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How the Theremin Gave Musical Voice to Hollywood's Extraterrestrial "Others"

By JAMES WIERZBICKI

Abstract: The theremin played a unique role in 1950s science fiction films. In Rocketship X-M, The Day the Earth Stood Still, The Thing from Another Planet, and It Came from Outer Space, the instrument was not just a component of the studio orchestra but, in effect, the diegetic "voice" of the alien entities.

Key words: Electronic music, extraterrestrial, film music, science fiction, theremin

ne suspects the concept sprang up in the days of the Neanderthals, yet the origins of Western society's "cultural Imaginary"an entity foreign and thus potentially threatening, yet at the same time somehow attractive-are usually traced back only to the dawn of modernity in post-Renaissance Europe (Stallybrass and White 193). Certainly the earliest recorded musico-theatrical depictions of an exotic Other date from this period. It was at the beginning of the seventeenth century, in Italy, that opera was born; considering the importance of the Other as a defense mechanism for the human psyche, it is not altogether surprising that the very first operas-Jacopo Peri's 1600 Euridice and Claudio Monteverdi's 1607 La Favola d'Orfeo-afford prominent time to the limning of creatures not of this world.

As opera matured over the next 150 years, the dramatic duties that at first had been assigned to mere Shades and Furies were taken over by full-fledged gods and goddesses. But the Age of Reason and the ensuing Romantic Era

ushered in a taste for Others of a more mundane sort. Many of them, distinguished by race or social class. lent themselves to broad-brushed musical stereotypes;1 some of them, veering from the status quo only by virtue of an unbalanced mental state² or a peculiar sense of morality,3 required more imaginative musical strokes. One way or another, however, their qualities of Otherness were made musically obvious, and in the best examples the musical characterizations of the Other served their scores not just semiotically but structurally (Middleton 60). That

these musically well-defined Others were of great interest to both the creators and the consumers of opera, especially in the late-nineteenth and early-twentieth centuries, is evidenced by the fact that so many of them are titular characters. Feminist critics (McClary 63, Clément 24–42) have been quick to point out that most of these eponymous protagonists are women, and that far more often than not their perceived dangerousness is balanced by overt sex appeal.

During the first decades of the sound film, composers in Hollywood followed the operatic model in their depictions of the intriguing Other. Real people whose ethnicities obviously distanced them from the cultural main-



In *It Came from Outer Space* (1953), the presence of unseen alien creatures is signaled by a theme sounded exclusively by the theremin.

stream—native Americans, Asians, blacks, members of the more prominent European immigrant groups—were identified by means of stereotypes at least loosely based on the subjects' traditional music (Gorbman 234–38). The more fantastic Others—monsters and mad scientists, for the most part—were typically represented by modernistic musical gestures that seemed deviant in the context of a score's generally conservative norm.

Significantly, in almost all of these cases the medium of musical expres-

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sion remained constant. While the microphones of the 1930s indeed favored certain kinds of sounds, composers tended to ignore the limitations (Prendergast 33); it was by choice, not because of technological constraints, that the vast majority of early Hollywood film scores featured ensembles that at least in instrumental make-up resembled the standard symphony orchestra.⁴ The music that announced the entrances of Carmen Miranda and the Bride of Frankenstein, for example, or accompanied the dancing of Irish street urchins and Indians on the warpath, of course, varied greatly in its harmonic, melodic, and rhythmic content. But virtually all of this music drew its sonic coloration from the same orchestral palette that served the needs of Hollywood composers as they lent musical support to the activities of "normal" characters. Quite a different situation existed in the early 1950s, when a very particular sonority came to be associated with a vague yet potent filmic Other that for all intents and purposes had just arrived on the scene.

xtraterrestrials were not new to the general public of post-World War II America, for they had long existed in literature. Perhaps only scholars were familiar with the various moon creatures depicted in seventeenth- and eighteenth-century writings.⁵ But even modestly educated citizens would have known at least the gist of such popular novels as Jules Verne's 1865 Le Voyage dans le Lune (popularly known in English translations as From the Earth to the Moon) and H. G. Wells's 1898 The War of the Worlds. And for the people who especially relished such fare, a wealth of material existed in the stories of Edgar Rice Burroughs⁶ and H. P. Lovecraft,⁷ in the Buck Rogers and Flash Gordon comic strips,8 and in such "pulp" magazines as Amazing Stories, Weird Tales, Fantastic Adventures, and Astounding Stories.9

