MUSICAL BORROWING: REFERENTIAL TREATMENT IN AMERICAN POPULAR MUSIC

THESIS

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

Richard L. DiGiallonardo

Denton, Texas

December, 1998

This thesis examines the relationships between popular contemporary musical styles and classic-era art music. Analysis of pop-rock songs, and their referential treatment in art rock, classical music, and society will be examined.

Pop-rock musicians borrow from the masters of the past and from each other. Rock guitarists such as Eddie Van Halen employ a virtuosic technique suggestive of Liszt and Paganini. The group Rush borrowed freely from *opera seria*. Frank Zappa referenced contemporary musicians as well as classical techniques.

Referential treatment in popular music and the recent advancements in technology, have challenged copyright law. How these treatments and technologies affect copyright legislators and musicians will be discussed.
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CHAPTER ONE

INTRODUCTION AND HISTORICAL BACKGROUND

Music in the United States has changed drastically since the 1890s, before which time there was little to distinguish American composers from their European—especially British—counterparts. The emergence of a "popular" genre of music, a style reflecting the opinions and tastes of a population, has created a large archive of material for analysis. Typical analytical efforts attempt to examine American Popular music apart from any historical or social concerns and/or emphasize the social context in which a particular piece was produced. Few attempts have been made to synthesize a historical approach with a theoretical approach.

Popular music is a generic term for music created by and for the general population. The first use of the distinction "popular" in conjunction with American music occurred in the 19th Century. In the early 1800s, the drawing-room ballads of the bourgeois or merchant class, who had time for leisure activities, were described as "popular songs". Songs such as As Fair As Morn, and Greensleeves were regarded as "good" simply because they were well liked by so many. Later in the same century, following the end of the Civil War, the cultural make-up of the American population changed, bringing with it, a change in the "popular" music.
The emancipated slaves brought their work songs and plantation laments with them to the northern cities and drawing room culture of the middle class.

In addition to the musical influences of African-Americans, immigrants from Europe brought with them their own indigenous music. This created a large pool of musical material from which a uniquely American music could emerge. The styles of ragtime, jazz, and Tin Pan Alley music all drew material from the folk music of the European immigrants, and the African-American style. This period in history is also characterized by the development of monopoly-capitalist structures where national lineage remained important, but was counterbalanced by a growing integration of cultures.

The industrial age was also manifest in new methods of mass communication (the telegraph and telephone), mass publicity (the Hearst Newspaper Corporation, for example), and mass production and distribution of music (both sheet music and the new RCA gramophone). Ultimately, corporate ownership and syndicates employed restrictive licensing policies to freeze out the small entrepreneur.¹ By the First World War, sheet music production, and the means of disseminating music became concentrated in New York's "Tin Pan Alley" (in the heart of downtown Manhattan, on West 28th Street), and on London's Denmark Street, located in Leicester Square.

In the 1920s, the new medium of radio emerged, as well as "talkies" in the movie industry. The popularity of radio grew during the Great Depression and World War II. All of America, and most of the industrialized

countries in the world, tuned in to receive up-to-date information, and gain respite from reality. In addition, radio was an effective and relatively inexpensive way for new musical styles to be introduced to the public.

The next crucial development in popular music began with the advent of rock 'n' roll music, shortly after the Second World War. Advances in communication that were perfected for military purposes during the war, such as smaller transistors and more powerful electronic communications systems, were now available to the public, at a relatively low cost. The world had become a smaller place, as a result.

Rock 'n' roll music was different from the music of the thirties and forties, when Americans came together to express sorrow for hard times and for those away at war, and celebration for the good times to come now that the war was over. The new music was seen as rebellious and immoral by middle-aged, middle-class Americans, but was naturally and immediately accepted by young people. The advent of television, which gave teenagers the opportunity to actually see their idols, and collaboration between record companies and movie studios to use the same performers, made the music all the more popular.

The 1960s saw a continuation of this trend, especially as the younger generation became increasingly discontent with the way their country was handling both international and domestic problems. This group, disenchanted with the "the establishment," looked to new musical (and extra-musical) sources to voice their feelings of oppression. African-American rhythm and blues became very popular because it incorporated sad
and angry lyrics, with a melancholy folk sound. This new social-historical phase was recognized as the "long boom" and promoted the idea of liberalism in all aspects of society.

The third major development in music itself, began as a result of extra-musical developments, this time scientific and electronic. The introduction of the computer as a sound creating and editing tool (exemplified in the digital sampler, synthesizer, digital editor and sequencer) led to an explosion of new acoustic possibilities. When the first commercially available samplers appeared in the early 1980s, composers had the means to generate entirely new sounds, the possibility to utilize (with digitally sampled sound bits) music heard in nature, and to mimic the music of other artists. This allowed an unprecedented amount of freedom in the borrowing of musical ideas. Prior to this, borrowing usually took the form of copying musical structures (i.e. form and style) and the use of similar harmonic and melodic material (the widespread use of the walking bass line in 1950s rock 'n' roll tunes, for example). These technological developments have not only challenged existing copyright legal structures in commercial music production, but have also made it possible for amateurs to "play" music previously impossible for an untrained musician (samplers which allow the composer to create music at a slow tempo and then play it as a background track for a melody).

Over the past 100 years, popular music has undergone at least three major phases in evolution: the growth of the Tin Pan Alley genre in the early 1900s, the post-W.W.II development of Rock and Roll, and the

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improvements in studio technology – particularly the advent of digital recording – beginning in the 1970s and 1980s. Sociological and technological influences have caused the means of dissemination and production to change dramatically since the 1890s. Furthermore, the availability of prerecorded music and the accessibility of scores from previous centuries has afforded modern composers the luxury of easily referencing material from other composers. In this thesis I will examine the use of borrowing, discuss recent legal issues surrounding copyright and the use of musical material, provide a brief overview of common distinctions made between popular and “classical” music, investigate some recent works that blur these lines of distinction, and explore some of the analytical techniques appropriate to the genre of popular music.
CHAPTER TWO

POPULAR MUSIC AND THE CLASSICAL INFLUENCE

Popular music is the result of an amalgamation of a variety of musical styles. From the very beginning of pop music, in the early 1800s, the assemblage of musical styles known as "classical music" has been an important influence on all aspects of musical composition, performance, and production. The classical influence may seem to be an unlikely one, but many pop and rock musicians have found this resource very useful and compelling.

Musicologists have frequently characterized adaptive encounters among musical practices (such as this combination of popular and classical elements) to be natural expansions of a resource. Yet such explanations do little to account for the appearance of specific fusions at particular historical moments, or to probe the relationships implicit in all such encounters.

The classical influence often attests to the musician's early training. There are three general features of classical music that are most often referenced, alluded to, or borrowed by popular musicians: harmonic sequence, instrumental virtuosity, and rhythmic irregularity.

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The fusion of popular and classical styles is most often associated with the progressive “art-rock” era that began in the early 1960s.

The Beatles were at the forefront of a movement that valued self-conscious experimentation using the instrumentation and stylistic features of classical music. Producer George Martin’s training as a classical oboist exposed him to many of the traditional orchestral instruments that are heard on the Beatles’ recordings. For example, the piccolo trumpet used in Penny Lane, and the classical string quartet that provides harmonic background on Eleanor Rigby, are both obviously related to a classical orchestra. Odd metric patterns (suggestive of Stravinsky or Bartók) were also used in the songs Good Day Sunshine, Good Morning Good Morning, A Day in the Life, and other tunes from the “Magical Mystery Tour” and “White” albums.\(^4\) The Moody Blues collaborated with the London Festival Orchestra for “Days of Future Passed” in 1968. Groups as different as The Who, Yes, The Kinks, and Emerson Lake and Palmer composed classically influenced rock songs, rock concertos, and rock operas.

Discussions of art rock rarely move beyond determining and dissecting the influences of each group. Few attempt to address why classical music is an influence on these performers. One of the most important reasons could be prestige. Performers who do not compose their own material (for example the “girl groups” of the 1960s) have rarely achieved critical respect comparable

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to those musicians who better fit the archetypal model of the solitary composer. Popular music critics’ preoccupation with art rock reflects their acceptance of the classical model.\(^5\)

Keith Emerson (of Emerson, Lake, and Palmer) considered ordinary popular music to be “low-class” and took on the mission of raising the artistic level of popular music.\(^6\) Emerson, Lake, and Palmer’s neoclassical compositions (such as their rendering of Mussorgsky’s *Pictures at an Exhibition* in 1972) were intended to elevate the public taste and display advanced musicianship.

In spite of the amount of borrowing done from classical music, many popular musicians and popular music historians, criticize the way classical music is performed. Charles Keil has noted the dependence of Western Classical musicians on written musical notation, and Andrew Chester has proposed a similar criticism to the musical practice of classical musicians.

