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# The Development of New Music Between 1950-60 in the Context of the Darmstadt International Summer Courses for New Music

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## Abstract

The path toward new music opened at the end of the Romantic period through the stretching of harmonic boundaries, driven not only by curiosity toward the new and the yet unreached, but also by developments taking place in every domain of life around the world. Twentieth-century music cannot be defined merely as an abandonment of harmony and a shift toward atonality; it also entailed the abandonment of traditional notation and of many other elements. Consequently, the departure from the old brought the new along with it. Sharing these innovations became easier after the wars ended. Hosting many different styles and movements, twentieth-century music underwent a transformation unlike anything seen in other periods. One of the focal points for sharing this change and development was the Darmstadt International Summer Courses for New Music. Launched in 1946, the Darmstadt International Summer Courses for New Music were established to share new ideas and to break away from the war entirely through art and modern music. Thanks to these courses, an immense contribution was made to the post-1950 new-music

repertoire, and a vast network of knowledge was built. The purpose of this study is to highlight the contributions of the Darmstadt International Summer Courses for New Music to new music between 1950 and 1960, as well as the interactions among the composers involved in the courses. Through Darmstadt, many composers were able to announce their musical identities to the entire world, and after the 1970s they continued to remain at the forefront of their fields. This network of knowledge and repertoire offered not only composers but also audiences a great opportunity to become acquainted with new music. In this study, using the historical-research and document-analysis designs among qualitative research methods, new music, the Darmstadt International Summer Courses for New Music, and the works with which the composers teaching at the courses engaged were examined. Findings obtained by accessing the course's chronological archive (The International Music Institute Darmstadt Archive-IMD) were then interpreted.

**Keywords:** new music, Darmstadt, atonality, twentieth-century music, 1950

## 1. INTRODUCTION

The pursuit of innovation has always been one of the fundamental elements of development. The transitions between periods in the history of music have also occurred through such pursuits. As in every area of life, the basic cause of development and change in music rests on humanity's hunger for novelty and difference. This desire for change manifested itself most clearly, within the history of music, in twentieth-century music. Because the contemporary period witnessed, alongside the abandonment of tonality, the abandonment of traditional notation as well, it became the period with the most change in the history of music, and this process brought with it things that had never before been attempted or expressed. Even though atonality alone was sufficiently new and striking, the emergence and spread of even more innovative ideas did not take as long as it had in other periods.

The reason for the rapid proliferation of innovative ideas lies in elements brought by the era — such as technology — that ease and accelerate life. The wider sharing and dissemination of new ideas, however, could take place only after the wars had ended. With the help of technology, archiving music became easier, and the search for an independent musical language took shape. Thanks to recording techniques used in the archiving and documentation of local music, folk music could be documented not only through copying methods but also through sound recording, giving rise to the possibility of examining sources through scientific means. In this way, composers found the opportunity to develop their own languages through new styles. [1, p. 382]

The Darmstadt International Summer Courses for New Music, launched at the end of the Second World War, created a tremendous environment both for erasing the traces of war through art and for sharing new ideas. Given the unprecedented speed and diversity of innovations in twentieth-century music up to that point, it would be an accurate approach, for the purposes of detailed examination, to evaluate this century's music as falling into a period before and a period after 1950. For this reason, the present study, too, focuses on post-1950 music. Hosting numerous new ideas and movements, post-1950 new music gained tremendous momentum from the late 1940s onward. Developments in music, particularly between 1950 and 1960, represent the entry into the final period of twentieth-century music. This study emphasizes, through the framework of the Darmstadt International Summer Courses for New Music, the importance of the first decade of new music's rapid progress and transformation after 1950. Beyond the many factors influential in the emergence of these changes, the connections among some of the composers who took part in these developments, and their contributions to the literature, cannot be denied. The most influential names among these composers are Karlheinz Stockhausen (1928–2007), Pierre Boulez (1925–2016), John Cage (1912–1992) and György Ligeti (1923–2006). Because these four composers carried greater weight and popularity at the Darmstadt International Summer Courses for New Music than other composers, this study was conducted specifically around Stockhausen, Boulez, Cage, and Ligeti; other composers are not examined in depth, and information is provided only for those directly related to the composers specified.

