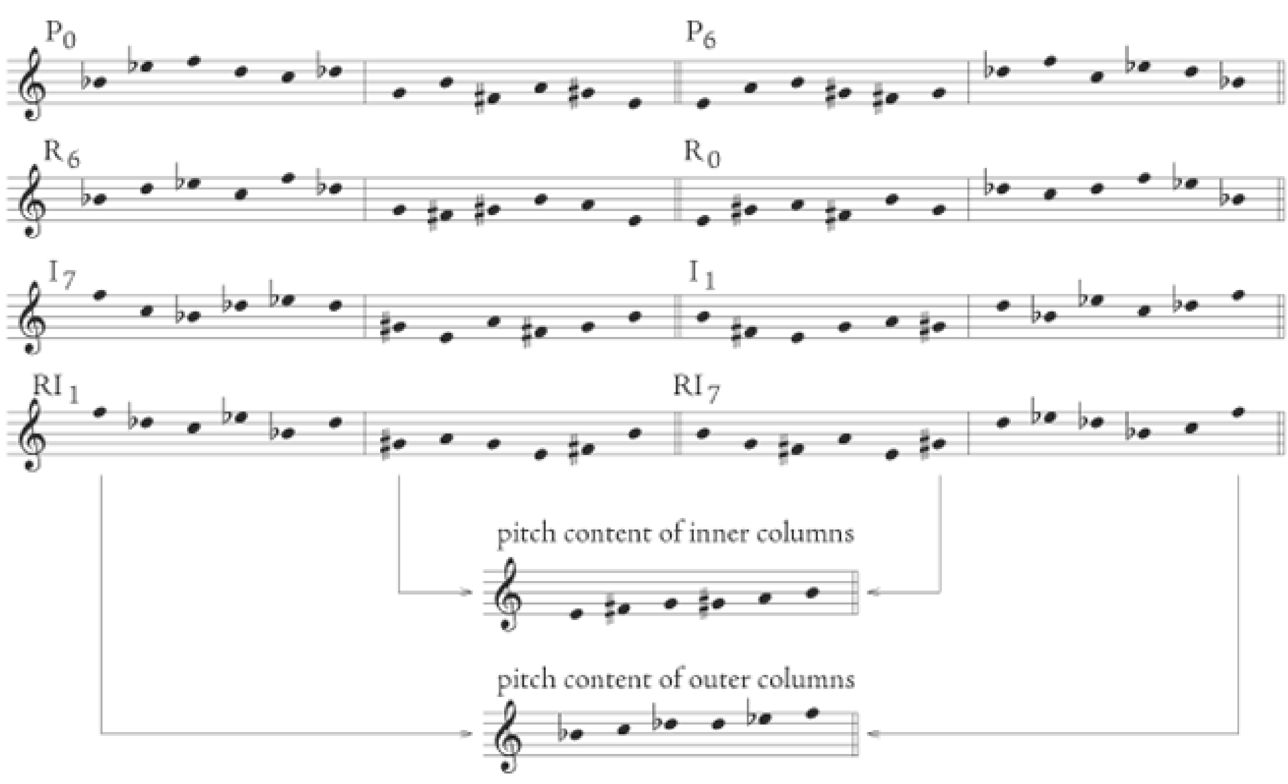
Meanwhile, his unaccepted Ph.D. dissertation, circulating widely in typescript, became perhaps the most influential unpublished document in the history of twentieth-century music. (Revised sections were eventually published as articles between 1955 and 193, and Babbitt was finally—somewhat jokingly—awarded his long-deferred degree in 1992, by which time he had retired from active teaching, having received several honorary doctorates including one from Princeton.) The precision of its vocabulary and the logical clarity of its presentation had a revolutionizing effect on academic discourse about music, and not only in America.

Several terms that Babbitt coined in his dissertation, particularly "pitch class" (the class of pitches related by octave transposition and designated with a single letter name), quickly became standard parlance even outside the domain of serial theory, for they named musical universals that had previously required cumbersome phrases to define. Another, already used freely in this book on the assumption that readers will understand it, is "aggregate," meaning the complete set of all twelve pitch-classes. Moreover, Babbitt's appropriation of the mathematical term "combinatorial" made it possible to clarify and rationalize an important concept within serial music that went all the way back to Schoenberg, but had never before been adequately defined or properly understood for lack of a name.

All of these terms originated in set theory, the branch of mathematics, chiefly developed by the German mathematician Georg Cantor (1845–1918), that lies closest to logic. It is basically the study of the relationship between wholes (or aggregates) and parts (or members). A type of music based, like serial music, on the completion of aggregates obviously lends itself to "set-theoretical" description. Every twelve-tone row is an individual ordering of the unchanging aggregate set, so that the most important features of twelve-tone sets are (1) the way in which their particular parts relate to the general whole, and (2) the way in which their parts relate

to one another.

Ex. 3-18 is an ingenious analytical table, prepared and first published by George Perle, that summarizes the entire “set complex” on which Babbitt based the first of his *Three Compositions for Piano* (1947), the first work he composed after formulating his set-theoretic approach to twelve-tone composition. The set complex consists of all the row forms employed in the piece, eight in all: two “primes” (original orderings), two retrogrades, two inversions, and two inverted retrogrades. The interval of transposition between similar row forms is always a tritone (six semitones); and the interval between the inverted and noninverted row forms is a perfect fifth (seven semitones), just as it often is in Schoenberg's music.



ex. 3-18 George Perle's analytical table summarizing the “set complex” of Milton Babbitt's *Three Compositions for Piano*, no. 1

The two shorter staves at the bottom of the diagram show what conditioned Babbitt's choice of row forms. In every case, the pitch content of the two constituent half rows (hexachords) reproduces that of the original statement (P-0). The unordered pitch content of the two complementary hexachords making up a row, then, is a constant for this composition, or (in the language of set theory) an “invariant.” The table shows the way in which Babbitt, in keeping with the title of one of the seminal articles spun off from his dissertation, has employed “Twelve-Tone Invariants as Compositional Determinants.”[20] The use of such invariants is a way of intensifying the motivic unity of a composition beyond what the mere use of a row guarantees, and that a composing poodle, so to speak, could therefore attain.

Another way of defining the relationship between the row forms is “combinatorial,” since their constituent hexachords can combine interchangeably to produce aggregates. Laying out the unordered pitch content of the hexachords in the summary staves at bottom to form ascending six-note scales reveals an interesting characteristic of combinatorial sets—sets, that is, which can be transposed to produce the sort of “hexachordal complementation” we have been observing. The six-note scales (like all complementary twelve-tone hexachords) are intervallically identical, but also palindromic. Whether read from left to right or vice versa, they produce the same sequence of tones and semitones: T-S-S-S-T. (Another way of observing their symmetry

is out from the middle, producing three-note S-S-T groups that mirror one another to the left and to the right.)

ex. 3-19a Milton Babbitt, *Three Compositions for Piano*, no. 1, mm. 1-8

ex. 3-19b Milton Babbitt, *Three Compositions for Piano*, no. 1, last two measures

ex. 3-19c Milton Babbitt, *Three Compositions for Piano*, no. 1, mm. 9-17

In his *Three Compositions*, Babbitt plays continually with these constants and symmetries, and with "puns" that arise out of the interplay. The first pair of measures in the first of the set, where (in apparent tribute to the opening of Schoenberg's Suite for piano, op. 25) the left hand has P_0 and the right has P_6, set the tone (see Ex. 3-19a). Each hand completes an aggregate over the length of the pair, but each measure also contains an aggregate formed by the two hands together. The same is also true of mm. 3–4, in which the left hand has RI_1 and the right hand has R_0; mm. 5–6, in which I_7 in the left is pitted against RI_7 in the right; and mm. 7–8, in which the combinatorial pair are R_6 and I_1. In sum, Babbitt has contrived combinatorial pairs of row forms that sum up all the possible relationships between orderings: transposition, inversion, retrograde, and inverted retrograde.

