Back To The Future: An Analysis Of The Score

Back To The Future opened on July 3rd, 1985, and became one the the most popular and successful films of that year, earning over $197 million in domestic U.S. box office alone. It brought instant recognition to both director Robert Zemeckis and composer Alan Silvestri. Prior to that year, Silvestri had composed music for many popular television shows such as *Starsky And Hutch* (1978-79) and *CHiPs* (1978-83), and some feature films including *The Doberman Gang* (1972) and *Las Vegas Lady* (1975).

Silvestri's percussive and driving rhythmic approach to scoring *CHiPs* caught the attention of filmmaker Zemeckis, which led to their first collaboration in 1984, *Romancing The Stone*. Today their partnership continues, having produced such notable films as *Back To The Future Parts II and III*, *Who Framed Roger Rabbit?*, *Forrest Gump*, *Contact*, and *The Polar Express*.

Silvestri's score to *Back To The Future* features two main themes that appear together and separately at key moments throughout (Fig. 1a and 1b). Both ideas are often orchestrated for trumpets and horns, and found in cues such as 4m1 '*85 Twin Pines Mall* or 8m1 *Skateboard Chase*. They underscore moments of triumph that our hero Marty McFly encounters, and even a clever interpolation in 11m2c *Earth Angel Overlay*. In the first theme, Silvestri makes significant use of the lydian mode, a diatonic major scale with a raised fourth pitch. The raised pitch in question is the third note of the theme (E in Fig. 1a); it is one of the most striking sounds in the score because it creates a direct and unexpected motion towards the next, fourth pitch of the theme (F in Fig. 1a). This motion creates musical tension which is exploited to great effect throughout the score. Silvestri occasionally truncates the theme as well (Fig. 2)