This research aims to address, through the framework of the Darmstadt International Summer Courses for New Music, the development of modern music and the creative output and importance of the leading composers of that period. One of the institutions that established the network of sharing, knowledge, and communication in the field of new music after the second half of the twentieth century was the Darmstadt International Summer Courses for New Music. This study has been shaped around four figures present at these courses who became more popular than their contemporaries. Because the number of articles directly concerning the Darmstadt International Summer Courses for New Music in the literature is very limited, this research is intended to contribute to the literature.

The Darmstadt International New Music Courses hold great importance for assessing how the transition to modern music occurred and where it arrived. This study underscores an important turning point in the history of music by examining Darmstadt's role between 1950 and 1960, the innovative musical understanding of the period, and the musical developments of the postwar era.

## 2. METHOD

This study was conducted using the historical-research and document-analysis designs among qualitative research methods, with the aim of revealing the point reached, and the development of, new music in the first decade after 1950. Through a literature review of scholarly publications (books, articles, theses), the musical movements between 1950 and 1960 and the methods and styles developed and used by composers in their works were examined; the chronological archive of the Darmstadt International Summer Courses for New Music (the IMD Archive)<sup>1</sup> was accessed online, and the findings were interpreted.

<sup>1</sup><https://internationales-musikinstitut.de/en/chronik/ferienkurse-1946-1966/>

### 3. FINDINGS

#### 3.1. NEW MUSIC

"New music" is a name generally given to twentieth-century music. The reason the music is characterized as "new" is that, from this century onward, music came to be treated in an almost entirely different way. Innovations emerging across a wide spectrum extending from harmony to the parameters and techniques employed constituted twentieth-century music.

Anton Webern expressed his view on new music as follows: "New music is that which has never yet been said. Therefore new music can say what happened thousands of years ago just as well as what is happening now, so long as it emerges as something not said before" [2, p. 15].

The changes and innovations that occurred in music in the twentieth century did not happen suddenly; as in other periods, they occurred within an unplanned cycle, through the contributions each twentieth-century composer made to music through their compositions. Griffiths makes the following observations on the subject:

Periods do not begin or end; they merge into one another stage by stage, and yet 1908 witnessed a special and decisive moment in music history — Schoenberg's completion of his first compositions requiring no harmonic system based on major and minor tonalities, and his student Anton Webern's swift following of him in a revolution. This new music, mostly defined as "atonal," encompassed every type of note combination within its chords; by contrast, each particular piece could be arranged, consciously or intuitively, in wholly definite and specific forms. [3, p. 221]

In order to understand the development of twentieth-century music, it will be useful to review in broad terms the movements it encompasses:

##### 3.1.1 Serialism, Total Serialism

The purpose of the twelve-tone technique, the most important building block of serialism, is to use atonality within an order [4, p. 488]. The twelve-tone system created by Schoenberg is founded on the idea that, within a row constructed from all the notes of the chromatic scale, one pitch cannot be repeated until the other eleven notes have been played. Over time this idea was developed further, with other parameters (nuance, timbre, tempo, dynamics, etc.) also being placed into a row order, giving rise to the style known as *total serialism* [5, p. 4].

The underlying motivation of serialism is to move beyond the limitations that come with tonality and to create a different language of expression in music. It can be said that the Darmstadt International Summer Courses played a fairly active role in the development of total serialism. The courses provided an environment suited to composers' desire to radically transform the traditional language of expression by moving beyond serialism.

##### 3.1.2 Musique concrète

*Musique concrète*, which lit the way for electronic music, is based on the use of sounds recorded on tape. In *musique concrète*, sounds recorded from nature (such as birdsong) or from everyday noise (such as train sounds) were used after being transformed and blended. Electronic music, in turn, took *musique concrète* as its starting point but used sounds produced in an electronic medium rather than recorded sounds. Both movements essentially adopt a view that excludes the performer, though over time this view came to a point where electronic music was also used together with traditional instruments and performers.