Especially interesting, from the point of view of set theory, is the occasional use of a technique resembling medieval hocket, in which notes played by pianist's two hands alternate in time. The first eight measures, already analyzed for linear and contrapuntal relationships, exemplify this texture as well. When combinatorial sets are in play, the hocketing device allows "secondary sets" (alternative orderings of the aggregate) to emerge like variations on a theme. For example, the notes in the first pair of measures, taken exactly in the order in which they are heard, produce two secondary sets, as follows:

Table 3-1

The use of secondary sets adds another dimension to combinatoriality, since it adds another way in which hexachords with mutually exclusive pitch content may generate aggregates. Throughout the composition, Babbitt uses this principle to guide his choice of successive set forms. The parenthetical indication of the corresponding retrogrades at the end of the table is a reminder that secondary sets may be subjected to the same manipulations as any others; and a glance at the very end of the first piece (Ex. 3-19b) will show how Babbitt used these very retrogrades as if to enclose the entire composition in a palindrome. Like his "post-Webernian" counterparts in Europe, he was fascinated by the symmetries that gave Webern's scores their distinctive profiles; and (again like them) he saw in these patterned interactions between and among multiple set forms the means of creating a truly or "purely" twelve-tone musical syntax. Finally, Babbitt was just as eager as they were to find ways of integrating other "parameters" or measurable variables, such as rhythm and dynamics, into the serial scheme.

Notes:

(20) The article appears in Lang, *Problems of Modern Music*, pp. 108–21.

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Serialism

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AN INTEGRATED MUSICAL TIME/SPACE

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Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

But his methods for doing so differed fundamentally from theirs. In works like Boulez's *Structures* or Krenek's *Sestina*, described in chapter 1, the “rhythmic series” were derived from the pitch series by arbitrary numerical association. The note C was associated with the number 1, and so was the thirty-second note; C♯D♭ was associated with 2, as was the sixteenth; D = 3 = dotted sixteenth; D♯E♭ = 4 = eighth; and so on. Rests were arbitrary punctuations. Babbitt saw the arbitrariness of the “Darmstadt” method as a weakness. He drew upon his mathematical training to devise demonstrable analogies between the procedures of twelve-tone permutation as applied to a pitch series and the same procedures as applied to a series of durations. In particular, he found a way of systematically applying the process of inversion to duration.

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Milton Babbitt

Twelve-note composition

FULL REALIZATION

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

ex. 3-24 Milton Babbitt, *Composition for Four Instruments*, superimposed rhythmic series

As its very title promises, Babbitt's next composition, *Composition for Twelve Instruments* (1948, revised 1954), is an attempt to extend the controlling techniques even further, integrating durations even more systematically into the serial texture by creating a complete durational analogue to a full chromatic tone row. This is done by assigning to every member of a row two numbers, the first denoting its order within the set, the second its pitch measured in semitones from an arbitrary “zero” If the first pitch in the row is taken as the “zero” pitch, then that pitch will be defined by the numerical pair (0, 0) and the rest will be computed from it. Once assigned to the pitches of P_0, the pitch numbers are treated as constants or absolutes throughout the composition. Applied to the row in the *Composition for Twelve Instruments* (given together with its combinatorially related inversion at the perfect fifth), the assignment of dual designations is shown in Ex. 3-25.

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Milton Babbitt

Twelve-note composition

ANOTHER COLD WAR

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

The reader has perhaps already noticed that Babbitt achieved these impressive feats of logical construction a bit earlier than the monuments of Darmstadt "total serialism" described in chapter 1. They were all on paper before Messiaen wrote his *Mode de valeurs*, to say nothing of Boulez's *Structures* or Stockhausen's *Kreuzspiel*. But with the exception of the *Composition for Four Instruments*, issued in 1949 in manuscript facsimile by *New Music Edition*, a shoestring, composer-staffed periodical (founded by Henry Cowell in 1925 and edited at the time by Elliott Carter), Babbitt's breakthrough compositions languished for years, along with his dissertation, in obscurity. Neither his music nor his theoretical writings became generally available for discussion—and potential influence—until the mid-1950s or later. The *Three Compositions for Piano*, historically the earliest work to serialize durations, did not see the light of day until 1957, a full decade after they were written. Babbitt had to stand by and see himself "scooped" by composers he regarded as his intellectual inferiors—a hard fate for a musician dedicated to modernism in its strongest ideological form, with its perpetual race to the patent office.

It is not surprising, then, that when Babbitt finally gained access to public media, his resentments colored the tone of his discourse, adding greatly to the atmosphere of contention and factionalism that characterized the postwar avant-garde. His public debut, so to speak, came in 1955, when he was invited by the editors of *The Score*, a new British periodical devoted to modern music, to contribute a description of his serial practices. The important article he sent in, modestly titled "Some Aspects of Twelve-Tone Composition" and based on his unpublished dissertation, introduced most of the concepts mentioned thus far to a public readership, notably combinatoriality (illustrated by some passages from Schoenberg's Fourth Quartet) and derivation (illustrated by the row in Webern's Concerto), both "generalized and extended far beyond their immediate functions"[23] by reconceptualizing twelve-tone rows as mathematical sets.

The conceptualization of intervallic inversion as complementation mod. 12 is proposed, along with the application of the same procedure to durations or any other musical parameter that could be specified in terms of a scale of quantities. The article ends with a ringingly optimistic affirmation of new horizons, not only for compositional technique, but for the whole concept of an esthetically autonomous music. "Even this extremely incomplete presentation," Babbitt wrote, "should indicate the possibility of twelve-tone music, organized linearly, harmonically in the small and in the large, rhythmically—indeed, in all dimensions—in terms of the essential assumptions of the system."[24]

The article begins, however, with a fierce blast of righteous indignation at the European avant-garde, whom Babbitt (provoked, no doubt, by their "Schoenberg Is Dead" posturings) despised as feckless enfants terribles. Casting the story in impersonal terms, whether out of modesty or to portray it as more than the one-man show it had in fact been, Babbitt let his European readers know that in the United States "the specific bases for achieving a total twelve-tone work were arrived at by the end of the war." And when,

> a short time later, there were reports of a group of young French, Italian and German composers who

> apparently shared like aims, their work was eagerly awaited. However, their music and technical writings eventually revealed so very different an attitude toward the means, and even so very different means, that the apparent agreement with regard to ends lost its entire significance. The most striking points of divergence can be summarized in terms of the following apparent attributes of the music and the theory associated with it. Mathematics—or, more correctly, arithmetic—is used, not as a means of characterizing or discovering general systematic pre-compositional relationships, but as a compositional device, resulting in the most literal sort of "program music," whose course is determined by a numerical, rather than by a narrative or descriptive "program." The alleged "total organization" is achieved by applying dissimilar, essentially unrelated criteria of organization to each of the components, criteria often derived from outside the system, so that—for example—the rhythm is independent of and thus separable from the pitch structure; this is described and justified as a "polyphony" of components, though polyphony is customarily understood to involve, among many other things, a principle of organized simultaneity, while here the mere fact of simultaneity is termed "polyphony." The most crucial problems of twelve-tone music are resolved by being defined out of existence; harmonic structure in all dimensions is proclaimed to be irrelevant, unnecessary, and, perhaps, undesirable in any event; so a principle, or non-principle, of harmony by fortuity reigns. Finally, the music of the past—and virtually all of that of the present, as well—is repudiated for what it is not, rather than examined—if not celebrated—for what it is; admittedly, this is a convenient method for evading confrontation by a multitude of challenging possibilities, including—perhaps—a few necessaries.[25]

