THE FORBIDDEN ZONE, ESCAPING EARTH AND TONALITY:
AN EXAMINATION OF JERRY GOLDSMITH'S TWELVE-TONE SCORE FOR
PLANET OF THE APES


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# ABSTRACT

Jerry Goldsmith's twelve-tone score for *Planet of the Apes* (1968) stands apart in Hollywood's long history of tonal scores. His extensive use of tone rows and permutations throughout the entire score helped to create the diegetic world so integral to the success of the film. Goldsmith's formative years prior to 1967–his training and day to day experience of writing music for dramatic situations—were critical factors in preparing him to meet this challenge. A review of the research on music and emotion, together with an analysis of Goldsmith's methods, shows how, in 1967, he was able to create an expressive twelve-tone score which supported the narrative of the film. The score for *Planet of the Apes* marks a pivotal moment in an industry with a long-standing bias toward modernist music.

*For Mary and Bruno Gassi. The gift of music you passed on was a game-changer.*

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# CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

*All roads lead to dodecaphonism*

attributed to Pierre Boulez

*These intervals will always shake the air; they will never become second nature.*

*That is at once their power and their fate.*

Alex Ross, *The Rest is Noise*

*I like a good creative fight*

Jerry Goldsmith

**INTRODUCTION**

When Richard Wagner's *Tristan und Isolde* premiered in Munich in 1865, Western European art music, which, in terms of chromatic harmony, had been progressing steadily to that point, pushed past tonal boundaries and reached an apotheosis. This leap into new harmonic frontiers continued through Impressionism and into the twentieth-century experiments with serialism, aleatoric music, soundscapes, and other non-standard methods of sound production. In the early 1900s, Arnold Schoenberg began to move away from tonal music and would soon develop serialism. By 1928 he had completed *Variations for Orchestra, Op. 31* (his first twelve-tone work for large ensemble). Stravinsky's *The Rite of Spring* had premiered fifteen years earlier and its "riotous" reception in 1913 illustrates why film music would not evolve beyond nineteenth-century Romanticism for many decades to come. Serialism, and more specifically twelve-tone music, was the "forbidden zone" for Hollywood film composers.

During the silent film era, pianists drew heavily on the popular music of the Romantic period which included opera and operetta (Oxford Music Online). Film companies eventually distributed cue[1] sheets suggesting specific works to be performed. The cue sheet for the Edison Company's *Frankenstein* (1910), for example, suggests the theme from Carl Maria von Weber's opera *Der Freischütz* as a leitmotif for the monster (Wierzbicki 2009, 38). Despite the rapid evolution of music for the concert hall during this period, film music, from its origins in the late 1890s, remained rooted in Romantic and post-Romantic styles and would not venture beyond the limits of tonality to any significant degree until the late 1950s.

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1. A "cue" refers to a piece of music used in a film (Beck 2010). Cues are numbered sequentially according to a which reel they are contained in. Films are usually divided into five or six reels. A cue labelled 4m6 refers to the 6th musical piece on reel no. 4. The letter "m" stands for the word music. See Appendix A for a list of music cues in *Planet of the Apes*.

Most of the composers working in Hollywood during the early years of sound had been trained in late nineteenth-century European traditions (McGinney 2009, 26). The list of émigrés—many from Germany and Austria—who made their way to America include Erich Korngold, Max Steiner, Dimitri Tiomkin, and Franz Waxman. These individuals, together with others such as American-born Alfred Newman, became veteran composers of Hollywood's "Golden Age". They scored Oscar-nominated films such as *The Adventures of Robin Hood* (1938), *Gone with the Wind* (1939), *The Song of Bernadette* (1943), *Sunset Boulevard* (1950), and *The Old Man and the Sea* (1958). "Golden Age" or "Classical Hollywood" film scores, established during the latter half of 1930s, featured a post-Romantic symphonic style where melody was the dominant element (Hickman 2006, 125). Leitmotifs and their development throughout a film were a unifying factor in scores typical of this period. This Romantic or "symphonic" approach to scoring films predominated until the 1960s when composers began to incorporate jazz, rock, folk, and other styles into their scores. When compared to what concert hall composers were writing, however, the disparity becomes clear; in terms of modernism, film music had always lagged far behind.

Eventually, tonal limits in film were challenged—mostly in the horror and science fiction genres—though the majority of scores were essentially still tonal. Composers who incorporated serial techniques in their scores, even if minimally, include Hanns Eisler (*Regen*, 1929/1940; *Eis* [*Naturszenen*], 1943), David Raksin (*Laura*, 1944; *Force of Evil*, 1948) (Feisst 1999, 106) and Scott Bradley (*The Cat That Hated People*, 1948) (Huckvale 2008). By the 1950s, there were more significant forays into serialism. Leonard Rosenman, who studied with Arnold Schoenberg and Luigi Dallapiccola, has been credited as being the first composer to use a twelve-tone row in a commercial Hollywood film (Thomas 1991, 310). When writing his score for *The Cobweb*

(1955), Rosenman stated he used a twelve-tone row because he wanted more neurosis and for *East of Eden* (1955) he used tonal music to signify the teenagers and atonality for conflicts involving adults (Bordwell 1988, 74). Later, Rosenman experimented with "klangfarben" (colour of sound) in *Fantastic Voyage* (1966) using electronic sounds and serialism (Steiner et. al, 1991). Rosenman was a versatile composer who, like Goldsmith, was as comfortable experimenting with serialism in film music as he was with writing sweeping, Romantic scores. Since Rosenman and Goldsmith were both working in Hollywood at this time and employed non-standard elements to a greater degree than other film composers, it is logical to assume they were well acquainted and shared similar views about the use of serialism as a viable approach to film scoring.

At the onset of the 1960s other composers continued to dabble with serialism in film. Ernest Gold used a twelve-tone row to symbolize radioactivity in his 1959 score for *On the Beach* (Feisst 1999, 106). In *The Nun's Story* (1959) Franz Waxman used a twelve-tone row for the scene in the insane asylum (Thomas, 1997, Loc. 1401). The score for *The Prisoner* (1955), by British composer Benjamin Frankel, contained non-tonal elements. In 1961 he used tone rows in his score for *The Curse of the Werewolf* (Huckvale 2008, 585-586). Goldsmith employed serialism (or dodecaphonicism) before *Planet of the Apes* (1968)—hereafter referred to as POTA—but to a limited degree (*Freud*, 1962; *The Satan Bug*, 1965). A few scores written after POTA also draw on serial techniques. Rosenman's *Beneath the Planet of the Apes* (1970) and *Battle for the Planet of the Apes* (1973) feature sustained tone clusters and dissonant soundscapes and David Shire used a twelve-tone approach to create melodic material for *The Taking of Pelham 123* (1974) (Film Score Monthly). Though these scores and others, such as Lalo Schifrin's *The Hellstrom Chronicle* (1971) and John Williams' *Images* (1972), contain aleatoric

and other non-traditional elements (Steiner et. al, 1991), they remain in the minority. Goldsmith was the first—and perhaps the only feature-film composer to date—to employ the twelve-tone method so thoroughly. *Planet of the Apes* is arguable the best-known major Hollywood film. stands alone in its extensive use of tone rows and their permutations throughout the entire score.

The paucity of scores drawing on twelve-tone technique before and after POTA brings into stark view the lack of "modernism" in Hollywood. Aside from Goldsmith's 1968 "Apes" score, there do not appear to be any other feature length film scores in Hollywood's history based on twelve-tone technique in any significant way. Though Goldsmith composed many successful tonal scores after 1968, POTA remains his apotheosis—as was Wagner's *Tristan und Isolde* and Schoenberg's *Variations for Orchestra*. Though film composers did occasionally push beyond tonal barriers, serialism, unlike music written for the concert stage, never became a standard approach to film scoring.

The questions I will explore in this dissertation are as follows: in what manner does tonal music elicit emotional responses in humans? Is it possible for composers to write emotionally expressive music using a dodecaphonic approach? Did a bias against modernist sounds exist in Hollywood? If the twelve-tone method was not developed until the 1920s, why were there no twelve-tone film scores created until 1968? What led Goldsmith to the decision to score *Planet of the Apes* with a twelve-tone approach and finally, how did Goldsmith craft his score so that it would support the narrative of the film? If he did not rely on tonal themes, what other techniques did he employ to help viewers?

## CHAPTER 1. MUSIC AND EMOTION

Emotions are the same, love is the same, hate is the same. If you are doing a Western or you're doing a modern city drama or you're doing a futuristic picture or a period picture, the composer's job in a film is really to delve in the areas of the emotional aspect of the film.

—Jerry Goldsmith

Film is a medium composed of disjointed images due to camera cuts, pans, transitions, etc. When viewed on its own, with no music underscore, a film does not provide a smooth viewing experience. Music not only helps to create a more seamless experience for the viewer but also functions as a guide to the narrative. Kathryn Kalinak (2010, 901) describes two functions music serves in film, "Music's dual function of both articulator of screen expression and initiator of spectator response binds the spectator to the screen by resonating affect between them." Kalinak is referring to the way that music can guide or evoke a viewer's emotional response. Music signifies emotional meaning to an audience as much as, or sometimes more than, the visual component. To "resonate affect," musical signifiers such as melody, harmony, rhythm, and texture must be based on a "language" or set of associations viewers understand. To use unfamiliar signifiers would obscure the narrative.

To investigate whether Goldsmith's music for *Planet of the Apes* works (and if so, why) we need to first ask whether twelve-tone music can signify or evoke emotion ("resonating affect") and ultimately if it can support the narrative element of a film. If it cannot, this may provide at least one reason why dodecaphonic music failed to enter into common usage in Hollywood. At this point however, a definition of serialism would help. The Grove Music Online dictionary defines "serialism" as,

A method of composition in which a fixed permutation, or series, of elements is referential (i.e. the handling of those elements in the composition is governed, to some extent and in some manner, by the series). Most commonly the elements arranged in the series are the 12 notes of the equal-tempered scale. This was so in the technique introduced by Schoenberg in the early 1920s and employed by him in most of his subsequent compositions. Serialism was quickly taken up by his pupils, including Berg and Webern, and then by their pupils, but not at first by many outside this circle, the most important exceptions being Dallapiccola and Krenek (Griffiths 2011).

Composers begin by creating a tone row or "prime" row—a fixed ordering of the twelve tones in a chromatic scale. The first note[2] of the C chromatic scale is labelled as 0 (see fig. 1).

Figure 1. "C" Chromatic Scale



For POTA Goldsmith chose the following order: C-A-Bb-Eb-D-B-C#-G#-F#-G-E-F (fig. 2).

Figure 2. Goldsmith's Prime Row (or P-0) for *Planet of the Apes*.



To avoid any one pitch receiving more emphasis than any other, composers avoid repeating tones before the entire row is stated. Rows can start on any pitch and can be stated in reverse

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2. Notes or tones are referred to as pitch classes.

(retrograde) order (R), inversion (I), or retrograde and inverted (RI) (see Table 1 for permutations of Goldsmith's P-0 tone row). Octave displacement and enharmonic spelling of pitches have no bearing on pitch order.

Table 1. Goldsmith's 12-tone Matrix for Planet of the Apes.

|  | I-0 | I-9 | I-10 | I-3 | I-2 | I-11 | I-1 | I-8 | I-6 | I-7 | I-4 | I-5 |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **P-0** | C | A | B♭ | E♭ | D | B | D♭ | A♭ | G♭ | G | E | F | **R-0** |
| **P-3** | E♭ | C | D♭ | G♭ | F | D | E | B | A | B♭ | G | A♭ | **R-3** |
| **P-2** | D | B | C | F | E | D♭ | E♭ | B♭ | A♭ | A | G♭ | G | **R-2** |
| **P-9** | A | G♭ | G | C | B | A♭ | B♭ | F | E♭ | E | D♭ | D | **R-9** |
| **P-10** | B♭ | G | A♭ | D♭ | C | A | B | G♭ | E | F | D | E♭ | **R-10** |
| **P1** | D♭ | B♭ | B | E | E♭ | C | D | A | G | A♭ | F | G♭ | **R-1** |
| **P-11** | B | A♭ | A | D | D♭ | B♭ | C | G | F | G♭ | E♭ | E | **R-11** |
| **P-4** | E | D♭ | D | G | G♭ | E♭ | F | C | B♭ | B | A♭ | A | **R-4** |
| **P-6** | G♭ | E♭ | E | A | A♭ | F | G | D | C | D♭ | B♭ | B | **R-6** |
| **P-5** | F | D | E♭ | A♭ | G | E | G♭ | D♭ | B | C | A | B♭ | **R-5** |
| **P-8** | A♭ | F | G♭ | B | B♭ | G | A | E | D | E♭ | C | D♭ | **R-8** |
| **P-7** | G | E | F | B♭ | A | G♭ | A♭ | E♭ | D♭ | D | B | C | **R-7** |
|  | **RI-0** | **RI-9** | **RI-10** | **RI-3** | **RI-2** | **RI-11** | **RI-1** | **RI-8** | **RI-6** | **RI-7** | **RI-4** | **RI-5** |  |

Composition based on the rules of twelve-tone rows and their permutations (known as dodecaphony) is only one form of serialism. Although pitch is the most common element "handled" or manipulated by the series, composers have written serial works involving the manipulation of other elements such as duration, dynamics, and timbre. Because twelve-tone is a formulaic method of composition, composers must imbue their work with inventiveness and musicality. Every composer's artistry must take them beyond whatever technique or style they are working in regardless of the compositional techniques available (e.g., inversion, retrograde, retrograde inversion).

## 1.2 Tonal Music

Sing in me, Muse, and through me tell the story.

—Homer, *The Odyssey*

For music to help tell a story, it must be capable of expressing, suggesting, or signifying emotional intent, because a story is something which engages human emotion. How does music convey, express, or signify emotion? Though Diana Raffman (2003, 71) has argued that twelve-tone music lacks "focal events" which help the viewer perceive the storyline, Jenefer Robinson (2005, 4931) describes the process in terms of psychological distance from a resting point,

> Most compositional systems, such as the tonal system, provide a set of dimensions that establish psychological distance from a "home" or "stability" point. Proximity or approach to this resting point involves reduction of tension; distance or departure involves increase of tension. Distance can be measured on a number of dimensions, including rhythm and metre (strong beats are stable, weak beats and syncopations are unstable), and tonality (the tonic is stable, non-diatonic notes are unstable). There is now much experimental evidence that the human listener is sensitive to such features, and represents music in relation to them...These features provide reference points against which the emotional system can plausibly compute match or mismatch in terms of envisaged end points.

Robinson's analysis is noteworthy because it allows for the possibility that even in dodecaphonic music, a listener could recognize distance and proximity to a home or stability point, i.e., distance can be measured on multiple levels (e.g., rhythm and metre), not just pitch classes.

There is a large body of research on music, emotion, and cognition which attempts to shed light on how music may induce emotions in listeners. Some (Kivy, Davies) argue music is not capable of expressing complex emotions while others (Stravinsky) felt it cannot express them at all. Still, others (Meyer, Merleau-Ponty) maintain that affect (emotion or mood) is a function of the listener's internal experience. Patrik Juslin and Daniel Västfjäll (2008) outline six ways

they believe music can induce emotion (brain stem processing, evaluative conditioning, emotional contagion, visual imagery, episodic memory, and musical expectancy). The first, brain stem processing, involves "sounds that are sudden, loud, dissonant, or feature fast temporal patterns that induce arousal or feelings of unpleasantness in listeners" (Juslin and Västfjäll 2008, 564). Goldsmith's POTA score fits this criterion in chase or fight scenes (e.g., "The Hunt" 31:09, "The Revelation" 44:50). Evaluative conditioning involves the repeated pairing of a music stimulus with other positive or negative stimuli (Juslin and Västfjäll 2008, 564). Film music, opera, and even program music has long drawn on pairings or associations with images, characters, and ideas. Although Goldsmith was not a staunch advocate of the use of leitmotifs (Cable TV 1980, 00:13.), he employed short motivic cells throughout his Apes score. Justin and Västfjäll (564) label a listener's internal mimicking of perceived musical expression as "emotional contagion". For example, they suggest music that is slow, or has a low pitch, or low sound level may induce sadness in a listener. Again, since these criteria do not specify the music must be tonal, there is no reason assume twelve-tone music cannot be expressive. As will be discussed in chapter four, Goldsmith was able to signify feminine coding using emotional contagion (slow tempo, low sound level) in his POTA score using the twelve-tone method.

The remaining three ways music can induce emotion seem less applicable to dodecaphonic music. Juslin and Västfjäll state music can give rise to emotion when a listener conjures up visual images while listening to music (visual imagery). The visual example they cite is a beautiful landscape (2098, 566). While not outside the realm of possibility, perhaps a less bucolic image may more likely be conjured up while listening to a twelve-tone work. The authors describe "episodic memory" as the triggering of an emotion associated with the memory of a past event in the listener's life (Juslin and Västfjäll 2008, 567). Whether it is possible for

twelve-tone music to trigger emotions will be discussed shortly. The final mode of evoking

emotions is referred to as "musical expectancy" and refers to the violation, delay, or confirmation

of the listener's expectations about how the music will continue (Juslin and Västfjäll 2008, 568).

Expectancy, easily setup in a tonal or diatonic environment, is arguably more difficult to achieve

in dodecaphonic music because it is more challenging to recognize an entire tone row as opposed

to a shorter motivic cell.

Leonard Meyer (1961, 40) believed that a listener's prior musical training played a

significant role in evoking either an emotional or intellectual response: "Thus while the trained

musician consciously waits for the expected resolution of a dominant seventh chord the

untrained, but practiced, listener feels the delay as affect."[3] Meyer's reference to the resolution of

a dominant seventh chord leaves no doubt his discussion is about tonal music. However, what

can be said about twelve-tone music where there are no tonal resolutions? Would an untrained

listener "feel the delay as affect"? The absence of resolution may indeed elicit frustration in any

listener (trained or untrained). Further, can composers use other elements to manipulate a

resolution? Perhaps non-tonal elements are beyond the grasp of the untrained listener. Would

even trained musicians find it difficult to perceive resolution in twelve-tone based music?

Helen Daynes' 2010 study (490) measured perceptual and emotional responses of

listeners to both tonal and atonal music by Muzio Clementi, Arnold Schoenberg, and Luciano

Berio. Her study concluded, of the nineteen student participants involved (10 musicians and 9

non-musicians), music students displayed a greater awareness of structural boundaries than non-

music students. It is not surprising the non-musicians could identify the formal structure of the

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3. It is entirely possible that music can both, evoke an intellectual response and trigger an emotion.

tonal music examples more successfully than they could the non-tonal examples. Though the study was limited to only three musical works and nineteen participants, it illustrates atonal music presents challenges even for musically trained individuals. It also illustrates prior conditioning can help to increase the level of emotional intensity experienced by the listener.

Irving Kolodin (1969, 357), a noted American music critic, suggested tonal music has been dominant in Western culture because it possesses "an extraordinary affinity for aural recognition, mental recollection, and emotional response." He suggests it is unlikely atonality will become a "useful alternative" to tonal music. This seems to be the case with respect to film music. Is this due to the length of time tonal music existed before the twentieth century? Is it possible to craft twelve-tone music so a listener could recognize and remember themes? If so, would twelve-tone music be capable of eliciting an emotional response in listeners?

If, through repeated exposure, untrained listeners can learn to respond emotionally to tonal music, can the same process occur with serial music? American composer, George Antheil, addressed cultural conditioning in his 1945 autobiography:

> Hollywood music is very nearly a public communication, like radio. If you are a movie fan (and who isn't?), you may be in a movie theater three times a week listening to the symphonic background scores which Hollywood composers concoct. What happens? Your musical tastes become molded by these scores, heard without knowing it. You see love, and you hear it. Simultaneously. It makes sense. Music suddenly becomes a language for you, without your knowing it. (1945, 315)

If listeners can be conditioned through repetition, then perhaps they can be trained or re-conditioned to respond emotionally to twelve-tone based music. David Morgan (2000, Kindle loc 59) has stated that, "Audiences can be challenged to rethink what they experience, and thus film music can make a film deeper and more resonant than it might otherwise be." This may suggest that Meyer was right in that listeners with more training will have a deeper experience of the film.

American film composer, David Raksin, felt movie audiences, with training, could accept a more sophisticated musical language.

> The audience is actually a thousand times more receptive to progressive musical trends than most of our producers (and some of our critics) give them credit for. . .By the process of unconscious musical education that goes on through the constant hearing of film music we can encourage that willingness to progress, to accept to ask for the new... All this must be accomplished gradually; not until we can find at least fifty percent of our total audience burgeoning into an emotional response at the sound of "Pierrot Lunaire," can we consider its harmonic idiom an efficient means of communicating with them...an audience that can accept plainsong in films when the occasion demands it, can certainly adjust itself to some of the advanced musical idioms of today. (Raksin 1999, 105-106) [4]

Raksin's view supports the concept that non-tonal scores can express emotion and thus are able to support the dramatic content of a film.[5]

John Cacavas (1975, 170) comments in *Music Arranging and Orchestration* that with each exposure to a musical situation one's "artistic self" will grow, "each day is different and your capacity for learning and expression will grow. Every time you browse through a score, hear a recording, see a movie, or attend a concert, your artistic self will absorb that which impresses you and will add to your experience." Cacavas was directing his comments to composers and arrangers but this process is universal. With more exposure to film music, viewers, trained and untrained, engage in an ongoing musical education as they build up a storehouse of musical and dramatic associations. It therefore seems possible that atonal, or serial, music could become a viable signifier of emotion in a culture where viewers are more exposed to it.

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4. Though *Pierrot Lunaire* is not a twelve-tone work, it is atonal.

5. It is not surprising Raksin felt this way since he studied composition with Schoenberg as did several film composers in Hollywood during the 1930s. Others who studied privately or attended his classes at the University of California at Los Angeles include Ralph Rainger, Edward Powell, Eldon Rathburn, Alfred Newman, Hugo Friedhofer, Serge Hovey, Leonard Rosenman, and Franz Waxman.

## 1.3 Trends

Ironically, recent trends in film scoring have taken a different direction. Rather than viewers being conditioned to accept more complex music, Nicholas Reyland (2015, 117) describes two simpler approaches that have recently come into vogue. The first, often heard in action movies, Reyland labels "Corporate Classicism" because it rejects the "Classical" Hollywood style of scoring from the 1930s (117). Reyland cites the opening scene for *The Dark Knight* (2008, music by James Newton Howard and Hans Zimmer) as an example of avoidance of melody or any development of themes or leitmotifs so pervasive in the Golden Age. Only two pitch classes are present, and the emphasis is on timbre, texture, and rhythm.[6] The entire scene features an ongoing rhythmic pulse punctuated by percussive hits. While the scene is effective, its emotional scope is limited by the primal nature of the music. This is likely what the director and composers intended, but we should not assume there is only one "right" or perfect musical solution for any given scene. It would be interesting to hear the solutions to this scene as crafted by several composers with varying stylistic backgrounds.

Reyland outlines a second trend he calls the "Metaphysical Style." The music is by Thomas Newman for a scene in *American Beauty* (1999). Two characters (Ricky and Jane) watch a plastic bag carried for several moments on a gust of wind. Reyland describes the music as,

> pulsating open 5ths of a string pad–soon to be followed by an evocation of plainsong and a kind of electronic panpipe...A delicate acoustic-sounding piano layer...then enters, proceeding like the Preces and Responses of an Anglican evensong; bars of 3/4, hemiola patterns and 5/4 create an aura of intelligence (signifying a Renaissance, or even an Enlightenment?), the suspension of meter allowing the layer to 'float', as if levitating. (120)

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6. As we will see in Chapter 4, timbre, texture, and rhythm are three of the four reference points, in addition to motivic elements, which Goldsmith used to in Planet of the Apes.

The "floating" nature of Newman's music is very effective in evoking a reflective, almost spiritual mood or emotion. It is difficult to imagine this scene being as effective with a serial underscore. It may be that serial music is only capable of evoking a limited scope of emotions.

Reyland posits contemporary scoring practices have been shaped by a growing number of prominent film composers who come from a rock and pop background. This is analogous to the way in which the scoring trends of the Golden Age (1930s-1950s) were shaped by composers trained in the Classical-Romantic tradition (121). Newman, though he was a keyboard player in a rock band (The Innocents), studied violin and graduated from Yale University with a master's degree in composition (IMDb). Further, he alludes to his interest in composers such as Schoenberg, Webern, Berg, Ives, and Morton Feldman (2016, 00:30:24). Newman's music for *American Beauty* may have been part of a trend towards a simpler approach as much as it was informed by his broad musical training and experience. It may also lend further evidence to the idea that there is a belief in Hollywood that viewers cannot not accept more sophisticated kinds of music in film. Conversely, it may also suggest that a simpler approach works just as well because it is more suited to the images and narrative.

Serial music in film need not always be complex. Irwin Bazelon (1975, 10) proposes that a simple two-bar ostinato (fig. 3) could satisfy the dramatic requirements of a suspenseful scene.

Figure 3. Bazelon score example (ostinato for a suspenseful scene).

If such a simple tonal idea can support the narrative by reinforcing the feeling of suspense or stealth, could a similarly short twelve-tone motivic cell achieve the same end? Bazelon elaborates that an imaginative composer would not have been content with just a short, repeated figure. To enhance the "dramatic reality" of the scene, they would have expanded the scope and variety of the cue to a greater degree. Goldsmith accomplishes this in the cue, "The Forbidden Zone" (from POTA, timecode 01:26:32[7]) using short motivic cells and ostinati (fig. 4). Here the narrative requirement is not suspense but rather mystery and foreshadowing—the main characters are traversing the desert not knowing what awaits them (O'Callaghan 2015, 156). The ostinato consists of a repeating quarter note pattern on mallets accompanied by a piano motif—all notes derived from the row P-0 (O'Callaghan 2015, 158). Over top of these two elements Goldsmith adds a series of simple, three-note motifs from rows P-9, I-6, and R-2 (158). As complex as the analysis may seem, this musical cue is simple when heard in the context of the scene and proves twelve-tone sequences (even short one-measure figures) can heighten the narrative element in film.

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7. All timecode references to the DVD version of the film are taken from the beginning of the film. Timecode references from the CD soundtrack are taken from the beginning of each specific track.

Figure 4. Excerpt from "The Forbidden Zone" (timecode 01:26:32).

## 1.3 Temp Music

The composer must wait for those moments in the picture where there is something to be said that only music can say. Then the presence of music will bring that extra element you need, and if it's done right, it will elevate the scene.

—Tony Thomas

Brian Satterwhite, Taylor Ramos, and Tony Zhou discuss another current trend in film scoring occurring in the Marvel superhero films. They argue that often the music does not evoke an emotional response because it is predictable (e.g., a humorous scene matched with humorous music); it never challenges the viewer's expectations and is, therefore, forgettable (1:57).

The creators of this video documentary asked a random selection of people on the streets of Vancouver to sing themes from various films (*Star Wars*, *James Bond*, *Harry Potter*). Each person could immediately sing or whistle the theme. When asked to sing a theme from any Marvel movie, they could not.[8] The authors cite that a great deal of current films are scored using "temp tracks." This is a process where pre-existing music is placed under a scene to give the director and composer an idea of what style may or may not work with the film. The composer's original score eventually replaces the "temporary" music. Composers often unintentionally imitate the temp music or are subject to pressure from the director.[9] Even if the temp music is not the best choice, according to French composer Alexandre Desplat (36:36), it will "stick" to the

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8. It should be noted however, that a movie theme is memorable because it is melodically strong but also because it is heard in its entirety or in part numerous times throughout a film. If Marvel scores are so often based on temp scores, this could deprive a composer of the opportunity to reuse the main theme enough times, so it becomes memorable.

9. For *Alien* (1979), director Ridley Scott and editor Terence Rawlings replaced some of Goldsmith's original music for certain cues with temporary music. In one scene they replaced Goldsmith's original music with music he had written in 1962 for *Freud* (Goldsmith 2003, 11:20).

film because the directors have heard it repeatedly. The result is that the music is not memorable.

These observations support the idea that if musical conventions are used repetitively—like

programmed music for silent films—over time a body of musical signifiers will be accumulated.

What follows from this is that if directors and music editors continue to use bland or safe temp

music—which influences what composers will write—viewers will never be challenged to

accept a more complex and richer musical lexicon. The composers of *The Dark Knight* were

likely influenced by temp tracks.

### 1.4 Dissonance

> Dissonance and atonality became staples of twentieth-century music and certainly by now most of us are familiar with these qualities. Have we become accustomed to these features the way audiences became accustomed to dissonances in Beethoven's compositions a generation or two after those compositions were premiered? Is there an absolute standard of dissonance or is dissonance a function of context, personal taste, and conditioned expectations? And if we like or enjoy music that would qualify as dissonant...is it because it does not truly sound dissonant to us or is it because we perversely enjoy it the same way some of us perversely enjoy macabre and violent images on the screen?

> —Steven Cassedy, 2013

Is dissonance absolute or relative? Cassedy's question is perplexing and there are likely

as many who feel dissonance is absolute as there are who do not. Gerald Langner and Michael

Ochse (2006 185) claim their research suggests neurons in the auditory midbrain in humans have

a natural preference for "harmonicity" or consonance. They argue the mathematical laws which

govern harmonic sounds and relationships found in nature (e.g., speech, animal sounds) are the

same laws governing human perception of harmonic sounds (197-200)[10]. Others (Peretz 2008,

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10. Recall Kolodin's statement that Western culture possesses "an extraordinary affinity for aural recognition, mental recollection, and emotional response" (1969, 357).

591) argue our preference for consonant sounds results from the prevalence of consonance in the environment, not because of shared mathematical laws. Neither claim seems to be supported by conclusive evidence. However, if Peretz is right, and the human preference for consonance results from environmental conditioning, then perhaps given enough exposure to twelve-tone music, viewers could be conditioned to build associations and respond emotionally to atonality.

Mark Evans' analysis of Goldsmith's Apes score supports the claim there are other ways music can signify emotion.

