

Milton Babbitt: Serialism and its theory as a serious art form

Music has been around since mankind began. Throughout the times, music has changed dramatically as it proceeded through different periods. Each different sound and style has been studied, classified, and defined by musical composers and scholars. As music has developed, it has become an expectation in western culture to study musical theory and common practice in order to be considered highly educated in music. This idea of common practice covers the “rules” of the classical modes of composition followed by the likes of Bach, Mozart, Beethoven, and others of their time periods. Throughout the late Romantic period and into the twentieth century, music began to take a drastic turn. With the intellectual changes of western culture during the World Wars, people began to look for a focus on highly structured society, and this idea transferred into music.¹ Contemporary composers of the likes of Schoenberg, Berg, and Webern followed this idea with the development of serialism and twelve-tone music. Their music was then analyzed and a new theory was established – that of the twelve-tone theory. None was as influential in this development as Milton Babbitt. As a composer, Milton Babbitt broke through many boundaries in the world of serialism as well as exploring the world of electronic music. Even more important than his compositions, however, are his many essays and lectures over the theory and influence of twelve-tone music and the future of the composer. Through his writings and lectures, Babbitt worked to expose the musical world to the twelve-tone system and increase their awareness and understanding. His insistence on the development of music as an

¹ Paul Griffiths. “Serialism.” *New Grove Dictionary of Music and Musicians*, 2nd ed. Edited by Stanley Sadie and John Tyrrell, 23:116-123. (London: Macmillan, 2001.)

intellectual art form is apparent in his intensely theoretical writing and essays published throughout his lifetime.

Milton Babbitt was an American composer and theorist. He never left the United States to pursue studies abroad, but rather enjoyed the culture of music that was born through the immigration of European composers and musicians. Born in 1916, he grew up with a large musical focus, studying violin, clarinet, and saxophone as well as composing and performing in jazz ensembles from the age of four through high school. He was also extremely intellectual as was influenced by his father (an actuary) and began his collegiate career studying mathematics before transferring to New York University to study music. He thrived on the culture and intellectual society of New York City and continued to live in the New England area throughout his lifetime. Throughout his studies his interest in Stravinsky quickly grew into an obsession with the music of the Second Viennese School: Schoenberg, Berg, and Webern. Throughout his life he continued to focus on intellectual development, continuing to study mathematics and teach while also composing and writing essays and reviews as well as giving lectures over the new art of serialism. He held positions at Princeton University in mathematics and music as well as holding professorships at Julliard, Berkshire Music Center, New England Conservatory and Darmstadt. His theoretical studies and writings have been published in many journals as well as compiled in a book entitled "*The Collected Essays of Milton Babbitt*". He also has given numerous lectures, the most influential of which

were his Madison Lectures entitled “*Words about Music*”, which have also been transcribed and published. Babbitt passed away in January of 2011 at the age of 94.²

Milton Babbitt’s main theoretical and compositional focus was on serialism (a component of which is 12-tone music) and the 12-note compositional technique. His fascination began during his time in school. He studied a book by Marion Bauer entitled “*Twentieth-Century Music*” which focused on the importance of Schoenberg and Stravinsky’s music and how it has affected the intellectual music of the times. While he was in school in New York, he was able to converse with Schoenberg on a few occasions and enjoyed studying and attempting to theorize the new technique that Schoenberg had approached. The common public at the time, and even most music scholars, were turned off by the idea of 12-tone music because they did not understand it. They wanted to be able to listen to it and make sense of it; this however was not “possible” in their minds, and so it was often shrugged off. Babbitt began to take interest in this music though, and in figuring out how it worked. He became obsessed with analyzing the works of Schoenberg in particular. He wanted to find a way that he could present this music to the public: to educate them in a way that would help the art form thrive. One of the things that he quickly began to learn is 12-tone music does not necessarily revolve around counting up to 12. This is such a rigid structure, and though the formal idea revolves around the idea of equal note-expression, the idea of 12-tone

² Elaine Barkin and Martin Brody. “Babbitt, Milton (Byron).” *New Grove Dictionary of Music and Musicians*, 2nd ed. Edited by Stanley Sadie and John Tyrrell, 2:283-289. (London: Macmillan, 2001.)

music is much more free and liberal than this theory allows.³ As he began to realize this, it became easier to conceptualize and explain the theory behind 12-tone music. This is where he began to write essays and articles analyzing the works of many different 12-tone composers.

