

**THE DELIVERANCE OF DISSONANCE:  
THE INFLUENCE OF ARNOLD SCHÖNBERG'S WORKS ON  
TWENTIETH CENTURY WESTERN CLASSICAL ART MUSIC**

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## **ABSTRACT**

This expository paper examines the evolution of Arnold Schönberg's music at the turn of the century; from his increasing use of chromaticism and free atonality, and his experimentation with novel tones and textures, to his development of the twelve tone or dodecaphonic method in music composition; the Second Viennese School. The twelve tone technique is demonstrated with the Suite for Piano, Op. 25; Schönberg's first published work using the method. The initial reactions of audiences to performances of Schönberg's work were either wonder, horror, or both. Even today, there is a widespread acknowledgement that works which evolved out of this School, referred to as Serialism, are perplexing, difficult to digest, somewhat esoteric and musically elitist.

Contrary to this popular belief, this new music system has established itself in an arena of popular culture which is readily consumed by the masses. In the same way that its predecessors of the First Viennese School (Mozart, Haydn, Beethoven) were intimately linked to the opera, works developed out of techniques of the Second Viennese School (Schönberg, Webern, Berg) have found a niche in the film industry and are infused in popular movie and television sound tracks to lend dramatic effect, engage audiences, support imagery and convey a wide range of emotion and atmosphere. Specific examples of twelve tone compositions in film scores are identified in the works of Bradley, Frankel and Goldsmith, renowned film composers, and briefly analysed.

## INTRODUCTION

By the end of the 19<sup>th</sup> century, composers had already begun their push past the boundaries that defined harmony and form in music for the past two centuries. The late Romantic era heralded the use of effect in music, such that natural sounds in the environment were mimicked through clever use of harmonic and melodic forms, to support an image or idea. In the early 20<sup>th</sup> century, influences of east Asia and eastern Europe introduced new tonal and rhythmic systems, and experimentation with novel sounds and composition techniques was pursued in an attempt to create that which was never before heard or felt through music. There was still, however, a predictability and structure that grounded the music to its traditional source. This was soon to change.<sup>1</sup>

## SCHÖNBERG – THE EARLY YEARS

Arnold Franz Walter Schönberg was born on 13th September, 1874 of Jewish Hungarian parents, in Vienna II in the then Austro-Hungarian Empire. He began studying violin at age eight and later taught himself composition by imitating the works of composers that he played, for example Pleyel and Viotti. When Schönberg left school, upon his father's death, he found a job as a clerical worker in a small private bank and pursued music part-time with two friends, David Josef Bach and Oskar Adler, with whom he formed an amateur ensemble performing chamber music for violin and cello. He even started composing quartets for string ensembles.

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<sup>1</sup>J. Peter Burkholder, Donald Jay Grout and Claude V. Palisca, A History of Western Music, 8th Edition, (W.W. Norton and Company, 2009), Chapter 31, p. 785-809.

During this time, he also joined an amateur orchestra conducted by Alexander von Zemlinsky, who had distinguished himself at the Vienna Conservatory where Brahms deemed his compositions noteworthy. Zemlinsky provided some formal instruction to Schönberg and was said to be the only regular teacher he ever had. With valuable feedback from Zemlinsky, Schönberg completed his First String Quartet in D major in 1897. It was performed in March 1898 by members of the Wiener Tonkünstlerverein (the Viennese Musician's Society), at Zemlinsky's request, and was deemed a success. This was his last truly tonal work, beyond which incremental steps toward the abandonment of triadic harmony and tonality became more evident.<sup>2</sup>

## THE EMANCIPATION OF DISSONANCE

In 1897, Schönberg's First String Quartet in D major (Opus 0) was composed and performed a year later. The 1<sup>st</sup> and 2<sup>nd</sup> movements are tonal. The 3<sup>rd</sup> movement hints the beginning of deviation, however, the 4th movement is decidedly classically tonal. Public reception is said to have been very good; perhaps the last time there was a fully positive audience reaction to Schönberg's music. In December 1900, public performances of his songs selected from Opus 1, 2 and 3 resulted in protests and, in Schönberg's own words, "From that time on, the scandal never stopped".<sup>2</sup> Verklärte Nacht Op. 4, the string sextet composed in 1899, was his first major

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<sup>2</sup> Oliver W. Neighbour, Arnold Schoenberg from The New Grove Dictionary of Opera (Biography), Oxford University Press. n.d.  
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/25024?q=schonberg&search=quick&pos=1&start=1#firsthit> (accessed March 2014).

work. This composition shows harmonic progressions using modulation techniques characteristic of Wagner, highlighting his increased use of chromaticism. It was, however, rejected by the Tonkünstlerverein's jury. Undeterred, he still managed to complete the *Gurre Lieder* in April, 1901. In 1902, *Verklärte Nacht* was finally performed by the Rose Quartet and members of the Wiener Philharmoniker (Vienna Philharmonic Orchestra). Schönberg is quoted to have described the reception as - "People said it sounds as if an orchestra playing Wagner's *Tristan and Isolde* got confused and mixed up".<sup>3</sup>