##### 3.1.3 Electronic Music

Electronic music emerged as a result of experiments in auditory recording technique. Three phases can be discussed within electronic music. The first phase can be defined as the phase in which the composer produced material and recorded it onto tape, removing the performer and the score from the network of events. The second phase is the music made with sound recordings, as encountered in *musique concrète*. The third phase emerged from the reintroduction of the elements of stage and performer to the sound materials used in the other two phases [6, p. 521].

##### 3.1.4 Experimental Music

Built on the idea that everything should be tried, experimental music showed itself through especially extreme examples, particularly in post-1950 music. While its earliest examples involved pushing or altering the limits of an instrument, or adding material to it, experimental music also progressed in the direction of developing technology and the increasingly widespread use of electronic instruments. Written by Stockhausen in 1995, *Helikopter-Streichquartett* (Helicopter String

Quartet) is regarded as the most difficult work to perform, since it requires four musicians, airborne simultaneously in four helicopters, to play and sing the composer's written directives at once through headphones and microphones.

### 3.1.5 Aleatoric Music

Aleatoric music, an extension of experimental music, can be defined as a movement in which composers take chance as their basis. This movement also incorporates improvisation and includes elements that develop the experimental dimension of composition. It is constructed on rules that vary from composer to composer [7, p. 9]. Fundamentally, the origin of aleatoric music — that is, the idea of making music without adhering to a fixed order or sequence — dates back to earlier periods.

## 3.2. COMPOSER APPROACHES IN TWENTIETH-CENTURY MUSIC

Although there were still composers in the twentieth century who continued the tradition of tonal music, as a consequence of atonality and rhythmic experimentation, the melody–accompaniment relationship ceased to be a matter of concern. Styles of writing emerged in which the parts were used equally, complemented one another, and were more rhythmically oriented. Beyond these rhythmic approaches, the fact that works were not tonal also created difficulty in following them musically. While the music of earlier periods was evaluated only in terms of the forms used and composers' own established styles, the multiplicity of styles used in twentieth-century music makes this evaluation a different and multifaceted matter. When examining twentieth-century music, it would be wrong to evaluate it, as in earlier periods, through a single style or movement, because the vast majority of composers who produced works in this period wrote not in a single style but in many different styles. While some of these composers formed a single style of their own, others adopted polystylistic<sup>2</sup> approaches, using many different styles together.

Twentieth-century music continued to reflect emotions as in previous periods, but did so in a different, mathematical, and multidimensional way. This mathematical and multidimensional quality resulted in complex rhythms and in composers' insatiability and perfectionism regarding technical virtuosity. Particularly in post-1950 new music, the tradition of virtuosity inherited from the Romantic period was developed to an extreme degree, and as composers' expectations of superhuman performance increased, the importance and value of performers grew in proportion. The most important reason for this requirement of superior performance was the development of the concept of rhythm in the twentieth century. This situation arises as a natural consequence of the combined use of multiple, subdivided, and complex rhythmic groups. The complex notation used gave rise, in some twentieth-century works, not only to difficulty in following the parts but also to points requiring almost mathematical analysis. At this point, once again, the performer's ability comes to the fore.

Although not true of all its examples, twentieth-century music was rejected by most listeners because of its departure from tradition. Despite this opposition, however, music changed in an extremely striking way. Although the new generation of composers was not welcomed by every segment of society, they continued what they were doing, and as a result began organizing festivals and courses where they could both be more among themselves and also make their voices heard [8, p. 499]. One of these was the Darmstadt International Summer Courses for New Music.

### 3.3. DARMSTADT

Darmstadt is a city belonging to the state of Hesse, located south of Frankfurt, that has hosted many civilizations over the centuries. Having been the capital of the state of Hesse before the Second World War, Darmstadt lost its status as capital after suffering heavy destruction in the war [9, p. 122]. The city, having been almost entirely destroyed, had to be rebuilt in every respect. The city administration, however, launched this reconstruction not merely as the building of structures but simultaneously in the fields of education, science, and art as well, and through this movement of rebirth caused Darmstadt to come to the fore and assume a leading role in many fields. The reason Darmstadt came to occupy a leading role cannot be limited solely to its rapid recovery. Even before the wars, Darmstadt, through the policies of its administration, had always held an important position as a center of industry, science, and culture.