> Goldsmith's score for Planet of the Apes (1968), notably avant-garde for Hollywood, is not unlike Webern's concert works. It consists entirely of sound effects produced by orchestral instruments, with no melodies in the traditional sense. Instead, the composer uses clusters of dissonant chords, complex nonmelodic [sic] rhythmic passages, and percussive atonality. (Evans 1979, 173)

Evans' evaluation of Goldsmith's score is only partially accurate. There are no melodies in the traditional sense because this is not "traditional" music. There are, however, motivic cells that Goldsmith employs throughout the score (e.g., three, four, and five-note themes). Though a non-tonal palette may be limited in its ability to carry as varied an array of emotional information as tonal music—due to the lack of opportunity for establishing emotional distance away from, and gravity toward, a tonal center (as suggested by Robinson) —Goldsmith's themes do signify some emotional information. The cue "The Forbidden Zone," once again, serves as an example.[11] The strings play the main theme (as harmonics and con sordino, timecode 1:27:15) whose contour leads the ear forward (fig. 5). Each three-note cell can be heard in microcosm; the first

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11. Note that Goldsmith created the three-note cells in this example from three rows; P-0 and two of its permutations (I-6 and R2).

two notes of each cell move forward, gravitating toward the final note, giving the sense that the

third note has more importance, possibly acting as a temporary tonal center.

Figure 5. Three-note cells from "The Forbidden Zone" (timecode 1:27:15).



## 1.5 Universal Auditory Cues

Laura-Lee Balkwill's study lends further support to the idea there are common auditory

cues viewers can respond to. Her research aimed to determine whether listeners enculturated to

one tonal system could recognize specific emotions in music from an unfamiliar tonal system. In

this cross-cultural study including Western and Japanese listeners, she attempted to determine

whether participants could recognize joy, sadness, and anger from an unfamiliar tonal system.

She posits,

when a musician and/or composer intends to express a particular emotion through music, they will make use of the conventions of aesthetic emotional expression to which they have been enculturated. Within and/or apart from these cultural conventions are auditory cues common to all types of sound (e.g. complexity, loudness, tempo, timbre) which have their own basic associations with emotion and which can also be manipulated to achieve a specific type and degree of emotional expression. (Balkwill 2002, 175-6)

Balkwill found Western and Japanese listeners were able to recognize the emotions of anger, joy, and sadness in the music of three disparate tonal systems (Western, Japanese, and Hindustani). She suggests, though her study was small in scope and other explanations need to be considered, the results show there are certain auditory cues recognized across cultures. If listeners from different cultures can recognize universal auditory cues, it is entirely possible listeners enculturated in a Western late Romantic style could recognize these same types of universal auditory cues (signifiers) in a twelve-tone score (i.e., rhythm, texture, and the synesthetic qualities of various instrumental timbres).

**1.6 The Visual Element**

As noted, music can add a component to a film which serves to smooth out the rough spots, to articulate what is occurring on screen, and to resonate affect between screen and viewer. Annabel Cohen (2009, 1363) argues that in film, music is a better conduit of emotional information than the onscreen images, possibly because of music's ability to "simultaneously carry many kinds of emotional information in its harmony, rhythm, melody, timbre, and tonality." Other researchers (and composers) hold the opposite view (i.e., the visual element is the more critical element). Desplat (2012, 1:01:55) comments that the visual component of film

is a mitigating factor for uninitiated listeners, i.e., those who are hearing dissonant or non-tonal

music in a film and who have had little or no previous exposure.

> When I was sixteen or seventeen, I listened carefully to *Star Wars*, but really carefully. And I realized how wide the range of orchestration was there [sic] in this film. There was [sic] great melodies, incredible orchestrations, complex harmonies and rhythms. And all my friends could not even listen to *The Rite of Spring* which was made in 1913 but they could listen to *Star Wars* which had some very challenging moments of music.

The implication here is that adding a visual component to complex music makes it easier for an

untrained ear to accept. John Caps (1976, 196) echoes this point, stating serial music is more

palatable to movie audiences than concert hall audiences because we are a "visual and literal

generation, rather than a musical or aesthetic one." The operas of Wagner, Richard Strauss, and

Alban Berg also contain musically "challenging" moments yet they are mitigated by visual and

narrative elements.

Ivanka Pavlović and Slobodan Marković (2011) have argued that, "the emotional quality

of visual information (film) has a stronger effect than the emotional quality of auditory

information (music)." Their study investigated the effects of various musical cues on viewers'

emotional appraisals of film sequences. Each participant judged the emotional qualities of film-

to-music combinations. Pavlović and Marković determined, while music affects the viewers

emotional experience of a film scene, it is the visual information which is more important when

interpreting the film narrative. For example, viewers judged a scene showing people dancing as

more joyful than a scene with crying women even when the information from the music

background was contradictory (sad music accompanied the dancing scene and joyful music

accompanied the scene with crying women). The researchers note acoustic information has an

important role in the emotional appraisal of a film scene but, except in the case of fear, it is the

visual information which is more important. Thus, because music can refer to more than one

emotion, it is the coupling with visual information which helps the viewer to focus specifically on the director's intent. This also suggests an additional reason that viewers in 1968 could accept Goldsmith's dissonant score. Heard on its own, it may mean little in a narrative sense other than to suggest tension or conflict. The visual element, however, adds a narrative continuity. Other researchers (Boltz 1991, 887; Kalinak 2010, 901) suggest it is music, because of its expressive qualities, which plays a more important role in providing narrative continuity. In either case, researchers and composers recognize sound and image work together, each providing vital narrative and emotional information the other may lack. Composers can tap into the needs of the narrative and provide scores which are part of the dramatic tapestry.

### 1.7 Non-Tonal Film Music

To reiterate, dissonant, atonal, or even twelve-tone music can be effective in expressing the emotional content of a film narrative. The music will be more readily accepted by viewers because of the mitigating effects of the images. It is helpful to note some early examples from the opera world. Richard Strauss' *Elektra* (first performed in 1909) is a tonal work with, as David Murray (2016) notes, "sporadic 'atonalisms'...meant to convey the exacerbated spiritual condition of…[Strauss'] characters [and] not to promote some more radical cause." Murray is making the point that Strauss' intention in using atonal writing was driven by the narrative and not employed just for the sake of promoting atonal music; perhaps a novel approach at the time but one which, for Strauss, worked just as well as a tonal approach.

An early example which supports the idea that twelve-tone music can successfully function in film is Schoenberg's *Begleitungsmusik zu einer Lichtspielszene*, op. 34 (1929-30). Though sound had been incorporated into film two years earlier (*The Jazz Singer*-1927),

Schoenberg nevertheless wrote this work to be performed by a live cinema orchestra (Feist 1999, 97). The subtitles "Threatening Danger," "Fear," and "Catastrophe," could suggest he felt twelve-tone music more readily connotes "negative" emotions rather than joy, tenderness, and love. Paul Griffiths (2013) states Schoenberg "did not want to move beyond harmony but to extend it and he, like any romantic, understood his innovations as prompted by a desire for emotional truth." Griffiths states further that, "atonality increased the power with which music could convey fear, terror, and dislocation but it also allowed lines within a musical texture to behave much more independently and therefore, as Schoenberg saw it, in accord with human feelings which may often be simultaneously contradictory." Schoenberg clearly felt atonal music could be expressive.

Arnold Schoenberg (1874-1951) was teaching in Los Angeles from 1935 onward and it is interesting to note how many film composers in Hollywood he influenced, either through private study or at the University of California at Los Angeles. The list of his students included Ralph Rainger, Edward Powell, Eldon Rathburn, David Raksin, Alfred Newman, Hugo Friedhofer, Serge Hovey, Leonard Rosenman, and Franz Waxman (Feist 1999, 99). Ironically, Schoenberg never wrote film music because he was unwilling to collaborate with producers and directors. When discussing a potential film score for *The Good Earth* (1937) Schoenberg insisted on full control of the soundtrack including dialogue (Feist 1999, 93). It is intriguing to wonder whether he would have written in a Romantic or serial vein. His *Variations for Orchestra, Opus 30* could easily serve to create the ambience for an Alfred Hitchcock thriller. Portions of this music would also function well in certain scenes from *Planet of the Apes*. Even upon two successive hearings, I found it difficult to remember any thematic material or motivic cells, however this is not the

point.[12] What is important is that the music *could* support the drama. I do not intend to suggest any twelve-tone or serial music could easily fit any Sci-fi or thriller film but rather, this approach could be used effectively.

Anton Webern (1883-1945) was a member of the Second Viennese School, a group of composers which included Schoenberg who taught Webern and Alban Berg (1885-1935). In a 1910 letter to Schoenberg, Webern explained his thoughts on the relation between intellect and emotion, "Tell me, can one at all denote thinking and feeling as things entirely separable? I cannot imagine a sublime intellect without the ardor of emotion" (Webern, 113). Years later Meyer echoed this sentiment in his seminal work *Emotion and Meaning in Music*.

> Once it is recognized that affective experience is just as dependent upon intelligent cognition as conscious intellection, that both involve perception, taking account of, envisaging, and so forth, then thinking and feeling need not be viewed as polar opposites but as different manifestations of a single psychological process. There is no diametric opposition, no inseparable gulf, between the affective and the intellectual responses made to music. (1956, 39)

While Meyer's statement may in fact be true, one wonders how much training or understanding a person must possess before intellect influences emotion. Fred Lerdahl (2003, 72) suggests even trained musicians have difficulties discerning structure in some serial music: "Competent listeners to [Boulez's] *Le Marteau [sans Maitre]* even after many hearings, still cannot even begin to hear its serial organization. For many passages they cannot even tell if wrong pitches or rhythms have been played . . . Conditioning, in short, does not suffice." Diana Raffman (2003,

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12. It was suggested earlier that a weakness of Marvel scoring is its lack of memorability. The reason was its overuse especially in scenes where music is not needed, thereby diminishing its effect. The lack of memorability of thematic material in twelve-tone generated film music does not stem from overuse (especially if it used with discretion) but rather from its construction. Themes in the traditional sense are not always needed to support a scene. Further, if the music is not overused, it has the potential to fuse with the images so that two separate media become one.

71) suggests a deficiency exists in twelve-tone music because it lacks the "focal events"—

harmonies comparable to a storyline—which help us perceive a tonal work. She concludes that

twelve-tone music, because it lacks this storyline, is defective. Schoenberg (1926/1975 262)

explained it was the text which supplied the cohesive element in his extended atonal works. I

suggest the images paired with Goldsmith's Apes score provide the storyline or focal events

which help viewers to perceive the work (musically and narratively) as a whole. Webern wrote

*Six Pieces for Large Orchestra, Op. 6* (1909) during his "atonal period" (his twelve-tone period

followed twenty-five years later). It is a very expressive work and, like Schoenberg's *Variations*

*for Orchestra,* its harmonic, nontonal ambience could also support the narrative in a

psychological thriller or Sci-fi film.[13] *Variations for Orchestra, Op. 30* (1940), perhaps Webern's

most well-known twelve-tone work, could also have served as the underscore for the "Main

Title" cue in *Planet of the Apes*.[14] Webern's opening has a similar sparseness to Goldsmith's

music. Though these works may possess an expressive element on their own, paired with a

narrative, they take on a greater meaning and become more palatable, especially for viewers

unfamiliar with twelve-tone music.

Though Webern felt expression was important, it is Berg who we can look to for an even

greater degree of lyricism in his dodecaphonic works. Anthony Pople (1991, 18) states the

resurgence of tonality in Alban Berg's later (atonal) works was achieved through "the aurally

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13. I do not mean to suggest that any music can be combined with a film but simply that the ambience these works would serve as a starting point. As will be discussed later, Goldsmith felt strongly that the music must be tailored to the film.

14. Recall Evans' comment earlier that Goldsmith's Planet of the Apes score was not unlike Webern's concert works.

allusive appearance of the basic building blocks of tonal music." What Pople means is that Berg

alluded to tonality in his later serial works by using intervals, chords, and scales in a similar

fashion used to establish tonal centers. Berg's opera *Wozzeck* (1925) and *Violin Concerto* (1935)

illustrate this middle ground between tonality and a strict twelve-tone environment. Douglas

Jarman, writing in *Grove Music Online*, suggests that for *Wozzeck*, Berg created an atonal

language which was "constantly hovering on the edge of tonal confirmation" and became a

"perfect musical metaphor for the emotional and mental state of the opera's chief protagonist."

Though not adhering completely to the rules of twelve-tone method, the clear implication is that

a non-tonal composition can be expressive enough to represent character.[15] While non-tonal

music may carry the potential for expression, it is the text of *Wozzeck* more than the music which

carries the story forward. Goldsmith used atonality in POTA to express the alienation of the three

astronauts who believe they are light years from Earth and centuries removed from their own

time. The serial nature of the music is not only a metaphor for character and location, but

because it is more closely tailored to the action, is more supportive; the two elements, music and

narrative, work closely together. Jarman further states, "the bringing together of elements that

would normally be regarded as mutually exclusive–tonality with atonality, subjective

autobiographical elements with objective compositional constraints...is a constant feature of

Berg's music" (Grove Music Online). Berg does this masterfully in his *Violin Concerto*. As

Goldsmith did much later, he deviates from the tendency or rule that pitch choices should avoid

anything suggestive of a tonal theme; Berg's prime row is based on a triadic structure (fig. 6).

While Goldsmith did not explicitly use triadic structures in his Apes score, he did create motivic

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15. It may be that atonal music is better at expressing character and setting than it is at creating a narrative arc.

cells which do have shape and contour. Berg's choice of pitches from his tone row (fig. 6) form

triads (Gm, D, Am, Emaj) enabling him to inject a suggestion of tonality. The first statement in

the violin is not only based on perfect fifth intervals but contains repeated notes (fig. 7). It was

this kind of melodic construction which enabled Berg to write a more expressive twelve-tone

work.

Figure 6. Tone Row Construction in Berg's *Violin Concerto*.



Figure 7. Opening Statement from Berg's *Violin Concerto*.
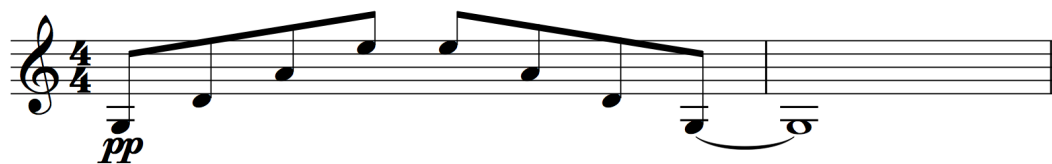


Like Berg's *Violin Concerto*, Goldsmith's motivic cells (fig. 4) have contour and direction not

unlike tonal motifs.

Perhaps the most expressive twelve-tone works were the product of Italian composer

Luigi Dallapiccola (1904-1975). Dallapiccola's *Cinque Frammenti di Saffo*, is a collection of

five songs from a larger suite called *Liriche Greche* (1942-1945). Again, the opening of the first

movement "Largo" could easily serve as the underscore for portions of *Planet of the Apes*. It was

Dallapiccola's first composition written in the twelve-tone method and there is a marked

difference from the twelve-tone compositions of the Second Viennese school composers; his

assimilation of this approach stemmed not from private lessons with any of its members but

rather from "the slow and careful study of their scores" (Fearn 2003, 128-129). This is where a

composer's personal style comes to the fore; Dallapiccola's interpretation of the twelve-tone

method was likely freer without the direct influence (through private lessons) of Schoenberg, or

any of his students. Hans Nathan (1958, 294) describes Dallapiccola's melodic style as

abounding in,

> suggestions of triads, seventh and ninth chords...and of course in thirds as well. They
> have the effect of tying tones into closely knit groups, as against the Viennese masters'
> desire to achieve a maximum of self-sufficiency for each tone, and, leaning heavily on
> intervals whose tones strain away from each other, a quality of 'disconnectedness.'

The vocal line in "Largo" outlines an ascending arpeggio C-Eb-Gb-B which contains a C

diminished triad (C-Eb-Gb) and a B major triad (B-D#-F#); definitive shapes in tonal music. The

flute imitates the contour of the voice, adding reinforcement to the "tonal allusion." Dallapiccola

(1957, 303) used dodecaphonic methods to be more expressive: "It seemed to me that twelve

tones would enable me to articulate a melody better than seven-to write a richer and (as far as my

capacities would allow) more expressive melody." As discussed later, Goldsmith's use of pitch

classes (tones), tied into "closely knit" motivic cells, though perhaps not possessing the lyrical

quality of *Cinque Frammenti* or Berg's *Violin Concerto*, is a significant factor contributing to the

expressive quality of his score. Like Dallapiccola, Goldsmith felt the twelve-tone method could

be a vehicle for greater expressiveness in his writing. While going through a divorce and

watching his mother suffer with cancer Goldsmith wrote *Music for Orchestra* using the twelve-

tone method. He explained,

> All of my personal turmoil—pain, anger, and sorrow—went into writing "Music for Orchestra" in strict dodecaphonic form. There has been much negative criticism about composing in the 12-tone system, and in today's musical climate, I do think the style is almost anachronistic. But for me thirty years ago, it was a liberating way to express my deepest feelings. The piece is written in three sections, all based and developed from the same 12-tone row. The first section is quite turbulent, the second introspective, and the third very agitated as it sums up all my feelings in one cathartic release. (Goldsmith 2002)

Goldsmith uses the words turmoil, pain, anger, and sorrow to describe an atonal work. Perhaps this is not surprising as many twelve-tone compositions are suggestive of these qualities, at least to listeners accustomed to Western European Classical music. More important is his comment that using this method was a "liberating" way to express his deepest feelings. There is a definite contour to the thematic material in *Music for Orchestra* and while a listener may not be able to sing any one theme, there is direction and forward motion. Finally, though it may not be surprising to see the words "turbulent" and "agitated" in connection to music of this genre, what stands out is Goldsmith's use of the word "introspective." This word is suggestive of music which carries a deeper level of emotional expressiveness. Clearly, for Goldsmith, twelve-tone generated music held as much scope for expressiveness as tonal music.

> Music is a language of the emotions. You can practice it either on a very plain and elementary basis, or you can practice it on a highly complex one. But, it generally gives off some sort of generalized emotional feeling.
>
> —Aaron Copland

> I consider that music is, by its very nature, essentially powerless to express anything at all, whether a feeling, an attitude of mind, or psychological mood, a phenomenon of nature, etc....Expression has never been an inherent property of music. That is by no means the purpose of its existence.
>
> —Igor Stravinsky

Igor Stravinsky not only believed serial music could not be expressive, but music in general could not. Carol Krumhansl's research suggests that it is the relationship of pitches to one another which allows the listener to perceive emotion.

> Listeners perceive a pattern of relationships among tones that is determined not only by pitch height and chroma, but also by membership in the major triad chord and the diatonic scale associated with the established tonality. Thus, measured in terms of the similarity ratings, the degree of relationship between tones was determined not only by the frequency relations of the tones but also by the function of the particular tones within the tonal system." (Krumhansl 1979, 371)

This supports the idea that recognition and memorability of a theme are a function, not only of how often certain tones are repeated, their pitch and colour (chroma), but also of how the notes relate to one another. She concludes: "as musical entities, tones acquire meaning through their relationships to other tones. In a musical context, the individual tones become part of a larger structure and perform distinguishable functions within that system." If tones acquire meaning through their position in a diatonic environment, then tones not in a diatonic context would not have the same kinds of meaning; thus, aural recognition and memorability may not be possible. Claude Lévi-Strauss (1970, 31) underpins Krumhansl's findings, stating serial music cannot communicate meaning because it lacks the hierarchical relationships found in the diatonic scale. I would argue serial music may not be able to communicate much to listeners whose only experience has been tonal—though it may still communicate something through rhythm, texture, and form—however, through exposure, one may eventually be able to recognize emotional meaning in music. Coupled with images and narrative, the potential for serial music to communicate emotional meaning is greatly increased.

In this chapter I have provided a survey of the mechanisms by which music conveys emotional meaning, as identified by various researchers. In different ways, twelve-tone music can be as expressive as tonal music. Robinson refers to distance from home. Juslin and Sloboda

outline six ways music can evoke emotion. Meyer and Raksin state that prior training is strongly influences the way one perceives what they hear. Balkwill provides evidence which illustrates that music possesses universal auditory cues. The modernist music of Strauss, Schoenberg, Webern, Berg, and Dallapiccola suggest that serial music can be expressive, though others (Lévi-Strauss, Krumhansl) would argue the opposite, citing that pitches in twelve-tone music do not exist in a hierarchical relationship. Still others (Kolodin) claim aural recognition and mental recollection are necessary for music to be perceived as expressive. In chapter four I will explore how Goldsmith was able to make his twelve-tone score expressive but first, to provide a broader context, and to better understand the milieu he was working in during the late 1960s, I turn to a discussion of Sci-fi film music trends.

## CHAPTER 2. SCI-FI FILM MUSIC

Millions of people view films and hear music. At an early age they are literally "earwashed" by musical kitsch. They become inured to bad taste and accept it as the norm—and this is the reel [sic] tragedy. Admittedly, much of Hollywood film music of the thirties, forties, and fifties was banal in its own time. Today it is topically stale, and rehearing it via television, which regurgitates both the garbage of the past and the amplified refuse of the present, only affirms its commonplaceness.

—Irwin Bazelon, *Knowing the Score: Notes on Film Music*

Though the 1950s saw a rapid increase in the production of Sci-fi films in Hollywood, and although composers were creating jazz, folk, and pop-influenced scores in the 1960s, most science fiction (SF) scores of the era remained rooted in the classical Hollywood symphonic style—an approach prevalent since the 1930s. While scores from other genres (e.g., westerns, gangster films, horror films) had certain identifying musical characteristics, science fiction film music of this era had no unique, identifiable sound (Sobchack 1999, 208). The emergence of science fiction film music as a genre was not to occur until the late 1970s with the release of such films as *Star Wars* (1977), *Star Trek: The Motion Picture* (1979), and *E.T. the Extra-Terrestrial* (1982) (Sobchack 2005, 267). Even these scores—and those that followed—are rooted in the post-Romantic symphonic style. William McGinney (2009, 2) states such films provide "visual escapism." I suggest in this discussion that the soundtracks from this post-*Star Wars* period are examples of "sonic escapism." Composers such as John Williams and Jerry Goldsmith have left an indelible fingerprint on Western culture. Their oft-imitated, iconic Sci-fi scores have forged associations in the minds of movie audiences so strongly encoded that even without the onscreen images, the music of *Star Wars* and *Star Trek: The Motion Picture* evokes images of epic space adventures. One can hear the influence of Wagner, Holst, and other

Romantic and post-Romantic composers on the music of John Williams and Jerry Goldsmith. They reached back to an earlier aesthetic, referencing past musical idioms, reframing them, and thus connecting past musical associations of adventure, discovery, fear, etc., to a genre being reinvented by A-list composers. With improvements in visual special effects, better recording techniques, and the use of larger orchestras, the result for viewers in the late 1970s and beyond was a much more heightened visual and sonic experience.

This chapter, however, focuses on the film music trends of the 1960s, and to undertake such a study, we must begin at an earlier point. An overview of film production in the United States from the 1930s onward will help to illuminate the shifts in the industry and their effects on film composers. In a significant way, film production was affected by socio-political changes, including federal legislation, changing demographic patterns, and new technologies. These factors had a profound impact on science fiction as a burgeoning film genre. In exploring this fascinating history, the following questions will be addressed: who were the major Sci-fi film composers; why were some of these individuals typecast; what distinctions can be made between "B-movie" composers and the more critically acclaimed composers. Of course, this discussion would not be complete without considering the music itself. What, if any, were the common practices regarding style, instrumentation, and the use of electronics?

Bazelon's statement in the epigraph to this chapter seems somewhat harsh especially when considering the incredible output and contributions of composers such as Max Steiner and other Hollywood film composers from the 1930s-50s. They added a new element to film; original music which, because it was tailored to the on-screen images, contributed a more heightened emotional component to the narrative than the "borrowed" music of the nineteenth-century masters prevalent in the Silent Film era. Since most of the composers writing film music

in Hollywood's Golden Age (e.g., Korngold, Steiner, Tiomkin, Waxman) trained in the

European tradition, it is no surprise that the music of the Romantic era, besides being the staple

for silent films, also served as their starting place. In essence, Romantic music served as "temp"

music for the films of the Golden era. Bazelon (1975, 22-24) cites the following reasons Golden

Age film music is "banal": 1) music is overused and thus its effect diminished 2) music is overly

sentimental and 3) music too often imitates the onscreen action (a process referred to as

"Mickeymousing", first used in the early Disney animated films). The practice of "wall-to-wall"

scoring may have been a vestige of the Silent Film era when music was needed to compensate

for the lack of audible dialogue and the desire to mask the noise of the projectors. Goldsmith,

like Bazelon, also felt that music in the films of this era was overused.

> The placement of music in a film is probably as important as the writing of music through a film...Some film makers tend to over score a picture. It was like the so called "Golden days" especially at Warner Brothers where Korngold and Max Steiner would start the music with the main title and it would go [until the] end title and eventually the music, to me, just became a pastiche. It was just white sound. It lost its effectiveness because it was a constant source there. (Cable TV Interview 83, 4:03)

In the same 1983 interview Goldsmith alluded to a change in aesthetic from the 1930s to a much

sparser approach. He noted that *Patton* (1970) and *Chinatown* (1974)—both scored by himself—

contained just over 30 minutes of music each despite running times of over two hours.[16] Bazelon

and Goldsmith had the advantage of hindsight and were critical of past scoring practices (1930s-

1950s) at a time when the industry had gone through significant change. However, as we shall

see, composers and directors in Hollywood eventually returned to the "wall-to-wall" approach.

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16. *Patton* runs 2hrs 52 minutes and *Chinatown* runs 2hrs 10 minutes.

It is notable that Bazelon echoed the sentiments of Raksin and Antheil that listeners can be conditioned ("inured"). Each of these composers was highly skilled and schooled in the symphonic tradition as well as in serialism. Raksin studied with Schoenberg and Antheil's *Symphony No. 1* (Zingareska), a mostly Romantic work, is interspersed with many modernist moments, some highly reminiscent of Stravinsky (Griffiths, *Oxford Music Online*). Antheil (1937, 48) felt Hollywood was hostile to modern music and referred to the film industry as a "closed corporation", stating many excellent composers had been turned away. He described the scores of this era (the 1930s) as "unmitigated tripe" and singled out Korngold's 1936 score for *Anthony Adverse*, calling it "a very lugubrious concoction indeed." Antheil (1937, 50) does speak somewhat more positively of Max Steiner's music for *Green Light* (1937), however, he states, "we cannot expect a too tremendously new or exciting music." Although modernism had taken firm root in concert halls by the 1930s—Schoenberg had written *Variations for Orchestra, op. 31* (1926-28), Webern had completed *String Trio, op. 20* (1926-7), his first instrumental work using the twelve-tone technique, and Berg had completed *Wozzeck* (1925) and his *Violin Concerto* (1935)—it was lacking from Hollywood. Miklós Rózsa, who on more than one occasion was asked to edit or remove music from film sequences because it was too modern, criticized studio music directors for their conservatism, calling them "the arbiters of musical taste in Hollywood" (Cooke 2008 Kindle Location 2668). Rózsa was a highly trained composer, successful in both Hollywood and the concert hall. He worked in the studio system and his comments show Hollywood's bias stemmed mostly from executives. Mervyn Cooke (2008, Kindle Loc. 6554-6556) comments that composers for Disney productions remained conservative and produced sentimental scores in general because Walt Disney himself was "deeply suspicious" of modernist music. Clearly the distrust of modernism was present at all

levels of the industry. McGinney (2009, 26-27) suggests three reasons modernist sounds were

adopted slowly in Hollywood: 1) nineteenth-century practices were entrenched for many years 2)

there was a hostile attitude between the "serious" music community and film composers and 3)

the concern that such music might affect a film's commercial appeal. While the first two reasons

are certainly valid, what may have been the most influential is the perception that viewer

response to modernist scores would result in financial loss. As will be discussed later in this

chapter, during the 1960s the concern over a film's commercial appeal would translate into even

more pressure on composers to tailor their scores to include a Pop single thus curtailing their

creativity even further.

## 2.1 Trends in Film Production 1930s-60s[17]

An examination of the number of films released by the major studios in the United States

over the course of the twentieth century reveals with clarity that Hollywood's "Golden Age"

occurred in the 1930s. In that decade alone, the seven major distribution companies[18] in the

United States released 3,430 films (see fig. 6). This productive trend continued into the 1950s,

but the end of the decade saw a dramatic downturn (Sterling 1978, 30). Due to the collapse of the

studio system and a recession in the film industry, the total number of films released in the 1960s

plummeted to just 1,449, representing a decline of approximately forty-two percent from the

height of production in the 1930s. Studios had produced more than 300 films a year by the mid-

1950s, a rate which had fallen to just over 140 by 1962 (Hubbert 2011, 289). This would have

17. See Appendix B for an overview of the various pivotal points in the history of film music in Hollywood.

18. Columbia, MGM, Paramount, Twentieth Century-Fox, United Artists, Universal, and Warner Bros.

translated into more competition and less work among composers already working in the industry, not to mention those trying to break in. In 1961, as many as 75 percent of the movies released by Hollywood lost money (Baxter 1972, 11). This had profound implications for anyone working in the major studios, including film composers. The many factors contributing to this remarkable decline in film production resulted from changes taking place both within the motion picture industry and American society at large (Sobchack 2005, 267). The US Federal anti-trust legislation enacted in 1948 meant the major Hollywood studios—forced to give up ownership of movie theaters across the country—could no longer control the exhibition of films they produced (Monaco 2001, 9). Further, increased competition from smaller independent film studios led to lost revenue, eventually putting the mainstream studio system at risk.