In 1907, the *Kammersymphonie*, Op. 9, was performed with the cooperation of the Rose Quartet and wind instrumentalists of the Wiener Philharmoniker. The *Kammersymphonie* featured chords built on fourths or quartal harmony, and dissonances without immediate resolution. This deviation from traditional harmony caused considerable unease among audiences. His *Second String Quartet*, composed in 1908 was his last work that carried a definite key signature. The first three movements, though tonal, are not traditionally so but rather like the first quartet, the expanded version of tonality prevalent in the late 19th century Romantic era. In a novel move, the third and fourth movements include a part for a soprano singer, Marie Gutheil-Schoder, using poetry written by German poet, Stefan George. The fourth movement may have been Schönberg's first bold step in the direction of total atonality. It has no key signature, uses extensive chromaticism and closes on an arbitrary F-sharp major chord.

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3 Arnold Schoenberg, *Style and Idea: Selected Writings of Arnold Schoenberg*, edited by Leonard Stein, (University of California Press, 1984), 33. Google Books Accessed February 2014, <http://books.google.tt/books?id=jbXtxJezk5cC>

In February 1909, Schönberg completed Klavierstücke, Op. 11 No. 1, three pieces for piano which was his first fully atonal composition. Looking back to 1909, Schoenberg had this to say forty years later –

My technique and style have not been developed by a conscious procedure. Reviewing this development today it seems to me that I have moved in many roundabout ways, sometimes advancing slowly, sometimes speedily, sometimes even falling back several steps. The most decisive steps forward occurred in the Three Piano Pieces, Op. 11, and in the Two Songs, Op. 14.<sup>4</sup>

American pianist, composer and conductor, David Burge, notes that in Op. 11, the scheme of melodic and rhythmic relationships are not unusual having been articulated in this manner by Wagner, Mahler and Strauss.<sup>5</sup> The numerous dissonances were not even the real source of disturbance for listeners; but rather their lack of resolution. Schönberg never resolved them.<sup>6</sup>

Continuing on this trend, his Five Pieces for Orchestra, Fünf Orchesterstücke, which was first performed in London in September 1912, received the following critique in the London Times -

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<sup>4</sup> Arnold Schoenberg, "My Evolution" in *Style and Idea: Selected Writings of Arnold Schoenberg*, by Arnold Schoenberg, edited by Leonard Stein. (University of California Press, 1984), 86. Google Books accessed March 2014, <http://books.google.tt/books?id=jbXtxJezk5cC>

<sup>5</sup> David Burge, *Twentieth Century Piano Music*, (New York: Schirmer Books, 1990), 24 – 32. Google Books accessed March 2014, <http://books.google.tt/books?id=E2TAQgAACAAJ>

<sup>6</sup> Arnold Schoenberg: Three Piano Pieces, Op. 11, *The Significance of Op. 11*, 2003, accessed March 2014, <http://www.colleges.org/techcenter/music/modules/op11/op11pages/signif1.html>

It was like a poem in Tibetan; not one single soul could possibly have understood it at first hearing ... there was not a single consonance from beginning to end. At the conclusion, half the audience hissed ... the other half applauded more vehemently than the case warranted, for it could hardly have been from understanding.<sup>7</sup>

In that same year, there was Erwartung described by musicologist, Philip Friedheim, as Schönberg's "only lengthy work in an athematic style, where no musical material returns once stated over the course of four hundred and twenty-six measures".<sup>8</sup> Schönberg also completed another innovative work, Pierrot Lunaire, a collection of twenty-one German songs with accompaniment translated from poems by the Belgian poet, Albert Giraud. Again, experimenting with tone, he replaced standard singing pitch with Sprechstimme, a gliding sound with blended speech and singing tones. Critics voiced strong condemnation of the music when it was performed in October 1912.

Very little would be heard from Schönberg for the next decade. There was World War I, where he was called to service briefly. He was occupied with teaching and conducting and, he was working on a new approach to composition which would revolutionise music in the 20th century.

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7 Richard Hoffman, Oberlin Conservatory. Concert Notes: Five Pieces for Orchestra, Op. 16 (1909; Rev. 1949), 1993, accessed March 2014, <http://americansymphony.org/five-pieces-for-orchestra-op-16/>

8 Philip Friedheim, "Rhythmic Structure in Schoenberg's Atonal Compositions." *Journal of the American Musicological Society*, Spring 1966, 59–72.

