

Crossroads of Boulez and Cage: Automatism in Music

The twentieth century is simultaneously and paradoxically the most progressive and regressive era in human history to date. While the accelerated rate of technological growth that occurred in this century provided an unprecedented standard of convenient living, it is also accountable for the swift annihilation of millions in Hiroshima and Nagasaki. Improvements in communication and transportation shrunk the world to a previously unimaginable size, yet political and provincial conflict on a global scale made different regions seem farther removed from each other than ever before. Likewise, the music of this century is filled with contrast. Like any of an individual's traits and behavioral patterns, music is a product of its social environment. As author Reginald Smith Brindle writes, "Music has always reflected the outside world and sublimated it, breathing the mysticism of the medieval epoch, the poetry and finesse of the Elizabethan court, the superficial charms and graces of the rococo period, and so on" (1). Being a century fraught with two world wars, a four-decade nuclear standoff, and several revolutions and subsequent counter-revolutions, composers of the twentieth century had no shortage of social fodder to influence highly varied music. The musical timeline in this century begins with the breakdown of tonality, with late romantic/early modernist composers such as Gustav Mahler (1860 – 1911) and Richard Strauss (1864 – 1949) setting the trend. From there, the second Viennese School took the baton, with its leader, Austrian composer Arnold Schoenberg (1874 -1951), bringing structure to atonal composition via his twelve-tone technique. This musical trajectory continued in the following decades and culminated in the post-war years

with two opposing musical styles on two different continents. In Europe, the leading post-war figure was French composer Pierre Boulez (b. 1925), who lobbied for absolute musical control, whereas in America, composer John Cage (1912 – 1992) relinquished control absolutely. Though the two may appear to be polar opposites at face value, their musical motivations have far more in common than meets the eye.

The aftermath of the Second World War saw significant sociological changes in regions all around the globe. With the advent of the atomic bomb, a new, sobering realization began to materialize in the minds of citizens worldwide: the potential for an individual's entire reality to be wiped out in a matter of seconds was now a startlingly real possibility. As authors Richard Taruskin and Christopher H. Gibbs put it, "People living in the atomic age could no longer believe in the permanence of anything human" (1014). Such a grim reality prompted a generation of European composers to begin viewing their environment as a *Stunde Null*, also known as Zero Hour, or a time without past. As a result, these composers embraced a complete rejection of past musical tradition, and a new, avant-garde style of music began to develop in its place. They began to converge in post-war Germany to foster this new style, one devoid of the past influences that were now tainted by war.

The town of Darmstadt, Germany had a seminal role in in the gestation of the post-war avant-garde style in Europe. The *Internationale Ferienkurse für Neue Musik* (International Summer Courses for New Music), established in 1946, was the rendezvous point that facilitated the new style in the small town, located in the American-controlled West German sector. The institution itself was in fact

American-funded as part of a larger Allied effort to disseminate American political and cultural values among the German population (Taruskin and Gibbs 1020).

Naturally, such an environment provided a haven for composers from the formerly fascist areas of Europe where such new musical styles had been strictly outlawed--a conscious objective of the institution.

Initially, the summers at Darmstadt were officiated by older modernist figures, such as Ernst Krenek (1900 – 1991) and Edgard Varèse (1883 – 1965). Over the next several years however, younger composers began to take over, with three composers in particular standing tallest by 1952: Karlheinz Stockhausen (1928 – 2007) of Germany, Bruno Maderna (1920 – 1973) of Italy, and Pierre Boulez (Taruskin and Gibbs 1020). German composer Hans Werner Henze (b. 1926) provides a clear insight as to what kind of environment Darmstadt was during these years:

Things had become pretty absurd. 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 as a trial, as young composers brought their pieces forward for opinion. He brusquely dismissed anything that wasn't Webernian: "If it isn't written in the style of Webern it's of no interest." (Taruskin and Gibbs 1020)

This is not the only account that highlights the Zero Hour sentiment of the post-war modernists. Taruskin and Gibbs tell of a famous anecdote that occurred in a composition class originally to be taught by Schoenberg, who was prevented from doing so due to the illness that he would eventually succumb to. In his stead,

composer Theodor W. Adorno (1903 – 1969) filled the role. An older modernist figure, Adorno allegedly questioned the nature of a student's early total serial piece. This prompted Stockhausen to remark, "Professor, you're looking for a chicken in an abstract painting" (1020). In addition to becoming a Darmstadt legend, this quip is indicative of the ever-forward-looking attitude of the Darmstadt school.