Figure 1a

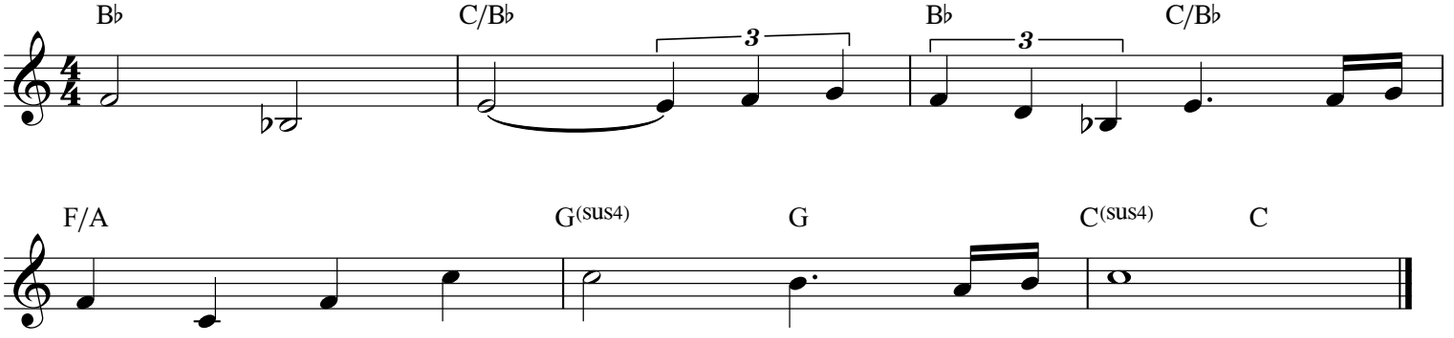


Figure 1b

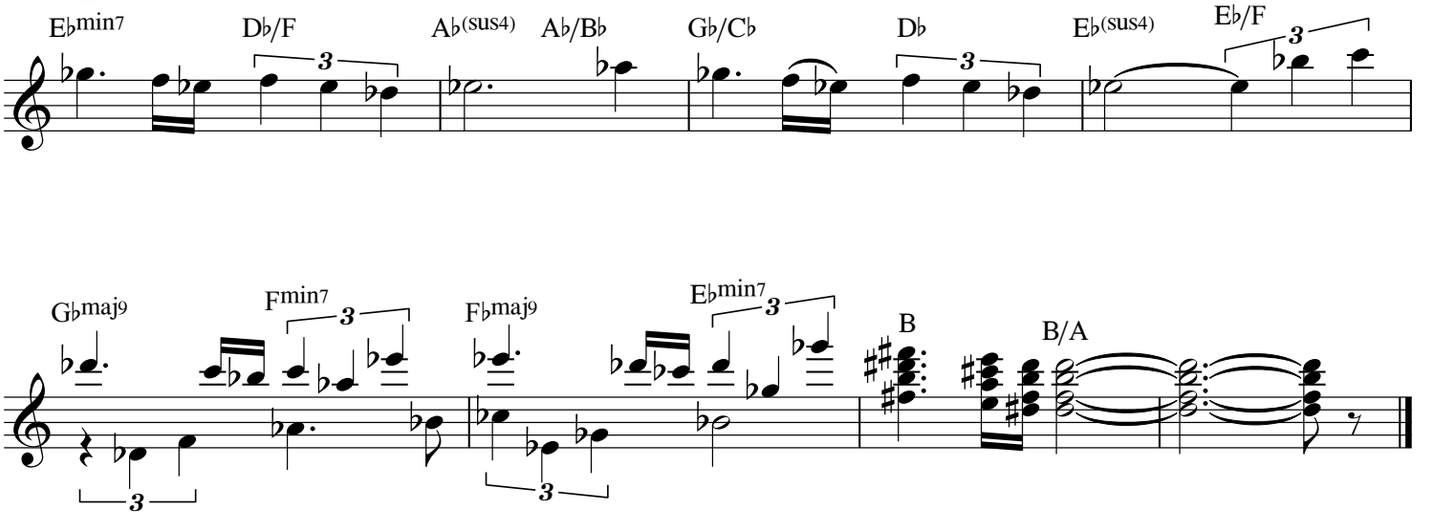
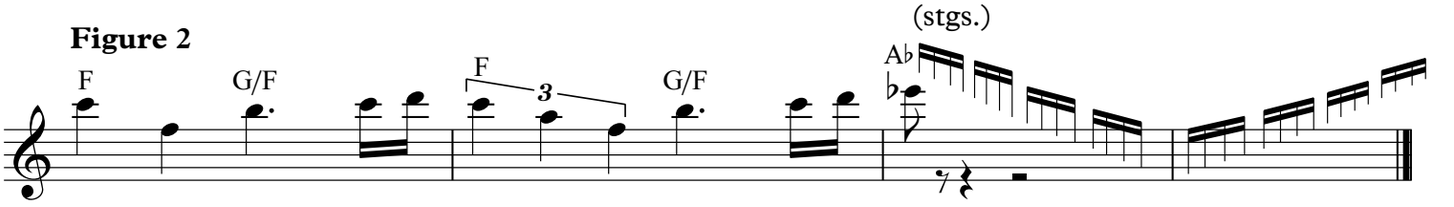


Figure 2



An inverted variation of the main theme (Fig. 3a) is found in 4m1 *'85 Twin Pines Mall* (measure 39). Silvestri uses this variation to underscore the characters' realizations of the negative aspects of time travel. He also varies the theme by stacking the pitches into a vertical, accented chord (Fig. 3b), often orchestrated for low brass, piano, and snap pizzicato in low strings.

Figure 3a

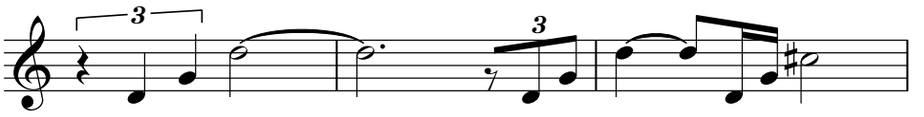
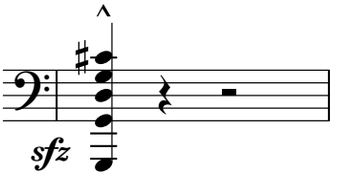


Figure 3b



Silvestri alters the third note of the main theme by lowering it, thus replacing the striking, lydian quality with a pastoral, diatonic quality (Fig. 4). He uses this variation to accompany moments of character introspection, as found in 9m1 *The Letter* and 14m0 *4 x 4*. Silvestri also creates a pastoral variation (Fig. 5) of the second main theme featured in 11m4 *It's Been Educational*. The orchestration of both variations feature solo instruments, such as horn, clarinet, flute, and oboe, with light accompaniment in the strings.