Western classical music is the apodigm of the extensional form of musical construction. Theme and variations, counterpoint, tonality (as used in classical composition) are all devices that build diachronically, and synchronically outwards from basic musical fragments. The complex is created by combination of the simple, which remains discrete, and unchanged in the complex unit...If the critics who maintain the great complexity of classical music specified that they had in mind this extensional development, they would be quite correct...Rock music however follows, like many non-European musics, the path of intentional development. In this mode of construction the basic musical units (played/sung notes) are not combined through


\(^6\) Jim Miller, “Art Rock,” 270.
time as simple elements into complex structures. The simple entity is that constituted by the parameters of melody, harmony, and beat, while the complex is built up by modulation of the basic notes, and by inflection of the basic beat. All existing genres and sub-types of African-American tradition show various forms of combined intentional, and extensional development.\footnote{Alex Chester, "Second Thoughts on A Rock Aesthetic," \textit{New Left Review} (May 1976): 78-79.}

Like Chester, Richard Middleton also emphasized the methodological implications of popular music performance. Middleton suggests that these differences rest on a historical knowledge, or on an undialectical notion of the musical field between recent types of popular music and historical traditions of folk music.\footnote{Richard Middleton, \textit{Studying Popular Music} (Philadelphia: Open University Press, 1990), 43-46.}

Mass culture has ensured that there are no absolute separations of high and low culture in the modern world. All types of music are available to all consumers. Classically trained composers write film scores that draw upon their conservatory studies, but may succeed or fail, depending on their popularity with the mass audience. Classical music is available to culturally competitive groups who claim and use it in many different ways. For example, the recorder consort heard in Led Zeppelin's "\textit{Stairway to Heaven}" creates an unusual association with the Renaissance era. The boys' choir that begins The Rolling Stones "\textit{You Can't Always Get What You Want}'', suggests a purity and innocence of childhood.

Of the common periods of classical music, it is interesting to observe that most rock musicians have chosen to borrow predominantly from the
Baroque era. Middleton suggests that there is great similarity between Baroque music and popular music.

Like rock music, Baroque music generally uses conventional harmonic progressions, melodic patterns, and structural frameworks, and operates through imaginative combinations, elaborations and variations of these, rather than developing extended, through-composed forms. It also tends to have a regular, strongly marked beat; indeed, its continuo sections could be regarded as analogous to the rhythm section of jazz and rock.9

Procul Harum’s *A Whiter Shade of Pale* (1967) fuses the harmonic and melodic material of a Bach cantata with a soul vocal style similar to that of Ray Charles.

The usefulness of Baroque materials (and indeed borrowing from any other musical source) depends on both their classical and their present referential value. That is to say, the reference must be obvious enough to the listener so that he or she can make the connection intended by the composer. Pop and rock appropriations of classical music are consistent, even to the specific composer. For example, musicians might choose to borrow from Bach not Mozart (perhaps indicating a preference for Bach-style counterpoint or harmonies, as opposed to those of Mozart).

Although some classical music was composed long ago, it is still circulated widely in contemporary society. Pop and rock musicians usually acquire their knowledge of music and develop facility on an instrument through intense study of classical music. Of the musicians that have experimented with classical borrowing, pop-rock guitarists and keyboard

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players have been the most predominant in their explorations of classical music idioms. Once again, the fact that both of these instruments are chordal, and provide harmonic stability for the group, might be observed.

Progressive rock piano technique fundamentally modified the pounding boogie-woogie derived piano stylizations of early popular music. Pianists like Jelly Roll Morton, Little Richard, and Jerry Lee Lewis drew on a host of rhetorical devices from the classical piano repertoire. The use of straight eighth-note walking bass lines (reminiscent of arpeggiated left hand chord structures in classical music), and straightforward dominant 7th harmonies were used by the early pop and rock keyboardists. In contrast, the progressive rock piano style is marked by virtuoso scalar runs and rolling arpeggios in a swing tempo in the right hand, arpeggiated or melodically active accompaniments in the left hand, block chords, and sustained impressionistic chordal backdrops that make ample use of the damper pedal to blur and blend notes. Many examples of classical-like virtuosity appear in popular music. For example, pianist Keith Emerson’s use of Alberto Ginastera’s Piano Concerto No. 1, fourth movement, on his album Brain Salad Surgery, and his use of Beethoven’s Waldstein Piano Concerto, first movement show an impressive knowledge of the classical repertoire.

The works of J.S. Bach have considerable influence on progressive rock, especially in music featuring the Hammond organ. It is an interesting reference, once again, to the predominance of chordal instruments, and their transcendent appeal. Keith Emerson’s famous organ solo in Rondo on his album “Return of the Manticore” (1993), contains a lengthy excerpt from Bach’s Toccata and Fugue in D Minor, while the Fantasia for Unaccompanied
Hammond (which opens Argent's "Pure Love Suite") also shows the influence of Bach in the use of arpeggiated chord patterns.

Many popular music artists have made reference to classical music, both directly and indirectly in their compositions. Some artists feel the use of complex and virtuoso passages makes their music seem more intellectual and advanced, while others choose the techniques because they were trained in the classical tradition and those memorized patterns are simply a part of their vocabulary.
Popular music owes much to classical music. Syntax (written music) borrowed harmony and melody, and performance practice are all aspects that are shared between the two genres. Analysis of popular music, however, has been approached very differently than analysis of classical music. While theorists have analyzed much of the classical repertoire in formulaic detail, the analysis of popular music owes a larger debt to the culture studies conducted by Greil Marcus and Lester Bangs, the sociological hypotheses of Simon Firth, and the historical studies of Peter Guralnick. These authors have analyzed popular music as a cultural expression, turning the focus outward from the music to analyze the cultural context in which it was created. This has often resulted in a de-emphasis on the music itself, the actual notes and rhythms, and has placed greater importance on socio-historical aspects of composition.

Although there are methods of analyzing popular music that are similar to methods of analyzing classical music, no single procedure or methodology seems to be universally accepted in scholarly circles. One option for analysis is to compare modern compositional and performance techniques to those of the past.
According to Peter Van der Merwe, some blues and rock bass patterns can be traced back to 16th Century dance music. *Grove's Dictionary of Music and Musicians* defines the *pazzamezzo moderno* as "a dance in a quicker tempo. An Italian dance of the 16th and 17th centuries, similar to the *pavan*, but faster and less serious."10 This dance contained a harmonic formula that was very popular in the Renaissance period. The form of this dance can be divided into two complementary strains, and contains simple tonic, dominant, and sub-dominant harmonies. (See Figure 1a: *pazzamezzo moderno* form)

A modified example of this same formula in popular music is found in The Doors *Been Down So Long* (1970). The harmonic material is similar and period structure are similar to that of the *pazzamezzo moderno*. (See Figure 1b: *Been Down So Long, “The Doors,”* 1970) Peter Van der Merwe also states that the twelve-bar blues harmonic sequence (I-IV-I-V-I) is explicitly related to the *pazzamezzo moderno*, and draws parallels between this harmonic formula and the Protestant hymnody.11

Descending scalar bass lines popular as grounds or *passacaglias* in the sixteenth and seventeenth centuries also survive in popular music. One example of such a bass line in classical music is Purcell’s “Thy hand, Belinda...When I am laid in earth,” from *Dido and Aeneas*.

(See Figure 2a: *Dido and Aeneas, excerpt*) A modern example of ground bass can be found in the song *She’s Got A Way* by Bill Joel. (See Figure 2b: *She’s Got A Way, Billy Joel, 1974*)


Figure 1a: *pazzamezzo moderno* form.

\[ \| I-IV-I-V \| I-IV-I-V-I \| \]

Figure 1b: *Been Down So Long*, The Doors, 1970.

Harmonic pattern continues as per example:
Figure 2a: *Dido and Aeneas*, excerpt.

Figure 2b: *She's Got A Way*, Billy Joel, 1974.
These similarities in structure, which aid in analysis and understanding the music, can also apply to jazz music. Perlman and Greenblatt's study of jazz improvisation links modern music with time-honored methods of tonal prolongation.

In spite of these similarities, and the comparative analysis that results, there is one major difference between pop music and classical music that creates a large problem for analysts. Popular music, unlike classical music, does not usually rely on a written score. While it is true that a certain amount of limited improvisation formerly played a greater role in classical music (improvised ornaments in the Baroque period, for example), the Western Art music tradition involves many centuries of seeking out ever more precise ways of notating a composer's intentions. The earlier the music, the more likely it is that realizing elements other than pitch and rhythm (and sometimes even these!) will involve a certain amount of guesswork on the part of the performers and conductors. Western Art music has produced, after many years of evolution, a musical score which is explicit in pitch, rhythm, tone color, dynamics, articulation, phrasing, and tempo. The score will allow performers, even if they are geographically and chronologically removed from the composer, to render the composer's directions with confidence that the resulting sounds will correspond with the original intention. Because of notation, classical music can exist separate from its conception, separate from any single performance, and is ultimately capable of outliving the composer.