Figure 6. No. of Films Released in the U.S. by Decade (1920s-1970s). *Source*: Data adapted from Sterling and Haight 1978, 30.
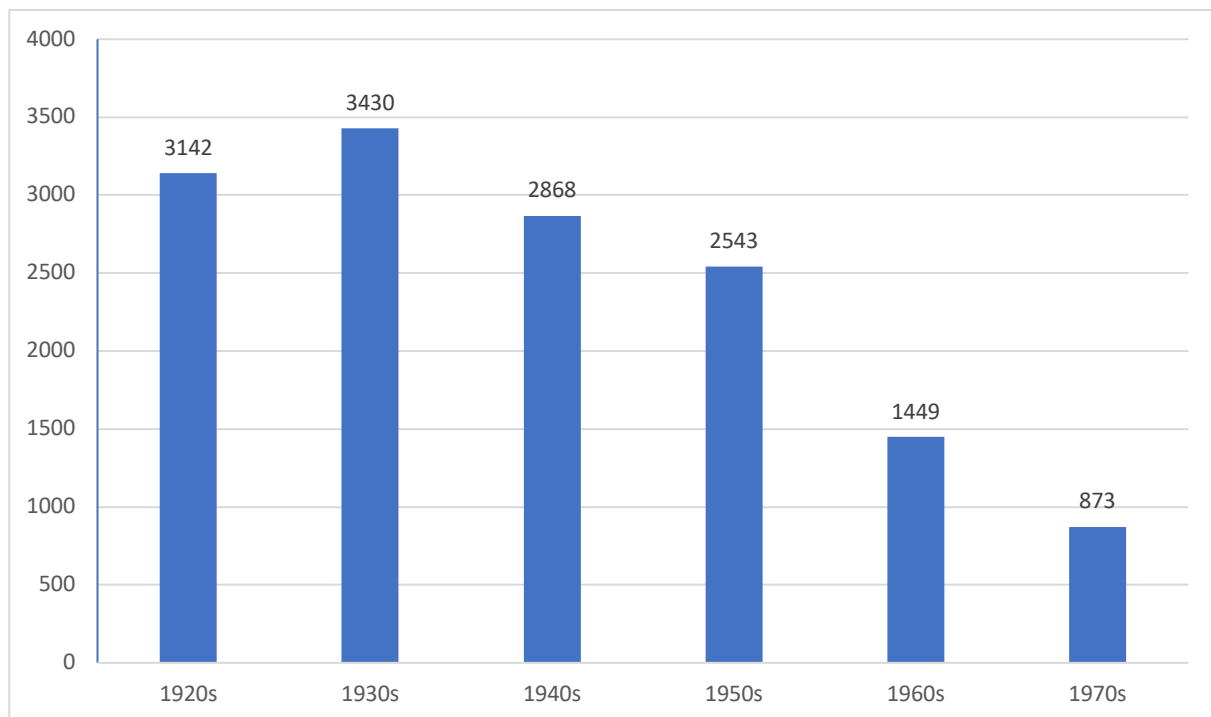
Working under contract as an employee of a major Hollywood studio, a composer's experience would have been markedly different from composers working independently. Under the studio system, the composer was part of a team which included everyone required to put music to picture—arrangers, orchestrators, copyists, librarians, music editors, resident orchestras—all working under a senior music director (Cooke 2008, 70). The break-up of the studio system and loss of the composer's supportive network led to a significant change in the way composers worked. Rather than a guaranteed salary, they would now have to rely on their own business acumen or a hired agent to secure gainful employment. Additionally, they often hired their own orchestrators, copyists, and other essential support staff to help meet the deadlines of production. Without a senior music director or music supervisor to act as a liaison between the composer and director (or other senior personnel in charge of production), directors acquired even more control and influence over musical decisions, such as the spotting of a picture—i.e. deciding where to place music in a film (Monaco 2001, 109). Perhaps the most well-known example of a director usurping total creative license is Stanley Kubrick's decision to discard Alex North's entire score which had been written and recorded for *2001: A Space Odyssey* (1968). Kubrick replaced North's score with pre-existing music by various composers (Richard Strauss, Johann Strauss, György Ligeti, Aram Khachaturian). Portions of the final soundtrack, Richard Strauss' *Thus Spake Zarathustra*, achieved iconic status after being paired with the spectacular images of the film. Goldsmith, a friend of North, criticized Kubrick for his rejection of North's original score,

I remember seeing Stanley Kubrick's 2001: A Space Odyssey and cringing at what I consider to be an abominable misuse of music. I had heard the music Alex North had written for the film, and which had been dropped by Kubrick, and I thought what Kubrick used in its place was idiotic. I am aware of the success of the film but what North had written would have given the picture a far greater quality. The use of the Blue Danube waltz was amusing for a moment but quickly became distracting because it is so familiar and unrelated to the visual. North's waltz would have provided a marvellous effect. He treated it in an original and provocative way. It is a mistake to force music into a film, and for me 2001 was ruined by Kubrick's choice of music. His selections had no relationship, and the pieces could not comment on the film because they were not a part of it. So, I come back to my theory that a score is a fabric which must be tailored to the film. (Goldsmith 1979a, 228)

In 1993 Goldsmith conducted a Telarc recording of North's original score. His comments above underscore the importance of the support and trust composers need to produce organic scores which are much more integrated with the film narrative.

The Hollywood studios also faced competition from the rapid growth of television. As more Americans moved to the suburbs, they spent more time watching television at home rather than going to movie theatres (Monaco 2001, 42). While only two percent of American households in 1949 had a television set, by 1959 that number had risen to eighty-six percent and by 1969, ninety-five percent of Americans owned one (Sterling 1978, 372). Consequently, in just a few years, the number of motion picture theatres in the United States dropped by twenty-five percent from 16,991 in 1960 to 12,800 in 1963 (Monaco 2001, 270)[19]. Though this number rose to 17,900 in 1967, it once again declined by 1969 to 13,480. Hollywood attempted to address decreasing revenue and rising production costs by producing a greater amount of "runaway" films. Shifting production to countries where labour was cheaper and larger tax breaks were available meant Hollywood studios could cut costs (Monaco 2001, 12). Hubbert (2011, 293) states that by 1960, forty percent of all Hollywood studio productions were runaways. This was

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19. These totals include four-wall and outdoor theaters combined.

another factor leading to the decline in opportunities for Hollywood's composers. David Raksin, whose film-composing career in Hollywood began in 1935 (Thomas 1997, 210), was still scoring films into the 1980s. In 1974 he commented on the effects of Hollywood's foreign productions:

> The disastrous unemployment resulting from this circumstance has become worse as film companies have made more and more pictures abroad; American composers find it difficult to believe that the use of foreign composers is not related to the fact that they work for less money. As to the remaining available jobs, they are further curtailed by the relegation of the film soundtrack to the humiliating status of an adjunct to the recording industry (Hubbert 2011, 372).

That composers were feeling the impact of this trend into the mid-1970s indicates how entrenched the practice had become. By the late 1960s, the major Hollywood studios had been bought by large corporations such as Gulf and Western. These buyouts coupled with federal tax legislation had put the studios back on firm financial footing. However, by the time of Raksin's article in 1974, the practice of foreign-produced films was established. His comments also allude to the added pressure composers were under from studio executives to produce soundtracks with hit singles. Again, this would have resulted in less work for composers who were not versatile enough to work in multiple musical styles.

Perhaps the most significant political issue during the 1950s was the "Red Scare". Hubbert (2011, 188) explains that in 1947 the Congressional House Un-American Activities Committee (HUAC) accused the Screen Writers Guild of including communist propaganda in studio films. Studio executives and other industry personnel were subpoenaed to testify against their colleagues (some refused to testify) and others were black-listed because of accusations. "A general climate of anxiety, over Communist infiltration and Soviet aggression as well as the rise of atomic energy, defined the country's mindset in the 1950s" (Hubbert 2011, 188). Movies such as *Radar Men from the Moon* (1952) and *Canadian Mounties vs. Atomic Invaders* (1953) exemplify the uncertainty about atomic energy. The fear of communism dealt a near-fatal blow to

the career of noted composer Elmer Bernstein when he refused to implicate others before the

HUAC subcommittee in the early 1950s. After being grey-listed (a list of those suspected but not

proven to be Communists) and shunned by the major studios, he was forced to accept work on

"B-movies" such as *Robot Monster* and *Cat Women of the Moon*. Both films were released in

1953 (Burlingame 2004). Eventually, Bernstein's career as an A-list composer resumed when

asked by Cecil B. DeMille to score *The Ten Commandments* (1956) but it is likely he would have

enjoyed a more lucrative career had it not been for the suspicions of the HUAC.

## 2.2 Film Music in the 1950s

American paranoia about Communism also impacted Hollywood's creative choices. The

fear of Communist invasion and concerns over the development of nuclear energy, creeping into

the American psyche during the 1950s, found expression in films such as *The Day the Earth

Stood Still* (music by Bernard Herrmann, 1951), *It Came from Outer Space* (Irving Gertz, Henry

Mancini, and Herman Stein, 1953)*, The Thing from Another World* (Dimitri Tiomkin, 1951) and

*The War of the Worlds* (Leith Stevens, 1953). As Figure 7 shows, Sci-fi film production increased

in the United States throughout the 1950s, comprising a higher percentage of the total number of

films produced. America was clearly preoccupied with these issues.

Sci-fi output reached its apex in 1957 but by 1960 showed signs of rapid decline (see fig.

7 which shows a decrease in U.S. film production into the 1960s). The amount of Sci-fi films

released in the U.S. never reached its previous level for the remainder of decade. Though *Planet

of the Apes* was not released until 1968, it may represent a vestige of the fears (explored in earlier

films) of invasion and the threat of nuclear energy. While Sci-fi film production in Hollywood

decreased significantly after 1957, foreign-produced Sci-fi was on the rise and continued well

into the 1960s (see fig. 5). This decline was, in part, due to Hollywood's response to changing

cultural shifts in the United States reflected in the growing popularity of folk, rock, and jazz music.

Figure 7. No. of Sci-fi films released in the United States and abroad. *Source*: IMDb.
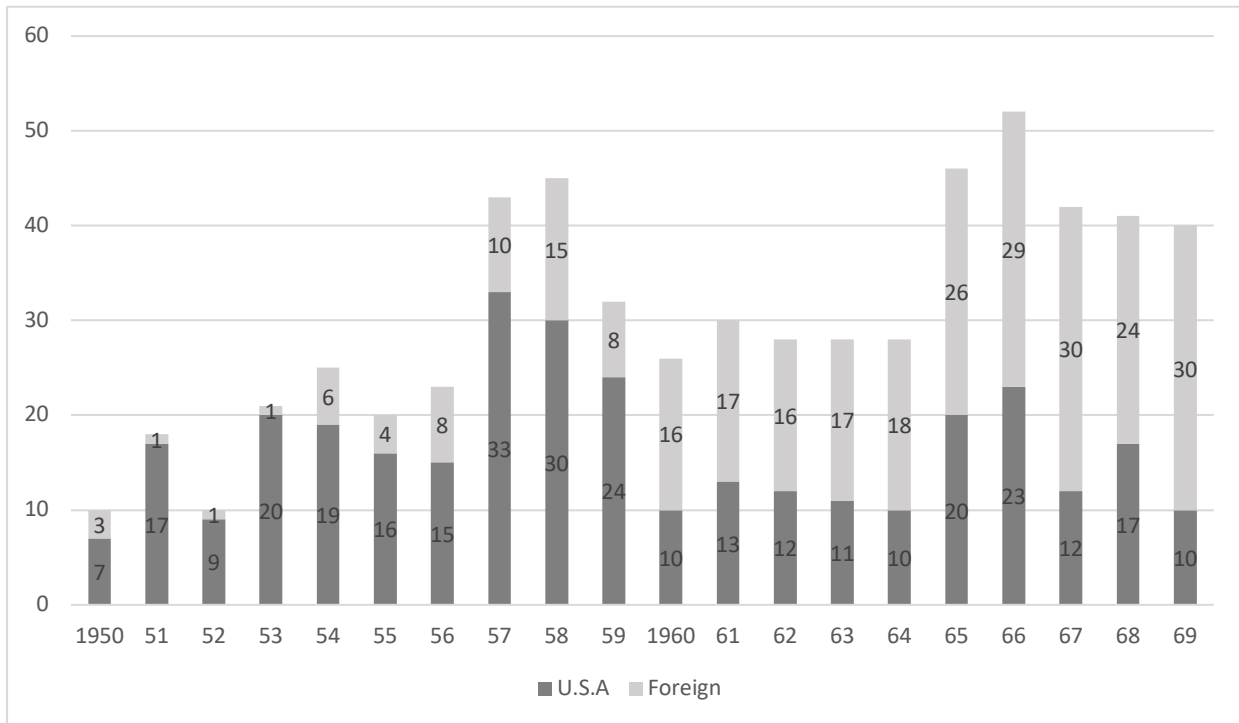


*Rocketship X-M* (1950), scored by Ferde Grofé, typified the post-Romantic approach to Sci-fi scoring of this period. As Kristopher Spencer (2008, 168) notes, although Grofé used a theremin to signify the alien world of Mars, "before X-M actually arrives on Mars...one gets pure Golden Age orchestration with sweeping strings, boisterous brass and crashing cymbals." Though Hollywood's production of Sci-fi films increased in the 1950s, aside from the increasing use of the theremin on Sci-fi scores, there were no unique composition or orchestration practices that had developed. Sobchack (1999, 208) notes that Sci-fi film music—at least to the point of

her writing—lacked its own identifiable sound. "What is notable about most SF [science f-fiiction] film music is its lack of notability, its absence of unique characteristics which separate it from music in other films. Not only does most music from one SF film sound like the music from another SF film ... but most of the music sounds like all of the music from most other narrative film." The main-title music for *Rocketship X-M* contains a sweeping, melodramatic motif which would work just as well for *Gone with the Wind* (1939) as for any space adventure. It was not until the late 1970s and beyond, in films like *Star Wars* and *Star Trek: The Motion Picture*, that any identifiable "Sci-fi sound" would emerge. However, even Williams, Goldsmith (and those who emulated them), as creative as they were, borrowed elements from post-Romantic composers.

The electronic score Bebe and Louis Barron created for *Forbidden Planet* (1956) is perhaps the most adventurous Sci-fi score up to the late 1950s. Called "electronic tonalities", these sounds were created using electronic circuitry and tape splicing. However, except for this film, the use of electronic instruments in Sci-fi scores of the 1950s was limited to the theremin and more traditional instruments such as the vibraphone, electric guitar, and electric organ. Bernard Herrmann's score for *The Day the Earth Stood Still* called for two theremins, one reed organ, two Hammond organs, two pianos, electrically amplified violin, cello, and bass, in addition to percussion and brass (Spencer 170, 2008). This is a departure from the typical Romantic symphonic style and points to his innovative approach. To modern movie audiences, the extensive use of the theremin throughout the score may sound hackneyed, campy, and even humorous. To audiences of the 1950s, however, this sound was likely still fresh and could be easily associated with the alien, Klaatu.

## 2.3 Sci-fi Film Composers

In the period between 1950 and 1969, at least 328 Sci-fi films were released in the United States (IMDb). Many of these films are referred to as "B-movies" due to the lower budgets allotted to their production. B-movie composers like Albert Glasser, Ronald Stein, and Les Baxter were typecast as "Sci-fi composers" due to the large number of Sci-fi films they scored (Sobchack 1999, 210), many released by American International Pictures (AIP). Sobchack (1999, 210) posits even the more recognized and acclaimed composers such as Bernard Herrmann were typecast as non-Sci-fi composers and as a result, were restricted from scoring Sci-fi films. Figure 8 illustrates the disproportionate amount of non-Sci-fi scores each of the listed composers created in the 1960s as compared to Sci-fi scores. By this time, Sci-fi film production had almost ceased, which suggests a more likely reason these composers scored very few Sci-fi films. Alternatively, composers such as Herrmann, Elmer Bernstein, and Jerry Goldsmith possessed a much broader creative scope and were in much greater demand to score films in a range of genres.

Figure 8. Sci-fi versus other genres by composer. Source: IMDb
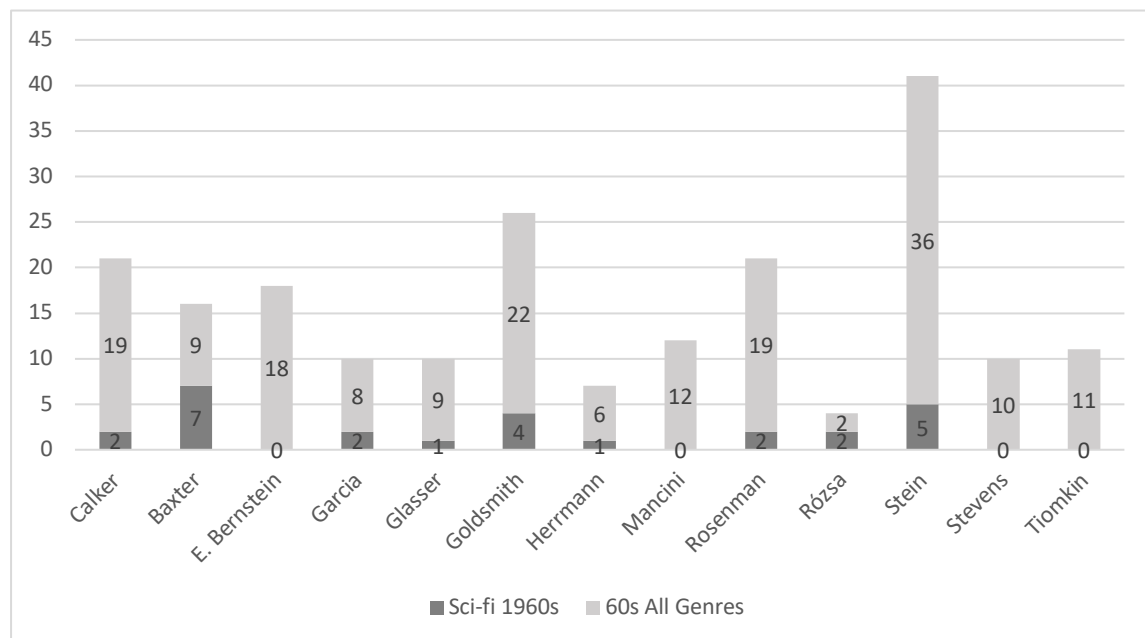
Albert Glasser typified 1950s B-movie composers. Between 1944 and 1962, he scored 170 movies and a staggering 300 television episodes and 450 radio programs (Weaver, Brunas, and Brunas 2006, 96). Weaver has described Glasser's music as being characterized by "pounding, hard-driving rhythms and crashing crescendos which set the pace for the lurid, action-packed quickies they accompanied." Glasser's music for *The Amazing Colossal Man* (1957) fits this description exactly. Beginning with four very dissonant orchestral chords (fig. 9), it proceeds with a driving, militaristic pulse which underpins an angular melody.

Figure 9. Main Theme from *The Amazing Colossal Man.*

Glasser typified an approach in common use by B-movie composers. Timothy Scheurer (2008, 61), in *Music and Mythmaking in Film*, observes "in the 1950s, composers generally wedded dissonance to dynamics in portraying their aliens. This correlation reflected, in large measure, the larger-than-life-size figures of the giant ant, or a praying mantis, or beasts from the age of dinosaurs." *The War of the Worlds* and *When Worlds Collide*, both released in 1953, center on the theme of annihilation. Yet, Leith Stevens' scores for both films fit Scheurer's description of "dissonance wedded to dynamics." His music, like Glasser's, is rhythmic and very tense melodically and harmonically. The music of both composers provides support for Sobchack's claim about the sameness of most Sci-fi music. In the 1950s, Glasser, Stein, Stevens, and Baxter were writing more Sci-fi scores than A-list composers were (see fig. 8). Japanese composer, Akira Ifukube, was one of the most prolific B-movie composers in the 1950s and 1960s in any country. Figure 10 also illustrates that composers generally wrote more Sci-fi film scores in the 1950s regardless of whether they were critically acclaimed or not. For example, Glasser, prolific in the 1950s, scored only one Sci-fi film in the 1960s. A-list composers such as Bernstein, Herrmann, and Rózsa also scored less Sci-fi films in the 1960s. Ifukube and Baxter are the only composers who wrote more Sci-fi scores in the 1960s than during the 1950s. This decrease in the production and release of Sci-fi films in Hollywood in the 1960s is a result of the decrease in film production in general during this period.

Figure 10. No. of Sci-fi Scores by composer (1950s and 1960s). Source: IMDb.
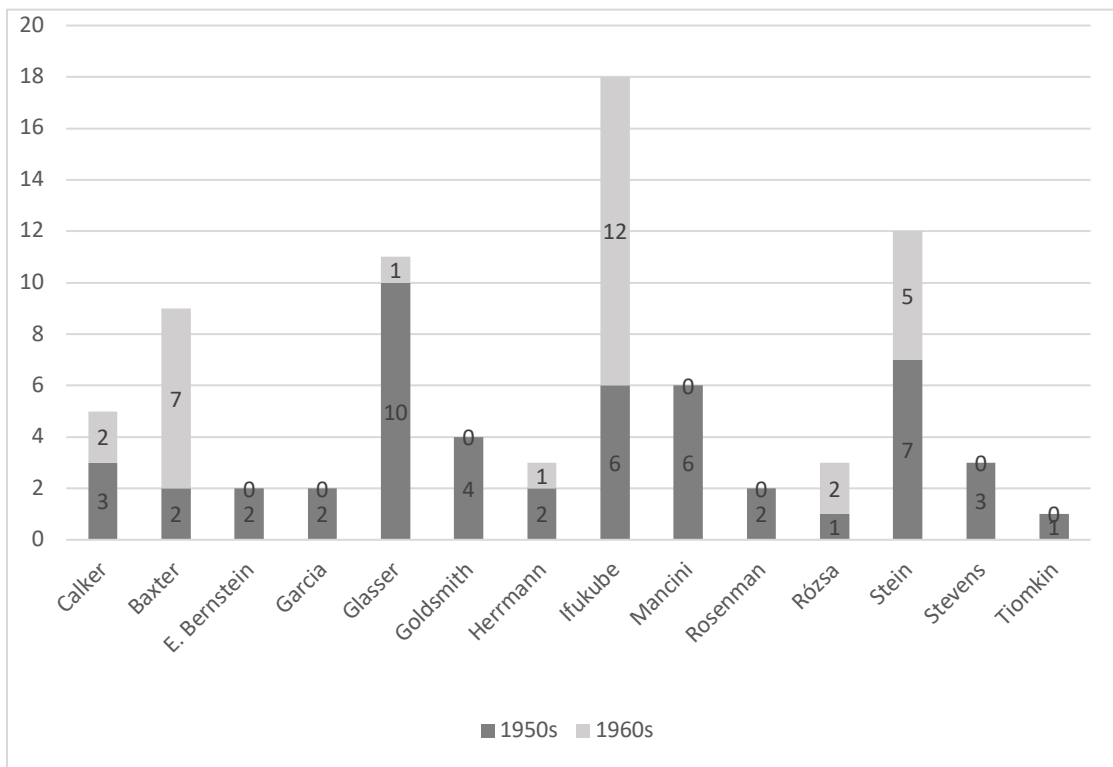
## 2.4 Film Music in the 1960s

New systems alone are not enough. They must be mastered and used for musical rather than merely cerebral means, and even then they may fail to attract a significant audience.

—David Huckvale, *Hammer Film Scores and the Musical Avant-Garde*

Constantine Nasr (2011, x) in the introduction to his book Roger Corman: Interviews, discusses Corman's critique of the state of Sci-fi films until 1957. Nasr states,

Writing for the Hollywood Reporter in 1957, he [Corman] called out for intelligence in genre pictures. He sharply attacked Hollywood's misdirection of science fiction, a genre he helped popularize but that was already becoming stale. "Science-fiction today needs cerebral wings," he said, pointing to Ray Bradbury as an ideal to pursue. Through the years, he goes on record to state his personal yet unfulfilled desire to make movies of cerebral Sci-fi, such as Frank Herbert's *Dune* and Robert Heinlein's *Stranger in a Strange Land*, movies that would have required budgets far greater than he would probably be willing to spend. (Nasr 2011, x)

The production of Sci-fi films in Hollywood reached its peak the year Corman's article appeared in the *Hollywood Reporter*. From that point, the genre suffered a drastic decline in output through to the late 1970s. Further, there were only a few attempts by directors in the 1960s to sprout, what Corman called "cerebral wings." In 1960, Russell Garcia scored *The Time Machine* (based on the novel by H.G. Wells). His score, while starting off firmly situated in the Romantic style of the late 1950s, has many innovative moments. Despite his superior skill as a composer and the more cerebral-sounding music, there is nothing in this score that uniquely signals it as Sci-fi music. Universal Pictures released *Fahrenheit 451* in 1966. Herrmann, working with French director François Truffault (IMDb), once again used a non-standard, reduced orchestra consisting of strings, two harps, glockenspiel, vibraphone, xylophone, and marimba (Wrobel 2001, 1). His music is a mixture of haunting post-Romantic cues such as "Prelude" (reminiscent of Holst's "Neptune, the Mystic") and the lush, melancholy Romantic sound of "Happiness" and

"The Bedroom". Again, the latter two cues would work well in a typical Hollywood romance film of the 1950s. The music for a later cue, "The Road", is similar in style to Samuel Barber's *Adagio for Strings*. Despite relying on Romantic musical tropes, Herrmann displays an artistic clarity and sophistication in his music which transcends the simpler approach of many B-movie composers. Stanley Kubrick's *2001: A Space Odyssey* was a serious attempt at making a more cerebral Sci-fi film. It would be interesting to know how Alex North's original score would have changed the perceptions and reactions of movie audiences rather than the use of pre-existing music (Strauss, Ligeti) Kubrick used to replace it. It is debatable whether the film would have enjoyed a similar level of notoriety without the music of Strauss. The similarities between North's score and Strauss' *Zarathustra* are few. North's main title uses low sustained strings and winds. Brass fanfares and percussive accompaniments follow and at the end, North's use of a pipe organ suggest the ending of Strauss' tone poem. The remainder of North's score is harmonically sophisticated and draws heavily on non-tonal harmonic language.

At the opposite end of the "cerebral" spectrum were such films as *Dr. Goldfoot and the Bikini Machine* (1965). Les Baxter's score trades off between suspense and jazz cues. The Supremes sing the title song, exemplifying Hollywood's penchant for using pop tunes to sell movies. Roger Hickman (2006, 278) states that moviemakers in the 1960s were eager to include songs in films and not just because of their popularity. A film with a song is eligible for an additional Academy nomination (Best Song) and the more Oscar nominations accorded a film, the more money it could make (278). Songs like *Moon River* (Henry Mancini) from *Breakfast at Tiffany's* (1961) are early examples, and throughout the 1960s, many more Hollywood films included songs. This trend would have helped some composers and curtailed others.

It was a horror film of a less cerebral nature which marked a change in aesthetic from 1960 onward. Paul Monaco (2001, 2) cites the shower scene in *Psycho* (1960) as the focal point of the change from the "cinema of sentiment"—an approach prevalent in Hollywood from the late 1920s through the 1950s, which focused on narrative and character development—to the "cinema of sensation." It was the latter with its focus on faster visual and audio pacing and the switch to colour film, which attracted younger viewers (Monaco 2001, 261). This challenged composers to match these developments with a new musical aesthetic. Along with developments in film editing, composers such as Henry Mancini, Quincy Jones, and Lalo Schifrin created innovative film and television scores with an ever-increasing reliance on jazz, pop, and rock styles. Examples of 1960s films which used a non-orchestral approach to film composition include: *The Graduate* (1967), songs by Simon and Garfunkel; *Bonnie and Clyde* (1967), banjo music by Lester Flatt and Earl Scruggs; *Easy Rider* (1969), a compilation of rock songs by various artists (Monaco 2001, 115). Though not exhaustive, the few examples given here already represent a significant divergence from the standard orchestral approach of the 1930s through to the 1950s. For those composers who were unwilling or unable to adapt, the growing popularity of non-orchestral film music could have had career-ending consequences.

Given that North continued to write orchestral scores into the 1980s and 90s, it seems reasonable to challenge the notion that the post-Romantic style of Strauss' *Thus Spake Zarathustra* (featured in *2001: A Space* Odyssey) prepared the way for the symphonic scores of Williams and Goldsmith beginning in the late 1970s. Mervyn Cooke (2008, Kindle Location 9987) suggests, though credited with restoring a "robust symphonic style" to the modern cinema, Williams was not the first film composer to write scores in this fashion. Cooke proposes if Kubrick had used North's original score for 2001, "the credit for restoring orchestral music to the

genre of science-fiction would have fallen to him rather than Williams." North's original score

for *2001* was more integrated and tailored to the film than perhaps the assembled works of other

composers. Though the patchwork of music Kubrick chose for the final cut is a conglomeration

of styles (late-Romantic, contemporary, Viennese waltz) and not necessarily as integrated as

North's score, after repeated viewings the music tends to "stick", making it difficult for the

viewer to imagine anything else.

Cultural trends also had an impact on the decline in film production. Monaco (2001, 115)

argues, "The importance of folk music in the social protest movements of the 1960s, along with

the identification of rock music with the American counterculture, meant that the growing movie

audience of young adults was primed to hear those kinds of music on movie soundtracks." To

remain viable, Hollywood had to change. It shifted not just due to political developments (Cold

War) and industry pressures (collapse of studio system) but also in response to social and cultural

trends. Not surprisingly, orchestral composers of this period spoke their mind on the changing

standard of movie music in Hollywood. In 1964 Bernard Herrmann stated:

> In my 24 years in Hollywood the standard of movie music has gone down, down. A large
> percentage of producers, today, are so unaware of their pictures they're looking for a
> musical gimmick to lure the public. Like the hit title tune, a harmonica surrounded by a
> choral group, the twanging sound of an electric zither, or the wail of a kazoo in an
> express café. Stuff like that. It only takes away from what's happening on the screen.
> (Hubbert, 2011, 321)

It is notable that Alfred Hitchcock fired Herrmann for failing to provide a pop-oriented

score for his 1966 release of *The Torn Curtain* (Spencer 2008, 184). Herrmann wrote his last film

score (*Taxi Driver*) in 1976, well past the beginning of the pop song trend he was eschewing in

the early 1960s. Clearly, he eventually became flexible enough to weather this change. His score

for *Taxi Driver* is an elegant mixture of jazz, funk, and orchestral influences.