Aware that they could not resolve societal recovery through politics alone, the city administration also swiftly brought cultural activities to life. "In the autumn of 1945, the first concerts, lectures, and art exhibitions were organized. In December 1945, the Hesse State Theatre began temporary performances at the Orangerie. In order to give voice once again to contemporary music, which had been banned after 1933, the 'International Summer Courses for New Music' was founded in 1946" [9, p. 123]. While the International Summer Courses for New Music was established to help a society get back on its feet, over time it came to occupy an important position for contemporary musicians throughout the world.

<sup>2</sup>Used to mean the combined use of more than one style at once, i.e., multi-stylistic.

### 3.4. DARMSTADT INTERNATIONAL SUMMER COURSES FOR NEW MUSIC

The Darmstadt International Summer Courses for New Music began its first activities in 1946 under the direction of Wolfgang Steinecke.<sup>3</sup> The summer courses were held every year until 1970 and have been held every two years since then. While there were very few instructors teaching in the early years, as the years passed and the course's name became more widely known, the range of instruction diversified and the number of instructors began to increase. Master courses are held not only in composition but also in instrumental and chamber-music disciplines. The teaching staff of the summer courses has frequently been changed, both for the sake of diversity and to sustain development and benefit from different points of view.

All the composers who took part in Darmstadt, whether as instructors or simply through their works, form interlocking rings, so to speak. Participants are mostly connected to one another in some way through teacher–student relationships. For this reason, the dynamic of the Darmstadt International Summer Courses for New Music is quite distinctive, and this is regarded as one of the reasons the courses have continued for so long. The importance of practice and observation in music cannot be denied, and interactions became inevitable within the environment provided by the Darmstadt International Summer Courses for New Music.

In 1946, the first year of the Darmstadt International Summer Courses for New Music, Wolfgang Fortner and Hermann Hei taught in the composition discipline. In the concerts organized in the course's first two years, works by Paul Hindemith, Igor Stravinsky, and Béla Bartók were performed more often than those of well-known composers; in subsequent years diversity gradually increased, and works by the composers naturally teaching at the courses were performed, while works by composers such as Arnold Schoenberg and Olivier Messiaen also began to appear more frequently in concerts. Besides these names, the works of many more young composers of various nationalities took their place in the concerts each year.

The opening of the course in 1948 with W. A. Mozart's comic opera *Così fan tutte* (Thus Do All Women) can be regarded as a gesture of respect toward the past. It is one of the rare tonal-work interpretations at the course. The staging of *Così fan tutte* at Darmstadt can be interpreted as resulting from the city's deep-rooted cultural and artistic tradition, as well as from the work's structure — open to contemporary interpretation both musically and dramaturgically — which allowed the classical opera repertoire to be reinterpreted in line with current aesthetic understandings. In this context, the staging of the work at Darmstadt can be seen as an interpretation in which the traditional repertoire was brought together with an innovative approach to staging.

In 1949, Wolfgang Fortner and René Leibowitz headed the composition courses. Works by composers who would later achieve great developments in their compositional careers, such as Bruno Maderna, and by composers of the preceding generation, such as Aaron Copland, also appeared at the course.

In 1950, Ernst Krenek and Edgard Varèse taught in the composition discipline of the Darmstadt International Summer Courses for New Music. Although Krenek had previously participated with his works, he took part as an instructor for the first time in 1950. According to the IMD archive records, Varèse, that same year, realized the course's first electronic-music event. Although he did not teach at the course continuously, the classes Varèse gave are significant because they introduced electronic music to other musicians. These classes inspired many musicians and guided many composers, up to and including Stockhausen, who would later be referred to at the course as the father of electronic music.