## DODECAPHONY NOT CACOPHONY: A METHOD TO THE MADNESS

As Schönberg focussed his creativity on music without tonal harmonic progressions or melodic themes, he faced several problems. Apart from dealing with his critics; defending atonality and perhaps attempting to present a clearer, more intelligible format, there was also the question of creating large works in the absence of traditional music forms like fugues or sonatas whose development depended on tonal structures. In his search for a formal method for developing atonal work, he invented the twelve-tone method. In carrying atonality and chromatic saturation to its extreme, Schönberg experimented with composing with all twelve chromatic tones in a manner that they were “related only to one another” rather than a tonic. After several years during which he published no new music, he presented the twelve-tone or dodecaphonic method.

In summary, the new underlying backbone of composition would be a collection of the twelve chromatic tones. Each composition would have a different collection. The collection would represent the twelve tones in a specific order called a twelve-tone row or twelve-tone series (P0). The tone row could be transposed (P1-11), inverted (I1-11), retrograded (R1-11) and the retrograde inverted (RI1-11) to derive forty-eight new row presentations which may form the basis of the composition’s development. These forty-eight rows are presented in 12x12 matrix form. The application of the tone row and its derivatives are as follows –

- i. A row may be used to create melody

- ii. A row may be used to create counterpoint, either by sharing one row with two or more parts, or by having two or more forms of the row sounding simultaneously.
- iii. A row may be used to create harmonies by having parts of the row, or multiple rows, sounding simultaneously.
- iv. A row may be segmented into dichords, trichords, tetrachords or hexachords (two-, three-, four- or six-note groups), or any other combination. This can then become a primary means of organising a piece of music.<sup>9</sup>

In 1922, Schönberg began work on his Suite for Piano, Op. 25, which was to be his first piece deliberately composed using the twelve-tone method. Suite for Piano consists six movements. The first three measures of the Prelude are shown in Figure 1. The tone row is shown in the treble as the first twelve notes.

Figure 1




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<sup>9</sup> Phillip Magnuson, Sound Patterns: A Structural Examination of Tonality, Vocabulary, Texture, Sonorities, and Time Organization in Western Art Music, Chapter 45: Serialism, 2008, accessed March 2014, <http://academic.udayton.edu/PhillipMagnuson/soundpatterns/microcosms/serialism.html>

The basic twelve-tone row (P0) and its matrix are detailed below.

<b>P0</b>	E	F	G	DbC#	GbF#	EbD#	AbG#	D	B	C	A	BbA#
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	<b>I0</b>	<b>I1</b>	<b>I3</b>	<b>I9</b>	<b>I2</b>	<b>I11</b>	<b>I4</b>	<b>I10</b>	<b>I7</b>	<b>I8</b>	<b>I5</b>	<b>I6</b>	
<b>P0</b>	E	F	G	DbC#	GbF#	EbD#	AbG#	D	B	C	A	BbA#	<b>R0</b>
<b>P11</b>	EbD#	E	GbF#	C	F	D	G	DbC#	BbA#	B	AbG#	A	<b>R11</b>
<b>P9</b>	DbC#	D	E	BbA#	EbD#	C	F	B	AbG#	A	GbF#	G	<b>R9</b>
<b>P3</b>	G	AbG#	BbA#	E	A	GbF#	B	F	D	EbD#	C	DbC#	<b>R3</b>
<b>P10</b>	D	EbD#	F	B	E	DbC#	GbF#	C	A	BbA#	G	AbG#	<b>R10</b>
<b>P1</b>	F	GbF#	AbG#	D	G	E	A	EbD#	C	DbC#	BbA#	B	<b>R1</b>
<b>P8</b>	C	DbC#	EbD#	A	D	B	E	BbA#	G	AbG#	F	GbF#	<b>R8</b>
<b>P2</b>	GbF#	G	A	EbD#	AbG#	F	BbA#	E	DbC#	D	B	C	<b>R2</b>
<b>P5</b>	A	BbA#	C	GbF#	B	AbG#	DbC#	G	E	F	D	EbD#	<b>R5</b>
<b>P4</b>	AbG#	A	B	F	BbA#	G	C	GbF#	EbD#	E	DbC#	D	<b>R4</b>
<b>P7</b>	B	C	D	AbG#	DbC#	BbA#	EbD#	A	GbF#	G	E	F	<b>R7</b>
<b>P6</b>	BbA#	B	DbC#	G	C	A	D	AbG#	F	GbF#	EbD#	E	<b>R6</b>
	<b>RI0</b>	<b>RI1</b>	<b>RI3</b>	<b>RI9</b>	<b>RI2</b>	<b>RI11</b>	<b>RI4</b>	<b>RI10</b>	<b>RI7</b>	<b>RI8</b>	<b>RI5</b>	<b>RI6</b>	

**TWELVE-TONE MATRIX**

In the first three measures, there is also a counterpoint using the transposed tone row, P6, which is P0 transposed six semitones. Notes 5 to 12 of the P6 series are presented as two