Elmer Bernstein was writing well into the 1990s and his work encompassed a variety of genres. Writing in 1972 he echoed Herrmann's sentiments, "I find it inconceivable that this sophisticated art has in such a short time degenerated into a bleakness of various electronic noises and generally futile attempts to make the pop Top 40 charts. Today the trend is most obviously to the non-score, the pop song, and General Electric. It appears the king is dead and the court jester has been installed in his place" (Hubbert 2003, 180). Finally, David Raksin commented in 1974 about the increasing, inappropriate use of pop singles in feature films. "In too many cases, the appropriateness of the music to the film is secondary to getting an album, or a single, and the voice of the A & R man is heard in the land" (Hubbert 2011, 372). Referring to movies such as *Easy Rider*, *The Last Picture Show* (1971), and *American Graffiti* (1973), Raksin stated further, "the music in those films is just what it should have been. But I do not find this to be equally true of all films in which such music is used" (373). It is interesting to note Raksin's sentiments about the use of pop songs when one considers the popularity of his theme from the movie *Laura* (1944). The theme was set to lyrics and eventually became a "standard" among jazz musicians (Cooke 2010, 70). Bernstein, Herrmann, and Raksin have been critically acclaimed in film music circles and their comments illustrate that the practice of using pop tunes to sell movies was not a fad. If they were feeling the effects of this trend, it is likely that B-movie composers felt them to an even greater extent. Yet, despite how they felt about movie music in Hollywood in the 1960s and 70s, it is evident some composers adapted and survived.

Composers whose mainstay was Sci-fi film scores in the 1950s now found they were doing little if any in the 1960s. As figures 8 and 10 illustrate, one could not rely solely on scoring Sci-fi films in Hollywood in the 1960s. Mancini and Stevens did not write any Sci-fi scores in the 1960s, however they were flexible enough to work in other genres. Baxter scored the highest

number of Sci-fi films of any composer in the 1960s but he worked on even more non-Sci-fi films. Hollywood's Sci-fi story lines in the 1960s had remained much as it was in the 1950s with titles such as: *The Brain That Wouldn't Die* (1962) music by Abe Baker and Tony Restaino; *The Eye Creatures* (1965-Baxter and Stein); *Mars Needs Women* (1967-Stein). *The Brain That Wouldn't Die* was the only film Baker and Restaino scored (IMDb). The only other significant Sci-fi films of the decade—ones with any "cerebral wings"—were *2001: A Space Odyssey* and *Planet of the Apes* (both released in 1968). Goldsmith's score for POTA was groundbreaking because the approach was serial for the entire score and, save for an Echoplex, there were no electronic instruments used. Despite these two films, Sci-fi as a film genre, according to Sobchack (2005, 266), was receding in the popular consciousness.

The 1960s were volatile. The world watched the Cuban missile crisis unfold and the assassinations of John F. Kennedy and Martin Luther King unfold. Other unsettling events included the war in Vietnam and its ensuing civil unrest in the United States, overpopulation, and food shortages. *Planet of the Apes* and other dystopian films addressed these issues. Other dystopian Sci-fi films from the 1960s and 70s include: *Fahrenheit 451* (1966) - music by Bernard Herrmann; *A Clockwork Orange* (1971) music by Wendy Carlos; *THX 1138* (1971) - Lalo Schifrin; *Silent Running* (1972) - Peter Schickele; *Soylent Green* (1973) - Fred Myrow; *Rollerball* (1975) - André Previn.

As mentioned, figure 2 illustrates the decline in Sci-fi film production in the United States from the end of the 1950s and into the 1960s. It also shows a rise in the release of foreign Sci-fi films, many of which were also low budget B movies (IMDb). Sci-fi films released in Italy included *Gorgo* (1961), *Wild, Wild Planet* (1965)—both scored by Angelo Lavagnino—and *The 10th Victim* (1965) scored by Piero Piccioni. In 1965, *Curse of the Fly* (Bert Shefter) and *Dr.*

*Who and the Daleks* (Malcolm Lockyer) were released in England. In Japan, Ifukube was busy

with films such as *King Kong vs. Godzilla* and *Varan the Unbelievable* (both released in 1962).

The music for these films was primarily orchestral, although some were jazz-based, such as

Piccioni's score for *The 10th Victim*. In 1964, Robert Moog developed the Moog synthesizer,

which Wendy Carlos used to score parts of *A Clockwork Orange* (Atkinson 2011, 425).

However, despite the growing popularity of synthesizers from the early 1970s on, the instrument

of choice for most Sci-fi scores was still the orchestra.

**2.5 Sci-fi TV Music of the 1960s**

By the 1960s the television industry was expanding and consequently provided more

opportunities for composers. However, the more successful composers in television had to adapt

to stricter time frames and tighter budgets, which meant writing for smaller orchestras or even

chamber ensembles. To help meet the weekly deadlines, music cues were often recycled from

one episode to the next. According to Ron Rodman (2010, 105), "the more creative and adaptive

composers found that the smaller financial resources were suitable and actually enabled greater

creativity." Herrmann and Goldsmith were two composers who exemplified this adaptability.

Herrmann composed the original main theme for *The Twilight Zone* (1959-64) and scored many

of the early episodes using a small string ensemble (Rodman 2010, 106). For *Climax*, a weekly,

live television drama running from 1954-58, Goldsmith wrote for an ensemble of four musicians

(including himself), often being called upon to provide music for one or two other shows

(*Gunsmoke*, *Twilight Zone*, *Playhouse 90*) in the same week (Burlingame 1996, 25). Although

Hermann started in movies and later worked in television, Goldsmith's career went the opposite

way; from radio to TV to feature films. In either case, both were respected and enjoyed longevity

in an industry undergoing massive change.

Even though significant stylistic changes were taking place in Hollywood scores, there were composers who still used a post-Romantic symphonic approach. According to Spencer (2008, 215), Dominic Frontiere's music for *The Outer Limits* (1963-65) is, "arguably the best TV Sci-fi score of the 1960s in the symphonic style."[20] Other notable Sci-fi televisions shows include *Lost in Space* (1965-68), *Star Trek* (1966-69), and the British TV series, *Dr. Who* (1963-present). Interestingly, the music supervisor for *Lost in Space*, Lionel Newman, used music from Bernard Herrmann's scores for *The Day the Earth Stood Still*, *Beneath the 12 Mile Reef* (1953), and *Journey to the Center of the Earth* (1959) (Rodman 2013, 37). Herrmann's impact on the film and TV industry looms large.

John Williams is arguably one of the most enduring and successful film composers of the century. He began his film career as a pianist in Hollywood studio orchestras and eventually began to compose music for TV and film. Williams scored Sci-fi television shows in the 1960s such as *The Time Tunnel* (1966) and *Land of the Giants* (1968). For *Lost in Space* (1965-1968)*, Williams wrote two main title themes, one for the first two seasons and a second for the third season. Williams also composed much of the cue music for weekly episodes. Over time, this music was "tracked." As Rodman (2013, 40) explains, "Tracking is a practice in which a composer will write music for a particular episode, and then that music will be saved in the studio's library for "recycling" in other episodes. To save production time and money, the composer and/or the music editor will take cues from the original score and insert them into subsequent episodes. Often, these older cues are combined with cues composed for the new episode, either by the same composer, or another composer in the studio's "stable." Thus, music

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20. Frontiere, says Spencer, was inspired by the music of Ravel and Bartók.

for a show accumulates over time, resulting in episodes which feature a mix of older, familiar cues with a sprinkling of new themes and motifs. While Williams' theme for seasons one and two is bold and driving, it also has an ominous or menacing element to it, suggesting the disastrous fate of the Robinson family. In the B section of the main theme, he uses an electro-theremin (Rodman 2013, 39) to signify the alien element. The theme for season three evokes a swashbuckling style, suggesting adventure more than disaster.

The year 1966 also marked the premiere of the original *Star Trek* television series. Alexander Courage wrote the iconic theme. He was for many years one of Goldsmith's two main orchestrators (the other being Arthur Morton). Courage got the job because Goldsmith, who was originally asked to write the music, was unavailable. Courage stated *Star Trek's* creator, Gene Roddenberry, did not want it to sound like typical space music of the period (Burlingame 1996, 116). In fact, Roddenberry had later told his composers to avoid the 'electronic beep-beep-beep music' (Lerner 2013, 55). Symphonic music thus continued as a staple of this series which has seen many motion picture films and TV spin-offs. *Star Trek* episodes were scored by several composers whose music was also tracked throughout the series. In addition to Courage, these composers included Fred Steiner, Sol Kaplan, Gerald Fried, George Duning, and Jerry Fielding (Burlingame 1996, 119). Of course, many more composers wrote music for the numerous spinoffs that followed. In 1963 *Doctor Who*, the British Sci-fi TV show, aired and has enjoyed a longevity perhaps even greater than that of the *Star Trek* franchise. Delia Derbyshire and Dick Mills arranged Ron Grainer's eerie, pulsating theme while experimenting with electronic music at the BBC Radiophonic Workshop (Spencer 2008, 214). The show remains in production to this day.

Hollywood's second Golden Age began with the release of *Star Wars* in 1977, and moviegoers since have assimilated the memorable themes of John Williams. Rodman (2013, 34) has described him as "perhaps the most famous American film composer, and certainly the highest wage earner in the short history of film composers." To argue that an average, musically untrained viewer could recall a John Williams theme is not unreasonable. Jerry Goldsmith has also added his imprint on contemporary culture with his sweeping themes for films such as *Star Trek: The Motion Picture*, *The Mummy* (1999), *Alien* (1979), and others. Both Williams and Goldsmith have reached back to an earlier period in music (and film music) history. Both have drawn on the Romantic symphonic tradition to usher in a new era of film music.

The bridge between Science Fiction's two Golden eras (1960-69) was unpredictable and fraught with political, civil, demographic, and economic unrest which put a severe strain on the major studios. The tectonic social shifts taking place in the 1960s had a profound impact on the American psyche; the civil rights movement, youth rebelling against authority, overpopulation, food shortages, the Cold War, feminism, anti-war protests, missile crises, moon landings, and assassinations are evidence of the massive upheaval which occurred in the 1960s (Sobchack 2005, 266). In response, substantial aesthetic shifts were taking place in American society and the corresponding shift in the film industry comes as no surprise. The changes in film music trends during this decade were significant. The collapse of the studio system, shifting demographic patterns, the increase in foreign film production, and the popularity of television all had a profound impact on Hollywood and the decline in Sci-fi film production. New approaches to scoring included the use of jazz, pop, and rock styles and the willingness to embrace new trends allowed some composers to enjoy a longevity they may not have otherwise had. Despite these societal and aesthetic shifts, the Sci-fi film scores of the 1960s had not significantly

changed since the 1950s. Titles such as *The Brain that Wouldn't Die* and *The Eye Creatures* bear a resemblance in title and sound to most Sci-fi films of the 1950s. Indeed, 1960s Sci-fi was the end of an era begun in the 1950s.

In 1956, Louis and Bebe Barron created the first electronic score for *Forbidden Planet,* an approach which did not prove to be popular with other film composers. Despite the increasing use of the theremin in Sci-fi movies of the 1950s, this practice faded in the 1960s, perhaps as much due to the changing aesthetic in film music as much as the decline in of Sci-fi film production. Even Robert Moog's synthesizer did not enjoy frequent use by Sci-fi composers until the 1980s. Television's popularity and subsequent growth throughout the1950s and 1960s was only one factor leading to the decline in US film production of the same period.

Films belonging to the first Golden Age of science fiction cinema (1950-59) were often based on fear (communism, atomic energy, invasion). It was primarily due to economic reasons, and not a resolution of widespread societal fears, which lead to the decline in Sci-fi film production toward the end of the 1950s. The collapse of the studio system, the rise in foreign films, the decline of the symphonic score and increase of jazz, rock, and pop-based scores were all trends converging in the 1960s. The switch from the cinema of sentiment to the cinema of sensation began in 1960 and by the end of the decade, science fiction as a film genre began to wane in the public consciousness. The tumultuous events of the 1960s found their expression in dystopian films such as *Fahrenheit 451* (1966), *Planet of the Apes* (1968), *Soylent Green* (1973), *The Omega Man* (1971), and *Silent Running* (1972) but eventually, a greater desire for escapism prevailed.

When Hollywood reached back to its first Golden Age of science fiction for journeys in faraway galaxies, it also reached back to its post-Romantic musical past. Filmmakers were now

equipped with better visual and sound recording technologies allowing movie audiences in the late 1970s and beyond to enjoy a more heightened visual and sonic experience. Avant-garde scores such as *Forbidden Planet* and *Planet of the Apes* were in the minority as most Hollywood scores remained within tonal boundaries.

## CHAPTER 3. BIOGRAPHY, INFLUENCES, STYLEM

His chameleon adaptability was a prerequisite to longevity and success in Hollywood. We used to call him Gorgeous. He was the golden boy, a beautiful presence. His music had a freshness and he had a freshness.

—John Williams

### 3.1 1930s-40s – EARLY TRAINING

Jerry Goldsmith's career as a composer spanned a half-century starting with a 1954 television series called *Climax* and ending almost fifty years later with his score *Looney Tunes: Back in Action* in 2003. In that span of time, he scored 176 films and 24 movies made for TV[21]. Besides this impressive body of work, Goldsmith also wrote episodic music for 8 regular TV series and penned 14 TV themes. The three-year period from 1965-67—just before Apes in 1968—shows he was not only prolific but also versatile. In these three years, he completed 10 film scores and worked on 5 television series. The stylistic variety of Goldsmith's film projects (see Table 1) explains why he enjoyed the longevity Williams alluded to in the epigraph to this chapter. His "chameleon adaptability" allowed him to move back and forth between genres in both television and film.

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21. For Goldsmith's filmography see https://www.imdb.com/name/nm0000025/?ref_=fn_al_nm_1.

**Table 1: Goldsmith's Film and Television Projects for the years 1965-67.**

| | 1965 | 1966 | 1967 | 1968 |
|---|---|---|---|---|
| **War** | *The Blue Max (Fox)* <br> *In Harm's Way* (Paramount) <br> *Morituri (Fox)* <br> *Von Ryan's Express (Fox)* | *The Sand Pebbles (Fox)* | | *Bandolero* (Fox) |
| **Western** | | *Stagecoach* (Fox) | *Hour of the Gun* (United Artists) | |
| **Drama** | *A Patch of Blue* (MGM) | | *The Flim-Flam Man* (Fox) | |
| **Thriller, Mystery** | | *Our Man Flint* (Fox) <br> *Seconds* (Paramount) <br> *To Trap a Spy* (MGM) | *Warning Shot* (Paramount) <br> *In Like Flint* (Fox) | *Sebastian* (Paramount) <br> *Planet of the Apes* (Fox) <br> *The Detective* (Fox) |
| **Comedy** | | *The Trouble with Angels* (Columbia) | | |
| **Sci-fi** | *The Satan Bug* (United Artists) | | | |
| **TV Themes** | *The Loner (Fox Television)* <br> *The Man from U.N.C.L.E.* (NBC) <br> *Dr. Kildare* (MGM) <br> *The Legend of Jesse James* (ABC) | *Jericho* <br> *The Girl from U.N.C.L.E.* (NBC) | | |
| **TV Episodes** | *Voyage to the Bottom of the Sea* (Fox - 1 episode) <br> *The Loner* (2 episodes) <br> *The Man from U.N.C.L.E.* (7 episodes; also scored 7 episodes in 1964) | *Jericho* (2 episodes) <br> *Gunsmoke* (CBS - 1 episode: 5 episodes in previous years) | *The Man from U.N.C.L.E.* (7 episodes) | *CBS Playhouse* (1 episode) |
| **Animated** | | | *Theme music for The Mouse from H.U.N.G.E.R.* (MGM) | |
| **Documentary** | *Prologue: The Artist Who Did Not Want to Paint* | | | *Nick Quarry* (TV Short) |

*Source*: IMDb

Jerrald King Goldsmith was born in Pasadena, California on February 10, 1929 to Morris and Tessie Goldsmith. Morris was a structural engineer who played the violin and Tessie, a school teacher who played the piano (Karlin 1995). Goldsmith began his study of the piano at six, but by the time he was nine, his parents had hired Jakob Gimpel.[22] According to Goldsmith's cousin, Joseph Zirker (1995), this was a life changing experience for Goldsmith. Arthur Morton claimed Gimpel helped give Goldsmith a broad vision of music (Morton 1995). Gimpel not only studied with pianist and composer Edward Steuermann (who was himself a student of Schoenberg), but also studied private composition lessons with Berg (Methuen-Cambell 2009). Cameron Patrick (1989) states, through Gimpel, Goldsmith met many of the musicians and composers fleeing Europe during the Nazi era. Though he does not specify who these composers were nor does he provide sources, Patrick's statement is tenable as Los Angeles was home to a growing number of European artists.

Goldsmith studied composition, theory, and counterpoint with Gerhardt Albertstein at thirteen years of age and, at sixteen, he was studying composition with Mario Castelnuovo-Tedesco who had worked as a film composer with MGM. Castelnuovo-Tedesco has 155 film credits listed in the Internet Movie Database. His impact on the film music industry in Hollywood is significant; the list of prominent film composers who studied with him include Henry Mancini, Nelson Riddle, Herman Stein, André Previn, Marty Paich, Scott Bradley, and John Williams (Westby 2001).

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[22] See Appendix C for an overview of Goldsmith's teachers.

Goldsmith's immersion in musical instruction during this early stage of his life was the first critical factor contributing to his later success. His parents, valuing his interest in furthering his studies, asked his school teachers for exemptions. Goldsmith's father, Morris, explains,

> He started studying with Tedesco in composition and he studied with him quite a long while and as time went on, we got other instructors in theory, composition and so forth. High school seemed to take too much time away from his time to study so we got special dispensation from some of the instructors to allow him to relieve him from some of the class work and put more time in music. (Morris Goldsmith 1995)

When considering Goldsmith's early training and influences, it becomes clear he was well acquainted with serialism and would later be open to creating a twelve-tone score.

After finishing his studies at Dorsey High School, Goldsmith attended the University of Southern California but felt it was a waste of time, "I'd been studying privately since I was fourteen and to go back to Harmony or Counterpoint 101, it was ridiculous!" (Goldsmith 2004b). Goldsmith instead enrolled in what he felt was a more practical program at Los Angeles City College where he could earn extra money accompanying voice students. He continued to study with Castelnuovo-Tedesco but also studied composition with Ernst Krenek, (Goldsmith 2004b). Another European émigré who left during the Nazi regime, Krenek studied the twelve-tone method and was a friend of both Berg and Webern (Krenek 1986). Goldsmith's lineup of instructors during this early phase of his career is impressive and the influence each would have had was significant.

Goldsmith studied film composition with Miklós Rózsa at the University of Southern California (Thomas 1979, 219). It was Rózsa's score to *Spellbound* (1945) which inspired Goldsmith to become a film composer. "I remember when I was around 14 or 15, I had gone to the movies and I saw *Spellbound*. I came out of the theatre in love; in love with Ingrid Bergman and in love with the score that Miklós Rózsa had written, and I had, at that point, made up my

mind to do two things. I was going to marry Ingrid Bergman and I was going to write music for motion pictures" (Goldsmith 1995). Later, Goldsmith would quip he got half of his wish (Goldsmith 2011). He felt, though he learned some "peripheral" things from Rózsa while at USC, film composition could not be taught in school and the "real way" he learned was by "doing it" (1989). Goldsmith (1995) reiterated this in later interviews stating his education "really began" when he started writing for live dramatic television after CBS put him under contract. Goldsmith's statements make sense when we consider his unrelenting writing schedule in his early years at CBS. It was through the daily process of trial and error, composing for dramatic situations, which enabled him to develop a refined artistic sense. For the weekly television series *Thriller* (1960–62) Goldsmith would have only two days to write the music for a 50-minute episode—this was often in addition to other writing he did during the same week (Goldsmith 2002). "There wasn't time for motivation you know...I can't speak for the writers, I can't speak for the actors...but as a composer, you're jumping from one show to the other, week in and week out. There was no time for motivation. You've got to write thirty minutes of music in four days and you're lucky to get anything done" (Goldsmith 2002). The longevity of his career is proof Goldsmith *was* able to get much done. Because he was able to endure the demanding schedules of live radio and television throughout the 1950s and 1960s, we can conclude he developed a confidence in his instincts and skills as a composer. Goldsmith's early studies, his "on the job" training (writing music for live radio and television at CBS), and his compositional influences (Stravinsky, Vaughan Williams, Copland, Rózsa, Herrmann, Bartók, and Berg) not only lead to a successful career as a film composer but imbued him with the confidence to craft a twelve-tone score capable of supporting the emotional requirements of the film.

**3.2 1950s – CBS**

Hired as a clerk typist at CBS in 1951, Goldsmith later worked on live radio shows in 1952 such as *Romance* and *CBS Radio Workshop* (Jerry Goldsmith Online). His job was to select excerpts from a library of recorded music to use as a bridge between scenes. Goldsmith explains how he came to work for CBS,

> I got married in 1950 and was struggling to make a living and I was teaching piano and teaching theory and accompanying singers and accompanying dance classes and then CBS radio attempted what we called a radio workshop which was once a week...The facilities of a studio would be given to the employees to do a radio show. I think they gave them...an engineer too but the rest of it was all done by employees and then they would record this show and then it would be sort of circulated around the studio and hopefully some of these employees would be raised from the ranks into the professional ranks. And we didn't have anybody to write the music. A friend of mine that I met at USC was doing the music for these things but then he got a job ghost writing the music for *Dragnet* so he called me and said would I do one of the shows. So, I did one of the shows and he loved what I did. But they had a problem. I had to work at CBS. They could sneak me in the one time but after that they wanted me to do these shows, but I had to work at CBS...They said can you type. I said, I took six months at junior high school, so they faked a typing test for me, and I ended up typing for scripts while writing music for this workshop. (Goldsmith 2002)

For the radio workshop, Goldsmith set up a team of three to four engineers. Upon his cue, the technicians would "drop the needle" at the appropriate position on a vinyl disc thus providing music to accompany the radio drama. This early training provided Goldsmith an excellent opportunity to begin developing a sense of putting music to drama. The collection of recorded music Goldsmith selected from was from a library that Lud Gluskin, then head of the music department at CBS, had been amassing. According to Goldsmith (Goldsmith 2002) the American Federation of Musicians required the producers of live television to contribute to the trust fund for the privilege of using live musicians. To avoid this, Gluskin would take stock music—written by the composers on staff at CBS, including Goldsmith—to Europe for recording. Thus, a library

was built up, and it is likely Goldsmith was using some of his own library music for the radio show. Eventually, Goldsmith wrote for the live staff orchestra (Goldsmith 2002).

By late 1954, CBS decided to broadcast live on television from the west coast of the United States (Goldsmith 2002) and in 1955 Goldsmith was put under contract to CBS (Goldsmith 1995). Initially, he was assigned to select library music for *Climax,* a one-hour live television show which ran for three seasons (1954-58):

> We were doing a live hour drama every week. There wasn't a lot of experience on the West coast, they had been doing that in the east. *Climax* was the show that I did, [it] was the first show to emanate from the West coast and nobody had any experience doing that, let alone experience doing music to these things. (Goldsmith 2002)

Again, as in his radio experience, Goldsmith wrote for a live orchestra which included, in this circumstance, a flute and French horn in addition to Goldsmith on keyboard. Most of the music was original rather than "tracked" and Goldsmith's "orchestra" would eventually increase to four or five musicians including himself on piano, Novachord, and organ (Goldsmith 1995).

The weekly trial and error of a new medium (live television) pioneered on the west coast provided Goldsmith with an incredible opportunity to develop his sense of timing:

> Well that was the greatest training ground in the world...Friday morning we'd go to the rehearsal hall where next week's show was rehearsing. And it was blocked out and I had sat with the director and we decided where the music was going to be. And then they'd do a run through in the rehearsal hall. It was just...on the floor, that was it. There were no sets, very few props. Table and chair and that was it. And I would sit with a stop watch and time these scenes. Well, you can imagine how accurate that was. But that was the way I would do it...I'd just barely get the music done for rehearsal. I'd come in at 6:30 in the morning and rehearse the day of the broadcast, rehearse the orchestra. And then we'd start, I think we had a…run through at 10 o'clock in the morning.

> That's the first time I had seen it on a set with sets and props and everything else. And of course, you can imagine the timings were all over the place. So, you'd just conduct at a different tempo or you add a bar here or there but knowing full well that by the time you got through two rehearsals and a dress it was all going to change and by the time you got out on the air you never knew what was going to happen especially if the actors forgot their lines or move somewhere else or the timing was different. It always picked up on the air or went faster. And then there was always this thing that you'd finish a dress rehearsal and just before air the producer would say "we want some music here" and "we want some music there" and I'd be writing music up to air time and there'd be a copyist behind me copying the music and we'd play it unrehearsed, whatever it was, because we went on the air. (Goldsmith 2002)

In addition to this constantly fluctuating situation, the other salient factor in Goldsmith's training is the volume of writing he was taking on. *Climax* had two separate episodes in production at any given time. Each episode was assigned a different production crew which took two weeks from the start of production to airing. In any given week, one crew was working on the episode about to be performed and one was preparing the following week's episode. An episode with a two-week arc may seem a reasonable span of time for a composer to write and rehearse the required amount of music. It is impressive that Goldsmith was the composer for both episodes, the one about to air in the current week and the one in production for the next. He was also writing for *General Electric Theatre* at the same time as *Climax* (Goldsmith 2002). This incredible volume of writing enabled him to develop skills rapidly early on; skills which prepared him for the remainder of his career.

Goldsmith's next show was another one-hour live television show called *Studio One* which ran for ten years (1948-58) though it is not known how many episodes he scored or whether he used library music in addition to his live orchestra. Goldsmith's experience was broadening in terms of the size of his orchestra; he stated he had an orchestra of six musicians for *Studio One* (Goldsmith 2002). Daunting as it may sound, Goldsmith said he worked on *Studio One* at the same time as *Climax*—any given week saw him also working on episodes for *The Twilight Zone, General Electric Theatre,* and *Playhouse 90.* He remarked on this extra work in

his 2002 interview, "They knew a good bargain when they got it. I did it for the same money."
He was not only in demand but clearly loved writing music for dramatic situations: "I'm very
fortunate. I'm doing what I want to do, what I've always wanted to do, and we are allowed to
experiment a great deal in motion picture music. We have some of the greatest musicians in the
world playing it, and we're very lucky" (Goldsmith 1979). Though he was referring to motion
picture music in this interview, we can assume that  Goldsmith was making a more general
comment on his entire career including his live radio and television years.

In his second year at CBS Goldsmith started working on a second live television show—
each episode running 90 minutes—called *Playhouse 90* (1956 to 1961) which ran for 133
episodes (Dowler). As with all the shows Goldsmith worked on during this period, there is no
way to know precisely how many episodes he scored as accurate records were not kept. In an
email conversation with the author on July 27, 2017, film music historian Jon Burlingame stated
that IMDB (Internet Movie Database) began as a fan-based website, to which anyone could
contribute. "We have a fair but not conclusive idea of which *Playhouse 90s* he did, in part
because they went to videotape in the last season. But it is literally impossible to establish which
episodes of *Climax* and *Studio One* he [Goldsmith] might have scored." It is likely that some of
the episodes also contained library music. Goldsmith's workload and reputation were growing.

Goldsmith's orchestra was also expanding. For *Playhouse 90* he wrote for an 18-
piece orchestra. CBS would not allow Goldsmith to work on *Playhouse 90* initially as he was
still contracted to work on *Climax.* He did, however, work on the final few seasons. Due to the
number of shows he was writing for and hence, his volume of writing, he could not recall, years
later, the exact number of episodes he scored for this series:

The last year of *Playhouse 90* I didn't do all of them. I think I did two or three years. I'm not quite sure...because I was doing so much by that time. Don't forget...all this period of time I was doing a show called *Pursuit* which was a live show that never went anywhere. There was another show I did every week. It was an anthology show. I forget what the heck that was called. Then I was...starting to do film television...I was doing *Gunsmoke* and they were throwing *Twilight Zones* at me and I was doing *General Electric Theatre* also. (Goldsmith 2002)

Clearly, Goldsmith's immersion in the creative process from day to day allowed him the opportunity to develop his skills and hone his artistic instincts. These were prolific years indeed (one wonders when he slept). Further, working with small orchestras in his live television years (1950s) provided him with plenty of opportunity to learn how to economize. In later years, when he did work with larger orchestras, he could bring a depth of experience which allowed him to use every nuance a full symphonic film orchestra could provide.

### 3.3 1960s – Revue Studios and Fox

In 1960 live dramatic television was waning and CBS decided not to renew

Goldsmith's contract. He went to work for Revue Studios which, though it was founded in 1943

and had produced live radio and television shows, by 1952 was producing filmed television

(Green 2006, 16). Goldsmith composed scores for a 13-piece string orchestra for *Thriller* (1960-

62)*,* a horror anthology hosted by Boris Karloff. At Revue, Goldsmith was one of many

composers. He describes a productive but highly competitive atmosphere:

> Well, there was a whole different mentality. I was one of many different composers and it
> was sort of exciting because we all had offices to work in. I'd be in one office, John
> Williams was in another office, Lalo Schifrin was in another, Quincy Jones was in
> another, Dave Grusin was in another and we were all trying to outdo each other and the
> scoring stage was going…twenty-four hours a day over there. We all…had one thing in
> mind. We wanted to do features…We were all trying to outdo each other and trying to do
> something unique and different and it was, again, very exciting. It was a very creative
> time which doesn't exist now…We took such pride in it…and we were all sort of
> listening to each other. I'd stand outside Dave Grusin's door and listen to what he was
> writing…and I'm sure they were standing outside my door listening to what I was writing
> but it was sort of friendly camaraderie at the same time. It was very exciting. (Goldsmith
> 2002)

The creative environment at Revue Studios which was even more heightened than what he had

previously experienced at CBS. He recalls how Stanley Wilson, then head of music at Revue,

allowed him much creative latitude:

> Stanley was great and he loved all of us...They were all trying to outdo each other, and he
> gave us…free reign to do whatever we wanted to do and the crazier and the wilder we
> got…again, it was the same old thing. If you didn't do it this week…next week. One
> week you'd hit a home run and then next week you'd strike out, but we were always
> trying something different. (Goldsmith 2002)

Despite the supportive milieu, short production timelines were a constant challenge. "On

*Thriller*, you'd get the show on Friday and have to record it Monday morning" (Goldsmith

2002). As daunting as this may seem, he worked on other shows while at Revue including *Dr.*

*Kildare, Wagon Train, General Electric Theatre, Chrysler Theatre, Cain's Hundred.* Eventually,

Goldsmith's rising star was noticed by those who would help him transition to feature films.