Milton Babbitt generally focused his study of 12-tone music and examples used on four particular pieces: Schoenberg's String Quartet No. 4, Bartok's String Quartet No. 4 and 5, and Stravinsky's Movements. Although there are many 12-tone pieces that he could have chosen from, his use of these particular pieces in excess helps to tie all of his written theoretical works together. With a total of almost fifty essays written in his lifetime as well as numerous lectures, the importance of a cohesive idea and representation is an aspect that has helped to guide his focus and strengthen his arguments. It was through this collective focus that Joseph Strauss and other students were able to compile information for future generations studying this genre and style.

In order to truly understand Babbitt's collection of theoretical writings, it is best to have an understanding of some of the common terms that he discusses. Babbitt in general wrote in a highly technical fashion. With rambling, run-on sentences and technical terms that were invented from an intellectual and mathematical mind, the reading for the current-day student can be taxing.⁴ Many

³ Milton Babbitt. "The Twelve-Tone Tradition." In *Words About Music*, edited by Stephen Dembski and Joseph N. Straus. (Madison: The University of Wisconsin Press, 1987.)

⁴ Bryan R. Simms. "The Collected Essays of Milton Babbitt (review)," *Music and Letters* 86.1 (February 2005): 157-160.

of the theoretical terms used to discuss serialism were in-fact invented or applied by Babbitt originally as he attempted to generalize and explain this new art. Some of the most common terms he used were combinatoriality, transpositional, inversive, aggregates, and derivation. These terms followed the ideas of the advanced intellectual side of the music. The combinatoriality refers to the idea that one set of pitch classes can be changed under an act of transposition or inversion to form a complete 12-note series. This idea is usually used in reference to hexachords although it can also be applied to trichords or tetrachords. This complete series is also often referred to as the aggregate: a term more often used in mathematics and sciences in reference to a collection of items that together form a total quantity. In a similar way, specific pairs of hexachords (or a set of four trichords or three tetrachords) can be combined to form an aggregate, or collection of the chromatic scale, which is considered a complete series in the current system. Through the use of certain formations of this aggregate set, the composer of 12-tone music can then derive other ordered representations of the aggregates. These different versions of the aggregate are referred to as sets or rows. The idea behind derivation is again similar to that in mathematics, using specific theoretical properties to obtain a new set based on its parent. In serialism this occurs through specific serial transformations (again transposition and inversion). These terms used were formed based on Babbitt's mathematical background and are used as common terminology in his essays and have transferred into modern musical theory.⁵

⁵ Milton Babbitt. *The Collected Essays of Milton Babbitt*, edited by Stephen Peles. (Princeton: Princeton University Press, 2003.)

One of the biggest arguments people had against 12-tone musical theory and serialism was the belief that the music was too difficult to understand. They believed that the mathematical influence made listening to the music simply impossible. Babbitt's goal was to clear up this misunderstanding. In order to do this, he had to prove that the analysis of 12-tone music, though mathematical in the usage of numbers, is not actually mathematical but still an aural exercise. "The limits of music reside ultimately in the perceptual capacities of the human receptor, just as the scope of physical science is delimited by the perceptual and conceptual capacities of the human observer."⁶ One of his arguments was the number usage. Though numbers are often used to denote the compositional technique and background used in serialism, they are not the music itself.

The music doesn't come from the numbers. The numbers come from trying to represent just that much [intervallic relationships] in the music." ... "These numbers happen to be a real connection to the past. They function exactly the way numbers do in figured bass. They simply measure the intervals between pitch classes."⁷

This understanding not only was important for listeners, but also for the adventurous composer. Often times the composer would become "stuck" on the numbers and forget that they were still writing music. Babbitt wanted them to understand that they are still writing music focused on the ear of the human listener. Too often the composers would become side tracked and believe that

⁶ Milton Babbitt. "Past and Present Concepts of the Nature and Limitations of Music." In *The Collected Essays of Milton Babbitt*, edited by Stephen Peles, 78-85. (Princeton: Princeton University Press, 2003.) Pg. 84.

⁷ Milton Babbitt. "The Twelve-Tone Tradition." In *Words About Music*, edited by Stephen Dembski and Joseph N. Straus, 3-32. (Madison: The University of Wisconsin Press, 1987.) Pg. 20.

the music was all about the minute details of the intervals and relationships and forget that there was still an important aspect of the listener and the importance of them being able to convey the image of the music in the time of the piece.⁸

Babbitt also was able to connect 12-tone music as a semi-extension of the ideas of music from the early twentieth century and before. Program music had become highly popular in the current society. In his essay entitled “*Aspects of Twelve Tone Compositions*”, Babbitt discussed how the concept of program music could also be applied to 12-tone music. In his mind, this new form of program music could be seen as more liberal.