While the European avant-garde style was incubating in Darmstadt, another, radically different musical approach was being developed on the other side of the globe. Before the twentieth century, America's contribution to western art music was completely and utterly dwarfed by that of Europe, with its long musical history reaching back centuries before America was even an independent nation. During the nineteenth century, classical music in America tended to develop in one of two ways: either American composers went to study abroad in Europe, or European composers were imported to America (Taruskin and Gibbs 876). This would change forever after the turn of the twentieth century. From that point forward, America's musical output flourished, particularly its popular music. However, American classical composers began to gain traction as well, permanently placing the nation on the map as one of western music's premier benefactors.

The prospect of a distinctively "American" style of music began to be explored in the nineteenth century. With a rich reservoir of Native American and African culture to draw from, composers both at home and abroad began mining these indigenous musical traditions for inspiration, most notably Czech composer Antonín Dvořák (1841 – 1904) (Taruskin and Gibbs 877). Those who spread the most influence in the twentieth however, were the American composers who

embodied the country's historically self-reliant spirit and gravitated toward a musical philosophy which reflected this: experimentation. One of the figures most closely associated with this ideal is Charles Ives (1874 – 1954), who is widely considered to be the first great American composer (Taruskin and Gibbs 877).

Ives grew up in a highly musical environment. His father, a local bandleader by trade, did not see success as a composer, but was nonetheless “an enthusiastic musical thinker”, or as Ives himself put it, a “Yankee tinker”; an influence which would ultimately shape his son's eventual approach to musical innovation, according to authors Piero Weiss and Richard Taruskin (360). In 1894, Ives attended Yale, where he studied with Horatio Parker (1863 – 1919), a prominent figure in the Boston school of composers who, like most of his contemporaries, studied in Europe. Despite this formal background in music, Ives opted to pursue a profession in business, presumably dissuaded from a musical career by his father's poor income and social reputation as a professional musician (Taruskin and Gibbs 877).

Beyond his father's “Yankee tinker” influence, the mere fact that Ives was an American made him better suited to experiment musically than any European composer. As Weiss and Taruskin put it, “[r]esponding above all to natural curiosity, and unencumbered by the weight of a centuries-old tradition, Ives experimented freely with quarter-tones, polytonality, and polyrhythms at a time when such things were only being dimly imagined elsewhere” (360). This implies that composers born or trained in Europe were too accustomed their traditional musical lenses to view composition from Ives' unique angle.

Another American composer who managed to reach a high degree of notoriety due to considerable innovation is composer Henry Cowell (1897 – 1965). According to author Alan Rich, Cowell displayed prodigious ability on the violin as early as age five. (110). Much like Ives, he was strongly influenced by parental musical exposure but otherwise lacked formal musical education in his youth. “[He decided] to become a composer, inspired as much as anything by [his mother’s] trove of remembered songs and ballads from her Midwestern upbringing and her Irish forbears” (Rich 110). At seventeen, the self-taught composer was admitted to the University of California, Berkeley by then chair of the music department, Charles Seeger, who recognized the value of young Cowell’s proclivity toward musical experimentation. As Rich points out:

Seeger saw it fit that his free-thinking student received the proper grounding in harmony and counterpoint without, however, stifling his freedom to compose as his own conscience dictated. (Compare this enlightened pedagogy to the academic shackles the Europe-trained Horatio Parker placed upon Charles Ives, or the conservative Vincent D’Indy upon Edgard Varèse) (116).