In 1962 Goldsmith scored his first major feature film, *Lonely Are the Brave* (1962).

Alfred Newman had been one of Hollywood's "Golden Age" composers and was the music

director at Twentieth Century-Fox Studios for 20 years. By 1960 Alfred had left Fox and was

working on *Flower Drum Song* (1961). "That's when he heard Jerry's amazing work on

*Thriller,*" recalls Burlingame (2017), "and recommended him to the producers of *Lonely Are the*

*Brave.*" Burlingame speculates Goldsmith and Alfred Newman were acquainted:

> Jerry was very much on his way up in that early 1960s period…He was signed by
> [Alfred's brother] Lionel to a non-exclusive Fox contract and then brother Marc Newman
> became his agent around the same time. Considering how close all the Newman brothers
> were, I find it hard to believe that Jerry and Alfred didn't at least meet and possibly even
> socialize at some point. (Jon Burlingame, September 5, 2017, email message to author)

Goldsmith (2002) remarked that Alfred "took note of me and was very impressed." It is

reasonable to conclude Alfred Newman recognized Goldsmith's abilities and interest in serial

music given both composers were influenced by modernists.[23]

Though Goldsmith signed with Twentieth Century-Fox Film Corporation (Fox) in 1963,

his contract was non-exclusive, and thus he continued to score films produced by Fox,

Paramount, MGM, Columbia, and United Artists (Burlingame, September 5, 2017, email

message to author). From the 1960s-90s his television credits continued to accumulate with

themes for *Dr. Kildare* (1961), *The Man from U.N.C.L.E.* (1964), *Room 222* (1969), *The Waltons*

(1972), and *Barnaby Jones* (1973). He also worked on other television shows as either composer

or conductor including *Perry Mason* (1957-66), *Gunsmoke* (1955-75), *The Girl from U.N.C.L.E.*

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23. Recall that Alfred Newman was one of many composers in Hollywood who had studied with Schoenberg.

(1966-67), *Police Story* (1973-78). It is interesting to note *Perry Mason* and *Gunsmoke* were at one time presented as radio dramas. Goldsmith would have been no stranger to the dramatic requirements when later working on the television adaptations. Goldsmith's impact on the *Star Trek* franchise alone is impressive. His movie credits include *Star Trek: The Motion Picture* (1979), *Star Trek V: The Final Frontier* (1989), *Star Trek: First Contact* (1996), *Star Trek: Insurrection* (1998), and *Star Trek: Nemesis* (2002). He also created themes for the television series *Star Trek: The Next Generation* (1987) and *Star Trek: Voyager* (1995).

Goldsmith enjoyed a lengthy and prolific career as a composer for feature films until his death on July 21, 2004 in Beverly Hills, California. His final film score, *Looney Tunes: Back in Action* (2003) was released 41 years after *Lonely are the Brave* (1962). He scored one additional film (*Timeline*) also released in 2003, however the film continued to be edited after Goldsmith's score was completed. The film's director, Richard Donner, offered Goldsmith the opportunity to rewrite the score but Goldsmith declined and his score was replaced with a new score by Brian Tyler. Despite this unfortunate turn of events at the end of his career, Goldsmith was fortunate to have worked in a burgeoning industry (live radio and television) where experimentation was not only acceptable but was the norm. He worked with directors and heads of music departments who recognized his abilities and supported his willingness to take risks. These experiences allowed him to continue honing his craft and arrive at a point in 1967 where he felt confident enough to take the daring step of writing a twelve-tone score.[24]

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24. Though Planet of the Apes was released in 1968, Goldsmith created the score in 1967.

**3.4 Style**

As noted by John Williams in the epigraph to this chapter, Goldsmith possessed a "chameleon adaptability." We have seen how he could work in many different genres. This was a direct result of his experience at CBS, working in live radio and TV where he faced a different set of musical requirements each week—often a new one each day—forcing him to continually adapt to new situations. Looking back in 2002, Goldsmith stated, "There was no time to ruminate about this character and that character or what's the underlying motif…Just get it done. Get it in to the copyists." Goldsmith was far less likely to second guess his ideas and instincts, allowing his creative skills to mature at a much faster rate. His "adaptability" was key to his longevity in an industry undergoing rapid structural, technological, and stylistic changes. As we have seen from the previous chapter (see figures 8 and 10), composers working in Hollywood in the 1950s who were not able to adapt to the changing trends in the 1960s found their careers diminishing.

Williams' other statement in this chapter's epigraph ("His music had a freshness") is an apt comment on Goldsmith's style. After a brief discussion of Goldsmith's symphonic film scores, the rest of this chapter will explore some of the factors which contributed to his "freshness." Although Goldsmith was versatile, perhaps what he is most known for stylistically are the symphonic film scores he created in the mid-1970s and beyond. Roger Hickman (2006) states in his book *Reel Music: Exploring 100 Years of Film Music*: "Goldsmith is a significant figure in the reemergence of the symphonic score." His orchestras (and symphonic "voice") had begun to expand. Throughout his career he remained open to expanding his sound palette (i.e., he supplemented the traditional orchestra with electronic instruments or experimented with non-standard or unusual ways of performing on traditional instruments). Goldsmith's orchestra for the 1979 film *Star Trek: The Motion Picture* consisted of at least 81 musicians not counting those

who may have played various keyboards, tuned, and untuned percussion instruments (see Table

2). It was likely the case a handful of musicians played multiple instruments and an exact size

may not be possible to determine. The point, however, is that the orchestra was large and varied.

Stylistically, Goldsmith himself described this score as his "Vaughan Williams score" (Patrick

1986, 104). While the 1960s was an experimental period for film composers—jazz, folk, and

rock scores were common—after Apes in 1968, Goldsmith returned to a more sweeping romantic

style. Twenty years later he was still writing Romantic scores for full orchestra.

Goldsmith's remark—that he considered his music for *Star Trek: TMP* as his "Vaughan

Williams score" —is illustrated by Patrick (1986, 111) who has observed that Goldsmith's

Klingon theme bears a resemblance to Vaughan Williams' opening of the Scherzo movement

from *Symphony No. 4* and then astutely puts this instance of "borrowing" into context.

> Detailed study of the orchestral repertoire, especially from the Romantic period forward, will inevitably reveal thematic similarities and parallels in music for film. After all, when dealing, as in the case of Star Trek, with a basically tonal idiom, it is very difficult for the contemporary composer to write totally original thematic material. Thus, the film composer chooses the style and approach from the vast storehouse that comprises the history of music. Goldsmith is no exception, selecting seemingly disparate styles and juxtaposing them alongside one another in a pastiche that he manages to integrate into a unified score. Whether this choice of suitable styles is a conscious process is difficult to judge. However, it seems likely that during the spotting of a picture (deciding where music should be placed), certain pieces probably spring from the sub-conscious [sic] and shape the composer's thinking. When faced with the prospect of producing a symphonic score in the space of five to six weeks, this would probably be a worthy ability to have. (Patrick 1986, 102)

It is not surprising, given the pressures Goldsmith was under, that there are more similarities to

Vaughan Williams and other composers in his music; the assimilation of a great deal of "other"

music is a critical factor in the growth of any composer.

**Table 2: Expanded orchestra compliment for Star Trek: The Motion Picture.**

| STRINGS | WOODWINDS | BRASS |
|---|---|---|
| 14 1st violins | 2 flutes + piccolo | 4 trumpets |
| 14 2nd violins | 1 electric alto flute | 6 horns |
| 10 violas | 1 electric Echoplex bass flute | 4 trombones |
| 10 celli | 2 oboes + English horn | 2 tubas |
| 6 basses | 2 clarinets + bass clarinet | |
| | 1 contrabass clarinet | |
| | 2 bassoons + contrabassoon | |

| KEYBOARDS | TUNED PERCUSSION | UNTUNED |
|---|---|---|
| full pipe organ | blaster beam | bass drum |
| 2 grand pianos | marimba | field drum |
| 1 electric piano | vibraphone | tam-tams |
| 1 celeste | xylophone | suspended |
| 1 clavichord | glockenspiel | sizzle |
| 4 synthesizers | chimes rub rods | slit drums |
| | cimbalom | tom-toms |
| | song bells | water |
| | | water phones |
| | | angklungs |
| | | wind chimes |
| | | Boobams |
| | | bullroarer |
| | | elephant |
| | | rumble |
| | | water chimes |

*Source:* Data from Cameron Patrick 1986, 147-8.

The score from *The Edge* (1997) is an iconic example of Hickman's reference to Goldsmith's symphonic style. It features a sweeping theme for horns in the opening scene suggesting the majesty of the Alaskan mountains (fig. 11). Goldsmith constructed themes using certain intervals more than others. An interval breakdown of this theme (fig. 12) shows the predominant use of major and minor seconds and perfect fifths. Note also the arpeggiated celli and the countermelody in the upper strings. Goldsmith often used multiple layers in his writing, likely a result of his early training in counterpoint.

Figure 11. Main theme from *The Edge.*

Figure 12. Interval frequency, main theme from *The Edge*.
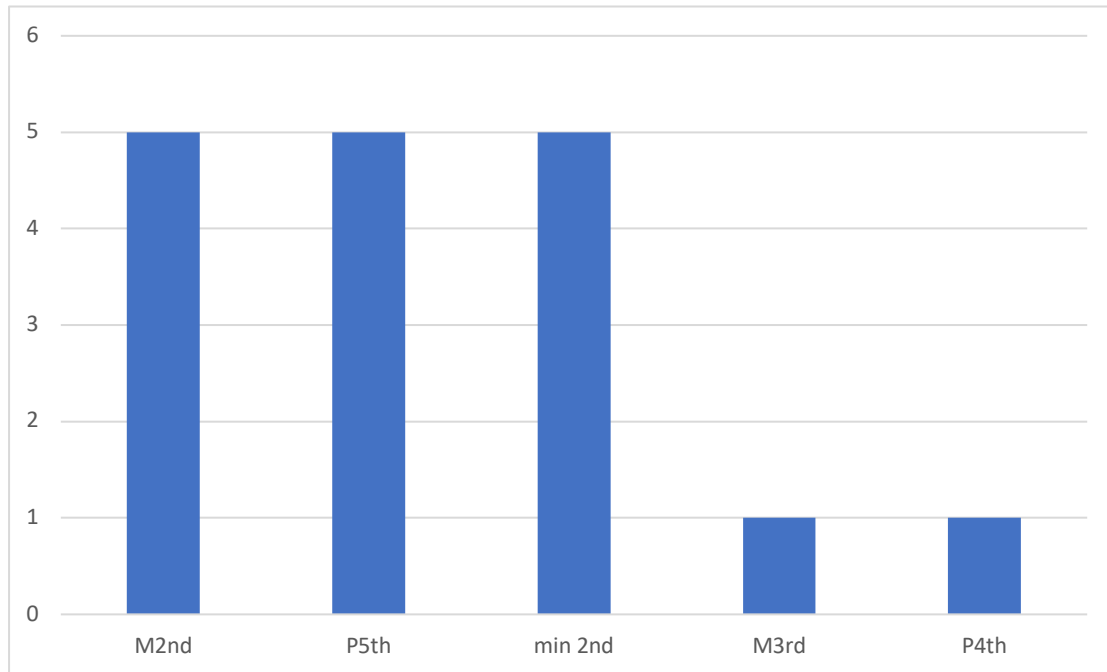


Additionally, Goldsmith often used what I call the Three-element Technique, an approach

he often used for action sequences. This usually consists of an ostinato, a separate melodic or

thematic idea, and one additional contrasting rhythmic idea. The cue "Sinking Plane" (fig. 13)

from *U.S. Marshals* (1998) is an example. Whether his choice of instrumentation was a mixture

of traditional instruments with electronics (fig. 13) or a full orchestra, this approach—because of

the presence of a melodic idea—adds an element to the scene which goes beyond a purely

rhythmic underpinning of the on-screen action. "We're going back to using orchestra or the

symphonic style of writing, which suits me just fine." (Goldsmith 1979b). Goldsmith made this

comment after an experimental period in the 1960s and early 70s when Hollywood was returning

to a more romantic approach to scoring—exemplars include Williams' *Star Wars* (1977) and

Goldsmith's *Star Trek: The Motion Picture* (1979). Goldsmith scored "Sinking Plane" for horns

(sixteenth-note ostinato), piano (percussive rhythmic figures), and strings (thematic statements).

Each is a distinct element and when combined, create an atmosphere of suspense. As I will

discuss shortly, Goldsmith's frequent use of perfect 4ths and 5ths in the construction of themes in

this score and others, is one of his trademarks.

Figure 13. Music cue "Sinking Plane" from *U.S. Marshals* illustrating the Three-element
Technique.



"The Attack" (fig. 14), a cue from *The Blue Max* (1966), accompanies a scene in which

two World War I fighter pilots engage in a lengthy dogfight high in the skies over Germany.

Goldsmith expertly captured the tension and movement of the battle using, once again, the

Three-element Technique (upper strings on element 1, lower strings, timpani, snare drum, and

bass drum on element 2, piccolo on element 3).

Figure 14. Music excerpt from "The Attack" from *The Blue Max*.

While it may be ill-considered to try to summarize the essence of a composer's style using one element, it can be instructive to focus on certain aspects which may point to larger tendencies. We must, however, keep in mind the multifaceted nature and ongoing evolution of a composer's body of creative work. Another component which contributes to a composer's "voice" is melody, and there are several musical traits that can be identified as common Goldsmith melodic tropes. Some of Goldsmith's most memorable themes are those where the perfect 5th is the prominent interval. If you were to ask him why he often based themes around this interval I believe he would state, as he often has, that it is not something he intellectualizes, but rather it is more a matter of his reaction to the scene or character on a purely emotional level. Goldsmith (1986) remarked on his ability to successfully capture the essence of a character, "To me, the most important thing is character…What music does so well, and I think the thing I do so well is to get inside a character." His instinctive emotional reaction to certain characters has enabled him to create themes suggesting the primal (*Planet of the Apes*)*,* the adventurous (*Star Trek: The Motion Picture*) and the aristocratic (*The Wind and the Lion*). These three films feature themes based predominantly on the perfect 5th. The Ram's horn motif (fig. 15) from "The Hunt" (*Planet of the Apes*) is heard in the scene where the militaristic gorillas are hunting the mute human inhabitants.

Figure 15. Ram's horn motif from "The Hunt" (*Planet of the Apes*).

Seven years later Goldsmith used this motif again in much the same manner in *The Wind and the Lion* (1975) (fig. 16) and again in 1979 for Goldsmith's "Klingon Theme" in *Star Trek: The Motion Picture* (fig. 17).

Figure 16. Opening from *The Wind and the Lion.*

Figure 17. "Klingon Theme" from *Star Trek: The Motion Picture.*



Score example by Cameron Patrick 1986.

An Interval Frequency chart (fig. 18) for the "Klingon Theme" from *Star Trek: The Motion Picture* shows the predominance of perfect 5th intervals.

Figure 18. Interval Frequency chart from "Klingon Theme" *(Star Trek: TMP)* showing predominant use of perfect 5ths.
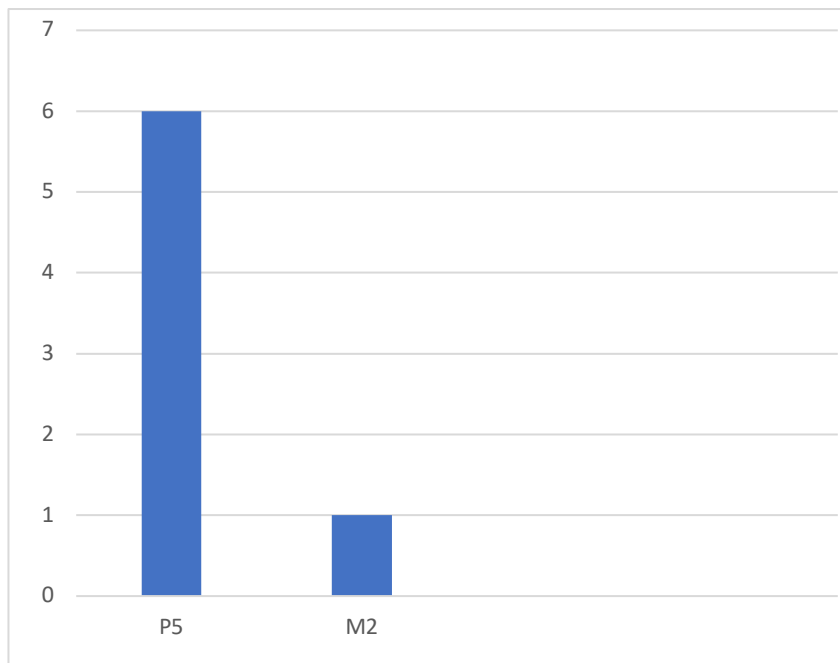


Figure 19. Interval Frequency chart from *The Wind and the Lion*.
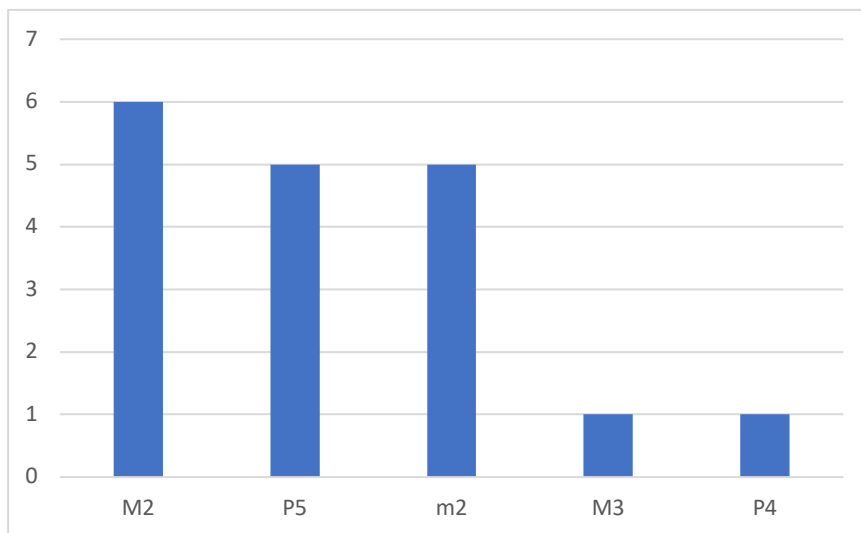
While the theme from *The Wind and the Lion* (figures 19, 20) shows mostly stepwise motion, the

perfect 5th is the second most frequent interval.

Figure 20. Main theme from *The Wind and the Lion* suggesting the nobility Raisul (Sean
Connery).



Additional examples of Goldsmith's use of this interval (fig. 21) occur in his scores for *Islands in

the Stream* (1977), *Rudy* (1993), *The River Wild* (1994).

Figure 21. Themes from a) Islands in the Stream b) Rudy c) The River Wild.



These themes are simple but effective and, as Goldsmith states, they "get inside" the characters. It is fascinating to note how the multivalent nature of these motifs can, in the proper musical and visual contexts, suggest either the primal nature of apes and Klingons, the nobility of a desert bandit (*The Wind and the Lion*), the tender relationship between a father and his sons (*Islands in the Stream*), the courage of an individual struggling against the odds (*Rudy*), or the majesty and danger of a river (*The River Wild*). This lends support to the idea that it is the context which enables the viewer to impute meaning to the music. An interval frequency chart with score example from the first eight measures of Goldsmith's theme from *Star Trek: Voyager* (figs. 22a and 22b) reveals further supporting evidence for his penchant for the perfect intervals. Not only are 6 out of the 15 intervals perfect but they occur in prominent places (ex., perfect 5ths occur at the beginning of measures 1 and 5).

Figure 22a. Interval Frequency chart for the theme from *Star Trek: Voyager.*
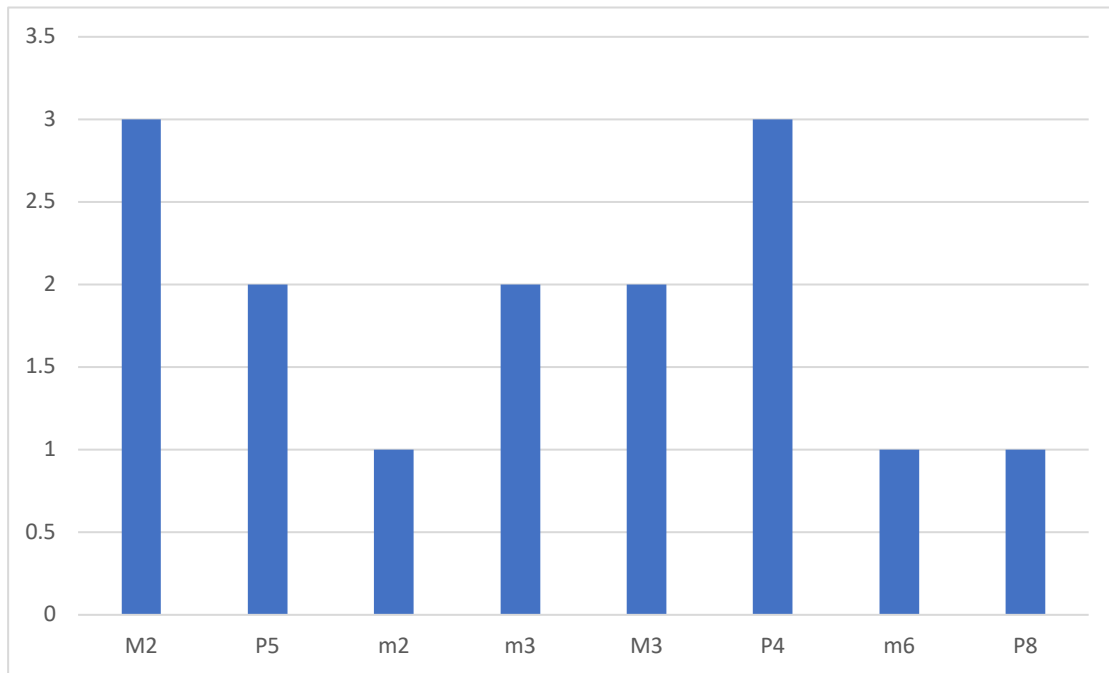
Figure 22b. Theme from *Star Trek: Voyager.*

Goldsmith's lyrical theme from *Star Trek: First* Contact (1996) (fig. 23) is another excellent example of his ability to get inside a character. His instrument choice (horn) and subtle use of counterpoint creates a theme which works extremely well for the film. Rather than the typical adventurous, swashbuckling sound, the calmness and serenity of the main theme suggests the dignity of the Enterprise's mission of exploration and the distinguished reputation of its crew. The perfect 4ths and 5ths are not a coincidence, and the inclusion of a countermelody is not atypical of Goldsmith's style.

Figure 23. Theme from *Star Trek: First Contact.*



Even when scoring a scene with a lyrical melody, Goldsmith's training in counterpoint manifested itself. Figure 24 illustrates lyrical themes from two films five years apart which include a countermelody. Elements used frequently by Goldsmith in many of these examples contain diatonic melodies (perfect intervals prominent), tonal harmony, and orchestrations for

strings, horns, and winds. All these factors combine to contribute to an essentially Romantic

style.

Figure 24. Lyrical themes with countermelodies from a) *King Solomon's Mines* (1985) and b) *The Russia House* (1990).[25]

a)



b)



25. The excerpt in Figure 24b is taken from the 2005 Silva Screen Records CD. This version, arranged and conducted by Goldsmith, features an oboe solo and differs from the movie soundtrack featuring a soprano sax solo by Brantford Marsalis).

Goldsmith had a reputation for using innovative sounds to increase the expressive range of the orchestra. Alexander Courage and Arthur Morton orchestrated many of his scores over the span of Goldsmith's career. "We've had a long-standing joke about Jerry," Courage (1995) notes. "If somebody makes a noise outside Arthur would say, 'find out who that is and bring them in here. We could use that in Jerry's next picture.'" Goldsmith's instrument choices for his Apes score will be discussed in Chapter 4. For now, it suffices to note that his penchant for unique sounds was not limited to Apes as demonstrated by the soundtrack to *Star Trek: The Motion Picture* and many others. Goldsmith (1995) explained his interest in electronics and synthesizers.

> I've been fascinated with [electronics] since *Freud* really, in 1962 where the dream sequences were done electronically. I didn't do them, an Italian composer did them. They were cutting pieces of tape and then during the sixties I started getting involved with manipulating sounds electronically. I wanted to express more than I was hearing in an orchestra and it seemed that electronically processing sound was the way to do it. I find that it gives me a whole new palette. I have a whole new section of the orchestra. I'm not using [it] to put musicians out of work or to save money...I still use an 80-piece orchestra, but I'll have three keyboards who are maybe playing a variety of twelve different synthesizers and it just gives me a much richer palette.

This shows Goldsmith's aim was to expand the expressive scope of traditional instruments. Though he worked with orchestrators throughout his career, Goldsmith's sketches were extremely detailed, leaving few creative decisions to others. He felt strongly it was up to the composer to decide on orchestration: "I don't like to leave it to anybody else. These are my decisions. This is my composition. If you are composing a piece for a full orchestra, you compose it for the full orchestra. How can you conceive it any other way? I can't imagine that" (Goldsmith 1995). Goldsmith's sketches for Apes are complete orchestrations written in his own unique shorthand. Arthur Morton, who worked with Goldsmith for many years commented, "the only thing I do is transfer the notes from the white paper [Goldsmith's sketch] to the yellow paper [Morton's full score]" (Courage 1985). To illustrate how complete Goldsmith's sketches

are, the following excerpt (done by the author) was orchestrated using Goldsmith's original

sketch from "The Forbidden Zone" (fig. 25). There is nothing in this orchestration not specified

in Goldsmith's sketch.

Figure 25. Excerpt from "The Forbidden Zone".

The following examples from *Congo* (1995)*, Star Trek: Voyager* (1995-2001)*, and Basic Instinct* (1992) illustrate another Goldsmith trademark; the Mediant relationship.[26] This refers to a harmonic progression where the root moves by the interval of a major or minor third (e.g., C-Ab) or a tri-tone (e.g., C-Gb). The two chords in either case can be either major or minor. Though Goldsmith often used this technique in his Sci-fi scores (figs. 26a, 26b), it also appears in his non-Sci-fi scores (fig. 26c).

Figure 26. Examples of the Mediant Relationship in score excerpts from a) *Congo* (1995) b) *Star Trek: Voyager* (1995-2001) and c) *Basic Instinct* (1992).





_____

26. The examples in Figure 26 are presented in concert pitch for ease of analysis.

c)

In a 1972 interview with *Cinefantastique Magazine*, Goldsmith cited Stravinsky, Bartók, Berg, and Schoenberg as having influenced his score for *Planet of the Apes* (Fitzgerald and Hayward 2013, 37). Nine years later he would cite Stravinsky, Copland, Rózsa, Herrmann, Bartók, and Berg, among others, as some of the main influences on his overall style of composition. (Goldsmith 1981). Patrick (1986) alludes to further influences by Vaughan Williams, Penderecki, Ligeti, Wagner, Grieg, Richard Strauss, Debussy, Ravel, Holst, and Prokofiev. It comes as no surprise when we consider the quality and variety of Goldsmith's teachers—Gimpel, Castelnuovo-Tedesco, Krenek (and their own musical lineage)—that he would develop an "ear" for the Romantic, post-Romantic, and Second Viennese composers. Goldsmith's early training and depth of stylistic experience enabled him to approach each project with an open mind. In a 1979 interview for Capital Radio, Goldsmith commented on the question of keeping a compositional style and the reemergence of a symphonic approach.

> **Interviewer:** And do you find yourself changing your writing style to fit a feel of a film, or do you find that the style of the music affects that feel of the film when you see the final print?

> **Goldsmith:** I think that that's a good question, because one wants to have their own identity creatively. And if, say, as you mentioned the last three films—*The Boys from Brazil*, *Magic*, and *The Great Train Robbery*, well, you're dealing—one picture, *Boys from Brazil* is done with ersatz Wagner and Richard Strauss in the grandest manner. Magic was—it's not really supernatural, it's really a melodrama, very psychological, but a very bittersweet love story also, so it's a totally different, very intimate kind of music from one very broad to very intimate. And then *Great Train Robbery*, which is a Victorian, it's a great romp, and it's fun and it's happy...So, you have all these different styles dramatically, and to keep a compositional style that is the same in all of them is really quite impossible.

> **Interviewer:** You must almost get to be a schizophrenic composer.

**Goldsmith:** You really do, and it and somehow you want your own identity, and I think maybe the identity comes more in approach. We're going back to using orchestra or the symphonic style of writing, which suits me just fine. I've had it with…the Fender bass guitar and the drum set. So, we're going back to much more formal and really more classic kind of music. You know, I like to think that no matter what I've done, that there's a certain mark or trademark that is my own. (Goldsmith 1979b)

The various Goldsmith trademarks discussed in this chapter are not part of an exhaustive list. It would be a prodigious task to note the frequency of use of all the various stylistic elements Goldsmith employed. It is enough to say here his early training, composer influences, and the skills he developed in his early career at CBS empowered him to meet any creative challenge he would face. As John Williams so eloquently noted, Goldsmith's flexibility was a vital component to his longevity.