Figure 4

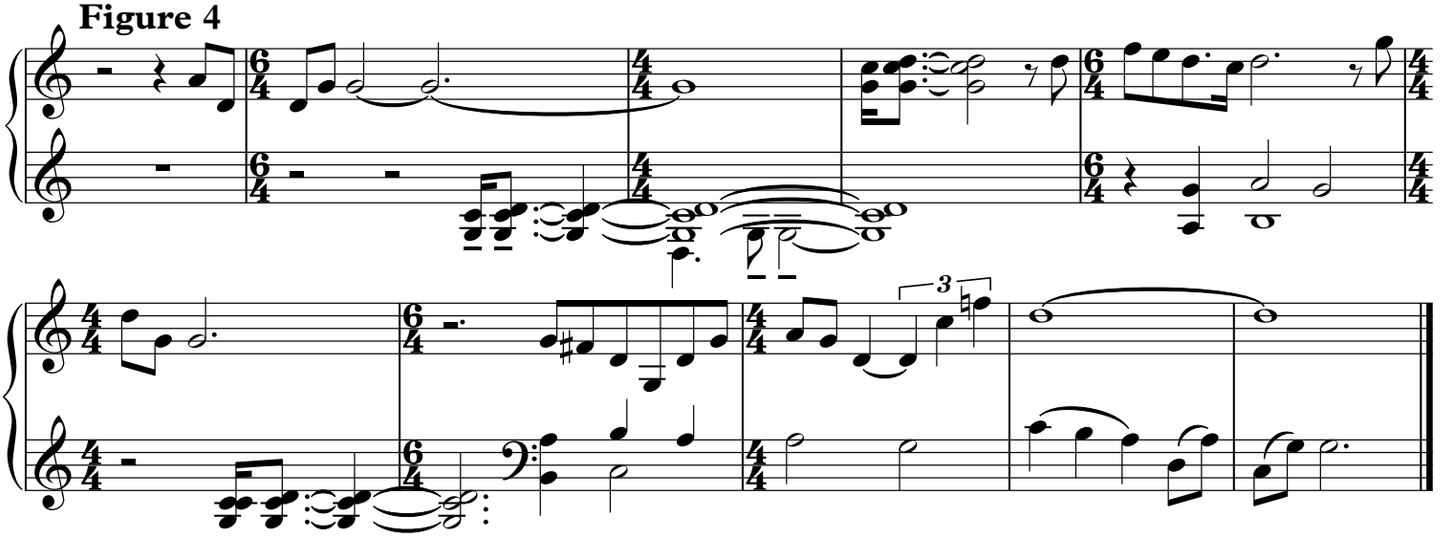
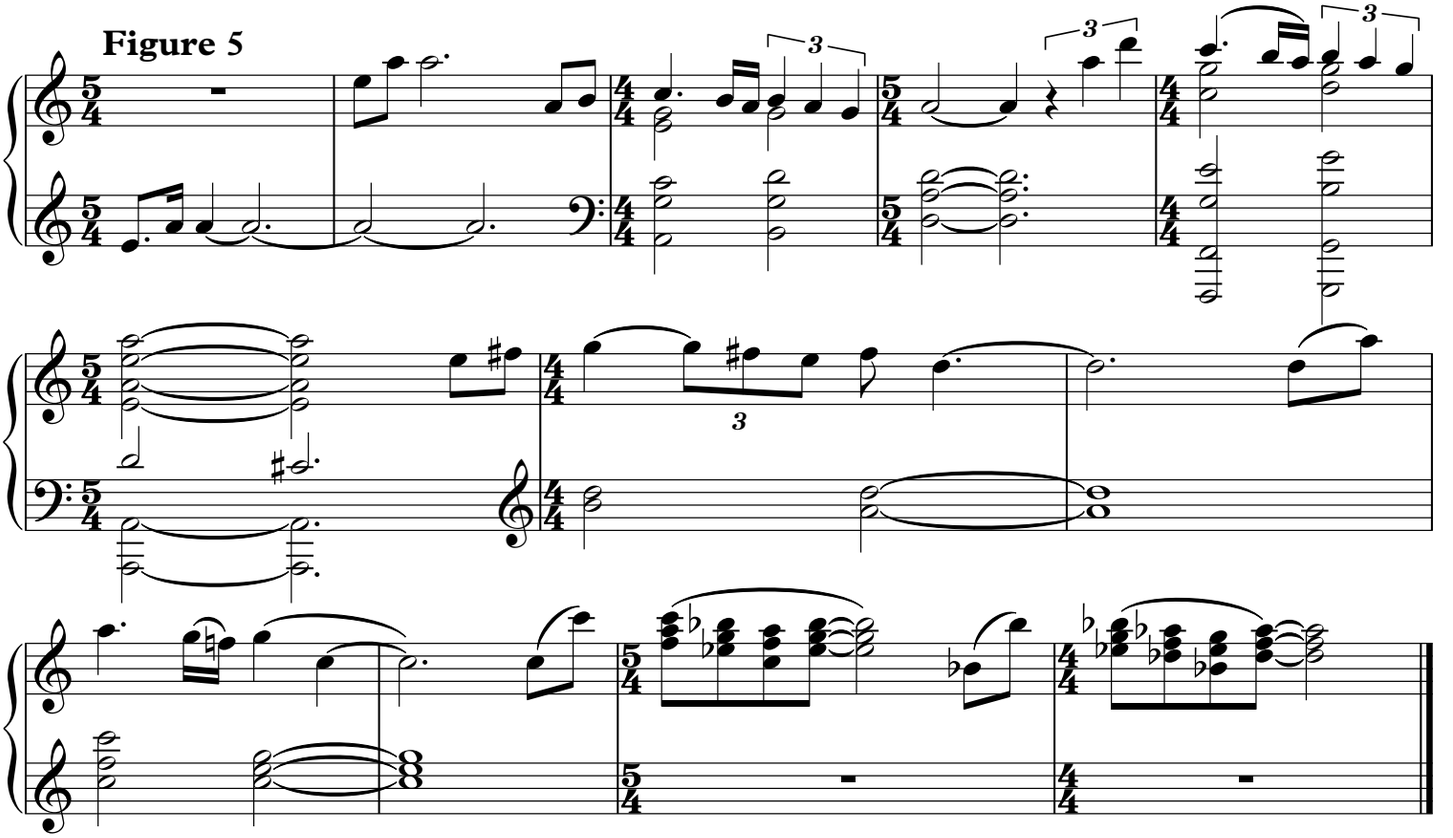