Mathematics – or, more correctly, arithmetic – is used, not as a means of characterizing or discovering general systematic, precompositional relationships, but as a compositional device, resulting in the most liberal sort of “program music” whose course is determined by a numerical, rather than by a narrative or descriptive, “program”.⁹

This new take on the organization and theory behind 12-tone music development was one that he did not elaborate on much beyond this essay, but would stand out in his arguments for the musical aspect of the piece. This argument suggested a greater overall structure to music that was seen by most as a meticulous and detail-oriented style.

One of Babbitt’s favorite concepts to focus on was the idea of pieces writing themselves. In 12-tone music, the composer forms a set or row form that

⁸ Milton Babbitt. “The Twelve-Tone Tradition. “ In *Words About Music*, edited by Stephen Dembski and Joseph N. Straus, 3-32. (Madison: The University of Wisconsin Press, 1987.)

⁹ Milton Babbitt. “Some Aspects of Twelve-Tone Composition.” In *The Collected Essays of Milton Babbitt*, edited by Stephen Peles, 38-47. (Princeton: Princeton University Press, 2003.) Pg. 40.

has particular principles. These composers often would choose rows that contained in themselves different set forms that would build and expand upon themselves. This was apparent in the works of many pieces. The important thing to understand is that the composer builds a piece based on a set or series; they also have the ability to shift and work through the traits of this row, just as composers work through different modulations and tonalities in traditional tonal music. There are some common traits that carry through the idea of serialism and relationships that composers can use. One is the relationship between the rows by inversion. This generality is quite simple and valuable for the composer to build on a particular compositional technique. The idea is that the composer would

[T]ake two inversionally related lines, related by any interval, with any temporal relations whatsoever between them.¹⁰

By inverting them you “maintain only the relative temporal relation”. In similar terms, the composer is able to maintain interval relationships, thus connecting the harmonic properties while changing the row form to increase interest in the piece. This can be related to tonal musical ideas with the term counterpoint. Specifically, Babbitt referred to this as contextual counterpoint: the idea that you maintain the temporal relationship being maintained with completely different pitches. Schoenberg used this property of counterpoint often, where from Babbitt gleaned most of his musical understanding.

¹⁰ Milton Babbitt. “Contextual Counterpoint.” In *Words About Music*, edited by Stephen Dembski and Joseph N. Straus, 33-62. (Madison: The University of Wisconsin Press, 1987.) Pg. 41

Hexachords, as referred to before, are a main point of serial music. The reason behind this, according to Babbitt, is because of the properties that these hexachords contain. Many of his essays and analyses focus on the properties of the hexachord. It was his writings and studies that explained the hexachords used by Schoenberg. Schoenberg understood that there were special properties to the hexachords he was using, though not sure why they occurred. For Schoenberg, writing a row was more of a trial and error. In fact there were moments for Schoenberg while composing that frustrated him, as he could not manipulate the row that he was working with in ways that allowed him to continue to make the piece grow and develop. For Babbitt, his interest was more in finding out why and how the rows Schoenberg used worked and what other rows have those same properties. In the properties of hexachords, the emphasis on combinatoriality is important. There are six all-combinatorial hexachords, meaning there is an operation under transposition, inversion, retrograde, and retrograde inversion that will form an aggregate to the row form. For Schoenberg, these hexachords were the best rows to compose with because they build upon themselves so easily.

The all-combinatorial hexachords will be the underlying structures in a piece whether or not you begin with them explicitly.¹¹

Though Babbitt often talks about the simplicity of the ideas behind serialism, there are also many parts of the musical ideas that he understood to be more intellectual and difficult to understand. As a born mathematician and

¹¹ Milton Babbitt. "Contextual Counterpoint." In *Words About Music*, edited by Stephen Dembski and Joseph N. Straus, 33-62. (Madison: The University of Wisconsin Press, 1987.) Pg. 54.