Having discussed some of Goldsmith's stylistic tendencies, this examination will turn to a partial analysis of his score for *Planet of the Apes,* a work which represents the most experimental period in his lengthy career. After this point, Goldsmith returned to a more traditional Romantic approach for his film scores. The industry was changing and scoring trends were becoming simpler. After the turbulent decade of the 1960s, it seemed Americans preferred more escapism and fantasy at the movie theatre. If Goldsmith had wished to continue working, he would have had to adapt.

## CHAPTER 4. PLANET OF THE APES DECONSTRUCTED

> One of the great dangers to the future of film scoring is the ease with which it can be done. As so many filmmakers have learned, music and moving images blend extremely well together and if one takes a particular scene of a modern movie and plays any sort of song with it, there will be some effect in result which looks like it had a purpose behind it. Such is the medium of illusion. The only reason that film music has been able to survive as a skill and develop as an art is that so much of the best musical talent has been drawn to it.
>
> —John Caps, *Serial Music of Jerry Goldsmith*

> Music is a language of the emotions. You can practice it either on a very plain and elementary basis, or you can practice it on a highly complex one. But, it generally gives off some sort of generalized emotional feeling.
>
> —Aaron Copland, *The Creative Experience*

In the epigraph above, Caps offers two compelling points which help to answer, in part, one of the questions I pose in this discussion: how did Goldsmith craft his twelve-tone score for *Planet of the Apes* to work with, and support, the narrative? The first point is music and moving images "blend extremely well together." Caps implies almost any music paired with images can suggest intent. While this may be true, it is doubtful whether many filmmakers would find it preferable to use "any sort of song." As discussed in chapter two, music from recent Marvel films, patterned on other scores, shows composers are often constrained by directors wanting their films to have a specific look and feel (sound). This can stifle the creation of an organic score which would be better suited to the narrative; music tailored to a film's specific dramatic needs helps to make it much stronger. There are always exceptions, however. For example, Stanley Kubrick's placement of Strauss' *The Blue Danube* under images of an astronaut moving in zero gravity (in *2001: A Space Odyssey*) helped to suggest an elegance—already associated with the music—the scene may not have otherwise had. Caps' statement that any music can

suggest intent lends support to the notion that even serial music can be used effectively in film. Copland's suggestion (see epigraph to this chapter) that music evokes emotions no matter how complex further supports this idea.

Caps' second point is the more cogent, however. He states film music had developed as an art because "the best musical talent has been drawn to it." Since this quote is from his article analyzing Goldsmith's Apes score, it is clear he was acknowledging Goldsmith and perhaps some of his contemporaries (John Williams comes to mind). Ultimately, Goldsmith's score succeeds because his skill and artistry enabled him to create a score (despite its complexity) which contributed much more to the narrative than just "any" arbitrary choice of music.

What makes Goldsmith's score work is the way it helps to create, together with the images, the diegetic world in which the narrative exists. Danna (2000, 3320) sheds light on this crucial and often overlooked role of music:

> That is another role for music, how it can, on a deeper level, set up this ambience which the entire film lives in. That is something that's kind of hard to describe, but it's one of the most important aspects of film scoring, or at least I think it could be; I don't think it is very often, perhaps, because in most films we get the same old ambience, which is late-nineteenth-century grandeur.

*Planet of the Apes* is not "late-nineteenth-century", yet it still creates an ambience. Goldsmith (1981, 2:02) held a similar view to Danna's:

> I think [that music in a film] should stand out…especially today, when visually, films are so exciting…One will sit and look at a film and see some awesome shot of the sky and the sun, and say, "oh, is that a gorgeous shot." And I think…by the same token…one should say, 'oh, what a stunning piece of music. And how it lifts me beyond what I'm seeing into an emotional plane that hopefully the actors are in.

Perhaps the question is not "what pre-existing associations did Goldsmith's score evoke for audiences in 1968," but instead, "what new associations did Goldsmith's score *create* when paired with the images in the film." What is clear is that his score creates an ambience through

the use of synaesthetic (timbral) colours, rhythmic sequences, motivic cells, and textural layering which, coupled with images, teach the viewer what the music signifies (e.g., log drums signify the less technologically advanced ape culture, the "swoosh" helps to signify the emptiness of the alien terrain).

Claudia Gorbman supports the idea that music can teach the viewer. Says Gorbman, "music serves to ward off the displeasure of uncertain signification" (2010, 90). With no other cues, the viewer can only rely on the music (tonal or not) to add meaning to any ambiguous scenes. Gorbman explains further that the music used in dominant feature films has connotative values so strongly codified that it can bear a similar relation to the images as a caption to a news photograph; it interprets the image and pinpoints and channels the "correct" meaning of the narrative events depicted. It supplies information to complement the potentially ambiguous diegetic images and sounds. Though Goldsmith used a musical language where the tonal syntax lacked strongly codified connotative values, he crafted its other components (e.g., timbre, rhythm, texture) in ways similar to those used in "dominant" feature films and which viewers *could* understand.

In a 1971 interview Goldsmith explained his rationale for taking a serial approach for his Apes score.

> I battled this for quite a while. Fortunately, I was assigned to this picture six months before they shot it, so I had nine months to think about it. Not that it did me any good, because until I see the film, I really don't know what I am going to do. The obvious—the electronics and all of those gags were the quickest things to forget. What I did on this one was that I almost made it a challenge. Sometimes when I am stuck as to what I am going to do, I present myself an imaginary problem and try to solve it.

In this situation, I said to myself, 'this picture is so far out and so absurd in many respects, let me do the music in rather an old-fashioned way. I will use an old-fashioned orchestra with strings, woodwind, and percussion. Unamplified…and I'll write a pure twelve-tone score for it…and I will not rely on any electronics or any unusual, per se type of instrumentation. I will do it purely by music. I will write a very avant-garde, although twelve-tone music is not avant-garde anymore, it's sort of old hat, but for films it is still sort of new. And that's how I did that picture. (Hagen 1971, 163)

Several points become clear. First, by 1968, serialism in Hollywood had not been fully embraced as a viable approach ("for films it is still sort of new"). Though composers for Hammer Films and Amicus Films in the United Kingdom had incorporated modernist elements in their scores, only a few composers in Hollywood (Bradley, Rosenman, Goldsmith) had included tone rows, and even then, only to a minimal degree. Second, though Goldsmith considered the story for Apes to be "so far out and so absurd," he still wrote for a traditional orchestra. Because of the unusual story, one might have expected him to have written for electronic or non-traditional instrumentation. His use of the traditional symphonic orchestra illustrates his tendency to "do the don'ts" or to go in the opposite direction as he once stated in an interview. Third, though he had nine months to think about it, his tendency was to begin working on the music only when the final editing of the film was complete ("until I see the film I really don't know what I am going to do"). If this is true, it is likely that Goldsmith completed his score in a short amount of time. O'Callaghan (2015, 42) states that, along with Schaffner, film editor Hugh Fowler, and music editor Lloyd Young, Goldsmith viewed the final work print of the film on November 8, 1967 and the recording sessions took place on December 20 and 21, 1967 and January 3, 1968. Given that the copyists needed time to prepare the score and parts by hand, this suggests Goldsmith completed his score in four to six weeks, and perhaps more likely four than six.

As the milieu in Hollywood during the 1960s seemed to grow more tolerant of diverse compositional approaches, composers gradually broke away from the conventional symphonic approach, creating jazz, rock, folk, and electronic scores. However, these developments were a

long way from a composer scoring an entire film in serial technique. Goldsmith needed more

than just a willingness to experiment. Burlingame recalls Goldsmith had the support of his

director and the head of the Music Department at Fox Studios.

> Jerry was essentially given a "free hand" to do what he felt was dramatically appropriate. In that much simpler time, when the studio system was still essentially in place at Fox, you had a director [Schaffner] with trust in his composer and a music department head (Lionel Newman) who knew that the composer knew what he was doing. Today's environment is very different. Every cue of every film is "demo-ed" for the director in advance and if he/she [sic] doesn't love it or doesn't understand it, it won't be approved and thus not recorded by an orchestra. It would have to be a musically and culturally literate director to say "yes" to something like [a twelve-tone score], and most of them have zero knowledge or appreciation of classical music. Composers would be willing to try it, but could you get a director or a studio to approve it? (Jon Burlingame, May 23, 2017, email message to author)

This suggests that Goldsmith's situation was an anomaly in Hollywood. Though he had the

support of Newman and Schaffner, the bias in Hollywood was more pervasive. Goldsmith, by

this time, had proven himself and Newman was confident in his abilities. It was Newman who

had, in fact, recommended Goldsmith to the producers of *Planet of the Apes.* As Burlingame

points out, Fox (Newman) was musically progressive as evidenced by its release of *Fantastic*

*Voyage* in 1966 with Rosenman's *avant garde* score. With Goldsmith's willingness to

experiment and take risks—something he had grown accustomed to in his days of live radio and

television—and Schaffner's trust, a serial film score is not surprising.[27] Yet, despite this, it is

arguable, given the more traditional aesthetic before the 1960s, and the level of control directors

normally exerted, that this may have been the only point in Hollywood's history which a

complete twelve-tone score for a mainstream, feature-length film would have been possible.

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27. Goldsmith worked with other supportive directors such as Paul Verhoeven (Basic Instinct-1992) and Curtis Hanson (The River Wild-1994).

Before continuing with an analysis of Goldsmith's score, it would help to address two potential issues. It is not always effective to use one language (English) to describe another (Music). It can be difficult to capture in words how one feels when listening to a certain piece of music. To say a piece of music is dark or joyful, for example, can reflect the listener's cultural milieu (i.e., the associations the listener has due to their unique set of musical experiences). It is possible music has another objective, often ineffable, kind of meaning, one that goes beyond a listener's personal and cultural experience. The second issue is music can affect different people in different ways and it can sometimes be guesswork to say what a composer intended let alone how different individuals respond to what they are hearing. Despite these issues it is still helpful to describe, as accurately as possible, the construction of a musical work.

## 4.1 Planet of the Apes Plot Synopsis

The film opens with a space ship traveling out of Earth's solar system with four astronauts in cryogenic stasis. Two thousand and ten years later the ship falls into the atmosphere of an unknown planet and crash lands in a lake. The stasis pods open and three of the four astronauts are revived. Taylor, the lead astronaut and the film's protagonist, and two of the other survivors escape from the sinking ship, wander through an eerie desert, and soon come to realize they are not alone. Mute humans are foraging for food when suddenly they become prey to a group of militant armed gorillas mounted on horseback, hunting humans for sport. Taylor is wounded in the neck and captured. He wakes up in a primitive laboratory run by Zira, a chimpanzee scientist who wants to prove that humans are intelligent. Taylor has temporarily lost the ability to speak due to his injury. Zira attempts to mate him with a mute human whom he calls Nova. Taylor escapes his laboratory cage and is chased by the militant gorilla soldiers.

When finally recaptured, he utters, to the shock of everyone, "Get your stinking paws off of me you damn dirty ape!"

Back in captivity, Taylor is put on trial. The panel is headed by Dr. Zaius, an orangutan who knows that apes have descended from humans and is intent on covering up any evidence. Taylor is sentenced to be lobotomized but before this can happen, he is secretly set free by Zira and her husband Cornelius, another scientist who has discovered evidence that humans had inhabited an area called the Forbidden Zone (now off limits to ape society). Taylor, Nova, Zira, and Cornelius head to the caves in the Forbidden Zone so that Taylor can find proof that humans existed before apes. The group is eventually pursued by Dr. Zaius and a cohort of Gorilla solders. Taylor takes Dr. Zaius hostage and together with the other three escapees, they enter the cave where, previously, Cornelius uncovered evidence of an ancient human society. Taylor then takes Nova and the two continue along the shoreline on horseback until they see an object on the beach. Taylor dismounts and falls to his knees in the sand. He pounds the ground in disbelief as the camera pans out to reveal the top half of the Statue of Liberty protruding out of the sand. Taylor's realizes he has been on earth the whole time, thus proving that humanity's fate that apes did in fact evolve from humans.

## 4.2 Synaesthesia

Half of what you see is what you hear.

—attributed to Francis Ford Coppola

This statement in the epigraph above affirms that what you see is only one part of the complete experience of viewing a film. Images can trigger emotions but so does sound. Music signifies emotional meaning to an audience as much as, or sometimes more than, the visual

component. I suggest this quote would be more accurately stated as "Half of what you FEEL is what you hear." This is an allusion to the synaesthetic effect music can have. Synaesthesia is defined as the "production, from a sense-impression of one kind, of an associated mental image of a sense-impression of another kind" (*Oxford English Dictionary,* OED Online., s.v. "Synaesthesia" [accessed February 3, 2018, http://www.oed.com.ezproxy.library. yorku.ca/ view/ Entry/196336?redirectedFrom=synaesthesia]). The most common form of synaesthesia is experienced by individuals who find that letters (or numbers) inextricably evoke colours (e.g., seeing the letter A as red). While there is a form of synaesthesia where sounds can trigger colour visualizations, it is not how I use the word in this discussion. I use the words "synaesthesia" and "synaesthetic" throughout this paper in a more generic sense, relating more to the unique timbre of each instrument (or instrument combinations) and how they can evoke different sensations (emotional or physical) in a listener. Triggering emotions is what music has been doing for centuries and what, in film, helps to guide viewer response.

Often the synaesthetic or timbral qualities of an instrument are familiar enough to convey or suggest emotion. Though musicologist Stephen Davies is skeptical about the ability of timbral qualities on their own to generate emotional ambience, he concedes the possibility they could contribute to an expressive passage.

> The trumpet's upper notes are bright and the clarinet's low register is dark; the tone of the celesta is ethereal, while high string harmonics are brittle. Even if these connections are widely made, however, they lack the temporally extended complexity that could account for music's expressiveness. They might contribute to the work's emotional ambience, but they could not generate it. (Davies 2010, Kindle location 772)

Davies' caveat, that connections between tone colour and emotion lack temporal complexity, likely refers to tonal music where a melodic fragment or theme can have a temporal component (i.e., a series of notes executed in musical time rather than sustained). He grants timbral colours

may contribute to the emotional ambience of a work. This is the sense in which I use the word "synaesthesia". Further, Davies points out that the timbre of individual instruments changes throughout different registers (the brightness of the trumpet's upper notes and dark, low register of the clarinet).

Exploiting the vivid colours provided by both traditional and unique instruments was one of the primary ways Goldsmith created ambience in Apes. He went beyond writing for the "bright" upper notes of a trumpet or the "dark" low register of the clarinet. As discussed in the previous chapter, he sought ways to increase his palette of timbral colours. The reason is clear; more colours provide more ways to be expressive.[28] "I feel, without trying to sound pretentious, that the resources of the orchestra had just barely begun to be tapped, and I felt it was an exercise for myself to see what I could do to make some strange sounds and yet try to make them musically rather than effect wise" [sic] (Goldsmith 1985, 3890)[29]. Rather than provide a detailed examination of every musical cue in the Apes score, I will, instead, focus on a handful of music cues which illustrate Goldsmith's technique.[30] The following analysis will illustrate how Goldsmith used timbral (synaesthetic), rhythmic, motivic, and textural elements to create his score.

### 4.2.1 "Main Title"

From the first music the viewer hears ("Main Title"), Goldsmith uses a variety of timbral colours which not only add to the expressive nature of the score, but also create a sonic

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28. Expressiveness through an extended timbral palette is reminiscent of klangfarben (colour of sound).

29. It is interesting to note that Goldsmith felt the orchestra was a relatively untapped resource even though composers had been putting music to pictures for more than 40 years by the time he scored POTA in 1967.

30. For a complete analysis see O'Callaghan's Simians and Serialism: A History and Analysis of Jerry Goldsmith's Score to Planet of the Apes.

environment reinforcing the notion of the emptiness of outer space and the alien nature of the ape planet. By creating this alien environment on-screen and "in-score", the viewer learns what these images and sounds mean (alienation, disorientation, mystery, foreboding). Despite their atonal construction, these timbral colours function as signifiers which help ground viewers unfamiliar with modernist sounds.

In the first measures of "Main Title" (M1-2) we hear a repeated Eb 3 on piano[31] (the player is instructed to hold the finger on the string while playing).[32] The piano is written in the low register. The consistent pairing of this register (or timbral colour) throughout the score, with images of an unknown alien planet, tells the viewer, "this is ominous." Using jarring, non-tonal pitch sets helps to reinforce this effect. In M4, the bass slide whistle executes a falling pitch and implies the cooing sound of a chimpanzee. In M6, a ram's horn sounds a perfect fifth interval (foreshadowing the impending hunt for humans). Other effects that help to create the sense of alienation include an electric harp (marked "slow reverb"), the sound of angklungs (an Indonesian instrument made from bamboo), and a gong scraped with a metal beater. Timbales and log drums reinforce associations to the stone and wood architecture of the ape city. Other non-traditional sounds include instructions for the cellists to "snap string on finger board" while playing pizzicato[33], French horns blowing through the opposite end of the mouthpiece and woodwinds producing clicking sounds with the keys.

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31. One rule Goldsmith occasionally "bent" was to not repeat a pitch before the tone row had been sounded in its entirety. One must remember however, that his primary goal was to write a film score which supported the narrative and not one which strictly adhered to every rule of the twelve-tone method. Perle (1991, 4) suggests, Schoenberg's twelve-tone compositions break this rule "in almost every bar" and further, that this postulate of the twelve-tone method, i.e., the non-reiteration of a note, "has no effect whatever upon pitch relations, and that therefore is of no relevance to questions of set-structure."

32. Goldsmith hired his former piano teacher, Jakob Gimpel, to play the piano part on this score.

33. This technique is also referred to as "Bartók pizzicato".

While the Echoplex—a tape delay effect—was used largely by guitarists, Goldsmith, in his search for new and unusual sounds, added it to the sonic palette for his score. It appears first in the "Main Title" which, according to O'Callaghan (2015, 71), was the last music cue Goldsmith wrote for the film (between December 1967 and January 3, 1968). Here Goldsmith writes dyads for pizzicato violins. The pitches are from row P-0, and while there is no tonal center, this passage seems to progress toward the final set of dyads thus creating a vague sense they are resolving (fig. 27). The music accompanies images of distant galaxies passing by informing the viewer the spaceship has travelled a great distance. The dyads ascend to the final pair of pitches which comprise a major seventh interval (G-F#) evoking a feeling of suspension.

Figure 27. Dyads from P-0 (C-A-Bb-Eb-D-B-C#-F#-G-E-F).

This excerpt also contains a repeated pitch between the final two dyads (Gb-F#). Finally, Goldsmith omits the final two pitches of the row (E-F) showing he did occasionally, perhaps often, bend the rules.[34] We need keep in mind however, his primary concern was that the music supported the narrative rather than a strict adherence to twelve-tone principles. We then hear what O'Callaghan terms the "*Planet of the Apes* motif" (fig. 28). Once again, this motif occurs in

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34. Huckvale mentions Luciano Berio's espousal of "free dodecaphony", a more liberal approach to the twelve-tone method (2008, Kindle Location 460). Not surprisingly, Berio was a student of Dallapiccola who was able to imbue his own twelve-tone compositions with lyricism (see his *Liriche Greche*). There are many other composers who have used the twelve-tone method with a more liberal approach, deviating from the basic tenets set out by Schoenberg.

the low register of the piano (row P-0) and because of its jarring, percussive nature, it signifies

trouble ahead.

Figure 28. Planet of the Apes Motif.



The other prominent timbral colour is the "Swoosh of Air Effect" (also heard in Main

Title, The Searchers, The Search Continues, and The Revelation - Part 2). This timbral colour

was produced by 1) blowing air through horn mouthpieces held in a reversed position and 2)

scraping a gong with a wire brush. The result is striking and adds a mysterious quality to the

ambience of the film. Though he wrote for a traditional orchestra, a cursory look at Goldsmith's

Apes score illustrates his intent and ability to go beyond traditional approaches to orchestration.

### 4.2.2 "Crash Landing"

When the earth ship crashes to the planet's surface two factors help the viewer

disambiguate meaning from the music despite its construction from tone rows. The music 1) is

coupled with images and 2) comprises timbral colours which have easily discernible

connotations. Goldsmith's interesting timbral choices occur throughout his entire score.

However, in "Crash Landing" he writes specifically for tuned cowbell, marimba, celeste, and

violins and celli harmonics. His pitch source (fig. 29) is from P-3, I-3, and R-10 (O'Callaghan

2015, 75).

Figure 29. Tone Rows from "Crash Landing".



After the ship crashes into a lake on the alien planet, the stasis tubes open, awakening the

astronauts (00:06:42). The insistent pedal notes on the marimba and sustained sound of the tuned

cowbell help to evoke a sense of mystery.[35] The eerie colour of the violin harmonics and ethereal

tone colour of the celesta add even more ambience to this scene. O'Callaghan (2015, 75)

describes a dreamy effect (perhaps because the astronauts have just been roused from stasis).

What helps the viewer in this scene, in addition to the vibrant timbral colours, is the interplay

between the pedal notes and the tone row figures, or as Robinson (2005, 4931) states, between

the stability point and the departure point. The tone row fragments increase the tension while the

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35. The music may look simple, but there is a lot of timbral detail here. For example, note Goldsmith's attention to mallet choices; very soft mallets for the tuned cowbells and the instruction for the marimba player to keep the mallets on the bar after the attack, thus creating a drier sound.

pedal notes provide a stability point (fig. 30.

It seems Goldsmith's intention was to exploit every possible variation in sound each instrument could produce. Other colours throughout the score contributing to the timbral tapestry include the use of bass flute, alto flute, a bass bow drawn against the bars of a vibraphone, the bass strings on the piano being struck with a bass drum stick, string harmonics, violins playing col legno, and the viola, celli, and contrabasses snapping strings on the fingerboard while playing pizzicato. Later, when the three astronauts are traversing the alien terrain, Goldsmith reuses the sustained semitone cluster first heard at 00:06:42, but now played on conch shells instead of violins (00:16:06). The effect is unnerving.

Figure 30. Celesta passages from tone rows P-3, I-3, R-10 (00:06:42).[36]



[36] Note the presence of three elements in this cue: 1) the sustained sound of the tuned cowbell and repeated notes of the marimba 2) the melodic idea played by the celesta and 3) the sustained figure in the strings.

### 4.2.3 "The Searchers"

In "The Searchers," as Taylor, Landon, and Dodge journey ever closer to the ape city, we hear more frequent use of the log drum (beginning at 00:15:34) foreshadowing the culture they are about to encounter. Though these scenes were filmed in the Arizona desert and would be easily recognizable to viewers, Timothy Schuerer argues it is Goldsmith's score which helps to "fool" the viewer into thinking this planet is alien. "What makes Planet of the Apes so very stunning is how Goldsmith is able to 'fool' us with his score. As we watch the three astronauts make their way across the alien terrain that looks suspiciously familiar, we forget that it is familiar because of the music" (2008, 58). Scheurer's description of the film as 'stunning' is apropos. However, rather than state Goldsmith 'fools' us, it may be more accurate to say the ambience the score creates through its dissonant sounds and varied timbral colours teaches the viewer this is not earth. The cue begins with pizzicato strings playing hexads through an Echoplex (O'Callaghan 2015, 82). The log drum's presence is subtle and interspersed with the "swoosh effect," violins in semi- and quarter-tones, and dissonant conch shells. Goldsmith, again trying to unsettle the viewer, also uses mixing bowls and low woodwinds (playing two-note motifs) to accompany the astronauts as they fall prey to the unpredictable terrain, insecure footing, and life-threatening rockslides. This cue is a timbral smorgasbord—gong scrapes, angklungs, etc.—from start to finish and helps the viewer suspend disbelief. It is the music which makes it easy to accept Taylor and his fellow astronauts are on an alien planet and not the easily recognizable terrain of Lake Powell in the Grand Canyon.

This cue, like many others, contains both timbral and motivic elements. As Taylor, Landon, and Dodge ascend to the top of the rock cliff to investigate the alien scarecrows they see a large pond fed by a waterfall. As they run toward the waterfall (00:26:03) we hear a frenetic metallic

sound. Goldsmith scored for mixing bowls which his percussionist Emil Richards likely suggested because of a request from Goldsmith to explore unusual sounds. "I used stainless steel mixing bowls for Jerry Goldsmith for all the chase scenes in the original Planet of the Apes. If you struck these bowls on their rims, they made the most beautiful bell like sounds. But if you struck them on their bottoms, they made a high-pitched boing-ing sound, which is what Goldsmith wanted for that movie" (Richards 2013, Kindle Locations 1059-1060).

When Taylor sees the waterfall, the brass instruments execute two four-note motifs (fig. 31). The top notes of the first 4 hexads[37] (O'Callaghan 2015, 90) are derived from the first (C-A-Bb-Eb) and third (F#-G-E-F) tetrachords of P-0 (the final note of the third tetrachord does not occur in the top voice but in the low register of the trombone, bassoon, celli, and basses). This passage is evocative of the grandeur, majesty, and life-giving quality of the waterfall in an otherwise arid, alien terrain. The top notes are from P-0, but the overall colour is what predominates; another instance of the mitigating effect of timbre on harsh atonal sounds.

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37. These hexads may not be unlike Josef Hauer's "tropes-technique" in which the tone row could be arranged vertically in "hexachords" (ordered and unordered) rather than as a linear sequence. Hauer has been credited with developing a method of composing with all twleve notes of the chromatic scale prior to, and independent of, Arnold Schoenberg (Covach 2018). See also Hauer's *Vom Wesen des Musikalischen* (1920)*, Vom Melos zur Pauke* (1925), and *Zwölftontechnik* (1926).

Figure 31. Brass Tutti from "The Search Continues".



## 4.23 "The Clothes Snatchers"

O'Callaghan (2015, 96) states Goldsmith takes a lighter tone in this cue. Director Franklin

Schaffner wanted to add a "dash of humor" in which the astronauts emerge naked from a

swimming hole and find their clothes are stolen by the mute "sub-humans" (as O'Callaghan calls

them). The astronauts must then run through the underbrush in pursuit of the "clothes snatchers."

The tone of this scene seems more one of mischief than humour—a fine distinction that may

require a more malevolent tone to the music—and to achieve this Goldsmith uses interesting

timbral colours from M1 (00:27:54) including dissonant clusters in violins and harp (D#, B#,

C#), "shuffling" snare drum played with brushes, "jittery" winds executing two- and three-note

motifs (fig. 32). He also adds Boobams[38] (M7) to enhance the ambience of this cue. As he so

often does, Goldsmith writes frequent metre changes, perhaps to align hit points or even just to

avoid the predictable.

Figure 32. "The Clothes Snatchers".



38. The Boobam is a percussion instrument of the membranophone family with tubes of differing lengths descending beneath the keys. A membrane of animal hide or plastic is stretched over the top end of the (Jones 2007).

O'Callaghan (2015, 96) claims, for the sequence in fig. 33 (00:28:49 but repeated many times throughout this cue), Goldsmith was inspired by Bartók's *Music for Strings, Percussion and Celesta.* The similarities in Bartók's score (fig. 34) can be heard beginning at measure 200 of the second movement. While it is tenable to say Bartók may have had some influence on Goldsmith, this passage also bears a close resemblance to another Goldsmith score, specifically, a segment in "Red Tower Street" (fig. 35) from *Freud* (1962). While the contour of the piano motif in the two examples is not entirely the same, the overall effect is very similar. It is clear, in any case, that Bartok had an influence on Goldsmith's writing. Further, given the short time frames they often face in Hollywood, it is common for film composers to develop previous ideas for use in later films.[39] Indeed, this is common among composers in general. Goldsmith, ever sensitive to the needs of the film, sought ways to develop and expand any previous ideas to suit his current project.

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39. James Horner was hired to compose a new score for the movie *Troy* (2004) after Gabriel Yared's original score was rejected. Because Horner had only ten days to produce a completed score (Filmtracks Review) he adapted and reused his "Khan" theme from *Star Trek: The Wrath of Khan* (1982).

Figure 33. Piano Motif from "The Clothes Snatchers".

Figure 34. Excerpt from Bartók's Music for Strings, Percussion and Celesta.

Figure 35. "Red Tower Street" from *Freud* (26-second mark of the cue).[40]



We can hear the lighter tone O'Callaghan alludes to with the "back-and-forth motives in the strings." According to O'Callaghan, "a jump to the left to the violins, a jump to the right in the celli." This shows dodecaphonic music is capable of capturing a lighter mood. At M59 (00:29:19) Goldsmith adds the ever-present colour of the angklungs which continue until near the end of the scene. The final measures (00:29:48) of this cue begin with a passage on vibraphone (P-5) evoking suspense and mystery (fig. 36)—the astronauts (and the viewer) may be wondering "what next" as they finally catch up and observe the clothes snatchers foraging in a cornfield. Tone-row based motifs are stated in the strings and winds with Boobams (soft mallets) and temple blocks interspersed. The soft mallet indication for the Boobams is again a conscious choice on Goldsmith's part to add a particular shading to the overall sound. The timbral colours used throughout this cue and others are many and varied. Each one adds to the ambient fabric or "feel" which the viewer comes to associate with the story, its location, and its characters. The

40. The timecode for this cue is taken from the 2011 iTunes release: *Freud Soundtrack: Jerry Goldsmith and His Orchestra*.

frequency and combination of these colours is how Goldsmith teaches the viewer their meaning.