While Ives and Varèse did eventually break free of their “academic shackles”, Cowell’s relative freedom allowed him to innovate such techniques as “tone clusters” (using the fists and forearms on the piano to play series of adjacent major and minor seconds) and “string piano” (direct manipulation of the piano strings without use of the keys), both terms coined by Cowell himself which have remained popular techniques among progressive pianists ever since. In addition to

composing, Cowell was also notable as a teacher, as his influence managed to permeate the landscape of American experimentalism well after the Second World War.

The post-war European landscape looked far bleaker by comparison. Western Europe, having been ravaged by the war, did not share in America's optimistic penchant for musical experimentation. Instead, the Zero Hour mentality tightened its grip in the minds of composers, particularly that of Boulez. As Hans Werner Henze described in his account of Darmstadt, the origins of the avant-garde style that Boulez would come to champion can be traced back to Austrian composer Anton Webern (1883 – 1945). More so than his Second Viennese School contemporaries Schoenberg and Alban Berg (1885 – 1935), Webern is considered to be the bridge between the earlier modernist style and post-war avant-garde in Europe (much like how Beethoven is considered to have bridged the Classical and Romantic eras far more than his First Viennese School contemporaries Haydn and Mozart). This is because Webern's musical style differed significantly from those of Schoenberg and Berg. Of the three, Webern was the most drawn to symmetrically constructed rows and immense structural rigor. He wrote: "Adherence to the row is strict, often burdensome, but it is *salvation!*" (Taruskin and Gibbs 914). Webern's inclination toward extremes of structure would become the main ingredient that would later define Boulez's approach to composition.

Another notable influence on Boulez was French composer Olivier Messiaen (1908 – 1992), with whom he studied with from 1944 – 1945 and developed a strong appreciation for (Griffiths 3). Messiaen's compositional goals were truly

unique for his time and remain so today. Rather than composing for society, like Aaron Copland (1900 – 1990) or Benjamin Britten (1913 – 1976), or for posterity, like Schoenberg or Webern, Messiaen preferred to write music for what he thought of as “timeless truth”. As he himself stated, “Let us have *true* music, that is to say, spiritual, a music which may be an act of faith; a music which may touch upon all subjects without ceasing to touch upon God; an original music, in short, whose language may open a few doors, take down some as yet distant stars” (Taruskin and Gibbs 1005). This concept of “truth”, though fueled by an entirely different worldview, can be compared to Boulez’s desire to achieve something “realer” with his music in the wake of war. And so, with Webern as his mental co-pilot, Boulez set out on his quest to achieve this goal with a radical new approach in mind: absolute compositional control by means of total serialism.

The philosophy behind total serialism was very much shaped by the social climate of post-war Europe. The music of the now distant past, which championed emotion and individual expression above all, now seemed irrelevant and more distant than ever to those who witnessed the horrific events of the war. A new, less idyllic worldview was necessary to cope with the atrocities that took place during those years. Taruskin and Gibbs provide a solemn description of the climate:

“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 millions of selves just as individual as theirs might vanish at the push of a button. There was no point in expressing feelings when the best-laid plans seemed so futile and personal feelings so

trivial in the face of such destructive power. The authoritarian manner was bravado in the face of impotence. Total serialism allowed something “realer” to emerge. And what could be realer, more pure and elegant, than numbers? (1021)

For Boulez and his contemporaries, there was no turning back from a juncture such as this. There was no longer room for pre-war influence of any kind in his Zero Hour mind.

Ironically, if all of tradition had to be rejected, that would have to include Schoenberg, inventor of the twelve-tone system upon which he based his total serial methods. This did not deter Boulez however, as he achieved his earliest notoriety in 1952 with his provocatively titled article “Schoenberg is Dead”, in which he unleashed a scathing and bitter verbal attack on the recently-deceased Schoenberg. In the article, he wrote: “It would be vain to deny it: the Schoenberg “case” is irritating, above all because of its freight of flagrant incompatibilities” (Weiss and Taruskin 441). Boulez rationalized his rejection of Schoenberg by claiming that Schoenberg’s crime was trying to reconcile his new twelve-tone approach with traditionally “classical” forms and “expressive” musical language. Total serialism sought to escape subjectivity and expression after all, and as Taruskin and Gibbs point out, “[Schoenberg’s twelve-tone method] in no way precluded him from continuing to write emotional, indeed expressionist music” (1021). In addition, Schoenberg had outwardly thought of himself as the “inheritor of the great tradition”, a massive offense in Boulez’s book.