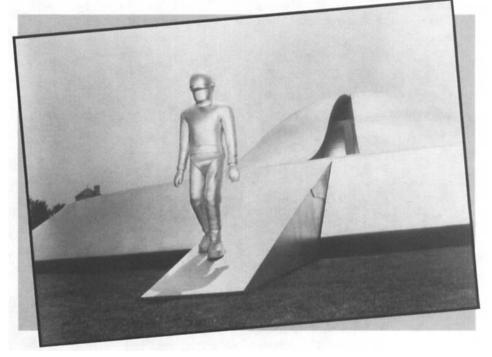
Like the writers of imaginative fiction, filmmakers were drawn to the ideas of space travel and extraterrestrials. Of the earliest commercial films, one of the best known is Georges Méliès's 1902 Le Voyage dans le

Lune,¹⁰ a fourteen-minute fantasy that features not only a trip to the moon by a group of earthlings but also the earthlings' encounter with moon men who vanish in puffs of smoke when the earthlings strike them with their umbrellas. Other space-travel film titles from the silent era are Parema, Creature from the Starworld (1922), A Trip to Mars (1924), and-most notably-Fritz Lang's Woman in the Moon (1929). Along with a great many science fiction films in which the characters and action are entirely earthbound, the first decade of the sound film produced such pictures as Stratos-Fear (1933), Spaceship to the Unknown (1936), and Sky Rocket (1937).

Then, after a handful of feature films based on the popular Flash Gordon and Buck Rogers serials,¹¹ Hollywood's interest in extraterrestrials suddenly waned. Newsreel reports of deadly conflicts with perfectly human Others in Europe and the Pacific held the country's attention, and apparently there was little appetite for terrors born of fantasy. There was, of course, a great demand for entertainment during the war years, and so—along with countless government-supported documentaries aimed at civilian as well as military audiences—the studios released a raft of feature films. Their wartime products ranged widely in subject matter, from frothy comedy and gung-ho statements of patriotism to increasingly *noir* crime stories and controversial essays in social criticism. But the action remained downto-earth, and the accompanying musical scores held to convention.

The explosions of atomic bombs over Hiroshima and Nagasaki in August 1945 brought World War II to a quick conclusion. They also kindled new fears, for global destruction and radiation-induced illness—once the mere conceits of science fiction writers—had in a dramatic flash become much more than theoretical possibilities.

Along with the concept of a planet reduced to a cinder, the years immediately following World War II contained other fuels for America's popular imagination. As a byproduct of war-inspired advances in aviation and rocketry, scientists and government officials for the first time were engaging in serious public discussion of space exploration. On a grimmer note, a previously unsuspected enemy—the Soviet Union, now bent on spreading communism worldwide—replaced



The robot in *The Day the Earth Stood Still* (1951) makes no noise, yet quivery music from a pair of theremins seems to represent its voice.

the foes that had just been vanquished on the battlefield. Most intriguing of all, the wake of the war swept into the American consciousness a brand new Other that the citizenry could easily transform into an embodiment of its aspirations as well as its increasingly urgent anxieties: In June 1947 a fleet of nine flying saucers was reported maneuvering in the vicinity of Mt. Rainier in Washington State; a month later—with an even greater splash of publicity—an alien spaceship allegedly crashed in the desert near a military base in Roswell, New Mexico.

These four elements-the bomb, the beginnings of aerospace research, the incipient Cold War, and the perceived presence of extraterrestrial spacecraft-combined within a few years to trigger what is often called Hollywood's Golden Age of science fiction films. The first few efforts were modest in both their fantasy and their frightfulness; the goals of their protagonists were "exploratory and constructive," and the "dangers [were] limited to small groups of men ready and willing to face them" (Everson 36). But the direction of the fictional space travelers soon shifted, for reasons that had less to do with creativity than with economics and politics.