An advantage of such a comprehensive notation system is that the
composer has an incredible amount of control over every detail of his creation. However, it is also responsible for denying the performer and listener the opportunity to help create within a piece of music. This is an issue that many pop and rock composer/performers have been addressing in live performance recordings. Todd Rundgren, a prolific composer, performer, and producer from New York, has attempted to bridge the gap between composer and listener. In his "Totally Interactive" concerts, he involves the audience not only in live performance, but also in the act of composing new tunes with him during the performance.

Henry Pleasants was the first writer to seriously question the absolute value that Western musical culture has placed on notation. He states that,

Given such constraints as these (i.e. the score as some kind of sacred text), it is a tribute to the serious musician's skill, diligence, and patience, sometimes even to his intelligence, that he is not a duller fellow than he is, especially the orchestral musician, playing more or less the same way under the daily supervision of a variety of opinionated conductors year in and year out.\(^\text{12}\)

Analysis of popular music can prove problematic due to this lack of notation. While many forms of popular and rock music can be (and are) notated, some works (progressive rock compositions, for example) are rarely notated in their recorded form. Some of the artists and composers that conceive original music do not have the facility to notate their creations, due to a lack of formal musical training. Although notated versions of pop-rock music have appeared, these are usually put together after the performance

and recording of the music, and are usually compiled by people from outside the bands. Rock musicians, such as Keith Emerson, who are able to notate music fluently, tend to resort to written parts only in collaboration with classical ensembles, or create a "lead sheet" with a sketch of form and chord structure for use in recording sessions.

Since the late 1960s, there has been a great tendency for bands to try to reproduce the studio recordings in live concert performance. Once a band has arrived at a successful finished arrangement of a particular piece, they tend to stick to it closely in performance. Many sections, even solo and improvisatory vamps are repeated note for note. In my own touring experience with Elton John (1982-83) and Rick Springfield (1983-85), it was the unspoken rule that the live shows must sound as close to the studio recording as possible. The audience was paying to hear the record, so improvising and interpretation was not permitted. This, of course, makes analysis of popular songs easier, and makes popular music similar to classical music in performance.

The notation of music, even in the form of the most basic chord outlines, allows analysts to use different, specific techniques to help understand how a piece works. One example of such a technique, is Schenkerian analysis. Heinrich Schenker regarded the tonic triad and the tension and release between tonic and dominant as the basis for all tonal music.\(^{13}\) His analytical system involves the construction of graphs, or visual representations of a piece, showing different levels of structure.

His deepest level, called the *Ursatz* or background, shows a composing-out (*Auskomponierung*) of the tonic triad. This is accomplished harmonically by an appreggio figure in the bass, and melodically by a stepwise descent from the third, fifth, or octave of the scale.14 (See Figure 3: *Ursatz* structure) The correlation between surface details (shown in middleground and foreground graphic analyses) and the *Urlinie* (fundamental line of a piece) creates organic unity.

Most Tin Pan Alley songs, and popular music that is governed by functional-tonal processes, can be analyzed using this technique. For example, Jimmy Van Heusen's "Here's That Rainy Day," follows the Schenkerian structure of a descent from the fifth – or five line – and uses the tonic and dominant harmonies at structurally significant points. (See Figure 4: Schenkerian graph of *Here's That Rainy Day*, by Jimmy Van Heusen)

Another example of the Schenkerian technique applied to more recently composed music is Elton John's *Daniel*, from the album "Honky Chateau," (1972). This piece ends on a strong authentic cadence and the melody displays a clear descent through the third, using scale degrees 3, 2, and 1. This structure can also be found in the melody of the chorus, suggesting the large-scale organic unity that was so much a part of Schenker's ideology. (See Figures 5: Elton John's *Daniel*, verse/chorus tag)

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Figure 3: Urlinie/Ursatz structure.

Figure 4: Schenkerian graph of Here’s That Rainy Day, by Jimmy Van Heusen.
Figure 5: Elton John's *Daniel*, verse/chorus tag.
Both the Schenkerian technique, and the method of analysis which compares popular music to classical music, provide an opportunity for examination of popular pieces in great detail. This is, of course, providing that the actual notated music is available. It is difficult to construct a note-specific description of a particular piece, when there is no definitive source from which to reference the notes. Any analysis of popular music must first begin with verifying, or sometimes creating, the score to a particular piece and then completing analysis using whatever method(s) delineate and explain the music best.
CHAPTER FOUR

MULTIREFERENTIALITY IN MODERN POPULAR MUSIC

From the onset of pop-rock music, performers and composers have experimented with the musical materials of 18\textsuperscript{th} and 19\textsuperscript{th} century European composers. Leading writers for periodicals such as \textit{Billboard} and \textit{Rolling Stone} have acknowledged that the single-most important development in pop-rock in the 1980s was “the turn to classical music for inspiration and form.”\textsuperscript{15} Beginning in the early 1980s, musicians (theorists/musicologists) turned increasingly to direct study and emulation of classical performers and styles. The musical discourse of pop-rock was affected by this pursuit of the classical model, as was its conception of musicianship and pedagogy.

An investigation of some recent pedagogical practices would prove beneficial in demonstrating how these musicians and theorists adapt classical music within the pop-music culture. Theorists like John Covach and Robert Walser’s research will be interpreted, then re-interpreted concerning their studies of guitarists such as Ritchie Blackmore and Eddie Van Halen.

Blackmore (b. 1945), once said, “I...listen to a great deal of classical music.

That's the type of music that moves me because I find it very dramatic. Singers, violinists, and organists are the musicians I enjoy listening to most of all. I can't stand guitarists!" The majority of the prominent musicians today began their studies at an early age; Blackmore was no different in this respect. His private instruction on guitar began at age eleven. Six years later, he was working as a studio guitarist in London. He greatly admired the guitar sound of Jimi Hendrix and, like Hendrix, he became a pioneer of flashy virtuosity. Blackmore's private instruction incorporated a great deal of classical literature, which paved the way to new insights on fingering techniques, chord voicings, and improvisation. As he assimilated the many characteristics associated with the classical style, he would incorporate these techniques in his rock music. For example, the chord progression in the Highway Star solo on the album "Machine Head," is borrowed directly from the Bach keyboard prelude number one, in C major. Recorded in 1971, "Machine Head" has come to be regarded as one of the greatest albums in rock history, and it has helped to create great enthusiasm for classical-rock fusion.

Investigation of this work displays a comparatively long and complex song, and reflects the group's fascination with the Baroque style. In this piece, both guitarist and keyboardist draw upon elements of the Baroque style to construct a new and effective means of rock virtuosity.

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The piece progresses through several key areas, and both Blackmore and the keyboardist take extended solos. The keyboard solo occurs in conjunction with a descending chromatic bassline reminiscent of the ground bass patterns favored by 17th century composers such as Henry Purcell, in his *Music for Queen Mary*. The solo also contains a series of arpeggios – in the style of Vivaldi or Bach – and is Referential to traditional harmonic progressions.

Blackmore chooses typical Baroque harmonic patterns (descending through a tetrachord by half-steps, or by cycling through the circle of fifths), as well. His rapid sixteenth-note patterns are organized symmetrically within balanced phrases. In the guitar solo on *Highway Star*, he begins with a blues-derived scale pattern that emulates the cadenza pattern similar to that of Bach’s *Brandenburg Concerto No. 5*. (See Figure 6: Bach, *Brandenburg Concerto No. 5*, ending cadenza pattern) Blackmore then overdubs a matching harmony part in thirds with figuration that recalls Vivaldi’s energetic harmonies in the *Violin Concerto in D minor*. (See Figures 7 a, b: Ritchie Blackmore, solo *Highway Star*, compared with Vivaldi’s *Concerto in D minor*, first movement) A regular and expected harmonic sequence provides the backdrop for the melodic figuration. Harmonic cycles set up a regular and predictable articulation of time and direction, enabling the listener to predict what will come next. The guitar soloing above it can then display greater virtuosity.

Examination of other solo’s by Blackmore again suggests the Baroque cadenza. For example, J.S. Bach’s harpsichord cadenza Bach’s *Prelude no. 21, in Bb major* from the “Well Tempered Clavier,” Book 1 is an excellent example of the material from which Blackmore gathered his ideas.
(See Figure 8: Bach, Prelude no. 21, in Bb Major, "Well Tempered Clavier," Book I)

Figure 6: Bach, Brandenburg Concerto No. 5, ending cadenza pattern.

Figure 7a: Ritchie Blackmore, solo Highway Star, compared with Vivaldi's Concerto in D minor, first movement.

Figure 7b: Ritchie Blackmore, solo (compared with figure 7a).
Figure 8: Bach, *Prelude no. 21, in Bb Major, “Well Tempered Clavier,” Book I.*
These techniques can be used to contrast the procedures of then and now. Susan McClary states in her study of tradition and contemporary performance practice,

Most cadenzas at the time of Bach would have been only a few measures in length with little elaboration and preparation before the recapitulation to the ritornello and the final resolution. In order to maintain energy, the harpsichord part must resort to increasing strategies of chromatic inflections and faster note values. This procedure [used in the pop-rock context] would result in what sounds like a flamboyant seventeenth-century toccata.¹⁹

Though the instrumentation may differ, the referential form of the toccata, and that of the Bach cadenza, is employed in solos by Blackmore. In fact, he includes an acknowledgment in the liner notes of his album “Rainbow” (1975), “Inspiration: J.S. Bach.”²⁰ Improvisation, extensive scale patterns, and the broken chord figuration of the toccata appear in cadenzas composed by J.S. Bach, and in the solos of Blackmore. This shows a transcendence of ideas from the past to the relative present.