The Europeans, for their part, were happy to dismiss Babbitt in return. *Il a l'air d'un musicologue*, wrote Cage, reassuringly, to Boulez—"he has the air of a musicologist"—thus casting Babbitt into the outer darkness reserved for academics.[26] But Babbitt reveled in his academicism, portraying himself in this regard as a singularly legitimate heir to Schoenberg, another great composer-teacher with a high awareness of his intellectual responsibilities, and if anything an even more pressing historical conscience. What Babbitt valued in his own art was what academic artists have always valued, namely the demonstration of mastery and technical control. Unlike the European avant-garde, Babbitt sought anything but "automatism," the abject extinction of the self, in extending the purview of serialism. Rather, he sought in his own domain the joyous triumph of technology, and the heady attendant sense of "self-infinitization"[27] (to quote the sociologist Daniel Bell), that contemporary science now promised its practitioners and beneficiaries.

Like Schoenberg before him, Babbitt saw the self-evident merit of the twelve-tone system in its unique capacity to unify a vast complex of objectively defined relationships. By extending the range of the system, he was extending the power of the composer's sovereign control. By loading his compositions with demonstrable relations far past the perceptual saturation point (as he was the first to admit), he demonstrated that limitless power, which he associated not merely with the power of the mind, but with the power of absolute truth, and with the freedom to express it.

Notes:

(23) Milton Babbitt, "Some Aspects of Twelve-Tone Composition," *The Score*, no. 12 (June 1955): 56.

(24) *Ibid.* p. 61.

(25) *Ibid.* p. 53–54.

(26) John Cage to Pierre Boulez, 17 January 1950; Nattiez, ed., *The Boulez-Cage Correspondence*, p. 48.

(27) Daniel Bell, *The Cultural Contradictions of Capitalism* (1976), in Patrick Murray, ed., *Reflections on Commercial Life: An Anthology of Classic Texts from Plato to the Present* (New York: Routledge, 1997), p. 435.

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Postmodernism

Milton Babbitt

LOGICAL POSITIVISM

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

That was how Babbitt's brand of postwar modernism related to the overarching cold-war debate. Deeply concerned with the restraint that political tyranny can exercise on thought and expression, and aware that even in open societies majority opinion (or commercial interests) can marginalize—or even, without explicitly prohibiting, effectively exclude—unpopular or abstruse thought, Babbitt allied himself and his exceedingly rationalistic musical activities with the philosophy known as logical positivism, the toughest and most skeptical variety of “show-me” empiricism.

The term, which dates back to the 1930s, describes an attitude “classically” expressed in *Der logische Aufbau der Welt* (“The logical structure of the world,” 1928), a treatise by the Viennese philosopher Rudolf Carnap (1891–1970), who like Schoenberg had been exiled from his native country by the rise of Nazism. From 1936 to 1952, Carnap taught at the University of Chicago, and had many American disciples including the philosopher Carl Hempel, Babbitt's friend and Princeton colleague (and an important influence on his thinking). Carnap's logical positivism was an attempt to introduce the methods and precision of mathematics and the natural sciences into the field of philosophy, which, he insisted, should stop being a speculative field and become an analytical one, devoted to maintaining rigorous standards of inference and proof. No statement can be regarded as true, for logical positivists, unless it can be shown to derive logically from observed phenomena. Only formal logic and direct observation, then, can ever validly constrain conceptual thought—not tradition, not authority, not political or religious dogma, sentiment, hopes, desires, wishes, or fears, and certainly not threats or reprisals.

Babbitt might have been paraphrasing Carnap when, in a widely discussed lecture called “Past and Present Concepts of the Nature and Limits of Music,” he declared that “there is but one kind of language, one kind of method for the verbal formulation of ‘concepts’ and verbal analysis of such formulations: ‘scientific’ language and ‘scientific’ method.”[28] In another lecture he quoted Michael Scriven, a historian of science, who had put logical positivism into a memorable nutshell when he observed, “If we want to know why things are as they are…, then the only sense in which there are alternatives to the methods of science is the sense in which we can if we wish abandon our interest in correct answers.”[29] It is obvious that the targets of Scriven's cautionary remark were religious bigots and political dogmatists. What could possibly be its relevance to the arts, traditionally regarded as the fundamental preserve of subjective judgment or taste?

Zhdanov had given the answer when, acting on behalf of the Soviet Communist Party, he made one man's subjective taste a political dogma. Babbitt sought liberation, not only for himself but also for all artists, from the potential tyranny of taste when he tried, in verbal exhortation but more fundamentally by the example of his work, to make truth rather than beauty the criterion of artistic as well as scientific achievement. The measure of good music, like good science, would be not the pleasure that it gave, or the political tendency that it served, but rather the truth that it contained—objective, scientifically verifiable truth, that is, not truth as a Zhdanov might define it.

The model of truth that logical positivists proposed for science (and, following them, Babbitt for music) was of course that of mathematics. Truth lay in accountability to principles. In math these were axioms and theorems: basic truth assumptions and the proofs that they enabled. In science, these were observed phenomena and logical inferences. Music had its "observables" in acoustic phenomena, and its axiomatic premises in its motivic content or (to use Schoenberg's word) its *Grundgestalten*. The most generalized form motivic content could take was a twelve-tone row. If everything in a composition were accountable to a twelve-tone row, then everything in it was verifiably true. And the greater the number of demonstrable relations one managed to embody in the music, the more objective and verifiable truth it contained.

We have already seen how fully Babbitt's own music met these criteria, and his critics were quick to suspect him of a self-serving assertion of privilege. Also troubling was Babbitt's easy assertion of the unique validity of "one kind of language, one kind of method," namely his own, which seemed to contradict the very premise of freedom of expression (or more precisely, freedom from restraint) on which his whole philosophy rested, since it seemed to imply a justification for restraint (should Babbitt have the power to impose it) on anyone who disagreed. But as long as science, in the aftermath of its victory in World War II, retained its unprecedented prestige in America, Babbitt's ideas carried considerable potential weight, at least in academic circles.

fig. 3-5 The artificial earth satellite *Sputnik* ("traveling companion") was launched by the Soviet Union on 4 October 1957; here, scientists view models of it.

As it happened, that prestige and that weight received a powerful boost in 1957, when the Soviet Union successfully launched the first artificial space satellite, called Sputnik ("Traveling Companion"), in an orbit around the earth. Taken by surprise and humiliated, American scientists and politicians made educational reform, particularly in science and technology, a cold-war priority. Government investment in scientific endeavors—"big science" as it was called—gave scientific advancement in peacetime something of the sense of urgency that wartime bomb-development had commanded. Any argument that proceeded from "scientific" premises could now catch something of that urgency.

Notes:

(28) Milton Babbitt, "Past and Present Concepts of the Nature and Limits of Music," in *International Musicological Society: Report of the Eighth Congress, New York 1961*, Vol. I (Kassel: Bärenreiter Verlag, 1961), p. 398.

(29) Quoted in Milton Babbitt, "Contemporary Music Composition and Contemporary Music Theory as Contemporary Intellectual History," in *Perspectives in Musicology*, eds. Barry S. Brook, Edward O. Downes, and Sherman van Solkema (New York: Norton, 1972), p. 180.