“elitist” it is easy to see his higher level of thinking come through. This is the main topic of his essay “*The Composer as a Specialist*” (published under the title “*Who Cares if You Listen?*”). This essay was written and published in 1958. By this time, Babbitt had established himself as a composer and had begun to interpret musical theory. It had been 12 years since he had written his original dissertation over serialism and was beginning to fully realize the struggles that serialism would have in modern society. In this essay, he explores the idea of the advanced, or serious, composer. Just as many schools of thought had advanced to levels of understanding that could not be understood by the amateur, Babbitt proposed that serialism is the composer and musician’s approach to this higher level of thinking and understanding. Just as there are journals written by scientists at the university level that are above the level of “Popular Science”, so did he believe that the collegiate level should begin to foster this same idea of composers and musicians above this level. In contrast,

It often has been remarked that only in politics and the “arts” does the layman regard himself as an expert, with the right to have his opinion formed.

Again, it is asserted,

Specialized music on the other hand, far from signifying “height” of musical level, has been charged with “decadence,” even as evidence of an insidious “conspiracy”.¹²

This infuriates Babbitt, causing him to write this essay. As a composer and theorist on the topic of 12-tone music, it is understandable that Babbitt desired to

¹² Milton Babbitt. “The Composer as Specialist.” In *The Collected Essays of Milton Babbitt*, edited by Stephen Peles, 48-54. (Princeton: Princeton University Press, 2003.) Pg. 51.

see his music and ideas treated on a level equivalent to the work he had put into it and the university position that he held. He continues this essay with his theory on how to properly treat this new musical focus.

Though music as an art form to be shared, Babbitt also believed that music had different levels. It was not in his theory to expose the public to the contemporary music with the idea that familiarity will increase their interest and understanding of the music. Along the same lines, he did not believe in an “obligation to the public” Instead, he believe that the musical world must begin to separate its life, isolating the serialism composer into a different world.

By so doing, the separation between the domains would be defined beyond any possibility of confusion of categories, and the composer would be free to pursue a private life of professional achievement, as opposed to a public life of unprofessional compromise and exhibitionism.¹³

This to many would seem unreasonable as music is seen as an art form of performance and public exposure and critique. Besides the small community of university professors who would be at the peak of musical education, Babbitt seemed to be asserting that serialism would best thrive as being kept from the public. This was a controversial idea among the public and composers as well. For the composer, this was difficult to accept and often deterred them away for writing in this style. Being in isolation equated to the realization of having what Babbitt termed as “little, no, or negative commodity.” As a composer, this was not seen as ideal as this was the source of income and success in their eyes.

¹³ Milton Babbitt. “The Composer as Specialist.” In *The Collected Essays of Milton Babbitt*, edited by Stephen Peles, 48-54. (Princeton: Princeton University Press, 2003.) Pg. 53.

The isolation of serialism and 12-tone music has continued. The composition of this style of music has not grown and continues to be emphasized only among the elite university student and faculty. Higher levels of musical education do not often require the in-depth study or understanding of this style and it draws the interest of only a few. After the mid-twentieth century, this type of musical writing has begun to die off in the minds of composers, though the idea of serial principles have been practiced in a more minimal sense, rather than a complete focus for compositional technique.¹⁴ This short-lived idea was influential in the time and society, but was moved away from as society again moved on to a more liberal and artistic form in the late twentieth century. Some of Babbitt's students, particularly Joseph Strauss, have continued to pursue his theoretical ideas; many, including Allen Forte, David Lewin, and George Perle were influenced by his writings as well.¹⁵ This small population aside, the general public and even the majority of the elite educated do not continue to pursue his studies however and serialism has fallen to the way side in the process.

While Babbitt's actual compositional interest and serialism may have dwindled, his impact on the job of the American musician and theorist has been known. When Babbitt began studying music, the position of a theory professor or composer on faculty in higher education was fairly uncommon. Babbitt even was

¹⁴ Paul Griffiths. "Serialism." *New Grove Dictionary of Music and Musicians*, 2nd ed. Edited by Stanley Sadie and John Tyrrell, 23:116-123. (London: Macmillan, 2001.)

¹⁵ Bryan R. Simms. "The Collected Essays of Milton Babbitt (review)," *Music and Letters* 86.1 (February 2005): 157-160.

not able to secure a position as a music professor and theorist until later in his career, beginning first in the department of mathematics and not even receiving his PhD for his dissertation until about five years after it had been written.

Through his time at Princeton and his influence on the musical world's higher thinking level,

Babbitt heralded a role for composers within the academic community, where one could pursue what was analogous to research and development in other fields, like engineering and medicine.¹⁶

This would transfer into many musical studies throughout the United States, broadening the field of music and interest in studies beyond performance and conducting.

¹⁶ Robert Morris. "What Milton Babbitt Enabled," *Music Theory Spectrum* – *The Journal for the Society of Music Theory* 34.1 (Spring 2012) 19-21.