Many examples of Blackmore’s fascination with classical music can be seen in his career. This fascination lead to many usages of not only the classical genre, but that of Far-Eastern musical styles as well. Passages using a pedal-tone under a succession of chords, or the use of Eastern-modal progressions with the sitar attest to this. The use of chorale type composition is found in many of his ballads, and the technique of “development” such as that used in the sonata-allegro forms is also utilized.


This developmental technique is applied wherein the music evolves through a succession of modulations, building harmonic momentum until returning to the head-motive of the piece.

Blackmore’s use of the classical canon, particularly that of the Baroque period, is amazing in respect that he was one of the first to do so in the pop-rock genre. His referential use of classical materials was dependent upon his previous experience and knowledge afforded him by constant immersion in classical music while growing up.

Another guitarist who brings classical elements into popular music is Eddie Van Halen. The readership of Guitar Player magazine voted him “Best New Talent” in a 1978 poll, and he went on to win “Best Rock Guitarist” for an unprecedented five straight years from 1979 through 1983. Young guitarists all over the world have emulated Van Halen’s style and technique.

Van Halen was born in the Netherlands in 1957. His father was a professional musician, performing with the local symphony on clarinet and saxophone. Eddie received classical training, starting with piano lessons at the age of six. He studied Mozart and other classical composers until his interest waned, and he switched to guitar. Eddie grew more serious about music and played in a series of bands, the final, and most successful, being the self-named group formed with his brother. His continuing exposure to the classical repertoire helped him to achieve a new level of virtuosity on the electric guitar.

Eddie Van Halen’s sound on the guitar is an amalgamation of musical virtuosity and electronic wizardry. Like most rock guitarists, he was heavily
influenced by the dialogic question and answer form of the blues. His main role model was Eric Clapton. As Van Halen remembers,

I started out playing the blues, I can play real good blues – that’s the feeling I was after. But actually, I’ve turned it into a much more aggressive thing. Blues is a real tasty, feel type of thing; so I copped that in the beginning. But then when I started to use more wang (vibrato) bar, I still used that feeling, but rowdier, more aggressive, more attack. But still, I end a lot of phrasing with a bluesy feeling.²¹

His continued exposure to classical repertoires helped him to transform the electric guitar, and ultimately create a new virtuosity for the instrument.

One of his early solos in the piece, *Eruption* (1977), was groundbreaking in many ways. In the guitar solo on this piece an initial power chord establishes ‘A’ as the tonal point of departure. The first section moves from blues-based pentatonic riffs in A, through several flashy patterns of less tonal prominence. The tonic is later reaffirmed on a low A, affected by the whammy bar. Three power chords introduce the next phrase, moving the tonal center to D, although what follows is still mostly based in the A blues scale.²² (See Figure 9: Van Halen solo adaptation and refiguring of an A blues scale) Van Halen then borrows from a well-known violin etude by Kreutzer.²³ This same etude is also found in Hanon’s "The Virtuoso Pianist,"
exercises 1 and 2. (See Figures 10 a, b: Rodolphe Kreutzer/Hanon) Rather than quoting the etude verbatim, Van Halen re-articulates each note in the melody in sixteenth notes. At an increased tempo, this produces a tremolo effect.

Figure 9: Van Halen solo adaptation and refiguring of an A minor blues scale.

Figure 10a: Rodolphe Kreutzer/Hanon.

Figure 10b: Rodolphe Kreutzer/Hanon.
After two repetitions of the borrowed etude, there is a transition introducing F natural. This transforms the mode from Kreutzer’s major to a darker Phrygian modality. The solo resumes, moving from the chords A to E and is followed by a phrase that obscures the original motive by interrupting and shifting the metric placement of melodic material slightly.

Evidence of Van Halen’s virtuosity appears next with his use of a technique known as “hammer-ons” or tapping. The hammer-on, or tapping technique involves striking the fret-board with the index, or middle-finger of the right hand to play the first few notes of a scale pattern. At the same time, the left-hand performs the same technique, but twice as fast. A few other guitarists had tried this effect before, but Van Halen’s use of it was unique. As a result, the technique was hailed, not as a fad or a gimmick, but as a genuine expansion of the instrument’s capabilities. The final section of the solo is performed entirely using hammer-ons. The rhythmic nature of the sextuplets masks a relatively slow rate of harmonic change. This same strategy — ornamented melodic line over a slower-moving harmony part — is present in many Baroque preludes for lute and harpsichord. The feeling of harmonic motion is achieved by a syntactic accelerando. Bach used this technique in his preludes, and later by Brahms in his orchestral works.

The technique of tapping also produces rhythmic activity within the context of a static harmonic environment. Some classical examples of this texture can be heard in Chopin’s Prelude in e minor, Op. 28, No. 4, and in J.S. Bach’s Prelude in C major. (See Figures 11a, b: Chopin, Prelude in e minor, op. 28, no. 4; J. S. Bach, Prelude in C Major, “Well Tempered Clavier,” Book 1, mm. 1-11)
Figures 11a: Chopin, *Prelude in e minor*, op. 28, no. 4.

The harmonic progressions of Van Halen’s solo lead the listener on an aural adventure. There are implied harmonic goals throughout the solo, and the harmonic tension ends with an alteration between tonic and dominant, coming to rest on the tonic. Eddie Van Halen’s development of two-handed techniques on the guitar might be compared to J.S. Bach’s innovations in keyboard fingering. C.P.E. Bach recalled that his father,

had devised for himself so convenient a system of fingering that it was not hard for him to conquer the greatest difficulties with the most lowing facility. Before him, the most famous clavier players in Germany and other lands had used the thumb but little.24

In the same way, Van Halen’s tapping technique utilizes all four fingers of both hands. This was a breakthrough in guitar technique.

The linear motion employed in this section of the solo can be analyzed as a linear intervallic pattern. A linear intervallic pattern is a voice-leading design made up of successive pairs of intervals formed between the descant and the bass.25 Linear intervallic patterns exist in a wide variety of tonal music and are not restricted to a particular musical period, style, or genre. This solo can be viewed as a 5-6 linear intervallic pattern.26 Figures 12a, b, and c show a reduction and identification of this pattern within the solo. (See Figures 12a, b, c: Harmonic reductions of Solo)


26 The 5-6 linear intervallic pattern is defined as a harmonic pattern in which the harmonic intervals of a fifth are formed between the soprano and bass, which are followed by a harmonic interval of a sixth. This pattern is usually repeated several times before some type of harmonic closure is established. The 5-6 linear intervallic pattern is prominent in both Baroque and Classical literature.
Figure 12a: Harmonic reductions of Van Halen’s Solo.

This pattern duplicates itself throughout the harmonic progression provided in Figure 12b.

Figure 12b: Harmonic reductions of Van Halen’s Solo.

Figure 12c: Harmonic reductions of Van Halen’s Solo.
The piece shifts from c# minor to A major. This is accomplished by moving one finger up one fret on the guitar. The piece then moves through B major to E major by means of diminished triads, to the point of arrival on A major. Further use of linear motion effects a harmonic shift from C to D to E, reminiscent of the progression bVI – bVII – I. Although this harmonic progression is conventionally used in classical music, it is quite common in popular and jazz music as a substitute for the traditional ii-V-I or IV-V-I cadence. It can also be heard in the popular music of Billy Joel, Fleetwood Mac, Lionel Ritchie, and Elton John, and others.

Eddie Van Halen strongly reflects on past ideals in his music. His classical training and his manipulation of traditional harmony are evident in the voice-leading models that permeate his guitar solos. His social function as a virtuoso and innovator of technique closely parallels the contributions of nineteenth century virtuosi. Like Paganini and Clementi, Van Halen acts as a role model for younger musicians, and a pioneer in the development of the guitar.

Throughout the 1970s and 1980s, popular musicians experimented with the fusion of rock and classical music, just as jazz musicians had done in the late 1940s. Some rock guitarists turned to classical music for new melodic and harmonic resources. The Thesaurus of Scale and Melodic Patterns by Nicolas Slonimsky (1947) introduced jazz and pop-rock musicians to harmonic minor scales, modal scales, and diminished arpeggios.27 Jazz/rock fusion guitarists (including John McLaughlin and Al DiMeola) were very

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influential on the expansion of the pop-rock vocabulary. Their music was by no means rock, but their use of the melodic and harmonic language inspired their pop-rock colleagues. These artists synthesized advanced harmonic and melodic material with the more predictable song formulae used by their contemporaries.