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Twelve-note composition

Theory, theorists: 20th century

THE NEW PATRONAGE AND ITS FRUITS

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Babbitt seized the moment both to rectify the slight his dissertation had received and to secure for advanced music composition a new sort of academic patronage. On the strength of the "scientific revolution" that had taken place in music thanks to the development by Schoenberg of serial technique and its theoretical extension by Babbitt himself, he now proposed to the Princeton administration that music composition be recognized as a legitimate branch of music research through the awarding of the Ph.D., the highest earned research degree, as the terminal degree in musical composition as well as musicology.

He summarized his arguments and gave them a practice outing in an extemporaneous talk presented to a select audience at the Berkshire Music Center at Tanglewood, the summer festival home of the Boston Symphony Orchestra near Lenox, Massachusetts, where Babbitt had been hired to give a seminar in twelve-tone composition in the summer of 1957. Besides his students and other interested musicians, his audience that afternoon included Roland Gelatt, the new editor of *High Fidelity*, a large-circulation magazine for record collectors and audio enthusiasts, which was published in nearby Great Barrington. Gelatt was trying to give the magazine a new orientation, tipping the balance of its coverage from hi-fi hardware toward more serious music coverage, and asked Babbitt if he could publish the talk. Babbitt at first declined, explaining that he had spoken off the cuff and that there was in fact no written text to publish. A tape had been made, however, and eventually Babbitt agreed to let an edited transcript of the talk appear in the February 1958 issue of the magazine.

He submitted the typescript with "The Composer as Specialist" as its title. A canny editor, Gelatt substituted a far more provocative head for the published text. As "Who Cares if You Listen?", Babbitt's little talk became one of the most widely reprinted and hotly discussed manifestos in the history of twentieth-century music. Although Babbitt's supporters have deplored the title's implications, it purchased for the argument advanced within the article an instant notoriety—and an efficacy—it might never otherwise have earned, and thereby played a significant part in the success of Babbitt's mission.

The article contains passages in which the author does seem to be mocking the musical public (or what he calls "lay listeners"). "Imagine, if you can," one such passage begins,

> a layman chancing upon a [mathematics] lecture on "Pointwise Periodic Homeomorphisms." At the conclusion, he announces: "I didn't like it." Social conventions being what they are in such circles, someone might dare inquire: "Why not?" Under duress, our layman discloses precise reasons for his failure to enjoy himself; he found the hall chilly, the lecturer's voice unpleasant, and he was suffering the digestive aftermath of a poor dinner. His interlocutor understandably disqualifies these reasons as irrelevant to the content and value of the lecture, and the development of mathematics is left undisturbed. If the concert-goer [who has heard the musical equivalent of the math lecture, say a composition by Milton Babbitt] is at all versed in the ways of musical lifemanship, he also will offer reasons for his "I didn't like it"—in the form of assertions that the work in question is "inexpressive,"

> "undramatic," "lacking in poetry," etc. etc., tapping that store of vacuous equivalents hallowed by time for: "I don't like it, and I cannot or will not say why."[30]

Before this passage, however, and using language shrewdly chosen for its "Einsteinian" resonances, Babbitt had laid out the principles according to which the music that he and other composers of "contemporary serious music"[31] were writing necessarily differed from music designed to appeal to "laymen." Its "tonal vocabulary," to begin with, is described as being more "efficient," and less "redundant," meaning that (as we have already observed) each of its "atomic events" participates in a greatly augmented field of functional relationships—or as Babbitt put it, "is located in a five-dimensional musical space determined by pitch-class, register, dynamic, duration, and timbre."

Such music, then, has a greatly increased level of "determinacy" when compared with conventional concert or popular fare, and a greatly increased level of "contextuality" and "autonomy" as well. Any piece so composed will therefore follow unique rules, deducible only from itself, and will therefore be, in a fundamental sense, more "genuinely original" than is otherwise possible. To appreciate its originality, however, listeners must be trained, like their counterparts in physics or mathematics, in contemporary "analytical theory." Without such training, comprehension is impossible. Why then, Babbitt asks rhetorically, "should the layman be other than bored and puzzled by what he is unable to understand, music or anything else?" The difference, however, is that in the sciences, the lay public's inability to understand leads to enhanced prestige, while in music it usually leads in the opposite direction. That is the source of Babbitt's complaint: "It is only the translation of this boredom and puzzlement into resentment and denunciation that seems to me indefensible." What is sought, then, is protection from that resentment and denunciation in the form of patronage. "And so, I dare suggest," rings the culminating sentence, "that the composer would do himself and his music an immediate and eventual service by total, resolute, and voluntary withdrawal from this public world to one of private performance and electronic media, with its very real possibility of complete elimination of the public and social aspects of musical composition."[32] Anyone who knows the history of twentieth-century music will catch the resonance here with the premises of Arnold Schoenberg's Society for Private Musical Performances, advanced some forty years before.

The significant difference—the sign of the times—was the scientific basis of the argument, which pointed in the direction of a different source of patronage. The last three paragraphs of Babbitt's article, the crucial ones, were the paragraphs written, as it were, for the eyes of his university's president:

> Such a private life is what the university provides the scholar and the scientist. It is only proper that the university, which—significantly—has provided so many contemporary composers with their professional training and general education, should provide a home for the "complex," "difficult," and "problematical" in music. Indeed, the process has begun.
>
> I do not wish to appear to obscure the obvious differences between musical composition and scholarly research, although it can be contended that these differences are no more fundamental than the differences among the various fields of study. I do question whether these differences, by their nature, justify the denial to music's development of assistance granted these other fields. Immediate "practical" applicability (which may be said to have its musical analogue in "immediate extensibility of a compositional technique") is certainly not a necessary condition for the support of scientific research. And if it be contended that such research is so supported because in the past it has yielded eventual applications, one can counter with, for example, the music of Anton Webern, which during the composer's lifetime was regarded (to the very limited extent that it was regarded at all) as the ultimate in hermetic, specialized, and idiosyncratic composition; today, some dozen years after the composer's death, his complete works have been recorded by a major record company, primarily—I suspect—as a result of the enormous influence this music has had on the postwar, non-popular, musical world. I doubt that scientific research is any more secure against predictions of ultimate significance than is musical composition.

> Finally, if it be contended that research, even in its least "practical" phases, contributes to the sum of knowledge in the particular realm, what possibly can contribute more to our knowledge of music than a genuinely original composition?
>
> Granting to music the position accorded other arts and sciences promises the sole substantial means of survival for the music I have been describing. Admittedly, if this music is not supported, the whistling repertory of the man in the street will be little affected, the concert-going activity of the conspicuous consumer of musical culture will be little disturbed. But music will cease to evolve, and, in that important sense, will cease to live.[33]

Babbitt's final sentence, with its familiar tunnel view of musical evolution, "has been often pounced upon,"[34] as one later commentator dryly observed. Its arrogance is indeed palpable, as is the implication—echoing Webern's old battle cry, "All the rest is dilettantism!"—that only one kind of contemporary music was "serious" and "original." But this was the least novel aspect of Babbitt's program. Any reader of this book can easily trace it back to its source in the century-old polemics of the New German School. It was the parallel with math and physics, rather than with romantic notions of organicism, that gave Babbitt's argument its irresistible stamp of timeliness, and Princeton did not resist.

The Ph.D. in musical composition was officially instituted there in 1961, and first awarded, to the British composer Godfrey Winham (1934–75), in 1964. In addition to a musical work, Ph.D. candidates in composition had to submit an essay in theory and analysis. Winham's, called *Composition with Arrays*, was an explication of, and an addition to, Babbitt's latest technical extensions, as were the essays submitted over the next several years by Philip Batstone (*Multiple Order Functions in Twelve-Tone Music*, 1965), Henry Weinberg (*A Method of Transferring the Pitch Organization of a Twelve Tone Set through All Layers of a Composition, a Method of Transforming Rhythmic Content through Operations Analogous to Those of the Pitch Domain*, 1966) and Benjamin Boretz (*Meta-Variations: Studies in the Foundations of Musical Thought*, 1970).