In the same year, the German musicologist Theodor W. Adorno appeared at the course for the first time, and later remained an important part of it for a very long time. Particularly with Adorno's arrival, the course ceased to be merely a place where music education was given and knowledge shared, and took on the character of a school where talks and discussions were also extensively held. It is known that Adorno also influenced young new-music composers through these discussions. It is striking that Adorno, as a Jew, was one of the most influential figures at a new-music course opened after the war (new music having been banned under the Nazi regime). Adorno's importance at the Darmstadt International Summer Courses for New Music lies in the aesthetic and philosophical foundations on which he grounded his ideas concerning the understanding of modern music.

Initially a member of the institution known as the Institute for Social Research, Adorno, when the institution split into two over differences of opinion, remained on the side that would later be called the Frankfurt School. "The most important subjects of the Frankfurt School are, above all, philosophy, as well as psychoanalysis, aesthetics, music, culture, sociology, politics, and Marxist and critical theory. After Horkheimer became director, more publications were produced on art and aesthetics, and Adorno's influence on this was undoubtedly considerable" [10, p. 528].

Pierre Schaeffer, who came to Darmstadt in 1951 to teach, discussed at the summer courses his most skillful pursuit of those years, namely *musique concrète*, and made his first work presentation with *Symphonie pour un homme seul* (Symphony for One Man Alone, 1949–50), written with Pierre Henry, and *Orphée 51 pour bande et voix chantée* (Orphée 51: for Tape and Sung Voice, 1951). Pierre Schaeffer had studied engineering at university and turned to music later, producing pioneering work by combining his two areas of talent. Schaeffer's *Symphonie pour un homme seul* is a multi-

<sup>3</sup>German musicologist and music critic.

movement work consisting of 22 movements (12 movements in its reduced version). Despite being an avant-garde work, its multi-movement structure can be characterized as a gesture of respect for, or emulation of, the music of earlier periods (multi-movement Renaissance–Baroque works). Before this work's presentation, Schaeffer had already begun producing *musique concrète* in 1948 at the French radio studios in Paris [3, p. 265].

It is quite striking that Adorno, better known for his identity as a musicologist, also took part in the Darmstadt summer courses that same year with his work *Vier Lieder nach Gedichten von Stefan George op. 7* (Four Songs on Poems by Stefan George, 1944). His choice to compose based on poetry is also a reflection of Adorno's multifaceted intellectual personality.

In 1952, Messiaen, who had participated with his works in the composition courses of the Darmstadt International Summer Courses for New Music since 1948, came to teach. In the same year, Boulez, one of Messiaen's students, took part in the courses with his works *Deuxième sonate pour piano* (Second Piano Sonata, 1948) and *Deux études concrètes* (Two Concrète Etudes, 1952). Boulez produced his *concrète* work for tape, *Deux études concrètes*, in Schaeffer's studio, following Schaeffer's first presentation at Darmstadt. Although he had experimented with it himself, Boulez's finding *musique concrète* too simple led Schaeffer to expand his work in the field of electronic music even further [6, p. 515]. This shared type of composition and joint use of studios again attests to the exchange of knowledge and inspiration at the Darmstadt International Summer Courses for New Music, and to its contribution to the development of new music.

With the publication of the Second Piano Sonata (1946–48), Boulez's persona began to be identified with the avant-garde. Composed of four movements, this work is characterized by an intense contrapuntal style and demands formidable technical skill. Irregular, variable gestures pervade this score in a manner rarely seen before in the piano literature. [11, p. 7]

In 1952, the young Stockhausen also took part in the summer courses for the first time with a chamber work he had written for oboe, bass clarinet, piano, and percussion, titled *Kreuzspiel* (Cross-Play). "Walter Friedlander criticized the uncompromising serial rigidity of some of the 'pointillist'<sup>4</sup> pieces performed at the 1952 Darmstadt concert of new works by young composers, which included *Kreuzspiel*" [12, p. 62]. "In 1952, Stockhausen went to Paris to attend Messiaen's aesthetics and analysis class. In his meeting with Boulez, when Boulez showed him *Structures I* (completed in 1952 and first performed at Darmstadt in 1955), on which he was still working, they spoke about the most recently composed pointillist works" [13, p. 143]. Although pointillism, too, became a subject of debate after being presented at Darmstadt, it is a type that many composers considered worth experimenting with.