On the one hand, Hollywood in the early 1950s was hard-pressed both by the court-ordered selling of studioowned theaters (Mast 316) and by competition from the new medium of television; the financial pressures reminded producers that it was "cheaper to build one monster than a series of planet landscapes and props" (Hill 55). On the other hand, the rising tide of paranoia brought to American shores a keener than usual interest in outsiders. As Peter Biskind so illuminatingly pointed out in his 1983 study of 1950s films, fear of Others was "an occupational hazard of the cold-war battle of ideas" (111), and the conceit of using nonhumans as metaphors for terrestrial enemies appealed as much to screenwriters of leftist persuasion as to their right-wing counterparts. Although the heroes of 1950s science fiction films continued to venture into outer space, far more often they were content to stay at home and deal with alien visitors.

The filmic extraterrestrials that popped up on occasion in the first half of the twentieth century were entirely imaginary. Those depicted in 1950s sci-fi movies were imaginary as well, but recent developments in science and the suddenly widespread belief in UFOs gave them at least a soupçon of credibility. And in those films freighted with more or less subtle political messages, what the extraterrestrials seemed to represent was most definitely real. Like the various earthly Others who preceded it to the screen, the suddenly ubiquitous and conceptually graspable post-World War II extraterrestrial demanded a sonic calling card. With no anthropological materials to guide them, Hollywood composers looked to technology for the alien Other's stereotypical voice.

ike the generalized idea of extraterrestrials, the swoopy, tremulous sound of the electronic musical instrument known as the theremin was not exactly a novelty by the time America entered the atomic age. It is not likely that the average American moviegoer would have been familiar with the theremin's earliest cinematic uses in the Soviet films Alone (1931) and Komsomol: The Patron of Electrification (1934), with scores by Dmitri Shostakovich and Gavreil Popov, respectively.¹² But radio listeners would have known the buzzy sound effects with which a theremin player indicated the presence of the title character of the syndicated program The Green Hornet.13 And aficionados of classical music might well have heard-live or on the air-a performance by Clara Rockmore, in the 1930s and '40s generally regarded as America's foremost theremin virtuoso, or by her teacher, the Russian inventor after whom the instrument is named.

Léon Thérémin never intended his device to be used for anything but melodic music in the traditional vein. Born in 1896 in St. Petersburg, he was trained not only as a physicist but also as a cellist. Indeed, his preferred approach to the instrument—with widespread notes connected by exaggerated slides, with sustained pitches coated in a rich vibrato—had much in common with the hyper-Romantic style of violin and cello playing that developed in the last decades of czarist Russia and that persisted, anachronistically, through much of the Soviet era.

But the theremin came with no strings attached. Originally and aptly called the "aetherophone," it drew its sounds literally from thin air. The tone was produced by means of a pair of identically tuned radio-frequency oscillators, one fixed in its broadcast frequency and the other allowed to vary according to the distance of a signal-interrupting object (e.g., the player's hand) hovering near its antenna. When the two frequencies were mixed, or heterodyned, the difference between them resulted in a third frequency; it was this so-called "difference tone" that was amplified and channeled to a loudspeaker. In the finished models of the theremin, volume levels were controlled by means of a comparable heterodyne effect triggered by the player's other hand.

Thérémin developed the instrument in 1919 at Petrograd University's Physico-Technical Institute. By the summer of 1920 he was ready to demonstrate it at an All-Union Electrical Congress, and reports of the instrument's wonders quickly reached the highest levels of authority. Lenin was delighted with it, and he encouraged Thérémin to popularize his invention. Within a few years Thérémin gave almost 200 recitals-featuring a repertoire of transcriptions of works by Chopin, Schubert, and other classical composers-in various parts of the Soviet Union. In 1923 he performed in Berlin, and in 1924, in Leningrad, he was the soloist in Andrey Pashchenko's Symphonic Mystery for theremin and orchestra.

The instrument and its inventor traveled to Paris in 1927, and the much-anticipated concert at the Paris Opéra was a smashing success. Similar attention and acclaim greeted Thérémin when, in January 1928, he made his American debut in the Grand Ballroom of the New York Plaza Hotel. A few days later he performed before a capacity crowd at the Metropolitan Opera.

Almost overnight, Thérémin became the darling of the East Coast classical music establishment; thanks to radio broadcasts, within a year he was famous throughout the country. American-based modernist composers launched a series of works that showcased at least some of the theremin's potential.¹⁴ On the more popular front, in the early 1930s the Russian émigré Clara Rockmore (*née* Reisenberg) began to concertize throughout the United States with theremin programs built around lyric works drawn from the standard repertoire.