Some of the early recipients of the degree—Mark DeVoto (b. 1940), Michael Kassler (b. 1941), Arthur Komar (1934–94)—did not submit original compositions at all; it was part of the fundamental research concept not to distinguish, at least officially, between music theory and composition, with the perhaps unexpected result that of the dual requirements for the Ph.D. in composition, it was the composition that turned out to be optional.

Kassler's dissertation, *A Trinity of Essays*, was an especially symptomatic contribution: its main component, an essay called "Toward a Theory That Is the Twelve-Note-Class System," was in effect a computer program that could "assert" the operations required to analyze or compose music like Babbitt's (the two processes—analysis and composition—being regarded as a single act performed in two "directions"). Kassler's program was devised not primarily for practical application but as a test of the twelve-tone system as extended by Babbitt and his pupils, the assumption being that, like any scientific theory in the computer age, a musical theory needed to be rationalized and quantified to the point where it could be programmed in order to be validated (that is, shown correct).

The institution of the Ph.D. in composition made the Princeton music department, already a magnet for ambitious young composers thanks to the presence there of Roger Sessions as well as Babbitt, the source of an invincible new credential for career advancement. Other universities were more or less compelled to follow suit. Within a decade, the Ph.D. in composition was common in America, and "Ph.D. music," it was widely if tacitly recognized, meant serial music. That, along with the remarkably cogent "mathematicalization" of twelve-tone theory by Babbitt and his pupils, has been one of the reasons why, firmly rooted in the rich institutional soil of the American university system, twelve-tone music proved such a hardy and tenacious growth in America at a time when the European avant-garde was leaving it behind.

And yet, once "house-broken into the academy" (as Joseph Kerman, an older Princeton alumnus, put it), could

serial music retain its avant-garde status? Obviously it could not, nor did it wish to. American postwar serial music has always been a proud, strict academic style, its practitioners more suspicious and derisive than any other contemporary musicians of the whole concept of the avant-garde. What was new (and "scientific") was the equation of academicism with technical innovation, rather than with the conservation and propagation of ancient lore. Thus a term, "academic," that had been used throughout the twentieth century to decry musical conservatism was now actively claimed by a school of composition that called itself new and radical. The implicit paradox, and the attendant crisis of identity, brought a new set of anxieties into play.

Notes:

(30) Milton Babbitt, "Who Cares if You Listen?," *High Fidelity*, February 1958; reprinted in P. Weiss and R. Taruskin, *Music in the Western World: A History in Documents* (2nd ed., Belmont, CA: Thomson/Schirmer, 2007), p. 483.

(31) *Ibid.* p. 481.

(32) *Ibid.* p. 484.

(33) *Ibid.*

(34) Joseph Kerman, *Contemplating Music: Challenges to Musicology* (Cambridge: Harvard University Press, 1985), p. 104.

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Edward T. Cone

Milton Babbitt

ELITES AND THEIR DISCONTENTS

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Those anxieties can be sampled in the writings of Edward T. Cone (1917–2004), a Princeton colleague of Sessions and Babbitt, who although a composer by training had a wider impact as a theorist and critic. One of his most interesting and symptomatic writings was a contribution to a symposium on defining a "musical composition," organized in 1967 by the editors of a journal, *Current Musicology*, that had been recently instituted by the graduate students at the Columbia University music department. The symposium was a response to a challenge lately issued by medievalists (most notably Richard L. Crocker of the University of California at Berkeley) to the conventional notion of a stable "piece of music."[35] Most of the contributors to the symposium reacted to the challenge with benevolent interest and good humor.

Not Cone. He pointed immediately to some obvious parallels between the medievalists' challenge and the redefinitions implicit in the work of the "indeterminate" wing of the contemporary avant-garde, and attacked both with phobic fervor. Or rather, counterattacked, for as his conclusion makes clear, he felt that he and his cherished beliefs (beliefs that were reaching a maximal formulation in the work of the Princeton serialists) were themselves under attack. "We may now be entering a definitive post-Renaissance stage of Western culture," he allowed, one that bore some striking features in common with pre-Renaissance culture,

> but I find it misleading to look on what is happening as in any sense a return to older and perhaps more natural modes of perception. Rather, we are confronted by an attack on the whole concept of art. If the attackers win, not only the work of art as we know it but art itself may disappear. Some composers—I use the term only because I do not know what else to call them, except perhaps noncomposers—are loudly proclaiming the Death of Music in a manner that recalls certain stylish theological positions [i.e., the "Death of God" as a metaphor for existentialist philosophy], and they are encouraging their followers to complete its doing-in. Others, more reticent, are nevertheless apparently trying to hasten the process by insisting that whatever one wants to call music *is* music, that what one calls a composition *is* a composition. John Cage's position is more honest. A few years ago, in conversation, he said, "I don't claim that what I am doing is music, or art—or that it has any value. I maintain only that it is an activity, and that it is the one in which I happen to be engaged at present." Such a position is, from a purely personal point of view, unassailable; but if generally accepted by those who call themselves musicians, it means the end of music.
>
> Let us not deceive ourselves. The extreme avant-garde is not trying to offer new definitions of what constitutes a work of art, or to create new forms, or to encourage new modes of perception. The extreme avant-garde has only one attitude toward the arts: it wants to kill them.[36]

That finger-in-the-dike sentiment turned the academy into a sort of fortress, and the mentality of a fortress, however progressive its declared objectives, is reactionary. What motivated such a quick turn toward the right on the part of artists and scholars who regarded themselves (since they favored perpetual progressive change)

as constituting the true cultural left? Cone provided a clue in a later essay, “One Hundred Metronomes,” published in 1977. The title referred to a recent composition by György Ligeti, the Hungarian refugee who had become an emblem of the Darmstadt avant-garde. It was called *Poème symphonique*. It had no score, just a set of instructions according to which one hundred pendulum-operated metronomes, going at as many different speeds, were to be set in motion and allowed to wind down. The piece ended when the last metronome stopped ticking. An anomaly among Ligeti's works, it is generally written off as a light-hearted spoof of “happenings,” although it was performed a few times, and treated by at least some listeners and critics as a legitimate (and even a moving) musical experience.

Cone's essay was not lighthearted. He cast it as a conversation, or a battle of wits, between himself and a (fictitious?) Princeton graduate student in composition who wanted to organize a performance of the piece, and, having been turned down by the rest of the faculty, appealed to Cone in desperation to secure departmental permission to put it on. Cone, too, refused, but at least honored the request with a reasoned rebuttal, based on a quotation from the play *Travesties* by Tom Stoppard: “An artist is someone who is gifted in some way that enables him to do something more or less well which can only be done badly or not at all by someone who is not thus gifted.”[37]

The only definition of a work of art that truly matters, then, is not what its effect may be, but what skills its manufacture (or its reception) may require. To make a Babbitt composition required such highly specialized skills that only a few (most of them at Princeton) possessed them, and to receive it in the spirit with which it was put forth required comparable skills on the part of the listener. To produce a Cage or a Nam June Paik composition (or Ligeti's *Poème symphonique*) required only patience, and its reception required only passive endurance. The rarer the skill, it follows further, the “higher” the art. Not surprisingly, such a scale of values put “Ph.D. music” at the top of the esthetic ladder.