Karel August Goeyvaerts, a student of Messiaen who had participated in the Darmstadt International Summer Courses for New Music since 1951, drew particularly on the works of Webern and Messiaen as sources for himself in the early 1950s. He attempted to develop, in his own works, elements he had taken from them, and was influenced by Webern's structural use of pitch and by the displacement of motifs in Messiaen [14, p. 32].

Messiaen attributed his development in his works to the questions his students asked him, stating that these questions pushed him toward studies he could not even have imagined [14, p. 29]. In the creative process, a composer's drawing on different sources and disciplines to build a rich intellectual and artistic accumulation is one of the fundamental factors determining the originality of the resulting output. "It was Messiaen who, in the piano piece *Mode de valeurs et d'intensités* (Mode of Durations and Intensities), first wrote a piece based on a series of dynamics alongside separate series of pitches and durations" [3, p. 266]. The work is based on a row of 24 notes, each with a predetermined duration, dynamic level, and timbral quality (touch) [15, p. 159]. Griffiths explains the impact Messiaen created at Darmstadt in the following words:

When Messiaen's *Mode de Valeurs*, written in the total-serialist style in 1949–50, was presented at Darmstadt in 1951, it drew the close attention of Stockhausen, who was attending the course for the first time that year, and made a strong impression on the still very young composer. What impressed him in *Mode de Valeurs*, which he described as "the fantastic music of the stars," was that the music presented itself as composed of individual notes — notes that existed in complete freedom within themselves and were created in a manner significantly isolated from one another. Stockhausen's experience with *Mode de valeurs*, together with his discussions with two other young composers at Darmstadt, Goeyvaerts and Nono, set the composer on a new path in his music. [14, p. 31]

Herbert Eimert's invitation to Stockhausen in May 1951 to take part in a program on contemporary music for NWDR Radio Cologne (Northwest German Radio, later WDR, West German Radio) constituted a triggering force for the composer's work in electronic music [12, p. 25]. Stockhausen, very young at the time, developed his work through inspiration drawn from many sources and, in this way, mastered electronic music.

Starting in 1952, a marked increase began to be seen in electronic-music performances at the Darmstadt International Summer Courses for New Music. Stockhausen, whose name would later always be associated with the electronic-music

<sup>4</sup>A painting technique that uses colors applied in dots. In music, it refers to the application of individual attack/force to each note.

work of the Darmstadt International Summer Courses for New Music, made his first participation with electronic music at the courses in 1955. In 1955, he took part with both *Klavierstücke V–VIII* (Piano Pieces V–VIII) and the electronic work *Studie II* (Study II). After 1957, Stockhausen, still young, took his place at the course as an instructor. His years of teaching there span 1951–78, and between 1978 and 1988 he was present at the Darmstadt summer courses only through his works.

In 1956 at Darmstadt, Boulez's work *Le marteau sans maître pour voix d'alto et six instruments* (The Hammer without a Master, for alto voice and six instruments, 1952–55) was performed. In this work, still regarded today as one of Boulez's most important, the composer created a musical expression equivalent to surrealist poetry [11, p. 9]. It is a multi-movement chamber cantata. Boulez, too, employed the tradition of multi-movement form seen in earlier periods. "The exotic instrumentation in *Marteau* (Hammer) is a typical example of Boulez's style of instrumentation, favoring resonant instruments — that is, instruments over whose sound the performer relinquishes control once the note is struck. The work also draws on original vocal techniques such as *Sprechstimme*<sup>5</sup> and murmuring" [11, p. 9].

Like many composers, Boulez was one of the great advocates of Webern, and at the same time chose, as consciously as possible, to disregard Schoenberg's music. In Boulez's early works, such as the *First Piano Sonata* (1946) and *Sonatine for Flute and Piano* (1946), the influence of Webern's serialism in particular, and of the rhythmic understanding derived from his teacher Messiaen, are clearly visible [11, p. 7]. "In the first book of *Structures*, written for two pianos, Boulez explored the serialization of parameters other than pitch and the proliferation this could give rise to. With his compositional path determined by serial lines, Boulez spent much of his energy on disseminating his own music and that of like-minded contemporaries" [11, p. 7]. Goldman's observations on Boulez very clearly reveal the role the composer's active involvement at the Darmstadt International Summer Courses for New Music played in the formation of the knowledge network and the expansion of its sphere of influence.