These harsh criticisms of Schoenberg were hardly his only controversial statements. The algorithmic and relatively unaesthetic nature of his total serial works led him to remark that “the age of the concert had passed”, implying that scores no longer needed to be played, only “read” (Taruskin and Gibbs 1020). He even went as far as to assert: “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 the time” (Taruskin and Gibbs 1018). These views, dogmatic as they may be, are a true testament to Boulez’s inescapable influence among the Zero Hour total serialists.

If Boulez was the “supreme authority” of the post-war musical avant-garde in Europe, then his American counterpart would have to be Californian-bred John Cage. In stark contrast to the European musical tradition, Cage had very little formal musical education in his youth, aside from some piano lessons; a striking parallel to his predecessors Ives and Cowell, who would prove to be his biggest musical influences. Unlike Ives and Cowell however, Cage never attended a conservatory in early adulthood, and thus never acquired the basic ear training skills presumed at the time to be a prerequisite for a professional composer (Taruskin and Gibbs 1022). He instead adopted the decidedly American attitude of self-reliance and remained almost entirely self-taught throughout his career.

Following in the footsteps of Ives and Cowell, the latter of whom served as his mentor, the charismatic Cage was an unabashed musical experimentalist. He took his experiments to such a height however, that he was labeled at best a

“maverick” and at worst a “joker”, and was allocated to the outskirts of the so-called legitimate musical world. In addition to the criticism he received from musicians, he also managed to alienate audiences from his music. As Taruskin and Gibbs put it, “In the view of many average listeners he was not a composer at all and what he produced was not music” (Taruskin and Gibbs 1022). Nonetheless, the experimental composer managed to attract hoards of admirers who saw him as not only worthy of the title “composer”, but a great one.

In the 1940s, Cage began to embrace the philosophy of Zen Buddhism, which became fashionable among both Americans and Europeans of the time. Being Japanese for “meditation”, Zen is “a mental discipline that aims at sudden spiritual illumination by systematically rejecting the illusory safety of rational thought, which it regards as contradictory to nature” (Taruskin and Gibbs 1023). This, again, draws parallels between Cage and Ives, whose philosophy of choice, Transcendentalism, entailed a “tendency to respect [one’s own] intuition’, regardless of whether such intuitions could be supported by actual experience, observation, or rational argument” (Taruskin and Gibbs 877). Such a philosophy became paramount to shaping Cage’s unique brand of musical experimentation. The meditative, contemplative nature of Zen Buddhism allowed one to clear one’s own mind from any and all expectation. In order to apply this “nonexpectation” principle to music, the composer would have to relieve his or herself of all desire or preference for outcome.

Interestingly, Cage's lack of formal musical training would actually become an asset to him in this process. While Boulez retained total control over his the structure of his music, Cage handed control to an entirely different master: chance.

As Cage was exploring the possibility of composition via chance, or as he called it, indeterminacy, he was introduced to the book *I Ching*, or "Book of Changes" which was a Chinese manual of divination, or "the art of reading premonitions to gain knowledge unavailable to reason" (Taruskin and Gibbs 1025). Taruskin and Gibbs describe Cage's process as follows:

The user of *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. By associating the hexagrams with musical parameters (pitch, duration, loudness, attack, and so forth), Cage was able to convert the coin-tossing method into means of eliminating his compositional habits or desires, or, as he put it, "memories, tastes, likes and dislikes". Once he had decided how the coin tosses would determine the musical results, he could relinquish control of the process and compose "nonintentionally", as Zen prescribed. (1025)