Many pop-rock musicians link themselves with the classical model of virtuosity quite explicitly. Wolf Marshall, in his article on "The Classical Influence in The Leading Professional Guitarists," compares today's musicians to Liszt and Paganini, in their virtuosity, bravura manner, mystique, and experimentation with flashy, crowd-pleasing tricks. These parallels seem particularly apt when we recall that women swooned and threw flowers to Franz Liszt during his performances, and that fans followed Frescobaldi's tours through Italy, congregating in crowds as large as 30,000 for the chance to hear him sing or improvise toccatas on the organ.

This description of Liszt could just as easily refer to Eddie Van Halen, Sting (Gordon Sumner), Axel Rose, or Frank Zappa.

There are many examples of borrowing from the masters, in both performance practice and composition. Many art-rock composers have explored large-scale classical forms as a vehicle for expression. Emerson Lake and Palmer used Ginastera's Piano Concerto as an inspiration for the piece Piano Concerto, performed live on their ELP album "Classic Rock" (1978). The group Queen made explicit reference to opera seria on Bohemian Rhapsody ("A Day At The Races," 1973).

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This piece uses a full orchestral sound, combined with a satirical parody of opera vocal technique. Frank Zappa explored large orchestral forms in several works as well.29

The band Rush -- Geddy Lee, bass, Neil Peart, drums, and Alex Lifeson, guitar -- was regarded as one of the more commercially successful art-rock groups of the 1970s and 1980s. They combined virtuosic playing, complicated polyrhythms, large and relatively complicated forms, and equal treatment of all instruments in the ensemble to form unique pieces in the popular music genre. The piece YYZ, from the album "Moving Pictures" (1980), serves as an excellent example of the band's ability to create a large multisectional piece that showcases each band member's talents. Furthermore, classic formal structures provided the basis for many of their works, notably the sci-fi rock opera "2112" (from the album of the same name, 1976).

The libretto for "2112" tells the story of an individual who lives in an increasingly stratified, quasi-socialist society where creative control is centralized by the "Priests of the Temple of Syrinx." The priests assert that:

We've taken care of everything  
The words you read  
The songs you sing  
The pictures that give pleasure  
To your eye  
One for all and all for one  
Work together  
Common sons  
Never need to wonder  
How or why  
We are the priests

Of the Temples of Syrinx
Our great computers
Fill the hallowed halls
... All the gifts of life
Are held within our walls³⁰

The protagonist in this work discovers a cave behind a waterfall. In the cave is an electric guitar. The hero (or heroine – gender is not specified) realizes that the guitar could serve as a vehicle for individual freedom, and shares the discovery with the Priests. The priests are threatened by the discovery and destroy the instrument. Subsequently, the protagonist falls into a fit of depression and dreams about a race (humankind) that left the planet a long time ago. In the dream, the protagonist meets an oracle who foresees an end to the reign of the Priests. The opera concludes with a cacophonous finale: the destruction of the planet. Overall, “2112” contains many devices indicative of more conventional or “serious” musical works. It uses elements typically associated with classic works, particularly classic opera.³¹

This piece begins with an overture that introduces multiple acts/scenes. This overture, like its classic counterpart, contains a preview of the musical ideas to be found in later sections of the work.³²

Throughout the opera, musical ideas are used to represent dramatic events, in a manner emulating classical text painting. As in more conventional operatic forms, “2112” uses certain musical ideas to portray different dramatic shades.

³⁰ Neil Peart, Rush 2112, Mercury 314 534 626-2, 1976. Compact disk. The lyrics excerpted in this thesis were taken from the liner notes to the album.


³² The acts, in order, are: The Temples of Syrinx, Discovery, Presentation, Oracle: The Dream, Soliloquy, and The Grand Finale.
In *The Temples of Syrinx*, the priests assert their control and authority not only through the text (see above), but also through a modal chord progression played with an up-tempo aggressive *fortissimo* accompaniment. Later, in *Discovery*, the visit to the cave is a time of exploration and repose. This mood is emphasized by a sonically ambient texture that uses the *musique concrete* sound of a waterfall. The discovery of the new instrument is described musically through the sounds of tuning each individual string on the guitar, the beginner’s first tentative chords, and the prominence of the guitar as an accompaniment to the text. The inner drama of the dream and the subsequent soliloquy (*Oracle: The Dream* and *Soliloquy*) is carefully represented by an airy and atmospheric musical texture, while the turbulent finale shifts to one that is very thick and distorted. The group’s use of different associative affects stands in stark contrast to most other pop-rock efforts of the day. The effects contain shifting dynamic ranges, drastically different textures, and unique musical motives, all composed to instill in the listener a sense of the internal drama present in the text — a practice borrowed from art music in the classic tradition.

Consistent association between specific characters and musical ideas is also reminiscent of other operas. On a more detailed level, certain musical ideas are consistently associated with their dramatic characters or states, in a manner not unlike the treatment of the *leitmotiv* in Wagner’s music dramas.\(^3\) One example of this is found in the music that accompanies the Priests of the *Temples of Syrinx*.

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When first introduced, the priests assert themselves musically. (See Figure 13: Example of leitmotiv from Temples of Syrinx on the album “2112”). This chord progression is enough to act as an audible cue to their presence later in Presentation. At this point in the story the protagonist discusses the new instrument and hopes to be praised by the Priests for its discovery:

I know it’s most unusual to come before you so
But I’ve found an ancient miracle I thought that you should know
Listen to my music and hear what it can do
There’s something here as strong as life
I know that it will reach you.34

Figure 13: Motive in Overture from “2112.”

This text is set to the thin-textured guitar music from the cave (Discovery), but when the priests reply, the motivic material remains the same, changed subtly by the reappearance of the Priest’s chord progression (B-G-A), signifying their disapproval with the instrument.

Yes we know, it’s nothing new, It’s just a waste of time
We have no need for ancient ways, our world is doing fine . . .
. . . Forget about your silly whim, it doesn’t fit the plan.35

What makes this a unique moment is that the dialogue alternating between the protagonist and the Priests consistently shows a shift between the two different musical ideas -- a technique borrowed directly from the classical opera. Figure 14 shows an overview of the major motives found in the overture, illustrating the connection between their appearance in the overture and their contexts later in the piece.

Motivic unity also plays a role in “2112,” in which the different motives are connected to one another in pitch and rhythm. The consistent application of a limited number musical ideas has long been used as a technique of providing coherency in large-scale works and is a technique used in this piece to achieve similar ends.36 All of the individual musical ideas presented in the overture, for example, are related by melodic or harmonic motion through a third (See Figure 15: Melodic motion through intervals of thirds)

In many ways, all of the important musical material in this work is interrelated by the use of a third (either major or minor).


36 The technique of providing coherency throughout a musical piece is prominent in many examples in Classical literature. For example, Beethoven’s Fifth Symphony with its four-note motive, which ties all of the movements of the work together.
Figure 14: Example of leitmotiv from *Temples of Syrinx* on the album "2112."

Figure 15: Melodic motion through intervals of thirds.
This device is presented in linear (melodic) or harmonic fashion. Ultimately, "2112" is effective and unique as both a pop-rock and as an art-rock piece because of its ability to include vocabulary from the rock genre and fuse it with techniques and formal structures present in more ambitious classic opera works.

Frank Zappa was a unique individual who combined virtuosic guitar stylings with ironic social commentary, and fused the two with a penetrating understanding of larger musical structures. He could be described as one of the most unique, creative, and controversial composer/musicians of his time. His style of music can best be described as rebellious, innovative, and sometimes just plain strange.37


Like many rock musicians of his day (for example Country Joe and The Fish and their infamous "Fish Cheer" concerning Vietnam), Frank Zappa used his music to express his view on politics and society. What distinguishes him from other composers is his use of borrowed material, and sardonic adaptation of music to express his feelings. While Ritchie Blackmore and Eddie Van Halen might have intended their borrowings as a

way of paying homage to an older art form, Zappa often used a popular or classical procedure, and then cast it in a decidedly unfavorable light. This is a technique he would employ throughout his career. What makes this treatment more penetrating is his almost uncensored lampooning of social and political issues.

The concerns of the counterculture are reflected in much of his output, although Zappa avoided the typical lyric and instrumental styles of the day and invented his own unique versions. On one level, his songs were simply unusual versions of more popular songs, on a deeper level, his work offered a scathing commentary on the social norms in music. An early example of this technique is found in *My Guitar Wants to Kill Your Mama*, (from the album, *"Weasels Ripped My Flesh,"* 1970). In this song, modern rock instruments are juxtaposed with Lawrence-Welk-style accordion comping, Stravinsky-meets-big-band woodwinds, and an acoustic guitar interlude vaguely reminiscent of AM radio stars "Seals and Crofts." The lyrics of the song reflect youthful sexual frustration and parental conflict:

Later I tried to call you—your mama told me you weren't there,
She told me don't bother to call again, unless I cut off all my hair;
I get so tired of sneakin' around, tryin' just to get to your back door
I crawl past the garbage and your mama jumped out, screamin',
"don't come back no more!"38

Other artists who wrote during the same time period chose conventional lyrics used and tried-and-true musical textures to frame their protest lyrics. (for example, see *Your Momma don't dance and your Daddy

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"don't Rock 'n' Roll" by Kenny Loggins, and School's Out for Summer by Alice Cooper. Unlike these artists, Zappa almost always avoided the typical one-dimensional style and used his own unique, multireferential, and often less commercially-successful voice.