The year 1958 is the year in which John Cage, the controversial figure of avant-garde music, first took part in the Darmstadt International Summer Courses for New Music to teach. Cage's arrival is regarded as the moment when the course's direction changed. He took part in the summer courses with works such as *Music for Two Pianos*, *Music of Changes for Piano* (1951), and *Variations I* (1958). "In his piano work *Music of Changes* (1951), he uses the method of coin-tossing to determine the duration and intensity of musical events — a time-consuming process similar to that of a complex digital system" [3, p. 268]. This work can be shown as an example of aleatoric music. A follower of spiritual traditions such as Zen Buddhism, Cage used the dimension of chance in this work only in the compositional process. Kaya Elivar [16, p. 384] notes that this work, consisting of four books, is the first musical example in which the elements of chance draw on the I Ching (Book of Changes), a text that emerged in China thousands of years ago. In addition, the composer has many works in which he employs chance; in these works, the outcome obtained in performances using the element of chance is always different.

In 1952, John Cage created a composition that would prove groundbreaking in the world of music: *4'33"*. Having begun his experimental work well before 1950, Cage was, in terms of experimentalism, ahead of many composers at the course. According to IMD archive records, his work *4'33"* (1952) — in which the performer opens and closes the piano lid and which contains no sound other than the ambient sounds of the environment — was never performed at the Darmstadt International Summer Courses for New Music between 1950 and 1965. When Ligeti wrote his work *Trois Bagatelles* (Three Bagatelles) in 1961, which closely resembles *4'33"* and contains no sound except for a single note in its third movement, he stated that he had had no knowledge whatsoever of Cage's work and that, had he known of it, he would not have dared to write such a piece [17, p. 122].

Undoubtedly, through the music in which he blended his many interests, Cage became one of the most sensational figures in twentieth-century music. Already quite active as a composer before 1950, he had begun writing his works for prepared piano while the word "avant-garde" itself was still only beginning to be uttered. According to Griffiths, "when Cage spent a few months in Paris to introduce his work for prepared piano, *Sonatas and Interludes* (1946–48), this visit influenced many people, among them Messiaen's student Boulez" [14, p. 29]. Griffiths [14] also states that the definition of the four characters of sound found in Cage's essay "Forerunners of Modern Music" influenced Boulez, and that the treatment of these four characters formed the foundation of total serialism. These four characters are called duration, amplitude, frequency, and timbre.

Another name who first appeared at the Darmstadt International Summer Courses for New Music in 1958 is György Ligeti. Ligeti came to Darmstadt with his electronic work *Artikulation*, written at the Cologne Studio for Electronic Music (WDR). Since Ligeti's number of electronic works is only two, these works can be interpreted as experiments; the composer did not adopt electronic music as a style. Steinitz's following words support the notion that these works may have been experiments carried out in light of other composers: "In 1955, Stockhausen greatly admired *Artikulation*, despite its coincidental resemblance to the works of Maderna, Berio, and Nono broadcast on Italian Radio in Milan" [17, p. 8]. "For Ligeti, music should not evoke a thing but should be the thing itself; sounds, just as in *Artikulation*, needed to speak in their own language and did not need to possess another, higher tonal or serial language in order to acquire meaning. They

<sup>5</sup>A vocal technique halfway between speech and singing.

could exist on their own" [18, p. 14].