It was also quite frankly elitist, in the strongest sense of the word, since by its very nature it selects and maintains a social elite. Both the composition and the performance of such music create elite occasions, which is just what high art had always done in the days of aristocratic or ecclesiastical patronage. The trouble with putting public institutions like universities in the position of the old church or aristocracy as patrons of art is the perceived contradiction between elite esthetics and the political or social egalitarianism on which modern concepts of democracy are based. Elite esthetics are usually defended by distinguishing “elite” from “elitist.” One can create, the argument goes, an elite art for its own sake without fostering or assenting to elitist politics, which can serve the cause of social privilege.

The distinction is easier to maintain in theory than in practice, and social elitism is as likely to undergird elite esthetics now as it has ever been. “We receive brilliant, privileged freshmen at Princeton,” Babbitt complained to an interviewer about a dozen years after the Ph.D. in composition was up and running, “who in their first year of college are likely to take a philosophy of science course with Carl Hempel, and then return to their dormitories to play the same records that the least literate members of our society embrace as the only relevant music.”[38] This comes very close to suggesting that the purpose of “Ph.D. music” is to provide a haven for the brilliant and the privileged comparable to that provided by the rest of an elite education, which trains the members of not only an intellectual but also a social and, above all, an economic elite.

“Under its gloss of prosperity,” the sociologist Vance Packard had warned in his book *The Status Seekers* (1959), America was becoming a dangerously divided society, its members constantly seeking “new ways to draw lines that will separate the elect from the non-elect.”[39] Classical music, always a social divider in America, was playing its old role, some argued, under a new set of rules. Babbitt's strictures could even be read, by his critics, as an endorsement of the social benefits of pop music. If Princeton freshmen kept in contact after-hours with “demotic” music, a music “of the people” that, shared across class boundaries, tacitly reinforced solidarity between classes, then that music might actually be serving as a valuable social counter-force in a threatened democracy. As we will see in chapter 7, such reasoning drastically elevated the cultural stock of American

popular music during the same decade, the 1960s, that witnessed the establishment of "Ph.D. music" as a significant and peculiarly American genre.

Babbitt went on to lament his isolation not only from the average student, but from his "fellow noncomposer faculty members at Princeton and, to a slightly lesser extent only, at Juilliard." In what seems a doubly pessimistic assessment, considering that it was made after the program he had outlined in 1957 had been largely implemented within the university, he concluded that things were worse than ever for "serious music" as he defined it.

> Superficially things might have seemed worse in the 1930s and 1940s. The audience seemed more sophisticated then, but there were not as many opportunities for composers. We do get our music performed now, we do get some recordings, we do occasionally get published. Back then Sessions was getting one or two performances a year in small rooms. That situation has improved, but we have no larger or more knowing an audience. I go to the best of concerts of contemporary music and see the same hundred or so people there week after week. I repeat, because it concerns me so, very few of my colleagues, who grew up on the streets of New York fighting the composer's battle, turn up to hear a young composer's music. As a result many young composers are, I hate to use this word, "alienated" even within their own profession. This is indeed a sad and symptomatic state of affairs, when the very survival of serious musical activity is so seriously threatened, by those within and outside the profession.[40]

Babbitt hated to use the word "alienated" because it was the sort of Marxist jargon that conjured up the shade of Zhdanov. But as Babbitt himself once half-ruefully joked, "everyone wants to compose our music but no one wants to listen to it." Composing it is a fascinating game, as is analyzing it. It is the listening process that has proved durably problematical. Viewed thus, the fate of academic serialism has been predictable. It has fared no differently from any of the other forms of academic music that have arisen over the years, and that might be collectively defined as "music that only a composer could love."

Notes:

(35) Some of the arguments and speculations that Crocker and his collegues put forth to challenge the assumptions of modern musicians are reflected in the section headed "What is Art?" in R. Taruskin, *Music from the Earliest Notations to the sixteenth Century*(Oxford, 2009), pp.00–00

(36) Edward T. Cone, "What Is a Composition?" (contribution to a symposium, "Musicology and the Musical Composition"), *Current Musicology*, no. 5 (1967): 107.

(37) Quoted in Edward T. Cone, "One Hundred Metronomes," *The American Scholar* XLVI (1977): 444.

(38) Milton Babbitt, interviewed in Deena Rosenberg and Bernard Rosenberg, *The Music Makers* (New York: Columbia University Press, 1979), p. 57.

(39) Quoted in Richard Severo, "Vance Packard, 82, Challenger of Consumerism, Dies" (obituary), *New York Times*, 13 December 1996, p. A24.

(40) *The Music Makers*, pp. 58–59.

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Theory, theorists: 20th century

Twelve-note composition

LIFE WITHIN THE ENCLAVE

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

While far more lasting than its European counterpart, then, postwar serialism in America has owed its survival to patronage in a society that otherwise functions, in music as in other ways, on the basis of commerce. It has been a closed enclave, a hothouse growth, its cultivators standing with backs resolutely turned to their counterparts in other walks of American musical life. Yet despite the misgivings Babbitt voiced in 1976, many experienced their protected life within the hothouse as a golden age for composition.

And, some would argue, for performance as well: as part of the institutionalization of serial music on American campuses, the Schoenbergian ideal of private performance venues for new music was also established on a broad and well-subsidized scale, with specialized student or professional performing organizations cropping up wherever "Ph.D. music" was composed. Music theory also enjoyed an intense growth phase, with faculty positions proliferating along with professional journals concerned with advanced musical composition and its attendant theory. Eventually, in 1966, a lobbying organization, the American Society of University Composers (ASUC), was formed by a group of Princeton faculty, graduate alumni, current Ph.D. candidates, and more loosely affiliated composers, including Weinberg, Boretz, Donald Martino (b. 1931), Peter Westergaard (b. 1931), and Charles Wuorinen (b. 1938).

The first campus "new music" organization was the Group for Contemporary Music, formed in 1962 at Columbia University (as it happens, one of the few universities where the scholars in the music department refused to sanction a Ph.D. for composition, but where a doctoral program was quickly set up, as if in defiance of the department, by the University's School of the Arts; relations were not happy). Its founders were Wuorinen, an expert pianist, and Harvey Sollberger (b. 1938), a flautist, both then graduate students in composition at Columbia, along with the cellist Joel Krosnick, then an undergraduate, who in 1974 joined the Juilliard String Quartet, a sort of forerunner organization that had been founded in 1946 by William Schuman, then president of the Juilliard School, expressly to give exposure to contemporary works in the medium, beginning with those of Bartók and Schoenberg.

Columbia's Group for Contemporary Music was as widely copied as Princeton's Ph.D. program. Both at Columbia and elsewhere (eventually including music conservatories) the performance rosters expanded to include a wide variety of vocalists and instrumentalists; in particular, a new breed of virtuoso percussionist was spawned. The high premium thus placed on new-music virtuosity led to an ever-increasing preoccupation with extended performance techniques—augmented ranges, novel sounds from traditional instruments (especially the piano), novel cross-fingerings to produce chords or "multiphonics" on woodwinds, and so on—on a par with extended formal techniques of composition.

Of the quasi-scientific journals devoted to academic composition and its theory, the semiannual *Perspectives of New Music*, produced at Princeton itself, was uniquely authoritative. Its slightly unidiomatic title was the result of its having been named by its patron, Paul Fromm (1906–87), the German-born Chicago wine merchant who

had previously funded the Seminar on Advanced Musical Studies mentioned in chapter 1. The editors were Arthur Berger (1912–2003), then a professor at Brandeis University, and Benjamin Boretz (b. 1934), a former pupil of Berger then writing his Ph.D. dissertation under Babbitt. Many of the articles in the first issue, which appeared in fall 1962, had a sharp polemical or factional edge. Their purpose was to stake out what is known in the academy as "turf," a recognized and respected area of authority.