As the 1970's progressed, Zappa's position as a supreme ironic commentator on social events was confirmed with the album "Sheik Yerbouti." (1979) where every song on this album references a social or sexual issue of some sort. The American concept of masculinity in relation to the women's liberation movement is seriously questioned in Bobby Brown Goes Down. This song is a narrative about a "Big Man on Campus" who threatens to sexually assault a cheerleader, is emasculated by a lesbian, and is ultimately reduced to playing a submissive role in a homosexual power relationship. The music that accompanies this rather startling story borrows freely from contemporary lyric ballad style, which presents a very uneasy juxtaposition of graphic lyrics with almost stock ballad-style accompaniment.

The disco phenomenon was another source of inspiration. Dancin' Fool borrows elements from the disco trend and subverts the genre through its lyric content. Basslines, drum patterns, and guitar comping, are all borrowed wholesale from the disco vocabulary, but the lyrics provide a sense of irony:

I don't know much about dancing, that's why I got this song, one of my legs is shorter than the other 'N' both my feet's too long, 'course now right along with 'em I got no natural rhythm, but I go dancin' every night Hopin' one day I might get it right... The disco folks all dressed up like they's fit to kill I walk on in 'n' see 'em there Gonna give them all a thrill when they see me comin' They all steps aside, (cont.)
They has a fit while I commit my social suicide.\textsuperscript{39}

During his lifetime Zappa became disenchanted with the music industry (as well as pop culture in general). This was reflected in many ironic pieces like Dancin' Fool, I'm The Slime (from "Over-Nite Sensation," 1973), Valley Girl (from "Ship Arriving Too Late to Save a Drowning Witch," 1974) and Be in my Video (from "Bongo Fury," 1975).

Zappa’s involvement in political affairs also spurred the development of new works containing overt references to legislative and social concerns. The piece, Broadway the Hard Way, was written at a time when Zappa was publicly involved in a campaign fought in the U. S. House of Representatives between the Parents’ Music Resource Committee and representatives of the recording industry. The P.M.R.C. is a group created in 1985 by the wives of several prominent Congressmen (Mrs. James Baker, Mrs. Fritz Hollings, Mrs. Albert Gore). The group attempted to force the U.S. record industry to follow a procedure by which record albums would be “stickered” as appropriate, or not appropriate for certain age groups. Zappa testified before this Committee in October of 1985.

In his analysis of “Broadway the Hardway” Christopher Smith posits that it represents Zappa’s social, artistic, and political “State of the Union.”\textsuperscript{40} Zappa believed that the attempts of the conservative PMRC regarding the labeling of recordings with adult content was a move towards censorship


\textsuperscript{40} Christopher Smith, "Broadway The Hard Way," College Music Symposium 35 (Spring 1995): 35-60.
and that little was being done to prevent this from happening.41

Much of what is found in Broadway the Hard Way acted as an ironic commentary upon the overzealous patriotic efforts of the PMRC made in the name of patriotism, using quotations from what Zappa referred to as being “Archetypal American Musical Icons.”42 Zappa states, in reference to these short quotations or allusions,

I’ve developed a formula for what these timbres mean (to me, at least), so that when I create an arrangement...I can put sounds together that tell more than the story in the lyrics, especially to American listeners, who are raised on these subliminal clichés, shaping their audio reality from the cradle to the elevator...During the pre-tour rehearsals, the band members pencil these extras in the next to the real notes so, when they finally have the show learned, they know not only the song-as-originally-written but also, superimposed on it, a flexible grid which will support a constantly mutation collage of low-rent Americana.43

Such evocation of associations in a musical context is not limited to Zappa, or to modern popular music idioms. This technique is a significant component of programmatic music’s methodology. Of Mozart, Leonard Ratner writes that,

This rapid succession of military, peasant, brilliant brusque, and singing manners . . . must have suggested to Mozart’s listeners that he was imitating an episode from commedia dell’arte, with

41 The fight to prevent such censorship in music continues even today. Musical groups ranging from Rap, to Rock, and individual artists such as Quincy Jones have provided testimony to the negative effects censorship would have on the creative writing process, and production techniques.

42 Many others are similarly identifiable, but they are not essential for this analysis.

its slapstick effects, its darting here and there, and its play of unexpected events.\textsuperscript{44}

In his description of Don Giovanni, Ratner makes procedural parallels between Mozart and Zappa particularly clear:

As an autonomous genre, comic opera could act as a lens through which the whole world was viewed, and a mask behind which bitter and subversive social comment could be delivered...The sense of immediacy in comic opera, the ‘here and now’ ambiance, was achieved through a highly volatile music idiom...ranging from sentimentality at one end to furious effervescence at the other...with a prevalence of dances, simple songs, mock-military, mock-serious, and rustic styles...deployed for some extravagant or parodistic effect.\textsuperscript{45}

Zappa used the allusive powers of music in a similar way with his Archetypal American Musical Icons:

I attempt to devise language that will describe my musical intentions, in shorthand form... There’s an assortment of “stock modules” used in our stage arrangements... These stock modules include the \textit{Twilight Zone} Texture (which may not be the actual \textit{Twilight Zone} notes, but the same “texture”), the Mister Rogers texture, the “\textit{Jaws}” texture... and things that sound either exactly like or very similar to \textit{Louie Louie}. These are Archetypal American Musical Icons, and their presence in an arrangement puts a spin on any lyric in their vicinity. When present, these modules suggest that you interpret those lyrics within parentheses.\textsuperscript{46}

The success of this type of procedure is contingent upon the musical knowledge of the audience, and Zappa often sought to create references and


\textsuperscript{46} \textit{The Real Frank Zappa Book}, 166.
allusions specific to certain situations. This idea was common in the classical period. The ability to improvise and spontaneously create these references depends heavily on the musical vocabulary of the performers and the instructions given them.

Archetypal American Musical Icons are prevalent throughout Broadway, where Smith describes them as including:

... mock opera (On the Planet of the Baritone Women), blues (What Kind of Girl?), and blues-funk (Bacon Fat), pop-rock ballads (Any Kind of Pain), Dixieland jazz (When the Lie's So Big), TV and film melodrama (The Untouchables and Hot Plate Heaven), pop-funk (Why Don't You Like Me?), strip shows (What Kind of Girl), country music (Elvis Has Just Left the Building), and Ravel's Bolero (When The Lie's So Big). Idiomatic allusions are put to use consistently throughout each piece: for example, the gospel hymn Rock of Ages, connoting ostentatious Protestant fundamentalism, is quoted at the ends of the first, and final numbers, Elvis has just left the building, and Jesse thinks you're a jerk.

A specific Archetypal American Musical Icon, The Battle Hymn of the Republic, appears several times within the piece. Three particularly referential examples are described below.

1) In Dickie's Such An A**hole, to reference to former Republican US President Richard Nixon. (See Figure 16a, Frank Zappa's Broadway)

2) When the Lie's So Big, referring to Reagan-era Republican political leaders. (See Figure 16b, Frank Zappa's Broadway)

3) What Kind of Girl?, referring to television evangelist Pat Robertson's political affiliations. (See Figure 16c, Frank Zappa's Broadway)

47 Discussing "Ideas of Expression" in Mozart's rhythmic conception, Ratner quotes Rousseau's Dictionnaire of the 1768: "It amounts to little simply to read the notes exactly; it is necessary to enter into all the ideas of the composer, to feel and render the fire of his expression." Ratner, "Classic Music," 400-405.

48 Christopher Smith, "Broadway," 42.
Figure 16a: Frank Zappa's *Broadway*.

![Music sheet image](image1)

Figures 16b: Frank Zappa's *Broadway*.