The fact that Rockmore, like Thérémin himself, regarded the instrument as primarily a vehicle for traditional music¹⁵ was met with derision in certain quarters. As late as 1937, the avant-garde composer John Cage, in an address to a Seattle arts society, complained that

when Theremin provided an instrument with genuinely new possibilities, Thereministes did their utmost to make the instrument sound like some old instrument, giving it a sickeningly sweet vibrato, and performing upon it, with difficulty, masterpieces from the past. Although the instrument is capable of a wide variety of sound qualities, obtained by the mere turning of a dial, Thereministes act as censors, giving the public those sounds they think the public will like. (4)

It was more a matter, one suspects, of the American public genuinely liking what it heard. Especially when it was applied to tried-and-true melodies and approached with a conservative interpretive sensibility, the new-fangled theremin was clearly a hit. Its inventor's celebrity in America ran unabated until 1938, when Soviet agents broke into his New York apartment and forcibly returned him to Moscow.¹⁶

In 1929 the Radio Corporation of America purchased a license to manufacture theremins. RCA's publicity campaigns were well funded, and approximately 200 instruments were sold. Significant for the course of film music, one of them was purchased by Samuel Hoffman, a New York podiatrist who throughout the 1930s used the pseudonym Hal Hope when, in his spare time, he performed with a small dance band in which he was the featured soloist on both violin and theremin. In 1941 Hoffman moved his medical practice to Los Angeles, where-at Leone's Restaurant on Sunset Boulevard, and still using the stage name Hal Hope-he also moonlighted as a musician. Hoffman's musical tastes were very much down-to-earth, and he never anticipated a career in the film industry. Yet it was his mere presence on the scene that eventually forged the link between the theremin and cinematic extraterrestrials.

lthough commercially made there-Amins had been available since the late 1920s, it was not until 1944 that one of the instruments found its way onto the soundtrack of a Hollywood film.¹⁷ The breakthrough opus was Lady in the Dark, Mitchell Leisen's generally unremarkable adaptation of the Broadway show that had featured a book by Moss Hart and songs by Kurt Weil and Ira Gershwin. The plot concerns a career woman who, as she gropes for the source of her unhappiness, undergoes psychoanalysis. Functioning more as a special effect than an integral element in Robert E. Dolan's score, quivery tones played on the theremin serve as the requisite "signifier" whenever the protagonist submits to treatment.

Thus began a short-lived association between the sound of the theremin—in essence, acoustically unstable—and various states of mental instability as projected by filmic characters. That *Lady in the Dark* in any way influenced him, however, would have been denied by the composer who truly put the theremin on the Hollywood map.

As Miklós Rózsa tells it in his autobiography, it was his own, entirely original idea to use the theremin when, early in 1945, he was approached by director Alfred Hitchcock and producer David O. Selznick and asked if he could come up with "something unusual" to limn the intensely psychological scenes of their upcoming film *Spellbound* (Rózsa 126).¹⁸ At that time, Hitchcock and Selznick had neither heard nor heard of the theremin, but they were open to the suggestion. To make a demonstration recording featuring the angular theremin theme he had devised, Rózsa contacted the by-then quite famous Clara Rockmore, who indignantly replied that her artistry was above the level of Hollywood entertainment. Rózsa then turned to the Los Angeles musicians' union book; among the handful of thereminists listed, the only one who could read musical notation was Samuel Hoffman (Glinsky 253–54).

Hitchcock and Selznick responded favorably to the theremin-flavored sketch that Rózsa concocted for the scene in which the film's male protagonist (played by Gregory Peck) first lapses into a possibly murderous trance (Brown 274). Then, Rózsa said, "they wanted to use it everywhere in the picture" (Prendergast 69). After Rózsa's-and Hoffman's-contribution to Spellbound won an Academy Award for best score, "the theremin gained instant status as an emblem for the unbalanced side of the human psyche" (Glinsky 254). Before long, the Hollywood press corps concluded that "the theremin [was] Rozsa's trademark just as the sarong [was] Dorothy Lamour's" (Palmer 33).