Figure 5



The remaining motivic material is derived out the symmetrical diminished scale, which, in turn, is derived from the first three notes of the main theme.

The first three notes of the theme outline much of the musical material that weaves its way through the tapestry of the score (Fig. 6). If you create a major chord on the notes B♭ and E of the main theme, it introduces the tritone chord element that Silvestri uses to great effect. The first motivic element he creates is the ringing effect which accompanies the fantasy elements of the film, pertaining to time travel itself. It's usually scored for mallet percussion, 2 harps, piano, celesta, and electric piano (Fig. 7). These two chords, when superimposed, form the basis of the octatonic scale, also commonly known as the symmetrical diminished scale (Fig. 8a) whose form is defined by alternating half step, then whole step. Contained within this scale are 4 major chords and 4 minor chords (B♭, G, E, and C♯). Using the same scale pitches (Fig. 8b), Silvestri also creates a new scale by starting it on the second pitch of the octatonic scale. The pitches in this particular scale, and the chords contained within, are the ones Silvestri favors the most throughout much of the score. There are essentially 3 symmetrical diminished scales, one that starts on B♭, B, and C, then the pattern repeats. This means, a B♭ scale will contain the same pitches as one that starts on C♯.

Figure 6 (chords derived):

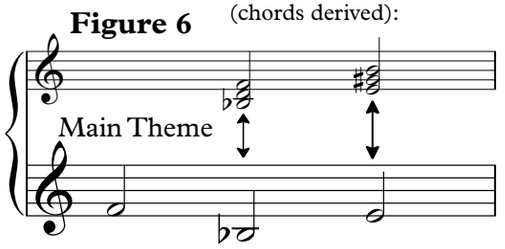


Figure 7

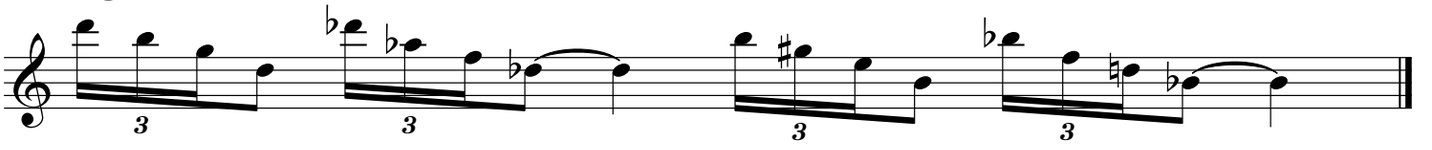


Figure 8a

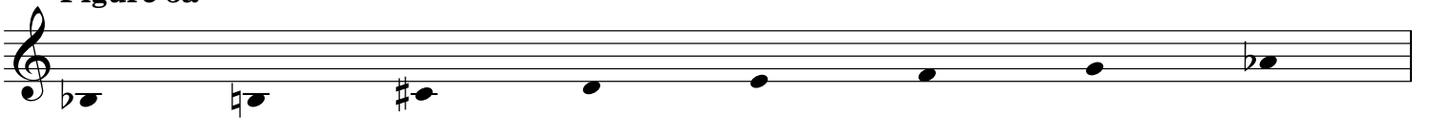
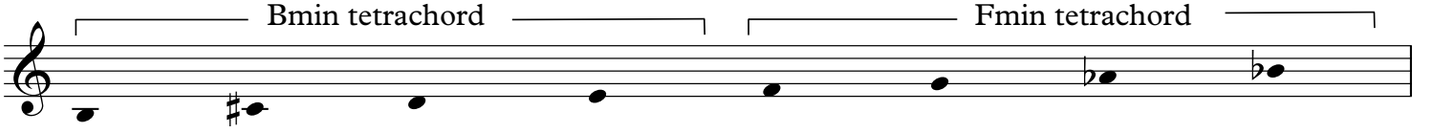


Figure 8b



The ostinato (Fig. 9) that starts out the cue *Clock Tower Pt2* contains pitches from the C octatonic scale. Its shifting meters mean that the downbeats shift as well, which gives an unsettling rhythmic energy to accompany the scene. This figure is also present in the cues *Skateboard Chase* and *'85 Twin Pines Mall*. Surrounding this ostinato are downbeat chords that move to a tritone apart, and octaves on the offbeat (Fig. 10). After several bars of the ostinato, an F♯ octatonic melody (Fig. 11) plays on the violins and woodwinds. A two bar tension ostinato (Fig. 12) plays when the protaganist is in the most danger, usually by the lowest members of the orchestra. Silvestri adds tension by increasing the number of players in the higher registers.