From this perspective, the most characteristic article in the inaugural issue of *Perspectives* was not by a composer at all, but rather by John Backus, an acoustician on the physics faculty of the University of Southern California, from whom the editors had commissioned a "scientific evaluation" of the four volumes of *Die Reihe* (the Cologne-based organ of the "Darmstadt School" described in chapter 1) that had by then appeared in English translation. The aggressive review Backus produced contrasted the bona fide musical science preached and practiced at Princeton with the fraudulent pseudo-science of the European avant-garde in a fashion that easily matched the derision the American serialists felt toward what Wuorinen called "the 'work' of John Cage and some of his friends."[41]

Backus dismissed the technical language in Stockhausen's writings, for example, as a jargon "designed mostly to impress the reader and to hide the fact that he has only the most meagre knowledge of acoustics."[42] The "pretended display of mathematical erudition" by another, less famous writer is declared to be "pure bluff," through which "the defenseless reader is being thoroughly swindled."[43] Ligeti's analysis of Boulez's *Structures* (discussed in chapter 1) is strategically praised for its clarity, but only the better to expose what it described as "a method that is appalling in its arbitrariness," testifying to "nothing more than a mystical belief in numerology as the fundamental basis for music."[44] The verdict on the composition itself is a little masterpiece of intramural academic invective:

> The possibilities are endless; a computer could be programmed to put down notes according to this prescription and in a very short time could turn out enough music to require years for its performance. By using different numerical rules—using a knight's move, for example, rather than a bishop's move along the diagonals—music for centuries to come could be produced.

On the positive side of the ledger, the same inaugural issue of *Perspectives* also contained a paper by Babbitt laying out his latest extension of twelve-tone technique. Dissatisfied with the incompleteness of his previous operational analogies between pitch and time, Babbitt now proposed a new analogy based on their primary shared property, namely the interval. "Since duration is a measure of distance between time points," he wrote, and

> as interval is a measure of distance between pitch points, we begin by interpreting interval as duration. Then, pitch number is interpretable as the point of initiation of a temporal event, that is, as a time-point number.[45]

Let us imagine a measure of music, in other words, as containing twelve numbered time-points, each corresponding to a successive pitch-point in the chromatic scale. Thus if we take zero to designate both the first pitch-class in a row (say G) and the time point that initiates the measure, 1 would then represent both the pitch-class G♯A♭ and the second time-point in the measure; 2 would denote the pitch class A and the third time-point, and so on. In effect, Babbitt was adopting Messiaen's old concept of the "chromatic scale of time values," but was synchronizing it (as Messiaen had not done) with the chromatic scale of pitches. An ascending chromatic scale would thus be conceptually translated (or to put it mathematically, "mapped") into the twelve elapsing time-points (say sixteenth notes) within a measure in or time.

As Babbitt put it in his article, if the individual "temporal event" or time-point is to retain its identity in the unfolding music,

> it is necessary merely to imbed it in a metrical unit, a measure in the usual musical metrical sense, so that a recurrence of succession of time points is achieved, while the notion of meter is made an essential part of the systematic structure. The equivalence relation is statable as "occurring at the same time point with relation to the measure." The "ascending" ordered "chromatic scale" of twelve time points, then, is a measure divided into twelve equally spaced units of time, with the metrical signature probably determined by the internal structure of the time-point set, and with the measure now corresponding in function to the octave in the pitch-class system. A time-point set, then, is a serial ordering of time points with regard to < [that is, increasing quantity]. At the outset, I do not wish to attempt to avoid the manifest differences between the elements of the pitch system and those of the time-point system, that is, perceptual—not formal—differences. A pitch representative of a pitch-class system is identifiable in isolation; a time-point representative cannot conceivably be, by its purely dispositional character. But an examination of a time-point set will clarify the systematic meanings, and the reasonable musical meanings associated with these new concepts.

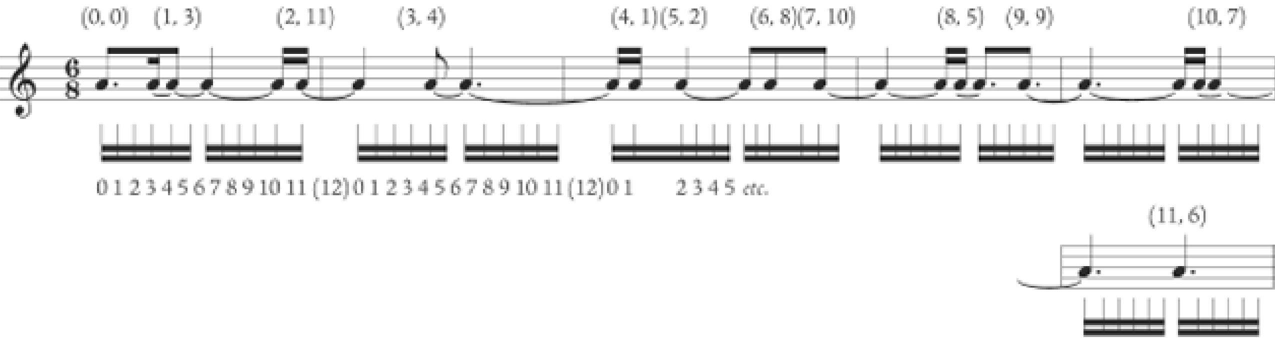
Example 3-28 is adapted from the "examination" or demonstration that follows in Babbitt's article. The hypothetical chromatic scale of pitches and time-points is shown in Ex. 3-28a. In Ex. 3-28b, a series of twelve number-pairs is given, in which the first number denotes the order-position within the given series and the second denotes a pitch/time-point position within Ex. 3-28a, the hypothetical chromatic scale. In Ex. 3-28c the second number in each pair is associated with a pitch-class as counted from G (= 0), and in Ex. 3-28d (taken directly from Babbitt's article), the same series is translated into durations by making a similar association of numbers with metrical positions. Numbers that fall within an ascent between 0 and 11 thus find their places within a single measure. Numbers that descend must wait until "the same time point with relation to the measure" comes around again in the next measure. Finally, in Ex. 3-28e, the two interpretations of the number series are combined and distributed into parts for the members of a string quartet.

ex. 3-28 The "time-point system" as expounded in Milton Babbitt's "Twelve-tone Rhythmic Structure and the Electronic Medium" (*Perspectives of New Music*, I:1 [fall 1962])