In fact, Rózsa utilized the theremin only twice more, as "the official 'voice' of dipsomania" (Rózsa 129) in his score for Billy Wilder's 1945 film The Lost Weekend and two years later to inject a heavy dose of eeriness into Delmer Daves's The Red House. But his fellow composer Roy Webb featured the theremin to good effect, as an identifier for the serial killer, in his music for Robert Siodmak's 1946 The Spiral Staircase. In 1947 the theremin added a touch of the bizarre to the otherwise run-of-the-mill scores for W. Lee Wilder's suspenseful The Pretender and-whenever hypnosis entered into the comic plot-Norman McLeod's The Road to Rio. The scores of two films from 1948-Corkscrew Alley and the romantic comedy Let's Live a Little-included theremin parts. So did the dramatically diverse 1949 films The Fountainhead, Impact, and Devil Weed. And so did the 1950 comedies Fancy Pants and Let's Dance (Glinsky 280–83).

In all of these films, the theremin player was Samuel Hoffman. The success of Rózsa's music for Spellbound had meant success for the podiatrist as well, for in the wake of the Oscar he appeared as soloist-at the Hollywood Bowl and on television-in an extract from the score that Rózsa called the "Spellbound" Concerto. Hoffman was also invited to be the featured performer on several "easy listening" albums for various recording labels. These projects included The Chinese Album (Columbia, 1947), Perfume Set to Music (RCA, 1948), and Music for Peace of Mind (Capitol, 1950). But it was Hoffman's first album that perhaps planted the seed, in the minds of film directors, for the theremin's later use as the clichéd voice of extraterrestrials. Issued by RCA in 1947, the eight-disc collection consisted of deliberately "dreamy" compositions by Harry Revel as arranged by Leslie Baxter. It was titled Music out of the Moon.¹⁹

The moon, as it happened, is the scheduled destination of the protagonists of Kurt Neumann's 1950 film Rocketship X-M. Alas, their plan goes awry, and before long the space travelers discover that they are headed--albeit against their will-toward Mars. Exploration of the red planet leads the crew to a startling discovery: Once upon a time a humanoid civilization indeed existed on this distant orb, but that civilization-technologically advanced beyond the dreams of earthly scientists-apparently destroyed itself in an atomic holocaust. "Were there any survivors?" asks a member of the crew. "I certainly hope not," replies the expedition's leader.

The score for *Rocketship X-M* is the work of Ferde Grofé (1892–1972), a composer best known for his perennially popular 1931 *Grand Canyon Suite* and—at least among music historians—for his orchestration of the 1924 original version of George Gershwin's *Rhapsody in Blue*. Grofé was not a regular on the Hollywood scene, and his



In *The Thing from Another World* (1951), the theremin figures into the score only when the title character is shown on screen.

relatively few film scores go deservedly uncelebrated.²⁰ In a study of music for cinematic extraterrestrials, however, Grofé's contribution to *Rocketship X-M* warrants attention. Not only is *Rocketship X-M* the first science fiction film to feature the theremin in its score; the length of the passage in which the theremin is dominant easily exceeds anything that came later.

What came later, most notably, are Robert Wise's 1951 The Day the Earth Stood Still, Christian Nyby's 1951 The Thing from Another World, and Jack Arnold's 1953 It Came from Outer Space, a trio of science fiction classics remarkable as much for the enduring worthiness of their theremin-flavored scores (by Bernard Herrmann, Dmitri Tiomkin, and Henry Mancini, respectively)²¹ as for the intensity of their sociopolitical subtexts. Also in the wake of Rocketship X-M, significantly, are Byron Haskin's 1953 The War of the Worlds, Gordon Douglas's 1954 Them!, Fred McLeod Wilcox's 1956 Forbidden Planet, and Ib Melchior's 1959 The Angry Red Planet, the scores of which (by Leith Stevens, Bronislau Kaper, Louis and Bebe Barron, and Paul Dunlap, respectively) do not include the

theremin but nonetheless feature theremin-like sounds and gestures.