Figure 36. Vibraphone figure from "The Clothes Snatchers".
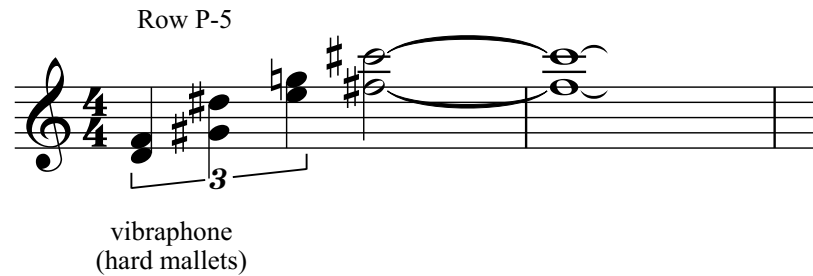


### 4.2.4 "A New Mate"

Elizabeth Fairweather (2015) has examined the ways Goldsmith has contributed musically to the characterization of women in the science fiction films he has scored (*Leviathan* [1989], *Alien* [1979], *Total Recall* [1990], *Star Trek: First Contact* [1996] and *Star Trek: Insurrection* [1998]). She posits his nineteenth-century Romantic style has helped to reinforce traditional notions of "masculine" and "feminine", as outlined by Leo Treitler (1995) who lists "clarity, system, understandability, strength, vigour and power, reason and manliness" as qualities inherent in masculine music, while "softness, roundedness, elegance, charm and grace" are characteristic of feminine music. Fairweather argues Goldsmith uses several musical devices which exemplify these concepts: e.g., horns in uplifting, heroic, power moments (masculine), flutes in pastoral melodies and oboes used as an indicator of otherness (feminine). She also discusses Goldsmith's musical depiction or "sonification" of "the monstrous-feminine," a concept which Barbara Creed (1989, 63) defines as 'that which society finds "shocking, horrifying, terrifying [and] abject" about women.' Even in a twelve-tone score, Goldsmith was

able to introduce touches of "feminine coding". In "A New Mate" (fig. 37) Dr. Zira (Kim

Hunter) is a female chimpanzee and an animal psychologist who is studying Taylor. She has

Nova, the human female, put in Taylor's cell with the hope they will mate.

Figure 37. "A New Mate".

The entire cue is characterized by softness, whether in the sustained, muted strings, light

attack of the Death Toll[41] and Mahler Chimes, or the subtle but ominous glissando on low piano

strings. Once again, the timbral colours and synaesthetic "feel" of this music are the dominant

features which lessen the potential harshness of the pitch choices. The sighing figure and high

violin pedal are examples of the lack of masculine coding, while the glissandi in the basses may

represent what Taylor finds "abject" in Nova (monstrous-feminine). It is interesting and perhaps

not coincidental Goldsmith called this scene his "*Planet of the Apes* love music" (O'Callaghan

2015, 118). Nova is to be Taylor's mate, but Taylor's reaction is one of suspicion and when Zira

gives a half-suppressed giggle, the slow tempo and non-tonal music in the violas (fig. 37) lends

the moment a sense of the macabre. [42]

### 4.2.5 "The Revelation"

The final fifty-three seconds of "The Revelation" (see fig. 38) is one of the few other

cues which illustrates Fairweather's thesis in Planet of the Apes, i.e., feminine codings markedly

different from masculine ones which connote weakness. In this scene, Taylor (from behind bars)

has stolen Zira's notepad and marker. Julius (the gorilla guard) enters Taylor's cell and beats him

with a club. Julius retrieves the notepad and returns it to Zira, who upon reading it (a message

saying "My name is Taylor") realizes Taylor is literate and risks taking him to her home for

further study. Looking at him through the bars of his cell, she asks, "you wouldn't hurt me,

would you?" Kim Hunter's delivery of this line, and indeed, her portrayal of Zira, has definite

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41. The Death Toll or Death Knell is a four-foot tall metal bar with six internal resonators that amplify different harmonics. This instrument was purchased by Emil Richards from the estate of fellow Planet of the Apes percussionist Chet Ricord in the 1980s (LAPR 2018).

42. It could be argued that Dr. Zira also represents what society finds "abject" about women.

feminine overtones. Goldsmith slows everything down and writes for two oboes, two vibraphones (playing four chords, the top notes derived from the first tetrachord of P-0), alto flute, English horn (connoting otherness or the monstrous-feminine, executing I-0: C-Eb-D-A-Bb), harp (playing through I-0 and part of P-0) (O'Callaghan 2015, 124). The alto flute, beginning in measure 69 of figure 38 is not derived from any row or permutation but rather, is modal in nature. The soft timbre together with the absence of "masculine" qualities (rhythmic intensity and clarity) also suggests feminine "coding".

The scoring is simple yet the colours are vibrant and warm demonstrating how Goldsmith can do so much with so little. This music is an example of what researchers Juslin and Västfjäll call emotional contagion. They suggest music that is slow, or has a low pitch, or low sound level may induce sadness in a listener. Additionally, the repetition of the tone row fragments in the harp helps viewers to audiate or digest the tone row fragments. It is music that is tailored to the scene which helps evoke or underscore Zira's emotions of, first astonishment and then, softness.

Figure 38. "The Revelation".

## 4.3 Rhythmic Sequences

### 4.3.1 "The Hunt"

There are two extended chase scenes in *Planet of the Apes, "*The Hunt*"* and "No Escape." The former will serve as a discussion point for how Goldsmith crafted rhythmic sequences. The entire cue lasts 3mins 40sec and, except for seven seconds, maintains a tempo of 160 beats per minute throughout. In this scene Taylor, Landon, Dodge, and the mute human inhabitants of the planet are being hunted for sport by armed gorillas on horseback. Throughout his Apes score, Goldsmith used motifs—comprising anywhere from two to eight notes—which often function as ostinati. Although every note of this cue is derived from a tone row, what makes it work so well is the frenetic and unrelenting piano ostinato running throughout (figures 39a and 39b). By tapping into human physiological processes such as pulse and breathing (Kalinak 2010, 9), rhythmic sequences work effectively to support the on-screen images.

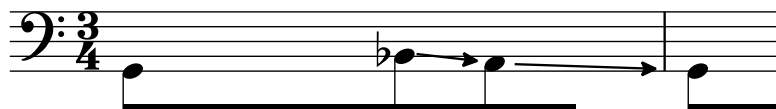Figures 39a, 39b, and 39c. 6-note and 8-note piano motifs from "The Hunt".

a)



b)
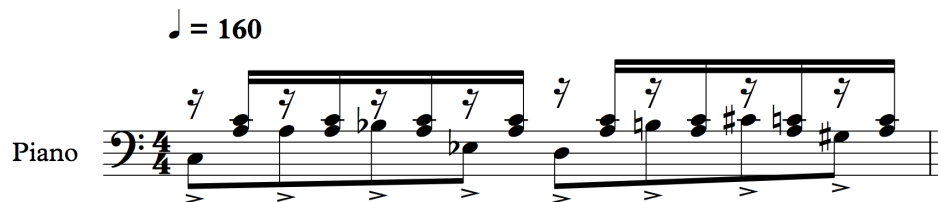


c)

The pitch choices for the above examples are from the first six pitches of P-7 [G-E-F-Bb-A- F#] (fig. 39a) and the first 8 pitches from P-0 [C-A-Bb-Eb-D-B-C#-G#] (fig. 39b). Despite being derived from tone rows, certain pitches take on added importance.

Goldsmith's frequent use of ostinati is another device which compensates for the lack of tonality. In fact, by only using the first 6 notes of row P-7 (fig. 39a), the tonality of G minor is suggested. G sounding on the first beat of every measure adds emphasis as does the Bb to A leading back down to G (fig. 39c). The F# in (fig. 39a) functions as a leading tone, resolving to G, the first note of the next measure of the ostinato. By repeating notes and using ostinati, Goldsmith was bending the rules of strict academic, twelve-tone composition but again, supporting the narrative was his primary concern.

Hans Offerdal (2002, 216), in his Doctoral Thesis *Contrast and Clarity - A study of the Compositional Technique of American Composer Jerry Goldsmith*, suggests the tonality of Eb is reinforced through the repetitive nature of the ostinati; the six-note motif (P-3, see figure 40) now starting on Eb is repeated every measure from measure 23-36. Offerdal had access to Goldsmith's scores and spoke with Goldsmith while attending recording sessions for *The Last Castle* in September 2001. Offerdal suggests the tonality of Eb is reinforced through this repetition and cites similar instances of repetition elsewhere. While it may be true Goldsmith employed ostinati—thus bending the rules of the twelve-tone method— he never did so without finding an opportunity to add a dash of counterpoint. Figure 36 illustrates this clearly. While the woodwinds and harp repeat the six-note figure (emphasizing the Eb tonality), the bass instruments execute the counter line.

Figure 40. Six-note motif with reinforcement of Eb with countermelody.



"The Hunt" and other cues from POTA contain, as Offerdal illustrates, pedal [ostinato] figures over which tone rows or partial tone rows are developed. These motifs, together with images of armed gorillas and fleeing humans, create a sense of panic. This is reminiscent of a passage used by Goldsmith just six years earlier in 1962 in the cue "Cecilie and the Dancer" from *Freud* (fig. 41).[43]

Figure 41. Six-note motif from *Freud*.



At the time of scoring *Freud,* Goldsmith had just begun to incorporate serial elements in his film music.[44] This motif is not based on a strict row—the Ab repeats only 4 notes later—but the contour is similar enough to the motif from "The Hunt" making it clear that, in Apes,

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43 .Offerdal (2002, 49) notes a similarity between this motif and one Goldsmith used some years later in a cue called "The Ravine" from The Edge (1997).

44. See also The Satan Bug-1965

Goldsmith was drawing on previous material.

Many other rows were used to construct "The Hunt" including P-3, R-8, R-10, RI-8, I-3, RI-4, RI-9, I-11, I-3 (O'Callaghan 2015, 103-106). Goldsmith clearly based all of his material on permutations of P-0, his prime row; however, he crafted this and other cues in the same fashion as one would a tonal piece. For example, after setting up the six-note motif (P-7) in M11 (00:31:22), Goldsmith wrote a theme for the violins, piccolo, two flutes, and xylophone (fig. 42) which is mostly sustained, thus allowing the ear something to "grab onto." The repeated six-note motif and the sustained nature of the theme are both stabilizing features which help the viewer to more easily accept the dissonance of the tone row and its permutations.

Figure 42. Six-note ostinato with theme from "The Hunt".

Goldsmith uses timbral colours to create the ambience this scene requires. At the precise moment Taylor sees the hunters are not human, we hear the cuica imitating the grunting sound of gorillas and the Ram's Horn executing a primal two-note theme (fig. 43); both sounds add to the intensity of the scene.

Figure 43. Two-note ram's horn motif.
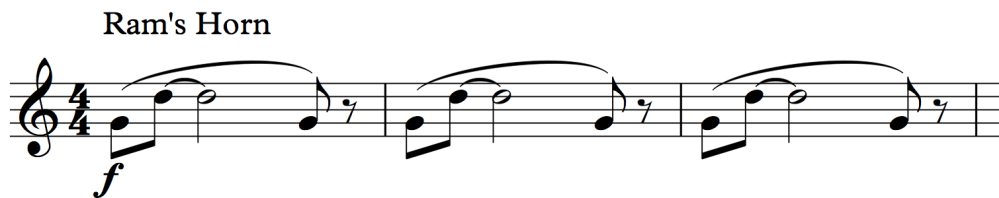


The interval for the ram's horn motif is a perfect fifth which, as we have seen, was used in *Star Trek: The Motion Picture*—and subsequent television spinoffs in the Star Trek universe—to convey the militaristic Klingons. As usual, Goldsmith employed a vast array of percussion to add to his timbral and rhythmic palette including timpani, bass drum, snare drum, Boobams, conga drums, cuica, timbales, bass resin drum, Vibraslap, wood drums, angklungs, tam-tam, xylophone, marimba, and vibraphone (O'Callaghan 2015, 102). This shows how Goldsmith extended the palette of instrumental colours beyond that of the traditional orchestral.

At certain points, Goldsmith writes pyramid or dovetail effects perhaps to punctuate or provide the ear with a brief change from the constant movement in "The Hunt" (fig. 44).

Figure 44. Dovetail pyramid effect from "The Hunt" (timecode 00:31:54).



Clearly, this is a busy cue yet, despite ostinati, added percussion, interesting timbral colours, orchestral pyramids, and repeated themes, Goldsmith never allows the busyness to overshadow the meaning he wished to convey. Though each element is there for a purpose, the dominant feature of this music is its rhythmic character—precisely what the scene required.

## 4.4 Motivic Cells

So far, this discussion has examined synesthetic and rhythmic factors which contribute to the score and support the narrative. I will now discuss the motivic cells present in the score. Goldsmith used anywhere from two-note to eight-note motifs throughout. Through frequent use, these motifs become familiar enough that the viewer recognizes them. Richard Kurth (1996, 81) suggests 'as one becomes familiar with a twelve-tone composition through listening and analysis, one tends to "chunk" its row into precisely those segments or fragments that are frequently projected by the music, usually as motivic gestures that are repeated, varied, and

reinforced in various textures.' Goldsmith helps the listener in two ways; by chunking the row into shorter motivic cells—not unlike Webern's use of smaller motivic cells—but also by using them as ostinati (as just discussed in "The Hunt"). In these two ways they become more digestible.[45] Eventually, says Kurth, 'one probably "audiates" the row—"hears" it in the imagination— as a specific passage, or as a conflation of shorter gestures, from the composition…But a listener does not particularly need to know the row in its entirety and can simply respond to the shorter characteristic fragments that organize—or are organized by—the motivic rhetoric of the music.' The "motivic rhetoric" Kurth alludes to is part of what Deleon (2010, 20) calls "the well-established language of the film" and Danna (2000, 247) calls the "ambience which the entire film lives in." His Apes music could say "new things" because of the new language he constructed.[46] These new associations helped to create the ambience the film lives in, thus enabling the viewer to "audiate" the various tone rows. It is no easy task for a composer to create any film score, and the degree to which the music is successful in Apes is illustrative of Goldsmith's skill.

### 4.4.1 Leading Tone Motifs

A closer look at some of the motivic cells used reveals an interesting quality; their contour or shape leads the ear forward, not unlike a tonal theme. This is clear from the first cue "Main Title," where cell fragments from P-0 can be broken down into groups of three (many of

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45. Jonathan Schmieding (2013, 16) discusses Webern's use of smaller motivic fragments (6- and 3-note sets) in Concerto for Nine Instruments (Opus 24/iii). Similarly, Kurth (1996) illustrates Schoenberg's use of motivic "gestures" in Moses and Aron.

46. New perhaps, to film audiences in 1968.

the cells contain a leap followed by stepwise motion; semi-tone or whole tone[47]) which is helpful in leading the ear much as in a leading-tone resolution (fig. 45).

Figure 45. Leading-tone resolution in "Main Title".
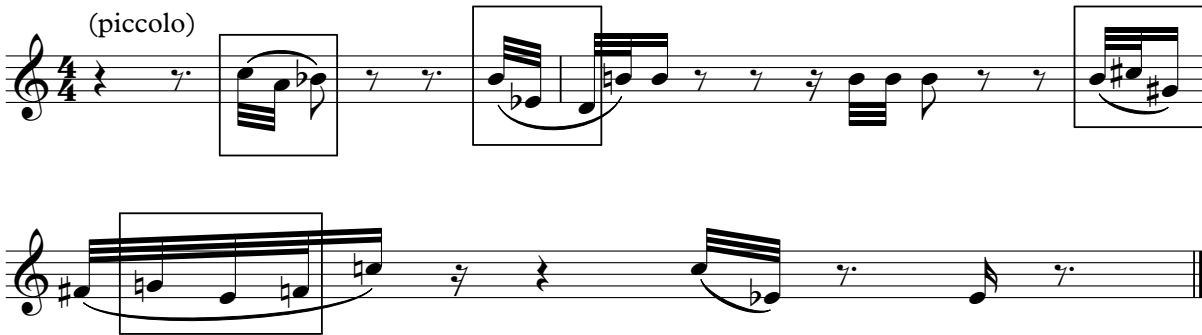


When using a cell with a more angular contour, Goldsmith turns it into an ostinato. The piano motif from "The Hunt" (fig. 46) illustrates this technique. This motif is further "softened" somewhat by the presence of semitones.

Figure 46. Ostinati showing leading tones from "The Hunt".
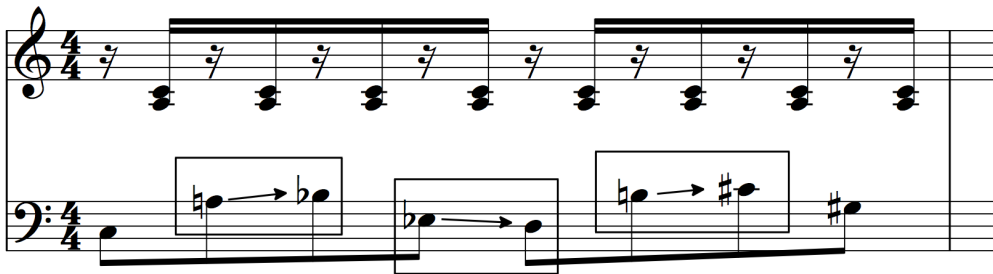


For the cue "Lost Identity" (labelled "New Identity" on the CD soundtrack), this semitone construction is even more important because the cell functions as an ostinato and is thus repeated many times allowing the listener to more easily "audiate" the row (fig.47). The

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47. The notes in Figure 41 can also be broken into three-note cells containing stepwise motion followed by a leap.

four-note motif is written for celli, basses, harp, and bass marimba. Even the angular horn motif and trumpet figures consist of "leading" semitones. Goldsmith, never missing an opportunity to use every colour possible, writes for Death Toll, vibraslap, Boobams, 6 horns (2 stopped, 2 with wood mutes, 2 open), and trumpets with straight mutes. We will see more three-note motifs with a leading-tone effect in the cue labelled "The Forbidden Zone" (1:26:33).

Figure 47. Semitone construction in "Lost Identity".

## 4.5 Texture (Layering)

### 4.5.1 "The Forbidden Zone"

A theory cannot substitute for meaning and idea; a discrete analytical tool can never be turned to creation by dint of polishing and perfecting it. It is poetics which guide discovery and not procedural attitudes; it is idea and not style.

—Luciano Berio

This discussion will examine Goldsmith's use of motivic elements, his penchant for layering elements, and his dramatic sense. His scoring captures both the sense of dislocation felt by Taylor and the suspense of the escape into the Forbidden Zone, an eerie, tranquil desert with foreboding scarecrows. The scene begins with Taylor, Zira, Cornelius, and Nova on the outskirts of Ape City. Zira and Cornelius have helped Taylor and Nova to escape and the group is now about to head into the Forbidden Zone. Goldsmith combines no less than five musical elements to create an effect which conveys a sense of muted suspense that underlies the tediousness of a journey across a desert terrain (see table 3).

**Table 3: Layering of Elements in "The Forbidden Zone."**

| ELEMENT | INSTRUMENTATION | MOTIF |
|---------|-----------------|-------|
| 1 | Marimba | repeated quarter note dyad |
| 2 | Basses with Winds | 2-note motif |
| 3 | Piano | 5-note motif |
| 4 | Log Drum | 2-note motif |
| 5 | Strings | 3-note motif |

His goal, however, was not complexity. Though this cue is intricate in its construction, Goldsmith's overriding concern was to heighten the drama. The scene begins with a 28 second introduction; the time from the start of the music to the beginning the journey of the outcasts. By 1968 Goldsmith's sense of timing must have been honed to an extremely fine degree through years of experience in live radio and television.

Goldsmith did not write music under the initial dialogue in this scene (the point at which the group discusses their route through the Forbidden Zone). The music starts when Nova, unable to communicate verbally, gestures to Taylor (1:26:32), bidding him to step away and see they are near the place where she and the other mute humans lived. Goldsmith starts the music here to heighten Nova's actions. The music (fig. 48) begins with celli on a sustained A4 (2nd space, treble clef), marked very soft but gradually increasing in volume. The celli execute a "crescendo poco a poco" and, together with all strings, "use very wide and slow vibrato." This helps to underscore the urgency with which Nova tries to show Taylor her home. The celli are joined by two French horns with wooden mutes in measure five (M5) and then two more in M7. Woodwinds are divided into three groups 1) two English horns, baritone oboe, bassoon 2) three alto flutes, clarinet and 3) clarinet, bass clarinet, 2 bassoons. These groups vie back and forth (fig. 44) adding to the growing intensity. The utterances are made up of short bursts (two- and four-note groupings) recalling ape grunts, and they build in intensity and volume until M10. All motion stops and only the celli, at M10 (18 seconds into the cue-1:26:50), play a sustained note marked with a decrescendo. In M12 (1:26:54) the celli play a descending figure, constructed in groups of three notes and derived from P-9 (A-F#-G-C-B-Ab-Bb-F-D#-E-Db-D).

The second last note of the row, however, resolves from Db to C (double basses in M15) rather than D. This figure leads directly into a series of layered elements. The two-note motif (Db

to C) is the first element and repeats at the beginning of each three-bar segment. Goldsmith then sets up the second element, a quarter-note ostinato (C over A) played by a marimba and bass marimba (P-0). Over the marimba ostinato, a bass slide whistle is heard (sounding high to low) in M16, mimicking the cooing sound of a chimpanzee. In M17 (fig. 49), the piano (third element) enters on Bb1 (below the bass clef) on beat two of the bar. This five-note piano motif from P-0 first moves in an upward direction (pitches 3-7 ascending: Bb-Eb-D-B-C#) then downward (pitches 8-12 descending: G#-F#-G-E-F). Presented in the low register of the piano, it adds a unique timbral quality to the scene.

Figure 48. Woodwind Groupings in "The Forbidden Zone".

Figure 49. Five-note piano motif.



The upward contour of the first measure of this figure moves away from C (the implied

home base reinforced in the celli and double basses moving from Db down to C), thus as

Robinson (2005, Loc 4931) has stated, increasing tension. The second measure of this figure (see

fig. 45) moves back down toward C, resulting in a closer proximity to the home base, reducing

tension. The five-note piano motif gives us the sense of the ambling or loping walk of the

chimpanzees. The three-bar pattern from measures 16 to 18 is repeated with the addition of a

two-note motif played by a log drum (the 4th element). Since Taylor, Nova, and the apes are

traveling back into the desert, it makes sense that Goldsmith reuses the 2-note log drum motif

heard during the first trek the astronauts made through the desert to Ape city.

The fifth element (fig. 50) consists of a tone row (P-0: C-A-Bb, Eb-D-B, E-F-G, F#-A-G#,

A-G#-Bb, B-C#) "chunked" into three-note melodic cells played as harmonics by the violins

(con sordino). The notes slide from one to the next. These three-note cells, based on P-0 are

another example of Robinson's contention (2005, 4932-4935) that listeners react emotionally to

perceived distance to and from a stability point (i.e., the third note of each cell). The first two

notes of the cell sound as if they are resolving to the third simply because the cells only contain

three notes. Additionally, the first and fourth three-note cell function as neighbour tones in tonal

music (a leap followed by a step in the opposite direction). In the last two-note cell, the notes

move upward and sustain, giving the sense of arriving home.

Figure 50. Three-note cells from "The Forbidden Zone".



As the cue moves on, Goldsmith introduces tremolo strings in M45 (1:27:53) and we hear

19 measures (38 seconds) of a lower sounding solo log drum underneath the dialogue which

occurs between Taylor and Cornelius. Because the log drums are marked soft and are not in the

human vocal range, they do not draw the viewers' attention away from what is being spoken

(1:28:15). The drum helps to sustain the momentum of the scene while Taylor and Cornelius

converse. When the party resumes their trek through the Forbidden Zone, the ostinati heard

before the dialogue returns. Prior to the dialogue, the time signatures alternate between two

measures of 4/4 and one measure of 5/4. After the dialogue, the time signature pattern consists of

one measure of 5/4, one of 4/4, and two of 3/4.

The previous description may give the impression the music does not flow naturally.

However, upon listening it becomes immediately clear the music fits perfectly. The viewer easily

taps into the muted suspense as the two humans and two chimpanzees escape and make the arduous trek across the desert. The cue contains tone rows (with permutations), two-, three-, and five-note motifs, alternating time signatures, and varying instrumental groupings and colours. Because of its complexity, one would think Goldsmith spent a great deal of time on just this one 3m19s cue. However, given the usual constraints in film production in Hollywood during the 1960s, it is likely he had very little time.

Though the modernist sounds of a twelve-tone score helped to evoke a sense of dislocation—paralleling Taylor's feeling of alienation due to his belief he was so far from his own time and place—Goldsmith found other ways to keep the music accessible to viewers in 1968 and beyond. His formal training enabled him to use the twelve-tone method but his extensive experience—his years of experimentation in live radio and television—were what enabled him to use colour, rhythm, motivic contour, and textural layering in an artistic way to create a score which helps to situate the narrative, and as a result, as we have seen from Kalinak in Chapter One, also binds the spectator and screen.

# CHAPTER 5. CONCLUSIONS

## 5.1 Why 1968

> If we compel the composer to write in terms of what the listener is able to hear, we flirt with the danger of freezing the evolution of musical language, whose progressive development comes about through *transgressions* of a given era's perceptual habits. We should not dream of issuing some kind of strict command, of enforcing identity between what is given to be heard, and what is actually heard: that would be (among other things) a gesture that would deny history.
>
> —Jean-Jacques Nattiez, *Music and Discourse*

Hollywood's first film composers from the 1930 to 1950s were mostly from Europe and drew heavily upon their Classical and late-Romantic training. In this "Golden Age", the traditional symphonic orchestra emerged as the staple ensemble and melody was the dominant musical element. Unlike the "borrowed" music of silent films, the music of these composers provided a new element; original music tailored to the narrative, resulting in an experience, for viewers, more in accord emotionally with the narrative. Motivic development throughout a film, helped to unify narrative ideas. The Classical and late-Romantic repertoire used in the Silent Film era served as de facto "temp" music for Golden Age composers.

Some composers (Bazelon, Antheil, Goldsmith) have been critical of the music of Golden Age films. They have suggested 1) the omnipresence of wall-to-wall music decreased its effectiveness, 2) the music was overly sentimental and 3) the music was too simplistic (often too closely mimicking on-screen action). Antheil felt that Hollywood was hostile to modernism in film music. There was, indeed, an unspoken bias that music then being written for the concert hall by modernist composers was too complex for film audiences. Other than the dissonant, yet still tonal scores for the horror films of the late 1950s, modernism in Hollywood was almost non-

existent. While these are valid points, we cannot diminish the significant contributions of composers such as Max Steiner, Erich Korngold, Dimitri Tiomkin, and Alfred Newman. The fact remains, however, that modernism in Hollywood was almost non-existent—other than the dissonant (yet still tonal) scores for the horror films of the late 1950s.

The 1960s was an era of unprecedented experimentation in Hollywood and Goldsmith was already well established; hence a complete twelve-tone score comes as no surprise and answers the question "why 1968". Composers were experiencing massive shifts in the industry and in society. They were beginning to break out of the traditional mould of Hollywood's Golden Age, writing scores in various musical genres and for ensembles other than the traditional orchestra. Despite these changes, there was very little movement in the 1960s toward modernist music in film. Other than the work of a few composers such as Rosenman and Goldsmith, the majority of film scores were tonal.

The release of *Star Wars* in 1977 heralded a new era in film and film music; a trend toward visual and sonic escapism. Filmmakers of this period focused on enhanced special effects, enjoyed improved production technology, and moved away from dystopian themes. Consequently, composers began to shift back to creating wall-to-wall scores for expanded orchestras; scores steeped in the Romantic tradition with sweeping themes and recurrent motifs.

Many composers in Hollywood studied with Schoenberg, which makes it surprising that so few modernist elements appeared in film scores. It is hard to imagine the European *émigrés* harboured a disdain for modernist music, since they were products of a musical heritage that was progressing rapidly in the early 1900s. Despite the modernist training of many composers, the scoring trends in the "New Hollywood" period and beyond are characterized by a more simplistic approach (Corporate Classicism and the Metaphysical Style, temp tracking in Marvel

movies). Except for a highly experimental period in the 1960s, film scores in general have stayed within tonal parameters. This suggests that directors and other studio executives have always influenced composers. The widespread use of temp tracks has contributed to a musical culture in which directors are unwilling or afraid to consider novel ideas. Under this pressure, composers cannot help but feel constrained and are more likely to create scores which emulate previous, commercially successful ones. The lack of trust by a director results in a composer who is afraid to take the risk of creating an original, organic score suited to the film. Ultimately, the creative aspects of a film are frequently governed by concerns over its commercial success.

With the increase of the Horror and Sci-fi genres in the 1950s, the use of dissonance became more prevalent in film scores especially as a signifier for "otherness." The degree to which composers felt they could experiment in the 1960s is notable when considering the lengthy period of time that the symphonic approach was prevalent in the Golden Age and beyond. Goldsmith's twelve-tone score was the result of a "perfect storm" resulting from a combination of his training, experiences at CBS, a milieu of increased experimentation during the 1960s, and support from his director and head of music at Fox. It was a narrow window given the entrenchment of nineteenth-century influences in the Golden Age and the trend towards simpler scoring in the post-New Hollywood era. It took almost 50 years before the music of Hollywood of the 1960s caught up with the modernist sounds concert composers were exploring in the early decades of the 1900s, and though Hollywood has seen many gifted composers, the general trend since 1977 has been toward simpler textures and a less demanding harmonic language.

## 5.2 Why Planet of The Apes Works

His pieces will transgress against once-accepted rules in almost every respect, but the reader will be compensated by many inimitable beauties.

—1775 review of Goethe's *Clavigo*

We have seen that twelve-tone music can be expressive despite claims that it is artistically defective.[48] Schoenberg himself stated that his move into serialism was guided by "very powerful expressive forces" (Schoenberg 1926/1975, 262); he wanted not to move beyond harmony but to extend it. Indeed, his efforts to "emancipate" dissonance were in pursuit of greater expression. Webern's *Six Pieces for Large Orchestra, Variations for Orchestra* and Berg's *Violin Concerto* are early examples of expressive twelve-tone works. Dallapiccola felt he could be more expressive with twelve tones that with seven. I would argue that his *Liriche Greche* illustrates that lyricism in dodecaphonic music is possible. What has become clear is those composers who have written more expressive twelve-tone works share the tendency to bend the rules. Webern used shorter motivic statements; Berg and Dallapiccola used contours suggestive of tonal structures; Schoenberg frequently repeated notes before sounding the entire row.