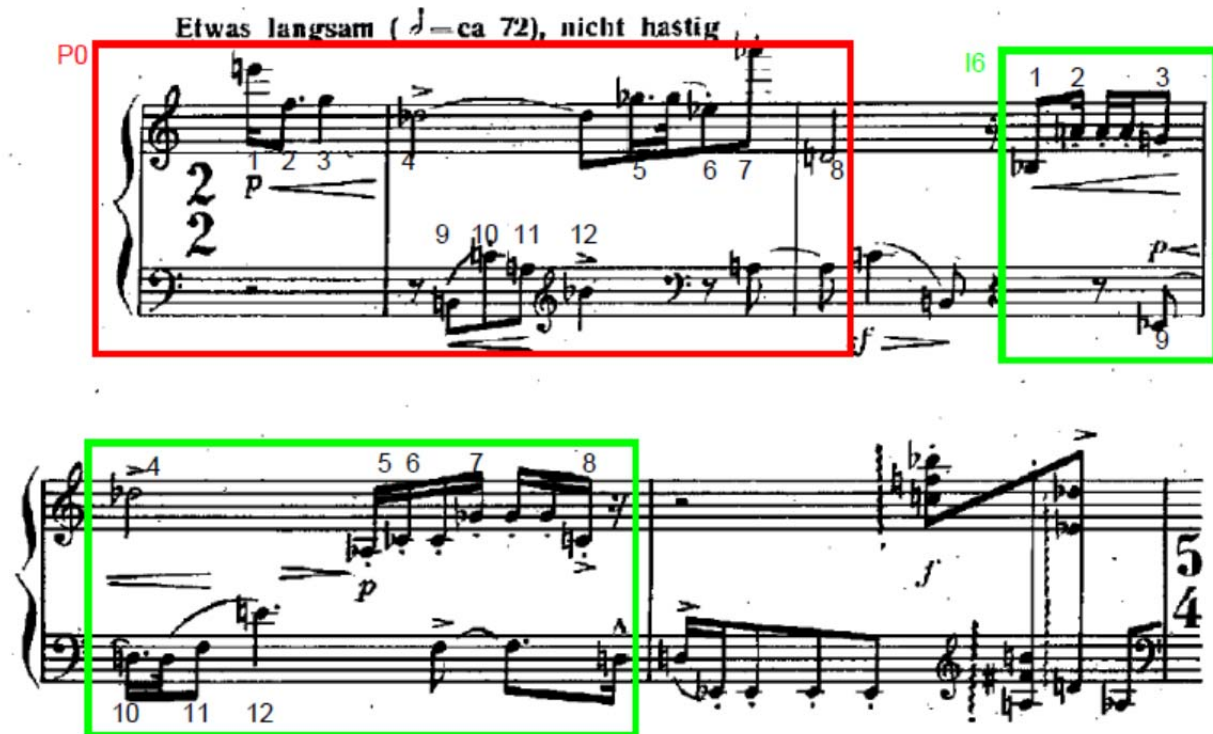
tetrachords played simultaneously to create harmony (See Figure 2); a tetrachord being a group of four consecutive notes in a tone row.

Figure 2



In the Gavotte, Figure 3, we see the basic tone row, P0, and the inversion of P6, I6, in the first three measures.

Figure 3



The Minuet (shown in Figure 4) similarly starts off with the basic tone row, P0, with tetrachords 1 – 4 and 9 – 12 played simultaneously, followed by tetrachord 5 – 8. Within the first three measures, the tone row I6 and the inversion of P6 are presented in two tetrachords 9 – 12 and 5 – 8. R6, the retrograde of P6, is also presented in two tetrachords 1 – 4 and 5 – 8.

Figure 4

Further analysis of this Suite shows the consistent use of P0, the six semitone transposition, P6, and its inversion and retrograde inversions, I6, R6 and RI6, as a unifying factor throughout the suite. Many phrases start on Eb or Bb and end on G or Db. This is a deliberate attempt to bring coherence to the music, and was seen as analogous to staying on key. This method is also used in Baroque keyboard suites, however, it is more difficult to discern in this case.<sup>10</sup>

Another feature of Schönberg's in this Suite is the use of tetrachords as motif units in a manner similar to sets or cells in free atonal music. In general three-, four- or six-note sets were broken

off to create motifs and these were manipulated to create pseudo Canons and Fugues. Of note is that in using these sets, all twelve pitches must still sound before any note is repeated unless the repeat is immediate, or in a trill or tremolo.