For better or worse, the theremin itself decorated the soundtracks of Operation Moon (1953), The Day the World Ended (1956), and Earth vs. the Spider (1958), all of which arguably count among Hollywood's lesser sci-fi efforts.²² In the 1960s, after the genre's Golden Age had begun to tarnish, the theremin was heard in the music for the comic television programs The Jetsons and My Favorite Martian.23 And more recently, in gestures that obviously pay homage to their 1950s inspirations, composers Howard Shore and Danny Elfman included the theremin in their scores for Ed Wood (1994) and Mars Attacks! (1996).24

As in earlier films that utilized the infilms mentioned above the mere sound of the theremin (or an imitation thereof)²⁵ has strong semiotic properties.

Between the science fiction films and their predecessors, however, there is an important difference in the semiotic function of the theremin sonority. A comparable difference exists between the theremin-flavored musical ideas with which composers for the science fiction films limned their extraterrestrial Others and Hollywood's standard musical depiction of outsiders (i.e., with anthropologically based musical stereotypes filtered through a homogeneous orchestral screen). The difference has to do with symbolistic depth. Whereas in most film scores the potent musical signifier is meaningful on only two levels, the theremin music in the science fiction films from the 1950s is typically freighted with yet a third layer of signification.

In considering any film score that features the theremin, it is important to distinguish between the mere sound of the instrument and the musical material assigned to it. Notwithstanding various nuances in performance and creative settings within the orchestral context, the sound of the theremin is more or less a constant, and its quasivocal timbre-similar to that of a male voice singing the long "u" vowel in falsetto---is instantly identifiable even when the audio mix plunges the score deep into the background. On the other hand, the actual music played by the theremin varies widely.

For The Lost Weekend and Spellbound, Miklós Rózsa gave the theremin genuine themes, i.e., melodic ideas so distinct that they would be recognized no matter what instrument brought them to life.26 These themes, because of their ebb and flow of dissonance and consonance, of tension and resolution. are in and of themselves emotionallyalbeit vaguely-meaningful (Meyer 197-233). And like the leitmotifs of Wagnerian opera, they gain additional meaning by virtue of their associations, in the context of their films' narratives, with certain physical or psychological entities. Thus, while Rózsa's theremin themes for The Lost Weekend and Spellbound are unsettling by the very nature of their pitches and rhythms, their highly discriminate usage in the scores relates them specifically to the dramatic ideas of severe alcoholism and murderous potential.

Most of the second-rate composers who gravitated to the theremin in the 1940s and 1950s opted for decidedly less memorable musical patterns; in most cases, their generically "anxious" theremin parts consisted of little more than a sustained tone followed by a drop of a half-step, then a slow descent spanning a third or fourth.²⁷ While the purely musical meaning of these clichéd themes was arguably shallow, the requisite associative links were nevertheless forged simply by the theremin's sound, which cuts through a

The theremin parts in scores for science fiction films from the 1950s convey considerably more than what might have been communicated had the composers orchestrated the same musical material for, say, violins or trombones or flutes.

musical underscore like a knife applied to sun-softened butter. So long as the sonority was not overused, the slightest hint of the theremin could signal whatever idea dominated the narrative when the sound was first introduced.

But whether hackneyed or not, the theremin parts in scores for science fiction films from the 1950s convey considerably more than what might have been communicated had the composers orchestrated the same musical material for, say, violins or trombones or flutes. They convey more, too, than whatever associations might have been established between the mere sound of the theremin and some physical/psychological element of the plot.

Before *Rocketship X-M*, the theremin music that symbolized abnormal mental states, impending doom, or generalized "spookiness" comes from the accompanying orchestra that exists somewhere beyond the screen. With *Rocketship X-M* and its successors, the dramatic contexts into which the theremin is introduced almost always suggest that the instrument's ethereal sound is somehow diegetic, that is, that it emanates not just from a member of the studio orchestra but also from something actually contained within the film's narrative.