Figure 9

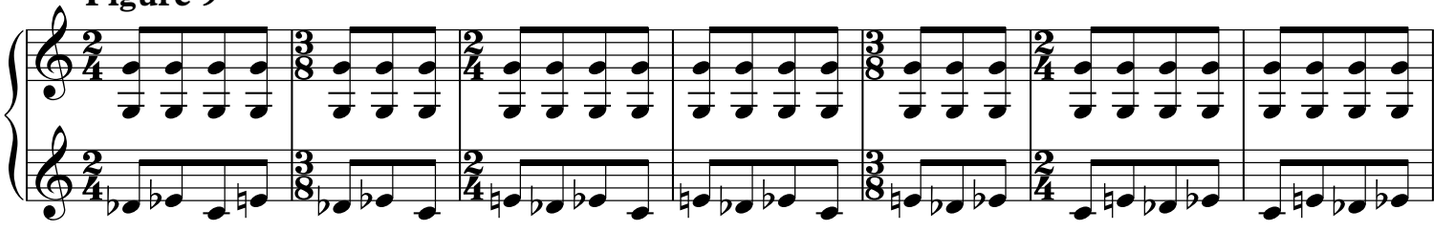


Figure 10

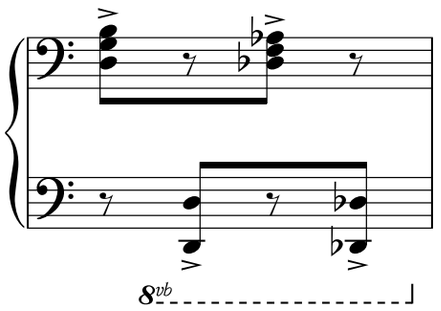


Figure 11

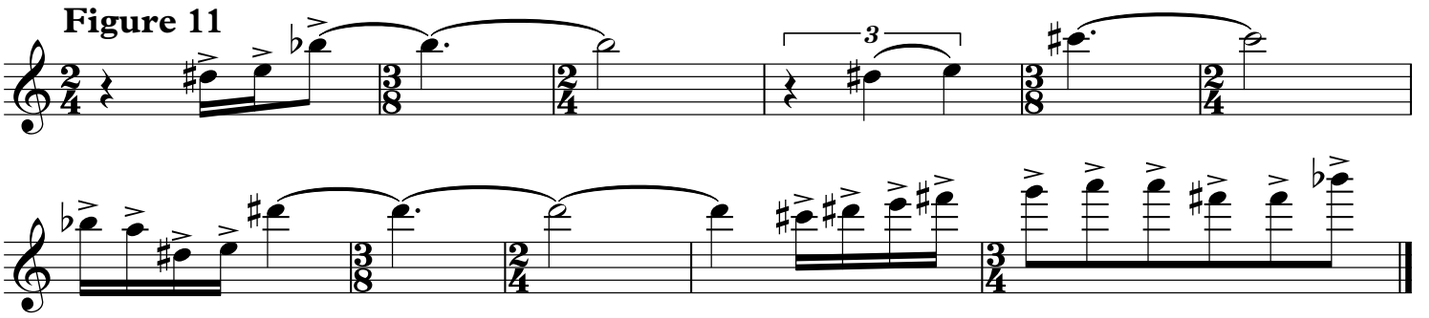
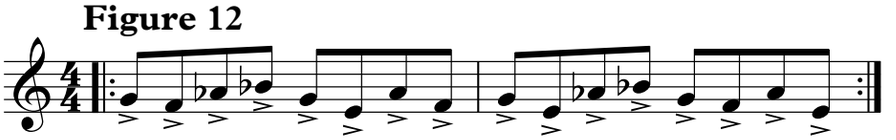


Figure 12



The following two examples (Figs. 13 & 14) are closely related. They both occur during moments of discovery, when Marty sees his future home hasn't been built yet (Fig. 13), and when Doc from 1955 discovers an invention of his actually works (Fig. 14). Both contain movement between chords a tritone apart and a final cadence using a dotted eighth and sixteenth rhythm. Another discovery motive with chords a tritone apart (Fig. 15) occurs when Doc and Marty retrieve the DeLorean, when Doc reads the clock tower flier, and when Marty admits to accidentally meeting his parents. The rhythm in this example is the reverse of the previous examples's final cadence and the harmony is derived from the G octatonic scale