![Music sheet image](image2)
Figure 16c: Frank Zappa's *Broadway*, (cont.).
Other examples may be found throughout the piece: *Rhymin’ Man* (related to Jesse Jackson), *Jesse Thinks You’re a Jerk* (lampooning Sammy Davis Jr.), and *Promiscuous* (the music industry).49

Mozart employs a similar type of sarcasm in *Don Giovanni:*

Donna Elvira lurches in to the accompaniment of a stiff, and archaic *ritornello* . . . Mozart takes the greatest care to make the aria seem odd and old-fashioned . . . The effect is eccentric, to say the least - a “conceptual” aria, cleverly working the archaic technique of *Fortspinnung* into a periodic setting . . . which contributes to the aria’s deliberate air of obsolescence.50

*Broadway* is loosely based upon classic models. Zappa, an educated musician, employed time-honored techniques of allusion, and intentionally uses populist idioms points to create associations in the mind of the listener. Zappa’s methods of social referentiality are very similar to Mozart’s, using subtle modifications and juxtaposition as a way of creating irony. Zappa also borrowed and adapted other classic compositional techniques. The piece, *Fine Girl,* (from “*Tinsel Town Rebellion,*” 1981) is an excellent example of his familiarity with standard compositional procedures. In this work, Zappa experiments with fugal expositions, imitative practice, and motivic development. The entire piece is a typical popular song in terms of texture and formal structure. The twist occurs in the final section, which is reminiscent of classical *fugato* textures. In classic vocal works -- cantatas or operas -- a textual fragment is developed, and serves as the basis of an entire

49 Frank Zappa, “*The Real Frank,*” 174.

section of a larger work. Zappa employs a textual and melodic idea (with the text “we need some more like that in this kind of town”) and presents it using a unique contrapuntal texture. Its initial appearance is imitated at the fifth above, (much like a Baroque-era fugue), and then appears in a rhythmically augmented version. Figure 17 shows the imitated material appearing as a “real answer,” an exact transposition of the melodic content of the subject. Zappa then proceeds to present this idea at various levels of transposition, and motivically transforms the initial idea. Figure 18 shows the “we need some more like that” fragment embellished by neighbor motion. (See Figure 18: Zappa’ a Fine Girl) Other developmental techniques are also used. The initial descent of a fourth is followed by a step in the opposite direction. Zappa inverts and transposes this melodic idea. (See Figure 19: Zappa’ a Fine Girl)

This entire section of the piece attests to Zappa’s fascination with classical contrapuntal development. What makes this particular piece unusual is that it makes no claim as “art rock” or any kind of extended style, in spite of the unusual contrapuntal conclusion. Irony is created through the use of strict contrapuntal rules within a commercial piece of music.

51 “See, for example, G. F. Handel’s And with his stripes... from the Messiah.

Figure 17: Zappa'a *Fine Girl*, opening of imitative section.

Figure 18: Zappa'a *Fine Girl*.

Figure 19: Zappa’a *Fine Girl*.
Ultimately, Zappa's works may be thought of as being supremely allusive. The subject matter incorporates everything from contemporary political, social, and moral concerns, to ancient classical techniques. Not all references are necessarily complimentary and it can be said that his use of musical referentiality acts as a dual edged sword, critiquing musical and sociological issues. This technique is also present in the works of earlier composers. It is noteworthy that Leonard Ratner’s description of events in Don Giovanni closely parallel the type of referentiality used by Zappa in his own pieces.
CHAPTER FIVE

TECHNOLOGY AND LEGAL ASPECTS OF BORROWING

With the evolution of improved electronic instruments and the growing variety of popular music sub-styles, the distinction between borrowing and plagiarism has become convoluted. Any discussion of musical genres of the 20th century (especially one concerning those works intended for the mass market) must grapple with copyright issues. Since the 1970s, these legal questions have become increasingly complex, even calling into question the nature of a musical work itself.

The Copyright Act of 1956 established that a “musical work and any associated lyrics, acquire copyright protection immediately, if it is committed to paper or fixed in some other material form, such as recording.” A clear definition of a “musical work” is not given in the 1956 act. A precedent may be found in the 1902 Copyright Act, which referred to a musical work as “any combination of melody and harmony, or either of them.”\(^{53}\) The law must therefore distinguish between ideas, which cannot be copyrighted, and their expression, which can. There can be copyright in the arrangement of a piece of music if it involves sufficient skills and labor, but not in particular

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\(^{53}\) Lyman Ray Patterson, Copyright in Historical Perspective, (Nashville: Vanderbilt University Press, 1968), 122-125.
instrumental sounds or rhythmic combinations that produce the music. This ambiguity represents a predilection of the law to protect musical ideas that can be expressed concretely but not those that are less clearly defined. Essentially, this establishes a legal climate that favors certain parties.

Copyright laws define music in terms of 19th century Western conventions (musical notation, professional recording, and public performance), and are not well suited to the protection of the African-American musician’s improvisational art or rhythmic skills. Therefore, African-Americans have long been on the losing side in copyright battles. This effects popular music, because African-American music has contributed so music to the popular repertoire. One example of such a copyright controversy occurred when guitarist and blues singer Bo Diddley, could not copyright the familiar “Bo Diddley beat.” However, in a later case Paul Simon used U.S. copyright law to acknowledge and reward the melodic contributions of his South African collaborator’s on Graceland, but did not acknowledge their instrumental sounds.

Since the music of many cultures (including African and Native American), does not have a written tradition, these cultural groups have not been, in many cases, granted their due legal rights simply because they had not “fixed” their music, by recording, transcribing, or writing it in sheet music form. In the days before recording, fixing music could only mean scoring it.


55 Dennis Thomas, “Copyright and the Creative Artist,” 49.
The author of a song was considered, for legal purposes, the author of its sheet music. This usually meant that the first person to transcribe a song became its author and that a musical improvisation was credited to the first listener who could write it down. Author Gunnar Erickson discusses this with reference to early jazz:

The songs that went on to become jazz standards in the early days were original compositions in the sense that later popular tunes, like Star Dust, or Body and Soul, were pieced together out of musical material that was floating loose around the musician's bandstands, such as fragments of hymns, blues, work songs, operatic arias, or traditional themes with ancient histories. In the early days when many of the musicians could not read music much less write it, they perforce, had to get someone like Clarence Williams or Fletcher Henderson to set the music down for them. In many cases, the amanuensis would supply harmonies, add verses, or change the tune in other ways, and felt entitled to credit.\textsuperscript{56}

Roger Wallis and Krister Malm describe the similar problems raised for the protection of what they termed "local old music," or folk music. The traditional Jamaican Banana Boat Song, was credited to the songwriting trio of Belafonte, Burgess, and Attaway on Belafonte’s hit record “Calypso From Jamaica” 1959, and the song’s publishers, Fall River, are adamant that this is an original composition not a traditional or folk song. Although the original material for the Banana Boat Song, was pre-existing, the fact that Belafonte et al were the first to publish it, is sufficient in the eyes of the court to establish it as being an original work, and to give copyright to the first group to record the song.

\textsuperscript{56} Gunnar Erickson, \textit{Musicians Guide to Copyright} (New York: Charles Scribner's Sons, 1983), 117-118.
Wallis and Malm write:

Until the various conventions such as Berne, UCC, etc., find a way of defining historical (folk) material, what falls in the public domain, then there is no purpose in enacting legislation. You can only use that legislation effectively within your own territorial boundaries.⁵⁷

At issue are not just the authorship of a musical work, but also the definition of musical originality. Under copyright law “original” does not mean “unique,” but merely that a work is the independent effort of its producer and it has not been copied. In legal practice “originality” is still assessed in terms of 19th century musical convention.

The tendency of popular music to use common harmonic, melodic, and formal structures further clouds the issue of originality. An example of this is found in a 1982 plagiarism case that involved Ray Parker Jr. and his composition *Ghost Busters*, which was found to be a direct plagiarism of Huey Lewis’ *I Want A New Drug*.

Many conflicts such as the above have occurred in popular music for over one-hundred years. Due to these conflicts, a loose definition of composition was implemented that gave musicians some guidelines on what was copyrightable, and what was not:

Musical signs available for combinations are about thirteen in number. They are tones produced by striking in succession the white and black keys as they are found on the keyboard of the piano. It is called the chromatic scale. In a popular song, the composer must write a composition arranging combinations of

those tones limited by the range of the ordinary voice, and by the skill of the ordinary player. To be successful, it must be a combination of tones that can be played as well as sung by almost anyone. Necessarily, within these limits there will be found some similarity of tone succession.58

Patterson comments, similarity between sounds and progressions in pop music is regarded as more likely, and therefore less reprehensible than borrowing in “serious” music. A number of courts have cautioned that of the numerous, possible permutations of the musical notes of the scale, only a few are pleasing, and much fewer still suit the infantile demands of the popular ear.”59

More recently the Performing Rights Society (PRS) has had to decide whether sound engineers (who may have no musical performance skills but clearly contribute to the appeal of a record) can be classified as songwriters. The determining factor is whether electronic music based on repetitions, tape loops, sampling, and so on, should be valued in the same way as other music on the PRS register. Labor and skill provide the ideological basis for copyright protection in the first place, and should not therefore, be disregarded, even if they do not play a part in a specific music performance event.

A case that went before a California judge in 1979 (involving A&M Records, and their in-house producers), granted record manufacturers their performing rights with regard to their involvement in the recording process. The judge commented:

58 Lyman Ray Patterson, “Copyright in Historical Perspective,” 144-146.

I see considerable objection to the view that persons might take, without doing anything more than buying a record, the advantages of all the skill and labor expended by makers of records for the purpose of public performance.  

Recording has raised further questions about a musician's legal interest in his or her own work. Should the courts quantify the skill and labor expended in making a record, and how would it be done? The 1911 Copyright Act, which gave composers the right to authorize or refuse recording of their work, also favored the interests of the record manufacturers. These entrepreneurs were fearful of the consequences of a few companies getting exclusive rights to the most popular works. Once the composer authorized one recording of a particular piece, other record makers had the right to issue their version too. Composers were given no control over who recorded their material. Although royalties are paid to the composers for each version of a piece that is recorded, composers may feel marginalized by their inability to control who can records their music.