The implication of Cage's indeterminacy method is astounding: the music will never be performed the same way twice. It is at this point that one might start to notice the parallels between Cage and Boulez's compositional approaches. One could argue that it the more granular the instructions to the performer, as in total serialism, the greater the margin of error in playing becomes. One performance's pianississimo

might be louder or softer than another's, for example, thus making it highly unlikely the piece will ever be performed the same way twice. Another parallel is that both styles tend to reject traditional musical rhetoric. While Cage did not share Boulez's staunch distaste for the past, his music, being experimental, did undermine tradition. This is made perfectly clear in an anecdote that Cage liked to tell in which a Dutch musician says 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", to which Cage replied, "It must be very difficult for you in Europe to write music, for you are so close to the centers of tradition" (Taruskin and Gibbs 1026). Yet another undeniable similarity is that both composers employed an indispensable pre-compositional method which allowed the music to "write itself", or as Taruskin and Gibbs call it, "automatism" (1021). The biggest parallel between the two however, is the mere fact that both composers sought to relieve their works of any trace of their own egos or personalities, which can be described as "a traditional Modernist aim pushed to a hitherto-unimaginable extreme" (Taruskin and Gibbs 1021).

In theory, the methods adopted by Boulez and Cage may have contained common ground, but in practice, their music still differed greatly. Boulez chose the "four constituents of sounds" as his basis for serialism: pitch, duration, dynamics/attack, and timbre, as opposed to Schoenberg's model of merely serializing pitch. This resulted in what he viewed as absolute control over his music. For the tone row of one of his most successful total serial works, *Structures* for two pianos (1951), Boulez borrowed the pitch succession from Messiaen's *Mode de valeurs et d'intensités* (Scheme of Note Values and Dynamics)(1950), paying tribute

to his teacher in the process (Taruskin and Gibbs 1019). The row can be as seen as follows:



As expected, the row contains series for all four sound constituents, with Boulez expanding the dynamics series from seven to twelve in *Structures 1a*. With this approach, as Taruskin and Gibbs put it, “[o]nce everything was set, the composer could sit back, as it were, and let the music write itself. The real labor, one might say, was “precompositional” (1019).

Cage’s method on the other hand, was a complete one hundred-eighty degree turn from this process. One of the words most commonly used to describe Cage’s musical approach is “aleatoric”, which comes from the Latin word “aléa”, meaning “dice”; an apt label considering the chance operations that govern Cage’s compositions. His most famous piece, *4’33”* (1952), takes indeterminacy to its extreme. The piece entails a silent performer or performers who occupy a performance space and signal the beginnings and ends of three movements (the timings of which have been predetermined by chance). The piece, therefore, consists of whatever sounds that happen to be audible to the listeners amidst the four minutes and thirty-three seconds of silence. According to Taruskin and Gibbs, “[l]ike most musical works, it has a published, copyrighted score. The space on its pages corresponds to the elapsing time. One of the pages is blank” (1027). This extreme example of Cage’s chance-driven methods has helped make him so controversial, yet

so compelling as a composer, as it forces one to fundamentally rethink what constitutes music.

Modernism in the first half of the twentieth century was relatively unified. This changed after World War II, as the evolution of western music was forced to split into two different yet parallel tangents. The fact that one style evolved in America while the other in Europe is a reflection of the war's aftermath. While America suffered heavy casualties in both world wars, its soil remained completely untouched—a benefit of being an ocean away from the main conflict. Thus, American composers adopted the historically American spirit of self-reliance and turned their attention to musical experimentation. Europe, on the other hand, was left devastated by the wars, resulting in an unshakable pessimism among its citizens, and by consequence, total rejection of the past by its composers. Though dichotomies among composers are nothing new in music history, from Schoenberg and Stravinsky to Wagner and Brahms, even going all the way back to the Artusi-Monteverdi Controversy, for the first time, such a rift occurred on two separate continents.

The two figures who emerged as most representative of these contrasting styles were John Cage and Pierre Boulez, with the former being, according to Taruskin and Gibbs, “for a while one of the most influential creative figures in the world (1021), and the latter being, according to himself, the “supreme authority” of the post-war avant-garde. Though these two titans of post-war composition differed greatly in their results, their motivations to write ego-free music made them more similar than either would likely care to admit. One could even argue that Boulez and

Cage acted as microcosms of their respective European and American regions--two disparate schools of thought on opposite sides of the globe but with significant cultural overlap and similar cultural origins.

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