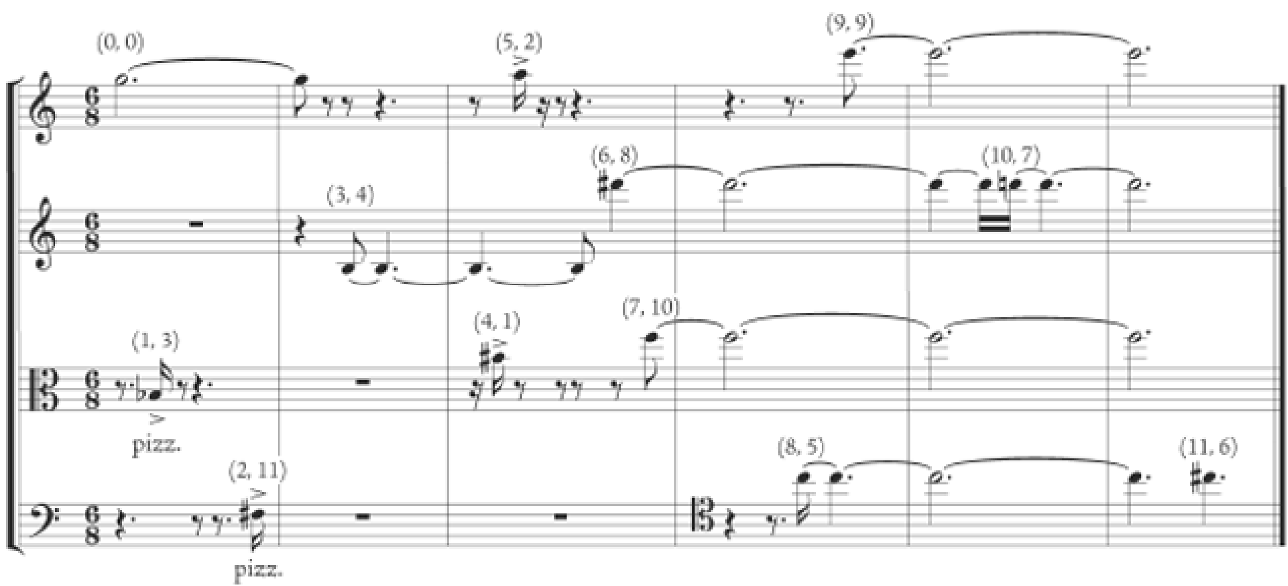
(0, 0) (1, 3) (2, 11) (3, 4) (4, 1) (5, 2) (6, 8) (7, 10) (8, 5) (9, 9) (10, 7) (11, 6)

ex. 3-28b A pitch/time-point series

ex. 3-28c A pitch/time-point series translated into actual pitches



ex. 3-28d A pitch/time-point series translated into actual durations



ex. 3-28e All of the above, combined into a string-quartet texture

In mapping the specific time-point series on to a specific pitch-class series, Babbitt created a means of serializing durations that at last fully solved, at any rate to his own satisfaction, the problem of "appalling arbitrariness" to which John Backus had called attention in his condemnation of Boulez's *Structures*. Eventually Babbitt built further on the theory that justified the time-point system, eventually coordinating a twelve-fold gradation of loudness — from *ppppp* to *fffff* — with the pitches and durations so that aggregates could be completed in yet another dimension and yet another level of "relatedness" could be added to the grid within which each and every "atomic event" in Babbitt's music was located.

Notes:

(41) *Contemporary Composers on Contemporary Music*, p. 370.

(42) John Backus, "*Die Reihe*: A Scientific Evaluation," *Perspectives of New Music* I, no. 1 (Fall 1962): 169.

(43) *Ibid*. p. 170.

(44) *Ibid*.

(45) Milton Babbitt, “Twelve-Tone Rhythmic Structure and the Electronic Medium,” *Perspectives of New Music* I, no. 1 (Fall 1962): 63.

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Oxford History of Western Music: Richard Taruskin

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Theory, theorists: 20th century

Peter Westergaard

But Can You *Hear* It?

Chapter: CHAPTER 3 The Apex
Source: MUSIC IN THE LATE TWENTIETH CENTURY
Author(s): Richard Taruskin

Other analysts were quick to note, however, that an irreducibly arbitrary (or "notional") element remained at the heart of Babbitt's procedure, namely the deceptively simple notated meter. Conceived solely as a container for the time points, and never articulated in terms of recurrent rhythmic or accentual patterns, Babbitt's or measure was not in fact "a measure in the usual musical metrical sense," but (like the bars in a transcription of a "medieval" or "Renaissance" motet) just a notational convenience. Rebar the music in or , or just shift the bars an eighth note to the right or left, and everything will change for the analyst, although nothing has changed for the listener. What is analyzed, then, are the relationships that are demonstrable in the music as seen on the page, not the music as heard. Is Babbittian (Princetonian? American?) postwar serialism, then, just an enormous flowering of *Augenmusik*? And if it is, does that invalidate its musical quality, or its crucial truth-claims? If it does, then in what way: esthetically? scientifically? Are the two distinguishable? If so, how?

These issues have been debated for decades, both within the serialist school and outside of it. Even those who accept the limitless malleability of human nature and believe that all listening habits are the product of conditioning have questioned the practicability of Babbitt's theorizing, even as they have in many cases adopted it themselves out of admiration for its utopian qualities. Babbitt's Princeton colleague Peter Westergaard (b. 1931), writing three years later in *Perspectives of New Music*, the serialist house organ, registered his qualms in the language of the theory to which he was raising his considered objections. Writing with reference to the *Composition for Twelve Instruments*, in which Babbitt employed twelve-element durational sets for the first time, Westergaard noted that

> we have been at least partially conditioned by pre-Schoenberg pitch structure to hear pitch relationships mod. 12; i.e., we can be expected to hear a family resemblance in the opening interval of any P pitch set be it up a semitone, up thirteen semitones, or down eleven semitones. But have we been even partially conditioned by pre-Babbitt rhythmic structure to hear durational relationships mod. 12; i.e., can we be expected to hear a family resemblance between a dotted quarter note followed by a sixteenth note (the opening "interval" of duration set P_0 [see Ex. 3-26]) and an eighth note followed by a dotted eighth note (the opening "interval" of duration set P_2 [see Ex. 3-27])?
>
> The perceptual problems outlined above are further intensified by problems of performance. It would be difficult enough to differentiate between durations of ten and eleven sixteenth notes defined by pairs of attacks controlled by one player on one instrument. But the attacks which define the durational sets of Composition for Twelve Instruments may come from as many as twelve different players, each playing an instrument with a different response time.[46]

Westergaard added a footnote to the article, possibly at the editors' request, granting that all of these problems "have since been solved by Babbitt in his more recent procedure in which metric position corresponds to pitch number and, hence, duration to interval"[47] —that is, by the time-point system. But few theorists who recognize

the “problems” as such have been satisfied that the time-point system has solved them. More frequently they have complained that the solution merely added another purely conceptual, nonperceptual level to the theory, thus removing the music even more decisively from the likelihood of its “auditory construal.”[48] That is a phrase coined by George Perle, who went on to dismiss not only the music in question but the analytical literature that has grown up around it, since “it should not need to be stressed that the analysis of a piece of music ought to be relevant to its perception.”[49] Needless to say, what Perle took to be a self-evident axiom has proven, since the rise of academic serialism in America, to be as controversial a contention as anyone could possibly adopt.

Perhaps the climax of “theoretical” dissension from within was reached by William Benjamin, a Princeton-trained music theorist, who in 1981 noisily defected from the ranks, charging (in the *Journal of Music Theory*, a rival organ to *Perspectives* published at Yale) that “the music of the post-war avant-garde” was “the first music in history” that “cannot be improvised, precisely imagined, embellished, simplified, or played with in any creative sense,” all of which, he felt, justified the assertion that “it is hardly music at all.”[50] Strong words. But Benjamin has no greater right to define music than Babbitt. Some analysis of his comments, and Perle's, may help clarify the stakes of the argument—and the historical significance of the musical discourses at the center of the controversy.

Notes:

(46) Peter Westergaard, “Some Problems Raised by the Rhythmic Procedures in Milton Babbitt's Composition for Twelve Instruments,” *Perspectives of New Music* IV, no. 1 (Fall–Winter 1965): 113.

(47) *Ibid.* p. 113n.

(48) George Perle, *The Listening Composer* (Berkeley and Los Angeles: University of California Press, 1990), p. 115 (quoting Joseph Dubiel).

(49) *Ibid.* p. 121.

(50) William Benjamin, “Schenker's Theory and the Future of Music,” *Journal of Music Theory* XXV (1981): 170.

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