In these science fiction films, the notes prescribed for the theremin (or its equivalent) are of course components of the musical score. At the same time, the theremin's distinctive sonority takes on an "objective" quality, that is, it becomes a characteristic of a specific filmic object, and that object in turn functions as the source of the sound (Metz 156). There is a tantalizing ambiguity here, for the distinctive theremin sonority tends to be what certain French theorists have called "acousmatic": It exists ". . . neither inside nor outside the image" (Chion 129). The correspondence between the activity of the filmic object and the theremin sonority is rarely so exact as to suggest what is conventionally known as a "sound effect." At least in an abstracted way, however, when

the audience hears the theremin music it also hears the actual voice of the extraterrestrial Other.

n Rocketship X-M, quivery orchestral chords are heard whenever a member of the crew enters the spaceship's engine room. But the unmistakable sound of the theremin is withheld until the astronauts don their oxygen masks and set out to explore the Martian landscape. Just as the imagery of this otherwise monochrome film suddenly turns reddish when the four crew members disembark, so does the theremin suddenly permeate the score. The Martian scene, which climaxes with the space travelers' violent encounter with the planet's horribly mutated inhabitants, lasts almost thirty minutes. Through all of it, the theremin hovers ominously over slow-moving harmonies punctuated with occasional bursts of musical action, and it is silenced only when the crew's two surviving members find sanctuary in

their black-and-white spaceship. The symbolism is obvious. Not only does the music played by the theremin signal the ominousness of the Martian environment, for all intents and purposes, the sound of the theremin *is* the sound of the Martian atmosphere.

In The Day the Earth Stood Still, the theremin artfully drifts in and out of Bernard Herrmann's score as the narrative dances around the more or less pressured undercover activities of the benign extraterrestrial protagonist. At these moments, the instrument's role is similar to those it played in the scores for Spellbound and The Lost Weekend; the musical material in and of itself has an unsettling quality, and the combination of theme and sonority forms a leitmotif that clearly signifies the extraterrestrial. Ouite a different situation exists, however, whenever the extraterrestrial's robot companion is put into action. In these situations, the exaggerated tremolo of the theremin fairly roars with superhuman power.28 The robot makes no other sound as it disintegrates offensive soldiers or sets out to rescue its injured master; when the robot raises its angry voice, the voice is that of the theremin.

In The Thing from Another World, composer Dmitri Tiomkin employs the theremin only in scenes in which the bloodthirsty extraterrestrial is depicted on screen. The musical material is subtle as the vegetable-like creature is cut from the ice and then gradually thawed. But the theremin music trembles with increasingly demonic force as the alien begins to wreak havoc on the arctic explorers who discovered it. When the alien is finally exterminated, so too are the unearthly tones of the theremin.

In It Came from Outer Space, as in the calmer moments of The Day the Earth Stood Still, relatively nonviolent music played by the theremin accompanies the scenes featuring extraterrestrials. Henry Mancini's theremin parts for It Came from Outer Space, however, are far more motivic than Herrmann's filler material. Indeed, so relentlessly used is Mancini's "alien" theme that it would serve its significational purpose no matter what instrument brought it to life. Yet it is the theremin, and only the theremin, that sounds this identifying melodic fragment. When the scary yet basically friendly aliens actually speak, their words are thickly coated in reverberation; when they are simply on the scene, scouting out the situation or gently "borrowing" the bodies of selected earthlings, their presence is inevitably given away by queer thereminesque vibrations.

Holding to the tradition established in the 1950s, the theremin is almost exclusively the musical concomitant of the "fictional" or "real" extraterrestrials in the more recent *Ed Wood* and *Mars Attacks!* And although its use is

Not only does the music played by the theremin signal the ominousness of the Martian environment, for all intents and purposes, the sound of the theremin *is* the sound of the Martian atmosphere.

sorely clichéd, the theremin plays a similar triple role—not just as a vehicle for dramatically expressive music and as a timbral leitmotif that by its sonority alone suggests an alien or monstrous presence but also as a diegetic sound apparently emanating directly from the Other—in the vintage Operation Moon, The Day the World Ended, and Earth vs. the Spider.

The tradition and the cliché, which ultimately are one and the same, can also be illustrated by science fiction films from the 1950s whose scores do not employ the theremin. In Leith Stevens's music for *The War of the Worlds*, musically purposeful noises that might be described as at least somewhat thereminesque enter the sonic mix *only* when the Martian invaders are depicted on screen. Bronislau Kaper's masterly score for *Them!* introduces its famous electronic buzz *only* when the giant mutant ants are in the scenario. As is the case with the 1950 *Rocketship X-M*, 1959's *The Angry Red Planet* bathes its otherwise black-and-white imagery in a reddish filter when the astronauts disembark; following the cue of the earlier film, composer Paul Dunlap overlays his music with shimmery vibraphone sonorities *only* when the crew is exploring the Martian environment.²⁹