Traditionally, the writers and publishers in PRS have used their copyrights to make money rather than to control the use of recorded material. Performing licenses are rarely refused. The single attempt to use PRS power politically occurred in the 1930s, when some members wanted to compel the BBC to play only British songs. It was quickly realized that this was a threat to the PRS's international ties (the PRS collects for foreign publishers whose songs are performed in Britain, and vice versa), and the Songwriters Guild was formed as a separate songwriter special interest group.

60 Gunnar Erickson, "Musicians Guide to Copyright," 64-65.

61 Lyman Ray Patterson, "Copyright in Historical Perspective," 79-83.
The Songwriters guild of America, formerly known as The American Guild of Authors and Composers, provides a service for its members under which it watches over copyrights and at the appropriate time files renewal applications.

Phonographic Performance Limited (PPL) has more complex regulations with regard to licensing. PPL restricts the use of records, and has also had to fight a number of cases over what is meant by a performance "in public." Public performance is not defined in the 1956 Copyright Act. The definitive judgment on this issue, was set down by Lord Milligan (London, England), in 1973. His judgement reflected the underlying principle of fair reward for the creator. Mulligan ruled that what defined a public performance was not whether it was organized for profit, or was open to the public, but whether a "selected audience is enjoying the author's work under conditions in which it would normally pay for that privilege in some form."^{62}

The development of electronic instruments and recording equipment since the late 1970s has made it more difficult to decide when music is actually "created", and by whom. Since the development of commercially available multi-track and digital recording, few records represent a single musical event, or the efforts of a single composer or artist. Today's recordings are constructed from a variety of traditional acoustic and electronic happenings, occurring in different places and at different times. The person whose work is most important to the sound of the final product is the remix

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^{62} Lyman Ray Patterson, "Copyright in Historical Perspective," 103-105.
engineer, and even this finished sound can later be altered digitally. The final product (which may be the end result of untold numbers of performers, audio engineers, and producers) generates income, but it is unclear how this revenue should be divided among the participants.

The increasing use of pre-recorded sounds as musical elements complicates matters even further. At the simplest level, distinctions between live and recorded music dissolve when groups depend on pre-recorded material during a live performance. One example of this is the "disk jockey," or radio show host, who plays and performs by using a variety of other artists' recordings manipulated on turntables.

Copyright regulations have been applied to other genres of musical collage, such as "mastermixes," where hiphop DJs' perform on-the-spot rhythmic compositions using a bassline from one composition, a sax break from a second, the bridge from a third, add lines of TV dialogue, sample old film soundtracks, and add clips from the latest Top 40 hits. Problems arise when DJs want to record and publish their work. Many recordings have never been released commercially because the artists have been unable to get clearance for the use of the "fragments" of previously recorded (and copyrighted) music used to create a particular work. This is one of the peculiarities of the copyright conception of creativity. One of the earlier mastermixes recorded (c. 1980), was a series of Beatles songs segued with other musical materials over a shifting disco beat. It could not be released in its original form because it breached the copyright of the original performers.

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However, over the past years, many studio musicians have been hired to reproduce the music of the Beatles, and as such no copyright rules have been violated, simply because the original version is not used.

The most serious breakdown in existing law concerns the new generation of digital sampling devices. Samplers are devices that record a sound digitally, and when triggered, play it back at any pitch over the range of an entire keyboard. These samples can also be "looped" – set to repeat continuously – to act as a structural part of the piece. They allow musicians, producers, and equipment manufacturers of synthesizers to borrow other artist's signature instrumental or vocal sounds, often directly from a recording. Peter Gabriel, Phil Collins, and others find their work constantly being sampled for sounds because of their uniqueness.65

Richard Wincor suggests that discussions about sampling focus upon two issues; first, whether the maker of an original sound should be credited or rewarded for subsequent use of that sound and second, whether technology is making studio musicians repeat old material and lose creativity.66 This second issue is one entirely separate from the Copyright issue itself, but brings into question the nature of musical composition in an electronic age. With such a wide variety of technologically enhanced musical instruments available, one wonders who is really "making" the music. Should a composer be given credit for a piece when it is almost entirely


65 Dennis Thomas, "Copyright and the Creative Artist," 69.

composed of pre-recorded sounds that he compiled from the sound library on his keyboard? This is the latest episode in the shifting significance of musician and engineer in music making.

Technology may signal a new way in which copyright legislation can be used. Computerized instruments make sounds that are authored by their programmers rather than their users, and computer programs are presently classified in legal terms as literary works. Copyright law is still muddled on this and other issues, and new definitions of musical skill and labor are inevitable and necessary if the integrity of the composer is to be preserved.
CHAPTER SIX

CONCLUSIONS

Popular music is the music of the people, the music of the 20th century. It reflects the opinions of the artists, composers, and the listeners as well.

Music in the United States has undergone many changes since the 1890s, and most of these phases of evolution have occurred within the genre of popular music. Music in America has grown from the drawing room ballads of the early 1900s, through patriotic and nationalistic tunes after the Civil War, Tin Pan Alley and jazz music of the 1940s, through rock 'n' roll of the fifties, to the rapidly changing technologically influenced music of the past three decades.

Popular music has a lasting influence on its listeners. Many people in the United States grew up listening to their favorite popular artists on the radio, and watching them perform on television. These stars have become the musical idols of many young people, and have influenced them with their technique and their showmanship. Many young musicians will list guitarists such as Ritchie Blackmore and Eddie Van Halen among their main musical influences. Not only did these two artists affect the public perception of the guitar as an instrument; they also pioneered many different techniques for the instrument. The hammer-on technique and the use of power chords
in popular music would not be what it is today without the vision and talent of Blackmore and Van Halen. These two artists also had the benefit of being trained classically as well. This tutelage shows up in their music. They both employed techniques that remind the listener of Baroque and classical pieces. The use of ground bass or passacaglia techniques by popular composers shows knowledge of traditional harmony techniques, and reminds the listener of classical compositions they may have heard in the past. Many compositions of Blackmore and Van Halen contain melodic and harmonic elements similar to compositions of Bach, Beethoven, and Brahms.

Rush, the super-group of the 1970s and 1980s, employed many characteristics of musical form indicative of more conventional or "serious" musical works. Their work "2112" for example contains elements typically associated with classical works, particularly classical opera:

1) An overture that introduces multiple acts/scenes
2) Use of musical ideas to represent dramatic events/Text Painting
3) Consistent association between specific characters and musical ideas
4) Motivic unity

Rush pursued many other avenues of composition to give them a uniqueness unequaled by most groups of that time. Emphasis through sonically ambient textures were used to produce a musique concrete atmosphere in their music. They also tailored their music with the purposeful affect associated with dramatic characters or states, in a manner not unlike the treatment of the leitmotiv in Wagner's music dramas.

In spite of these similarities, between popular and classical music, it is difficult to analyze popular music. Many techniques for analysis fail to
acknowledge the social context in which a particular piece was written, and others focus only on the social aspects of the performance, without ever discussing "the notes." Part of the difficulty may lie in the fact that many popular musicians do not transcribe their music to paper, or, if they do, it is only an outline of the piece, and does not provide all of the performance details necessary to truly understand the music.

One composer and performer who definitely falls into this category is Frank Zappa. His musical compositions synthesize many elements of classical music, with overt social commentary. The players memorized this particular piece, and during each performance, Zappa would dictate the changes that he wanted to make. No two performances were alike. Analysis of a piece such as this is very difficult because, not only is the piece performed differently in each venue, many of the political and social references that Zappa makes are situation specific. His music is written to emphasize different aspects of society and provide the listener with an insight into the opinions of the composer. In a social and political context, Zappa was always very vocal. He spent much of his 'spare' time championing the rights of musicians to release their works without censorship.

There is a growing awareness, within the popular music world, of the problems associated with music, with regard to copyright. Many musicians, and indeed, all of the musicians discussed in this paper, borrow material from other composers for use in their own pieces. Sometimes a compositional technique or form will be referenced, while in other cases, specific sounds and rhythm of vocal tracks will be borrowed. This creates a problem when royalties need to be awarded. In addition, it is often difficult to
determine who should receive credit for the composition of a piece of music.
The treatment of ethnic musics, many of which do not have a written
tradition, is also questionable under the current Copyright regulations.

Popular music in the 20th century has gone through many changes, and
has been forced to react to changing technology and social structure, much
more so than any other type of music in history. Advances in technology
provide musicians with many avenues for sound exploration, and the results
provide the audience with an enhanced listening experience. Many
composers and performers of popular music have reacted to these influences
and created music that is unique and provocative. Popular music not only
refers to its classical predecessors, but also makes comment on the social and
political issues of the present day. In a sense, popular music reflects a society
that has grown up in the United States of America.
BIBLIOGRAPHY