We have further seen that dodecaphonic music can be used effectively in film. While music helps to disambiguate images, a reciprocal process occurs. Images can help disambiguate non-familiar sounds; both work together to provide vital narrative and emotional information.

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48. Raffman (2003, 71).

**5.3 Reference Points**

If you take away harmony you take away the ear's reference points.

—Simon Rattle

If dodecaphonic music takes away the harmony, Goldsmith provided other reference points not dependant on tonal relationships. These reference points (timbral, rhythmic, motivic, and textural) help to create the ambience which viewers can relate to despite the lack of tonality. A dominant feature of Western European tonal music is that it leads the ear forward harmonically, through chord progressions and melodically, through intervallic relationships and thematic development. The "leading" quality of Goldsmith's motivic cells (from Main Title, The Hunt, and The Forbidden Zone) helps the viewer, as Kurth suggests, to "audiate" the tone rows from which they originate. By chunking tone rows as Schoenberg, Webern, and others did, Goldsmith makes motivic cells easily digestible, but he also helps the viewer in other ways. By using his orchestral palette to the fullest—taking advantage of seemingly every timbral possibility—he created rich synaesthetic textures which draw the viewer into the narrative world of the ape society. Juslin and Västfjäll (2008) have shown music can evoke emotion in various ways, not all of which depend on a tonal environment. Goldsmith's use of timbrally rich sounds helped to paint an expressive tapestry. He used traditional instruments in original ways: horn mouthpieces played backwards, strings played col legno, and bending notes out of tune to create tension. These are but a few of the innovative and unconventional techniques he employed. Goldsmith also used non-traditional orchestral instruments such as the cuica (imitating the grunting sound of apes), bass slide whistle (suggesting the cooing sound of chimpanzees), ram's horn, and mixing bowls. His use of "exotic" percussion (e.g., Log Drums,

Boobams, Lujon, Death Toll, and Mahler chimes) added to his sound spectrum. The effect of the strings processed through the Echoplex added a unique, eerie quality which contributed to the sense of dislocation viewers were meant to feel. Goldsmith's choice of timbral colours was exhaustive.

Rhythmic sequences provide an additional means for expression. The chase scenes (The Hunt, No Escape) and fight scene (The Revelation) in POTA employ sudden, loud, dissonant sounds, and feature fast rhythmic sequences which, as pointed out in Juslin and Västfjäll's research, "induce arousal or feelings of unpleasantness." Here again, as in Balkwill's research which has shown that there are universal auditory cues that listeners can respond to, we see further proof that much of music's emotional expression is not dependent on tonality. As we have seen in "A New Mate" and "The Revelation," handled with artistry, tender emotional moments can be effectively scored with serial-based music. Goldsmith achieved this through a softer approach which featured the use of muted strings, soft woodwind sonorities, harp, light attacks on percussion instruments, slower tempi, a lack of rhythmic intensity, and deceptively simple scoring.

The Forbidden Zone exemplifies Goldsmith's ability to layer multiple elements, amplifying the drama of the desert scene. His motifs, though serially derived, are shaped to lead the ear forward. Time signature layouts and tone-row based ostinati are formulaic on paper, but sound organic and fluid in the context of the scene. Goldsmith's skill at layering various elements to create the effect of a mysterious trek across an alien desert never sounds overdone, nor does it detract from the narrative.

### 5.3 Sequels and Beyond

If our music survives, which I have no doubt it will, then it will because it is good.

—Jerry Goldsmith

Composers of the four sequels immediately following *Planet of the Apes* followed Goldsmith's example of writing in a modernist vein though not all employed the twelve-tone method.[49] *Beneath Planet of the Apes* (1970-music by Leonard Rosenman), *Conquest of the Planet of the Apes* (1972-Tom Scott), *Battle for the Planet of the Apes* (1973-Leonard Rosenman) all incorporated serial elements and sustained tone clusters. Ironically, the only sequel not composed in a modernist style was Goldsmith's *Escape from Planet of the Apes* (1971), the third instalment in the Apes saga.[50] Since the story takes place on Earth of the 1970s, it was likely felt a tonal score more easily situated the viewer. Modernist sounds were also used in the 1974 *Planet of the Apes* TV series. Goldsmith received an Academy Award nomination (his fourth) in 1968 for Best Original Score in a Motion Picture for POTA. More recently, in 2005 his 1968 Apes score was selected by the American Film Institute as one of the top twenty-five scores in film music history.[51] Clearly, his approach worked.

As quoted in the epigraph to chapter four, and restated here, Caps (1976, 196) expressed his fear that,

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49. See Appendix D for a complete list of the film and television sequels.

50. O'Callaghan (2015, 215) asserts Goldsmith used his original tone row from POTA but, in a much subtler way, integrated it with diatonic harmony.

51. *Planet of the Apes* ranked 18th and his innovative score for *Chinatown* (1974) ranked 9th.

> One of the great dangers to the future of film scoring is the ease with which it can be done. As so many filmmakers have learned, music and moving images blend extremely well together and if one takes a particular scene of a modern movie and plays any sort of song with it, there will be some effect in result which looks like it had a purpose behind it. Such is the medium of illusion.

The implication here is that, since just about anyone can put music to images, the quality of film scores would decline. Twenty-four years after Caps' statement, Mychael Danna (2000, 3320) commented that "in most films we get the same old ambience, which is late nineteenth-century grandeur." He felt film music could operate on a much deeper level but for the most part did not. Perhaps, Caps' fear was borne out. In 2011, when asked if he thought the quality of film music had declined, David Newman commented, "The world has indeed changed. You can't score contemporary films the way Jerry did. I don't think this is disastrous, just different. I do believe that music has a less critical role in today's films" (Jerry Goldsmith Online). Newman seems to echo Danna's comment that "in most films we get the same old ambience." Nicholas Reyland's identification of a move to simpler scoring approaches by composers with rock and pop backgrounds would seem to support the views of Newman and Caps; timbre, simple textures, and repetitive rhythmic sequences have replaced melody as the dominant elements in film scoring. As we have seen, Goldsmith also used these elements but to a much more sophisticated degree (e.g., "exotic" sounds produced by traditional and non-traditional instruments, layered instrumental groups, serially-derived ostinati) and never to the total exclusion of the motivic element. Successful film scoring seems to depend more on the artistry of the composer and less on the choice between a tonal or non-tonal approach.

It is not my contention that the quality of film music has declined because of a lack of modernist or serial-based scores. What I suggest is that the decline in innovative approaches is due to a prevalence of scores where every scene has been "temped" by directors wishing to

emulate the "success" of previous films. Composers who are constrained by a director's lack of trust cannot fully exercise their creativity. This contemporary trend seems to echo the factors that led to the general banality of Golden Age film music, which was a result of composers who felt they had to adhere to the industry standards of the time. Further, I do not suggest Classical and late Romantic music are inherently banal, but rather, when one pattern (musical style) is used repeatedly to fit the narrative style of any era, its effect is diminished. One style of music cannot fit every narrative. As films were mass produced, composers sacrificed innovative approaches because of time constraints. Scores from the New Hollywood era shared other characteristics with scores from the Golden Age: music was omnipresent, sentimental (romantic), and simplistic (the scores for films like *Star Wars*, for example, often Mickeymoused the on-screen action). Williams et al., reached back to an earlier aesthetic, but had bigger orchestras and better sound recording and production technology. Remarkably, despite the experimental period of the 1960s, Hollywood's anti-modernist bias has persisted. As Nattiez (1990, 99) warned, this "flirts" with the danger of freezing the evolution of musical language. Some composers felt this was needless; Meyer, Raksin, Antheil, and Bazelon believed listeners could be conditioned to perceive and accept more sophisticated music in films.

Goldsmith came of age in an industry (live radio and television) where innovation was the key to success. The unrelenting demands placed on him provided Goldsmith with the opportunity to develop his musical skills, and as equally important, his dramatic sense. Another key ingredient to his success were the supportive working relationships he had with directors, some of whom also worked in the same environment where they were "figuring things out". His relationship with Franklin Schaffner was built on trust and carried through the seven feature films they would work on together, including *Planet of the Apes*.

The question of why Goldsmith returned to a more traditional, Romantic approach to film scoring for the rest of his lengthy career remains. For the answer we must look to Hollywood's gravitation toward escapist themes in the New Hollywood era (late 1970s and beyond). In short, to continue working in a changing industry, Goldsmith had to adapt. While he was comfortable writing serial music (*POTA, Christus Apollo, Music for Orchestra*), he could work in any genre. His projects after POTA were many and varied. John Williams (IMDb) articulated with insight, the reason for Goldsmith's constancy, "His chameleon adaptability was a prerequisite to longevity and success in Hollywood. We used to call him Gorgeous. He was the golden boy, a beautiful presence. His music had a freshness and he had a freshness." I conclude that Goldsmith's ability to adapt kept his music fresh. It is no coincidence he worked for almost another forty years after his serial film score in 1968.

Goldsmith's formative training and compositional influences, coupled with his experience writing for live radio and television (in the supportive environment of his colleagues and supervisors), brought him to a point where he felt confident enough to risk creating a twelve-tone score for a Hollywood feature film. For an audience used to a diet of tonal music, atonal music may more easily evoke associations related to alienation or otherness, as opposed to more "positive" emotions like tenderness, love, romance, etc." Nevertheless, the score for *Planet of the Apes* was effective in supporting the narrative and teaching the viewer new emotional associations. Though dodecaphonic music is highly calculated, Goldsmith was able to create a score which served the dramatic (emotional) requirements of the story. He added an expressive component which heightened the narrative and seems inseparable from it. His cohesive score created an ambience the film "lived in" and which the viewer can easily enter into. Ultimately, it was his artistry which allowed him to create an expressive serial score in 1968, and beyond that,

to enjoy a lengthy career not shared by many other film composers.

The answer to the question of how a twelve-tone score can be expressive is twofold. First, there are "extra-tonal" factors or reference points—synaesthetic, rhythmic, motivic, and textural elements—that, when handled with artistry, contribute much to the emotional component of a twelve-tone work by creating an ambience. Secondly, some twelve-tone composers bend the rules of motivic construction, e.g., creating thematic units or motivic cells which resemble triadic structures or the frequent use of ostinati. These extra-tonal factors were used extensively by Goldsmith. Like Webern, he used shorter motivic statements; like Berg and Dallapiccola he used contours suggestive of tonal structures; like Schoenberg he frequently repeated notes before sounding the entire row. Finally, his extensive use of ostinati helped to add just the right balance of unity and variety so that the viewer is never overwhelmed by the lack of key centers. All of these factors were employed with artistry allowing the music to become part of the fabric of the film. The music was tailored to the images and both provide vital narrative and emotional information.

In terms of modernism, POTA represents an apotheosis—as did Wagner's *Tristan* and Schoenberg's *Variations for Orchestra*—not only in Goldsmith's career but also in the entire history of film music. *Planet of the Apes* reflected Goldsmith's ongoing attempt to push his artistic boundaries. In so doing, he also pushed the boundaries of film music when, for so long, the bias against modernist music in film has influenced emerging trends. If Nattiez is correct, that the progressive development of musical language "comes about through transgressions of a given era's perceptual habits," then Goldsmith's transgression was enormous, taking film music in 1968 far beyond the perceptual habits of his time and into "The Forbidden Zone".

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**RELEVANT VIEWING[52]**

*Frankenstein* (1910)

*The Adventures of Robinhood* (1938)

*The Adventures of Robinhood* (1938)

*Gone with the Wind* (1939),

*The Song of Bernadette* (1943)

*Sunset Boulevard* (1950)

*The Old Man and the Sea* (1958).

*Regen*, 1929/1940

*Eis* [*Naturszenen*] 1943

*Laura* (1944)

*Force of Evil* (1948)

*The Cat That Hated People* (1948)

*The Cobweb* (1955)

*East of Eden* (1955)

*Fantastic Voyage* (1966)

*On the Beach* (1959)

*The Nun's Story* (1959)

*The Curse of the Werewolf* (1961)

*Freud* (1962)

*The Satan Bug* (1965)

*Beneath the Planet of the Apes* (1970)

*Escape from Planet of the Apes* (1971)

*Conquest of the Planet of the Apes* (1972

*Battle for the Planet of the Apes* (1973)

*The Hellstrom Chronicle* (1971)

*Images* (1972) *The Dark Knight* (2008)

*American Beauty* (1999)

*Star Wars* (1977)

*Doctor No* (1962)

*Harry Potter and the Philosopher's Stone* (1997)

*The Good Earth* (1937)

*The Jazz Singer* (1927

*Star Trek: The Motion Picture* (1979)

*Patton* (1970)

*Chinatown* (1974)

*Anthony Adverse* (1936)

*Green Light* (1937)

*2001: A Space Odyssey* (1968)

*Radar Men from the Moon* (1952)

*Canadian Mounties vs. Atomic Invaders* (1953)

*Robot Monster* (1953)

*Cat Women of the Moon* (1953)

*The Ten Commandments* (1956)

*The Day the Earth Stood Still* (1951)

*It Came from Outer Space* (1953)

*The Thing from Another World* (1951)

*The War of the Worlds* (1953)

*Rocketship X-M* (1950)

*Gone with the Wind* (1939)

*Forbidden Planet* (1956)

*The Amazing Colossal Man* (1957)

*When Worlds Collide* (1953)

*Dune* (1984)

*The Time Machine* (1960)

*Fahrenheit 451* (1966)

*Dr. Goldfoot and the Bikini Machine* (1965)

*Breakfast at Tiffany's* (1961)

*Psycho* (1960)

*The Graduate* (1967

*Bonnie and Clyde* (1967

*Easy Rider* (1969)

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52. This appendix contains films mentioned in this dissertation only and appear in the order mentioned. For a more thorough filmography for Jerry Goldsmith, refer to Jerry Goldsmith Online (http://www.jerrygoldsmithonline.com/ works_movies.htm) and/or IMDb.com (https://www.imdb.com/name/nm0000025/?ref_=fn_al_nm_1).

*The Torn Curtain* (1966)

*Taxi Driver* (1976)

*The Last Picture Show* (1971

*American Graffiti* (1973)

*The Brain That Wouldn't Die* (1962)

*The Eye Creatures* (1965)

*Mars Needs Women* (1967)

*A Clockwork Orange* (1971)

*THX 1138* (1971)

*Silent Running* (1972)

*Soylent Green* (1973)

*Rollerball* (1975)

*Gorgo* (1961)

*Wild, Wild Planet* (1965)

*The 10th Victim* (1965)

*Curse of the Fly* (1965)

*Dr. Who and the Daleks* 1965)

*King Kong vs. Godzilla (*1962)

*Varan the Unbelievable* (1962)

*Beneath the 12 Mile Reef* (1953

*Journey to the Center of the Earth* (1959)

*The Mummy* (1999), *Alien* (1979)

*Looney Tunes: Back in Action* (2003)

*Spellbound* (1945)

*Flower Drum Song* (1961)

*Lonely Are the Brave* (1962)

*Star Trek: The Motion Picture* (1979)

*Star Trek V: The Final Frontier* (1989)

*Star Trek: First Contact* (1996)

*Star Trek: Insurrection* (1998)

*Star Trek: Nemesis* (2002)

*The Edge* (1997)

*U.S. Marshals* (1998)

*The Blue Max* (1966)

*The Wind and the Lion* (1975)

*Islands in the Stream* (1977)

*Rudy* (1993)

*The River Wild* (1994)

*Star Trek: First Contact* (1996)

*King Solomon's Mines* (1985)

*The Russia House* (1990)

*Basic Instinct* (1992)

*Leviathan* (1989)

*Total Recall* (1990)

*The Last Castle* (2001)

**RELEVANT LISTENING**

*Tristan und Isolde* – Richard Wagner

*Variations for Orchestra Op. 31* – Arnold Schoenberg

*The Rite of Spring* – Igor Stravinsky

*Der Freischütz* – Carl Maria von Weber

*Pierrot Lunaire* – Arnold Schoenberg

*Elektra* – Richard Strauss

*Six Pieces for Large Orchestra, Op. 6* – Anton Webern

*Variations for Orchestra, Op. 30* – Anton Webern

*Wozzeck* – Alban Berg

*Violin Concerto* – Alban Berg

*Liriche Greche* – Luigi Dallpiccola

*Music for Orchestra* —Jerry Goldsmith

*Christus Apollo* – Jerry Goldsmith

*String Trio, op. 20* – Anton Webern

*Symphony No. 4* — Ralph Vaughan Williams

*The Blue Danube* — Johann Strauss

*Music for Strings, Percussion and Celesta* — Bela Bartók

*Le Marteau Sans Maître* — Pierre Boulez

*Alex North 2001 (Original Motion Picture Score)* — Jerry Goldsmith & National Philharmonic Orchestra 1993

*Goldsmith Conducts Goldsmith*—1987

*Jerry Goldsmith - 40 Years of Film Music*—2005 Silva Screen Records

*The Jerry Goldsmith Collection* —Volume One: Rarities 2012

*Jerry Goldsmith At CBS: The Early Years* — 2010

*The Film Music of Jerry Goldsmith* —2001 Telarc

## APPENDIX A: PLANET OF THE APES MUSIC CUES

(From Original Motion Picture Soundtrack – 1997 Remastered CD Recording)

| Track | Duration |
|---|---|
| 1. Main Title | 2:13 |
| 2. Crash Landing | 6:39 |
| 3. The Searchers | 2:26 |
| 4. The Search Continues | 4:57 |
| 5. The Clothes Snatchers | 3:10 |
| 6. The Hunt | 5:10 |
| 7. A New Mate | 1:06 |
| 8. The Revelation | 3:23 |
| 9. No Escape | 5:40 |
| 10. The Trial | 1:45 |
| 11. New Identity | 2:26 |
| 12. A Bid for Freedom | 2:38 |
| 13. The Forbidden Zone | 3:24 |
| 14. The Intruders | 1:10 |
| 15. The Cave | 1:21 |
| 16. The Revelation, Pt. 2 | 3:25 |

**APPENDIX B: TIMELINE**

Though this timeline is not to scale, it does illustrate various pivotal points in the history of film music in Hollywood. It is meant to emphasize that, though there was an increasing degree of modernism in the music of concert hall composers in the twentieth century, the music of Hollywood remained tonal.

Goldsmith's career, overlaid onto this timeline, covered a half-century starting with the *CBS Radio Workshop* and ending almost fifty years later with his score for *Looney Tunes: Back in Action* in 2003. In that span of time, he scored approximately 176 films and 24 made-for-TV movies. In addition to this impressive body of work, Goldsmith also wrote episodic music for 8 regular TV series and penned 14 TV themes.

The three-year period from 1965-67—just before Apes—shows Goldsmith was not only prolific but also versatile. In these three years, he completed 10 film scores and worked on 5 television series. The stylistic variety of Goldsmith's film projects was a result of his adaptability allowed him to move back and forth between genres in both television and film. This list is not exhaustive.
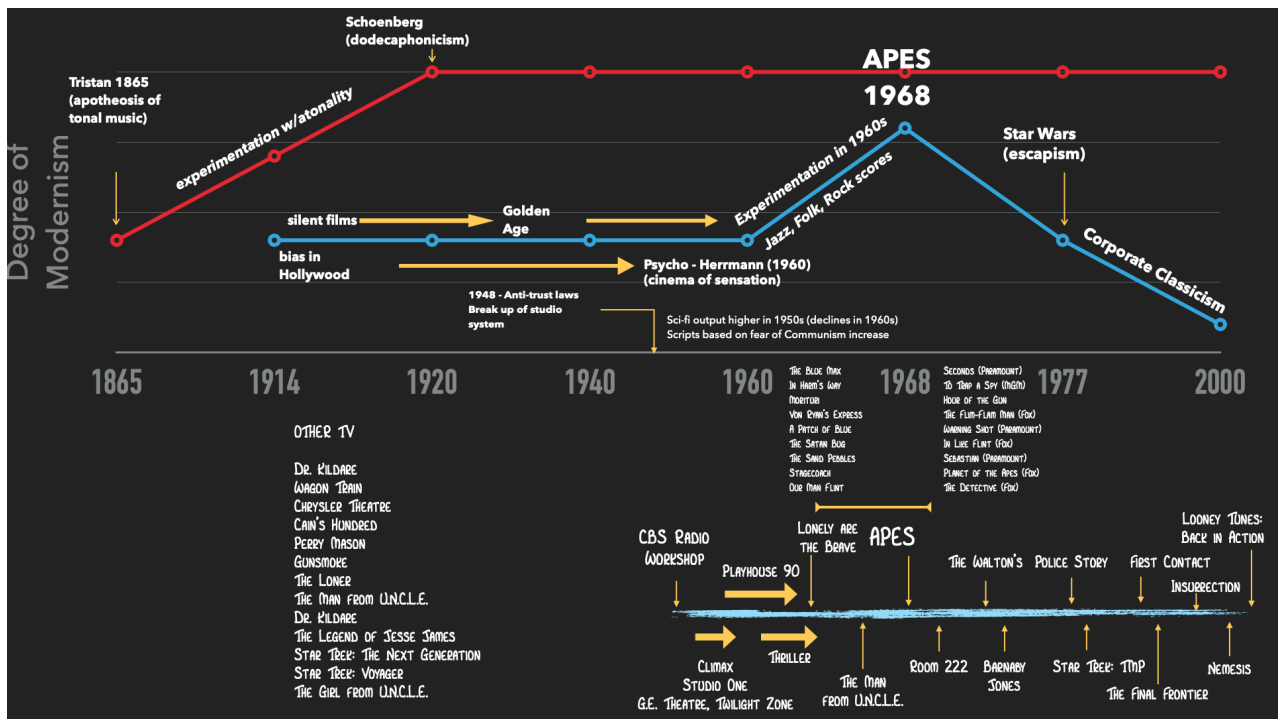
## APPENDIX C: TEACHERS

Goldsmith's piano teacher was Jakob Gimpel. Gimpel studied with Edward Steuerman who was a student of Schoenberg. Goldsmith also studied with Ernst Krenek who studied with both Alban Berg and Anton Webern. Again, the line of descent from Schoenberg to Goldsmith was only three degrees of separation. Schoenberg also taught other composers in Hollywood (Raksin, Rainger, Powell, Rathbun, Newman, Friedhofer, Hovey, Rosenman, Waxman). Schoenberg's influence is noteworthy when considering the prominence of these individuals.

At sixteen, Goldsmith began studying composition with Mario Castelnuovo-Tedesco who had worked as a film composer with MGM. Castelnuovo-Tedesco has 155 film credits listed in the Internet Movie Database. His impact on the film music industry in Hollywood is significant; the list of prominent film composers who studied with him include Henry Mancini, Nelson Riddle, Herman Stein, André Previn, Marty Paich, Scott Bradley, and John Williams.

Finally, Goldsmith studied with, and became a personal friend of, Hungarian composer, Miklós Rózsa. Goldsmith was indeed well acquainted with serialism.



Miklós Rózsa

Jakob Gimpel

Edward Steuermann

Arnold Schoenberg

Jerry Goldsmith

Alban Berg

Mario Castelnuovo-Tedesco

Henry Mancini
Nelson Riddle
Herman Stein
André Previn
Marty Paich
Scott Bradley
John Williams

Ernst Krenek

Anton Webern

David Raskin
Ralph Rainger
Edward Powell
Eldon Rathburn
Alfred Newman
Hugo Friedhofer
Serge Hovey
Leonard Rosenman
Franz Waxman
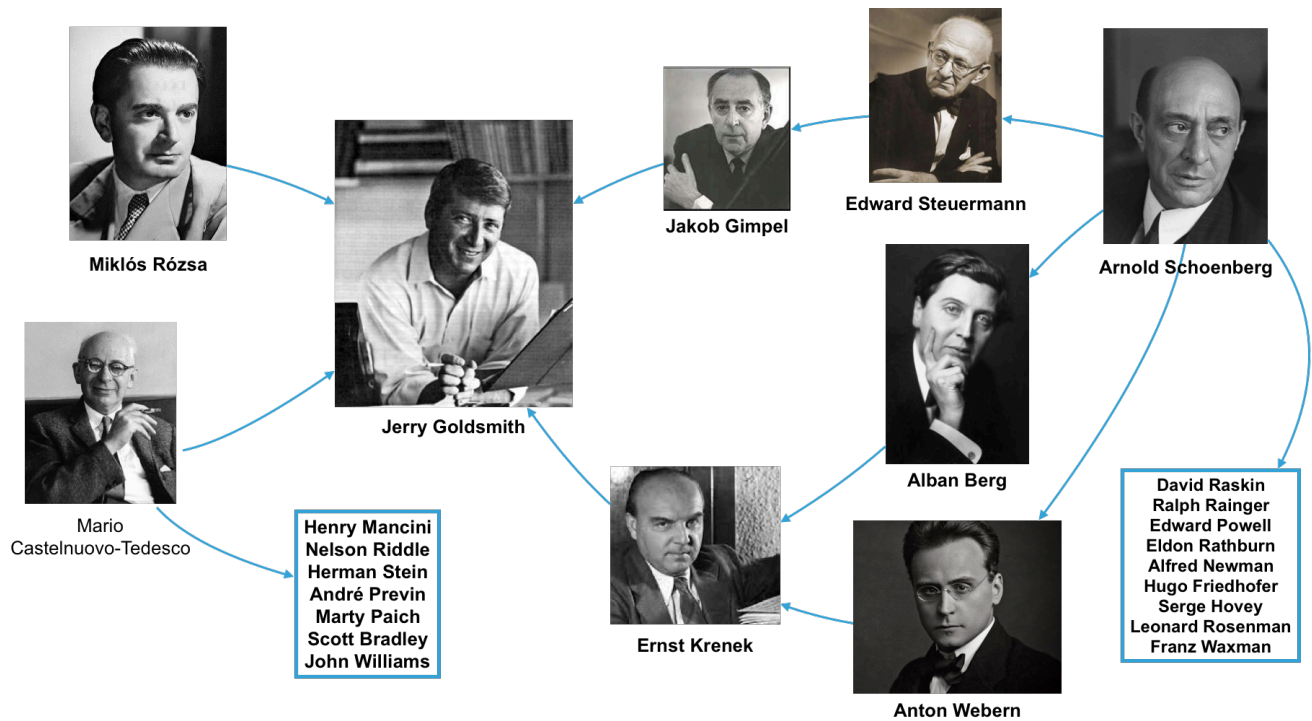
**APPENDIX D: PLANET OF THE APES PRODUCTION HISTORY**

The story was based on a 1963 novel by French author Pierre Boulle called *La Planète des Singes* (Monkey Planet) and adapted for film by Arthur P. Jacobs (APJAC Productions). Though *Planet of the Apes* was released in 1968, Hollywood continued to produce sequels and even a television series.

| Films | Year | Composer/s |
|---:|:---:|:---|
| *Planet of the Apes* | 1968 | Jerry Goldsmith |
| *Beneath Planet of the Apes* | 1970 | Leonard Rosenman |
| *Escape from Planet of the Apes* | 1971 | Jerry Goldsmith |
| *Conquest of the Planet of the Apes* | 1972 | Tom Scott |
| *Battle for the Planet of the Apes* | 1973 | Leonard Rosenman |
| **TV Series** | | |
| *Planet of the Apes* (14 episodes) | 1974 | Lalo Schifrin, Earle Hagen, Richard LaSalle, Lionel Newman |
| **Television Films** | made from several of the 1974 TV episodes (re-edited as TV movies) | |
| *Back to the Planet of the Apes* *Forgotten City of the Planet of the Apes* *Treachery and Greed on the Planet of the Apes* *Life, Liberty and Pursuit on the Planet of the Apes* *Farewell to the Planet of the Apes* | 1981 | Since these films were re-edited from TV movies the composers could be any of the following: Lalo Schifrin, Earle Hagen, Richard LaSalle, Lionel Newman |
| **Animated** | | |
| *Return to the Planet of the Apes* - 13 episodes | 1975 | Dean Elliott (theme music) |
| **Reboot Films** | | |
| *Planet of the Apes* | 2001 | Danny Elfman |
| *Rise of the Planet of the Apes* | 2011 | Patrick Doyle |
| *Dawn of the Planet of the Apes* | 2014 | Michael Giacchino |
| *War for the Planet of the Apes* | 2017 | Michael Giacchino |

**APPENDIX E: AWARDS**

Goldsmith scores receiving nominations and awards.

| Award | Nominated | Won |
|---|---|---|
| Academy | 18 | 1 |
| Emmy | 7 | 5 |
| BAFTA | 4 | |
| BMI | 12 | 12 |
| Golden Globe | 8 | |
| Grammy | 5 | |
| Cannes | 1 | |
| Academy of Sci-fi, Fantasy and Horror Films (Saturn) | 13 | 1 |
| Other | 11 | 7 |
| **Total** | 78 | 26 |

*Source:* Data from Jerry Goldsmith Online.

Goldsmith also won the Hollywood Film Award for Outstanding Achievement (2000). In 2005 the American Film Institute compiled a list of the 25 greatest film scores of all time. Goldsmith's score for *Chinatown* ranked 9th and his score for *Planet of the Apes* ranked 18th. Other notable scores were from John Williams for *Star Wars*, Max Seiner for *Gone with the Wind* (1939), and Maurice Jarre for *Lawrence of Arabia* (1962). It is notable, given that this list was compiled in 2000, that there were no film scores chosen from 1986 onward. This could suggest a bias on the part of the judges toward a symphonic style so prevalent among the composers mentioned above.

# APPENDIX F: CONCERT WORKS

Despite how busy Goldsmith was, he still found time now and then to compose works for the concert hall. It is evident from the dates of these works that he continued to work on non-film projects over the course of his lengthy career. Goldsmith traveled to London on numerous occasions to conduct concerts that featured his film music.

| Work | Year |
|---|---|
| *Toccata for Solo Guitar* | 1950s |
| *The Thunder of Imperial Names* | 1957 |
| *Christus Apollo* | 1967 |
| *Music for Orchestra* | 1970 |
| *Fireworks - A Celebration of Los Angeles* | 1999 |

# INDEX