Schönberg also used the transpositions of the tone row, P1 – P11, as the equivalent of modulations in tonal music. He extended this idea through the creation of regions made up of each transposition, its inversion and their retrogrades. Each region would be treated as a key, with the region a fifth higher being the 'dominant' region. This method can be seen in his Fourth String Quartet as analogous to modulation in a sonata for development.<sup>10</sup>

## **NICHE IN FILM**

Schönberg's music may be divided into four periods. The first is tonal, though not in the classical period sense as the Romantic or 'Impressionist' era had already introduced deviations from standard harmonic progressions and the use of textures to support imagery. This period is pre-1900 to the turn of the century. The second period, his 'Expressionist' phase, analogous to style of Art during that era, started around 1908 when he became the first composer to abandoned standard tonality. The music of this phase is occasionally referred to as atonal, which Schönberg viewed with some contempt, preferring to describe the music as 'pantonal'; spanning many keys. During this time, he explored the foundations of serialism where movement of the music, rather than recurring themes, formed the basis of composition and his

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<sup>10</sup> J. Peter Burkholder, Donald Jay Grout and Claude V. Palisca, A History of Western Music, 8th Edition, (W.W. Norton and Company, 2009), 820-821.

works had no key signature. From 1920 to the mid-1930s, the Serialism phase, he developed and employed a structure within which atonal music was written – the twelve tone technique, which expanded the use of chromaticism to the point that non-key tones were no longer accidental, but of equal importance. Schönberg's fourth period, from about 1936 onward, was more diverse with occasional use of tonal composition.<sup>11</sup>

There was continuing debate over the validity of his twelve-tone approach; some likening it in a derogatory manner to 'painting by numbers'. Schönberg had hoped to make his music more comprehensible by applying a strict and logical method to atonal development<sup>12</sup>, however music scholar, Michael Hicks, postulates – "... serial music is by its nature cognitively opaque. While this cognitive opacity does not mean that every serial piece is necessarily a bad piece, its aesthetic is doubtful". "If a piece cannot be understood," he asks, "how can it be good?"<sup>13</sup> Music critic, George Rochberg, maintains that the absence of periodic structure in twelve-tone or serial music makes it difficult, or even impossible, to remember. He states -

The broad, identifiable changes in music as we move from the eighteenth and nineteenth century, to the early decades of the twentieth century and then to the music of the fifties and sixties, can be characterised in innumerable ways. The one that

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11 Oliver Neighbour, *The New Grove Second Viennese School: Schoenberg, Webern, Berg*, (W. W. Norton & Company, 1997), Chapter 2.

12 Arnold Schoenberg, "My Evolution" in *Style and Idea: Selected Writings of Arnold Schoenberg*, by Arnold Schoenberg, edited by Leonard Stein. (University of California Press, 1984), 86 – 92. Google Books accessed March 2014, <http://books.google.tt/books?id=jbXtxJezk5cC&lr=>

13 Michael Hicks, "Serialism and Comprehensibility: A Guide for the Teacher" *Journal of Aesthetic Education*, Vol. 25, No. 4, Winter 1991, 75-85. Google Books accessed March 2014, <https://cfac.byu.edu/music/serialism-and-comprehensibility-a-guide-for-the-teacher/>

interests me here, because it allows me to comment on Schönberg's music in a particular way, has to do with the decreasing profile of identity of thematic and harmonic content. This decreasing profile of identity could be graphed in a rough sort of way, moving from a music with precise identities (Bach, Haydn, Mozart, Beethoven, Schubert, Schumann, Brahms, Wagner, Bruckner, Verdi, Strauss, Mahler, early Schoenberg) to a music with a marked decline in its profile of identity (the atonal and twelve-tone works of Schoenberg, Webern, Berg, late Scriabin, Ives) to a music entirely lacking in any aurally meaningful, identifiable characteristics (e.g. post-Webern serialist works of Boulez) ... In short, from a music that can be remembered, to a music which can be remembered but with varying degrees of difficulty, and finally to a music which utterly (or almost) defies memory.<sup>14</sup>

If the music cannot be remembered, then its value is in the moment, at that moment. In what context, therefore, could serial music hold most value? There was one event that hinted at the role serial music could play in the future; Schönberg's *Begleitungsmusik zu einer Lichtspielszene* (Accompaniment to a Film Scene) Op. 34, composed in 1930, which was commissioned for a cinema-music library by Heinrichshofen's Verlag, a silent-film producer.

The history of the film industry dates the early stages to the turn of the century, from 1895 to 1930. This, the silent-film era, was not really silent because music was always used to accompany the pictures. There was first the practical purpose of masking background

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<sup>14</sup> George Rochberg, *The Aesthetics of Survival: A Composer's View of Twentieth-century Music*. (University of Michigan Press, 1984), Pg. 39. Google Books accessed March 2014, <http://books.google.tt/books?id=k0xjK0iaMz4C>

production noises, but it may have also been used to create the mood for the actor as well as allay normal human discomfort with the silence and darkness of the movie theatre.<sup>15</sup> Early in the century, film music was simple piano accompaniment, albeit with out-of-tune pianos and variably-skilled musicians. As technology developed along with the physical movie theatre space, film lengths grew and with it, the demand for more control over its accompanying music.