At this point, since Ligeti's story before coming to Darmstadt differs from that of the other composers, it will be useful to briefly summarize the stages of his life beforehand. In Hungary, within the musical environment of the Second World War period, Ligeti remained in almost complete isolation, with hardly any knowledge of what was happening in the West. Because of postwar political obstacles, he had access to almost no information related to avant-garde music. From 1955–56 onward, Ligeti, trying to broaden his horizons by listening to recordings brought by friends and to certain radio programs, only began, at the comparatively late age of thirty-three, to learn what his Western contemporaries were doing. In 1956, by writing to Stockhausen and to Eimert, the director of West German Radio, he requested scores of his contemporaries' avant-garde work, and the information and scores he received, particularly concerning electronic music, proved a shattering experience for him [17, p. 66]. In the same year, because of the Hungarian Revolution, he fled his country for Austria, and a year later went to the Studio for Electronic Music in Cologne, where he wrote the work with which he would first take part at Darmstadt. Ligeti emphasized the importance of this studio, and of Darmstadt, in his life by stating that, had he fled to England, to his uncle's home, instead of going west, the Cologne–Darmstadt encounters would never have taken place [17, p. 34]. Ligeti's remarkable openness to innovation is directly proportional to how late he arrived at avant-garde developments, and his rapid adaptation is striking. Ligeti began teaching at Darmstadt for the first time in 1959, and was more prominent at the course in his role as an educator.

In 1959, at the Darmstadt International Summer Courses for New Music, Luigi Nono, Stockhausen, and Ligeti were among those conducting composition and theory classes. Many works by Stockhausen and Boulez were presented that year. In 1960, Boulez, Ligeti, and Maderna headed the composition classes. Between 1959 and 1962, the weight carried by Pierre Boulez and Bruno Maderna at the courses increased.

Copland recounts what Boulez and his associates wanted to achieve in new music as follows:

After the war, we all felt that music, like the world around us, was in chaos. Our problem was to create a new musical language by determining what had been good and what had been bad in the past. Around 1950, and for the following three years, we entered a period in which we tried to establish complete mastery over music. What we were trying to do through total serialization was to destroy the predetermined system in favor of the composer's will. [19, p. 163]

According to Maconie [12, p. 36], Darmstadt, which became a central hub in the postwar period, and the understanding of new music that developed in this city, represented not merely the reconstruction of Europe's industrial and urban infrastructure but also a profound cultural and spiritual renewal.

#### 4. CONCLUSION

Between 1950 and 1960, the Darmstadt International Summer Courses for New Music played an important role in shaping the contemporary understanding of music. The influence of the courses on the resurgence of avant-garde music, banned after the Second World War, is of considerable importance. In the years 1950–60, particularly with regard to the development of avant-garde and experimental music, the courses were not merely an academic educational platform but also a meeting point contributing to the evolution of new-music movements. Darmstadt became a center where young composers, both Western and international, encountered innovative techniques and aesthetic pursuits.

Movements and styles that rapidly emerged in new music — total serialism, electronic music, *musique concrète*, aleatoric music, experimental music, pointillism — continued to advance at the same pace. The blending of new techniques with new modes of thought, the increasing ease with which composers gained access to one another and to the music and instruments of other countries, and the proliferation of formations such as Darmstadt made a highly significant contribution to the development of new music. In this period, new music reflected not merely a technical innovation but also an ideological transformation process. Through its international identity, the Darmstadt Summer Courses played an active role in the stage of cross-national sharing in new music and, correspondingly, in the development of new styles and forms. Under the leadership of figures such as Pierre Boulez and Karlheinz Stockhausen, the theoretical approaches that developed at the courses pushed the boundaries of musical language, opening up an unprecedented field of freedom and diversity in musical production.

In conclusion, the Darmstadt International Summer Courses for New Music were not merely an educational institution but also a pioneer in the process of creating an artistic and cultural revolution during the years 1950–1960, a key turning point in the historical evolution of modern music. These courses continue, to this day, to be influential on contemporary understandings of new music and compositional techniques, and to sustain their functionality.

#### DATA AVAILABILITY

All data supporting the findings of this study are included within the article.

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## CONFLICTS OF INTEREST

The author declares that there are no conflicts of interest regarding the publication of this article.

## DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author used ChatGPT to improve the language and readability of the text. Following the use of this tool, the author carefully reviewed and revised the manuscript to ensure its accuracy, integrity, and scientific rigor. The author takes full responsibility for the final content of the manuscript.

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