Figure 13

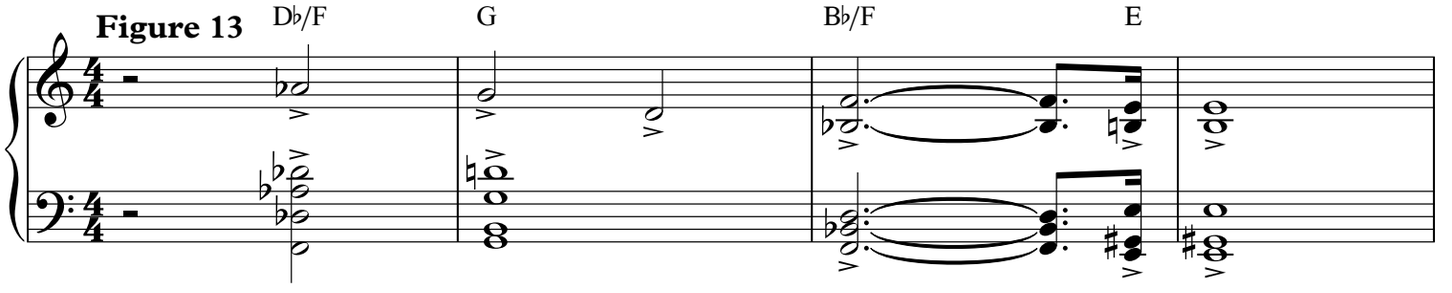


Figure 14

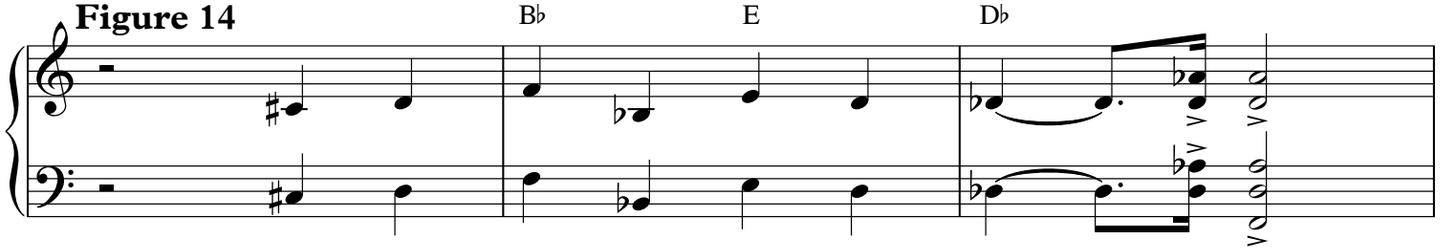
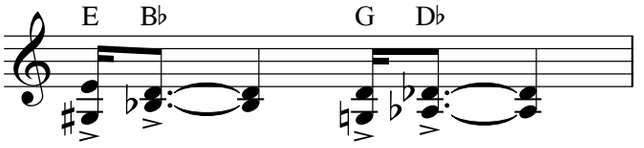
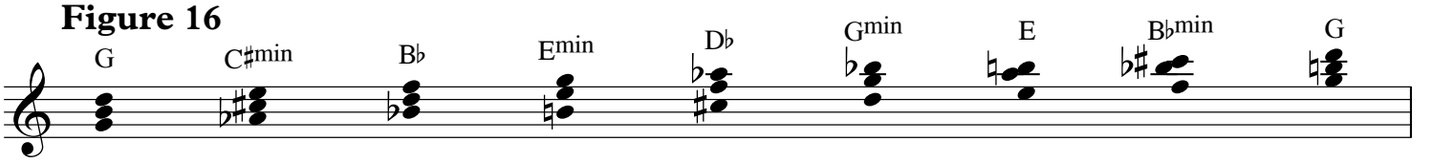


Figure 15



Silvestri harmonizes the octatonic scale in several instances by transitioning from a major chord to a minor chord a tritone away, then down a minor third to a major chord and repeating the pattern. (Fig. 16). He is able to harmonize each note of every chord within the octatonic scale, meaning, you could follow each voice of the chord and it would occur within the scale, which is why some chords are spelled in an odd manner. In one instance, we hear this as a fast run in both woodwinds and strings before the moment in 3m2 *Disintegrated Einstein* when Doc Brown rejoices after the time machine disappears.

Figure 16



The following examples all occur during several cues, including *Disintegrated Einstein, Ditches DeLorean, Jigawatts, Dreamboat, and Doc Returns.* They are short motives that can be layered on top of an ostinato that usually appears in either the horns, trumpets, or trombones (Fig. 17). Then, either the horns or bassoons will play a figure which follows the harmony in a dovetailed fashion (Fig. 18). Cellos and clarinets play a repeating two bar figure, accompanied by bass pizzicato (Fig. 19). Peppered throughout is a short figure that is played either solo or by the comination of tuba, timpani, and low woodwinds, or xylophone, flutes, and piano in a higher register (Fig. 20a). A variation of this follows the opposite contour, starting on the same beat of the measure, and is instead played by muted trumpets, woodwinds, and violins as a chorded figure (Fig. 20b). Violins play the next figure (Fig. 21a). Usually they play the first bar alone, rest for a bar, and then both bars played together along with clarinets and oboes to accent the half step rub on the downbeats of the second bar. Low woodwinds then answer similar to the violins, which outlines chords a tritone apart (Fig. 21b). Silvestri uses what's typically referred to as a "wedge," that is, a simultaneously ascending and descending line that starts on the same pitch. He follows this with a motive that roughly outlines two chords a tritone apart in the second half of the measure (Fig. 22a). Piano, bassoons, and low strings accompany this second half with opposing tritone roots and chords (Fig. 22b)