By 1929, movie production houses were investing in songwriters, composers and music publishing houses. Paramount was the first to own a music publishing company, generating revenues with its film music and Warner Brothers purchased the original Tin Pan Alley house. The music also developed from live accompaniment to recorded sound tracks synchronised with the motion picture.<sup>16</sup> It is in this context that Opus 34 was commissioned. It consists of three independent sections entitled "Threatening Danger", "Fear" and "Catastrophe" to be used as cues for related scenes, and is not known to have been actually used as a sound track.

George Burt, film music composer, opines that the serial music is effective in situations requiring musical intensity, and there is widespread belief that appropriate scenes are those containing catastrophes or neurotic behaviour. Opus 34 may have helped propagate that belief.

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15 Pauline Reay, *Music in Film: Soundtracks and Synergy*, (Wallflower Press, 2004), Pg. 5 - 7. Google Books accessed March 2014, [http://books.google.tt/books?id=sAZ8auEjloAC&redir\\_esc=y](http://books.google.tt/books?id=sAZ8auEjloAC&redir_esc=y)

16 Pauline Reay, *Music in Film: Soundtracks and Synergy*, (Wallflower Press, 2004), Pg. 5 - 7. Google Books accessed March 2014, [http://books.google.tt/books?id=sAZ8auEjloAC&redir\\_esc=y](http://books.google.tt/books?id=sAZ8auEjloAC&redir_esc=y)

It is ironic, therefore, that twelve-tone music made its film debut not in a thriller or horror movie, but in a comedy cartoon.<sup>17,18</sup>

## SERIAL MUSIC SOUNDTRACKS

To escape the tensions in Europe, Schönberg migrated to the United States, first Boston then settling in Los Angeles in 1934. He lived there during the Hollywood Golden Era and held a teaching position at University of Southern California and a professorship at University of California Los Angeles. He also provided private tutelage in composition. He is known to have influenced many young film composers, notably Scott Bradley, Jerry Goldsmith, David Raskin, Leonard Rosenman and Benjamin Frankel, some of whom he tutored<sup>19</sup>.

Scott Bradley composed for Metro Goldwyn Mayer. In 1944, he was the first to use a twelve-tone series to create chase music for a particular scene in the Hanna-Barbera Tom and Jerry cartoon, Putting on the Dog. Chase music in movies was generally simplistically represented as agitated music. In the specific scene, Jerry the mouse was running around with a large mask of a dog's head over his own, a strange but funny image. Bradley is said to have experimented with different melodic and harmonic lines without accomplishing his intended effect. He was

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17 George Burt, *The Art of Film Music: Special Emphasis on Hugo Friedhofer, Alex North, David Raksin, Leonard Rosenman*, (UPNE, 1994), Pg. 48. Google Books accessed April 2014, [http://books.google.tt/books?id=4E9EdJw\\_N8C](http://books.google.tt/books?id=4E9EdJw_N8C)

18 David Huckvale, *Hammer Film Scores and the Musical Avante-Garde*, (McFarland, 2008), 27. Google Books accessed March 2014, <http://books.google.tt/books?id=NSQQx-D2EO0C>

19 Mervyn Cooke, *The Hollywood Film Reader*, (Oxford University Press, 2010), Pg. 273. Google Books accessed April 2014, <http://books.google.tt/books?id=FhUZ4nphj58C>

challenged to represent that image musically. He is quoted as having said – “... for a whole day I worried about a two-measure phrase. Everything I tried seemed weak and common. Finally I tried a twelve-tone scale and there it was! .... I hope Dr. Schoenberg will forgive me for using his system to create funny music, but even the boys in the orchestra laughed when we were recording it”.<sup>20</sup> This brief episode where twelve-tone made its film debut can be heard on YouTube; <https://www.youtube.com/watch?v=A9MNBqQGEgl> at 3:37.

Renowned twentieth century British composer, Benjamin Frankel, also did extensive composition in twelve-tone for the 1960 film, *The Curse of the Werewolf*. The movie’s opening scene shows a close up of the face of actor, Oliver Reed, in full werewolf costume. The accompanying music is meant to create an atmosphere of horror, pain and suffering evident in the expressions of the werewolf’s face and the tears that escape his eyes. The tone row upon which this music is based is shown in Figure 5. It contains two areas of tonal elements in the 4-5-6 and 5-6-7 trichords, which are G minor and Bb Major triads.<sup>21</sup>

**Figure 5.**



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20 Daniel Goldmark, *Tunes for 'Toons': Music and the Hollywood Cartoon*, (University of California Press, 2005), 62 - 70. Google Books accessed March 2014, [http://books.google.tt/books?id=Rz2WJ\\_-NxsAC](http://books.google.tt/books?id=Rz2WJ_-NxsAC)

21 David Huckvale, *Hammer Film Scores and the Musical Avante-Garde*, (McFarland, 2008), 27 - 48. Google Books accessed March 2014, <http://books.google.tt/books?id=NSQQx-D2EO0C>

The music can be heard on YouTube, <https://www.youtube.com/watch?v=6KOinmKEKzE>. David Huckvale, Film Music professor at State university of New York, provides a concise analysis of the film score in his book, *Hammer Film Scores and the Musical Avante-Garde*.

Continuing on the horror movie trend, Jerry Goldsmith, American film composer and conductor, produced serial works for both *The Omen* and *Alien*, popular Hollywood horror movies. Goldsmith's biggest film works at that time, was for the movie "*Planet of the Apes*". Building on that experience, he created for *Alien* what Jon Burlingame, a leading writer on the subject of music for films and television, calls one of his most "complex, eerie and intense work".<sup>22</sup> The main theme is based on the twelve-tone row shown in Figure 6. It does not adhere strictly to the repetition rule though some repeats may be viewed as a slow tremolo. The actual opening score is shown in Figure 7. The main theme's music can be heard on YouTube; <https://www.youtube.com/watch?v=DaT-JX5r8i8>.

**Figure 6**



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<sup>22</sup> Matthew J. Bartkowiak, *Sounds of the Future: Essays on Music in Science Fiction Film*, (McFarland, 2010), 219. Google Books accessed March 2014, <http://books.google.tt/books?id=NSQQx-D2EO0C>

Figure 7

The image displays a musical score for two parts, Lead 1 and Lead 2, across three systems. The first system is in 4/4 time and features a 'CHOR' part in the upper staff and a 'STRINGS' part in the lower staff. The second system is in 3/4 time, and the third system is in 2/4 time. The score includes various musical notations such as notes, rests, and dynamic markings.

## CONCLUSION

These are just a few of the many examples of serial music in film. Its use has become so common that serial music may very well be more familiar to cinema goers than concert hall audiences. It is astonishing that audiences readily accept the music in movies, but reject the idea of listening to its concert performances. A reason for this may be that in film, the audience is not compelled to listen to the music. The focus is on the theatrical scene. The music is a just aural rendering of the scene which enhances the viewer's experience.<sup>23</sup>

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23 Daniel Goldmark, *Tunes for 'Toons': Music and the Hollywood Cartoon*, (University of California Press, 2005), 62 - 70. Google Books accessed March 2014, [http://books.google.tt/books?id=Rz2WJ\\_-NxsAC](http://books.google.tt/books?id=Rz2WJ_-NxsAC)

What is it about the nature of serial music that lends itself particularly to this purpose? Is it the immediacy of the music, the dissonance and lack of tonal identity? Those key features which make serial music unappealing to the traditional classically trained ear may be exactly what film music composers exploit.<sup>24</sup> The progression of the music, with its spontaneity, unpredictability, tension, deliberate avoidance of repetition, and underlying, imperceptible laws, imitates life's motion. No scene repeats itself in the same way no phrase of the music would, and each moment is as different as it is important. Its successful application in film, a representation of life, is evidence of this.

If Art mimics Life, Schönberg's major contribution to twentieth century music may very well be the revolutionary method of dodecaphonic composition; that controversial breakthrough that brought the musical arts on that path of closer synergy with the nature of life itself. In Schönberg's own words, on the emancipation of dissonance –

Every chord, then, that is set beside the principle tone has at least as much tendency to lead away from it as to return to it. And if life, if a work of Art, is to emerge then we must engage in this movement-generating conflict. The tonality must be placed in danger of losing its sovereignty; the appetites for independence and the tendencies toward mutiny must be given the opportunity to activate themselves.<sup>25</sup>

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24 Simon Frith, *Performing Rites: On the Value of Popular Music*, (Harvard University Press, 1998), 106. Google Books accessed April 2014, <http://books.google.tt/books?id=BPdIfT6scl0C>

25 Charlotte Marie Cross and Russell A. Berman, *Schoenberg and Words: The Modernist Years*, (Taylor & Francis, 2000), 292. Google Books accessed May 2014, <http://books.google.tt/books?id=c7TTh2HdbjC>