Figure 17

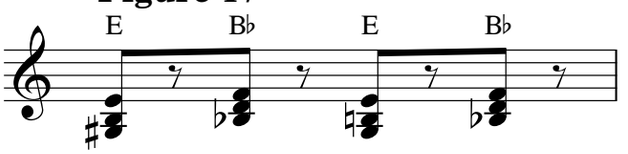


Figure 18

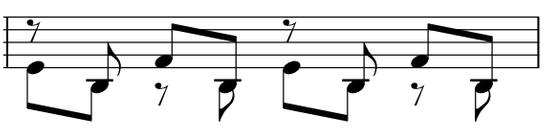


Figure 19

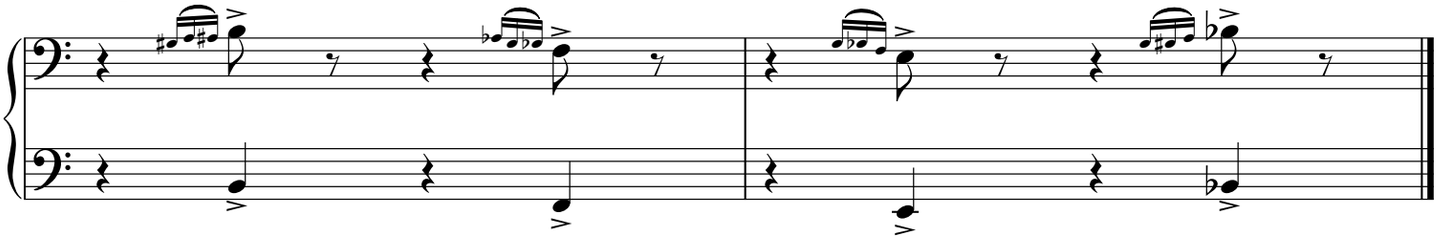


Figure 20a

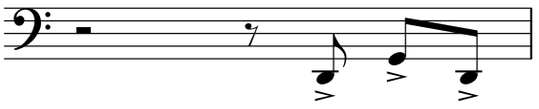


Figure 20b

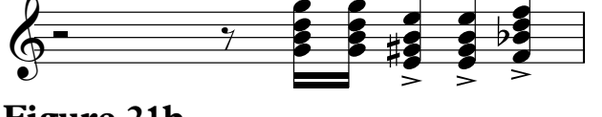


Figure 21a

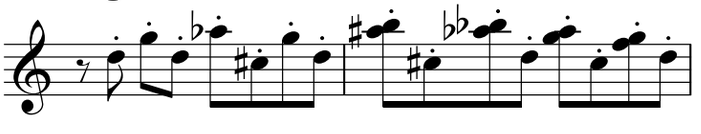


Figure 21b

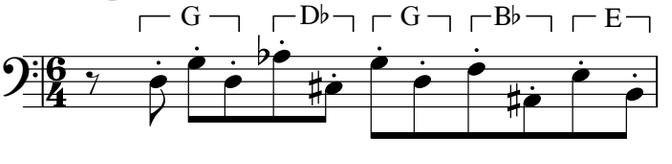


Figure 22a

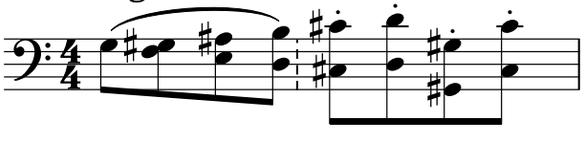


Figure 22b