## BIBLIOGRAPHY

- Arnold Schoenberg: Three Piano Pieces, Op. 11, The Significance of Op. 11. 2003. Accessed March 2014. <http://www.colleges.org/techcenter/music/modules/op11/op11pages/signif1.html>.
- n.d. Arnold Schonberg Biography: Belmont Music Publishers The Works of Arnold Schoenberg. Accessed February 2, 2014. <http://www.schoenbergmusic.com/as-biography.htm>.
- Bartkowiak, Matthew J. Sounds of the Future: Essays on Music in Science Fiction Film, McFarland, 2010. Google Books accessed March 2014. <http://books.google.tt/books?id=NSQQx-D2EOOC>
- Burge, David. Twentieth Century Piano Music. New York: Schirmer Books, 1990. Google Books accessed March 2014, <http://books.google.tt/books?id=E2TAQgAACAAJ>
- Burkholder, J. Peter, Grout, Donald Jay and Palisca, Claude V. A History of Western Music, 8th Edition. W.W. Norton and Company, 2009.
- Burkholder, J. Peter, Grout, Donald Jay and Palisca, Claude V. A History of Western Music, 8th Edition. W.W. Norton and Company, 2009.
- Burt, George. The Art of Film Music: Special Emphasis on Hugo Friedhofer, Alex North, David Raksin, Leonard Rosenman. UPNE, 1994. Google Books accessed March 2014, [http://books.google.tt/books?id=4E9EdIJw\\_N8C](http://books.google.tt/books?id=4E9EdIJw_N8C)
- Cross, Charlotte Marie and Berman, Russell A. Schoenberg and Words: The Modernist Years. Taylor & Francis, 2000. Google Books accessed May 2014. <http://books.google.tt/books?id=c7TTh2HdbjcC>
- Cooke, Mervyn. The Hollywood Film Reader. Oxford University Press, 2010. Google Books accessed March 2014. <http://books.google.tt/books?id=FhUZ4nphj58C>
- Friedheim, Philip. "Rhythmic Structure in Schoenberg's Atonal Compositions", Journal of the American Musicological Society, Spring 1966.
- Frith, Simon. Performing Rites: On the Value of Popular Music. Harvard University Press, 1998. Google Books accessed April 2014. <http://books.google.tt/books?id=BPdIfT6scloC>
- Goldmark, Daniel. Tunes for 'Toons': Music and the Hollywood Cartoon. University of California Press, 2005. Google Books accessed March 2014. [http://books.google.tt/books?id=Rz2WJ\\_-NxsAC](http://books.google.tt/books?id=Rz2WJ_-NxsAC)
- Hicks, Michael. "Serialism and Comprehensibility: A Guide for the Teacher". Journal of Aesthetic Education, Vol. 25, No. 4, Winter 1991. Accessed March 2014, <https://cfac.byu.edu/music/serialism-and-comprehensibility-a-guide-for-the-teacher/>

- Hoffman, Richard. Oberlin Conservatory. Concert Notes: Five Pieces for Orchestra, Op. 16 (1909; Rev. 1949), 1993. Accessed March 2014. <http://americansymphony.org/five-pieces-for-orchestra-op-16/>
- Huckvale, David. Hammer Film Scores and the Musical Avante-Garde. McFarland, 2008. Google Books accessed March 2014. <http://books.google.tt/books?id=NSQX-D2EO0C>
- n.d. Internet Movie DataBase, Arnold Schoenberg, Soundtracks. Accessed March 2014. <http://www.imdb.com/name/nm0778167/>.
- Magnuson, Phillip. Sound Patterns: A Structural Examination of Tonality, Vocabulary, Texture, Sonorities, and Time Organization in Western Art Music. Chapter 45, Serialism. 2008. Accessed March 2014. <http://academic.udayton.edu/PhillipMagnuson/soundpatterns/microcosms/serialism.html>.
- Neighbour, Oliver W. n.d. Arnold Schoenberg from The New Grove Dictionary of Opera (Biography). Oxford University Press . Accessed March 2014. [http://www.oxfordmusiconline.com/subscriber/article/grove/music/25024?q=schoenberg&search=quick&pos=1&\\_start=1#firsthit](http://www.oxfordmusiconline.com/subscriber/article/grove/music/25024?q=schoenberg&search=quick&pos=1&_start=1#firsthit).
- Neighbour, Oliver. The New Grove Second Viennese School: Schoenberg, Webern, Berg, W. W. Norton & Company, 1997.
- Oron, Aryeh. 2009. Biographies of Poets & Composers, Arnold Schoenberg (Composer, Arranger). Accessed March 2014. <http://www.bach-cantatas.com/Lib/Schoenberg-Arnold.htm>.
- Reay, Pauline. Music in Film: Soundtracks and Synergy. Wallflower Press, 2004. Google Books accessed March 2014. <http://books.google.tt/books?id=sAZ8auEjloAC>
- Rochberg, George. The Aesthetics of Survival: A Composer's View of Twentieth-century Music. University of Michigan Press, 1984. Google Books accessed March 2014. <http://books.google.tt/books?id=k0xjK0iaMz4C>
- Schoenberg, Arnold. "My Evolution." In Style and Idea: Selected Writings of Arnold Schoenberg, by Arnold Schoenberg, edited by Leonard Stein. University of California Press. 1984. Google Books accessed March 2014, <http://books.google.tt/books?id=jbXtxJezk5cC>
- Schoenberg, Arnold. "How One Becomes Lonely" in Style and Idea: Selected Writings of Arnold Schoenberg, edited by Leonard Stein. University of California Press, 1984. Google Books accessed March 2014, <http://books.google.tt/books?id=jbXtxJezk5cC>
- Schönberg Biography: Belmont Music Publishers The Works of Arnold Schönberg. n.d. <http://www.Schönbergmusic.com/as-biography.htm> (accessed February 2, 2014).