Of all the nontheremin scores for the classic science fiction films, perhaps the most intriguing is the one for *Forbidden Planet*. Louis and Bebe Barron's contribution to this 1956 film

is emblazoned in music history texts as the first entirely synthesized score commissioned for a full-length motion picture. The Barrons' so-called "electronic tonalities"³⁰ were painstakingly generated on what was then stateof-the-art equipment, and the wide range of the composers' aural imagination is amply demonstrated by the soundtrack's abundant blips, bleeps, and bloops. Nevertheless, whenever the script veers from the merely exotic to the truly dire, the electronic music reverts to the established formula. Whether merely alluded to or brought frighteningly to the fore, the film's "monsters from the Id" are inevitably identified by sonorities that are high pitched and tremulous, applied to musical themes that for the most part consist of sustained notes with only slight chromatic alterations. In their laboratory, the composers could have concocted virtually any sound to depict these psychic antagonists; it seems significant that for the film's key dramatic moments the Barrons devoted considerable time and energy to creating synthetic musical gestures that could have been realized in an instant at the hands of a skilled theremin player.

f one limits discussion only to recent scores, it is easy to concur with the commonly held notion that "the science fiction film, as a genre, lacks a distinctive music" (Lerner). Consider for a moment the brilliant constellation of themes that John Williams created in 1977 for the first installment in the *Star Wars* series and then recapitulated for *The Empire Strikes Back* (1980) and *Return of the Jedi* (1983). That much of the music is arguably derivative does not go unnoticed by sophisticated ears.³¹ Nonetheless, these ideas are rich in character, and within their filmic contexts they seem perfectly suited to their associated narrative entities.

But consider also the same composer's music for the 1981 Raiders of the Lost Ark and its two sequels (the 1984 Indiana Jones and the Temple of Doom and the 1989 Indiana Jones and the Last Crusade). In particular, consider the theme that identifies the eponymous protagonist of the Indiana Jones films, and then compare it to the "main title" theme of the Star Wars series. These two themes are of course memorable and distinct, yet their musical content—their melodic shapes, their harmonic architecture, their rhythmic impulses-is at the very least quite similar, and their orchestrations are virtually identical. More significant, also virtually identical are the themes' emotive messages. There is nothing particularly "archaeological" about the one or "interstellar" about the other; in essence, the themes signify only grandness of character and the promise of heroic action. Indeed, had the Indiana Jones and Star Wars themes been interchanged at the series' outsets, the communicative results would have been the same.

Jerry Goldsmith's music for the 1979 Star Trek: The Motion Picture and various of its sequels (The Final Frontier in 1989, First Contact in 1996) is similarly potent and apt for its subject matter. It can be noted that at least in a general way the music bears a stylistic/sonic resemblance to Goldsmith's scores for other science fiction films (1968's Planet of the Apes, 1979's Alien, 1990's Total Recall). But it can also be noted that the music, in a general way, bears a stylistic/sonic resemblance to Goldsmith's scores for such down-to-earth films as *Hour of the Gun* (a Western from 1967), *King Solomon's Mines* (a Victorian epic from 1985), and *Executive Decision* (a modern political drama from 1996).

Like Williams, the prolific and hugely successful Goldsmith could hardly be accused of repeating himself from one project to another. Yet virtually all of his film music, like the music of Williams, features the same sonic palette and the same aesthetic position vis-à-vis the film's narrative content. What is "special" about Goldsmith's or Williams's music for one film or another is its thematic material, not its basic sound or significational function. Goldsmith's and Williams's contributions to recent science fiction films are certainly praiseworthy, but their sci-fi scores are not in essence distinct from their other work. Like almost every other composer working in Hollywood today, Goldsmith and Williams try hard to avoid the genre's best-known musical cliché.

But once upon a time, in an era far, far away, the cliché was actually an original idea. Like the disembarking astronauts in the 1950 Rocketship X-M, composer Ferde Grofé took a bold step when he used the mere sound of the theremin to represent not only all the dire implications of a distant planet but also the peculiar tingle of that planet's atmosphere. In their landmark 1951 scores for The Day the Earth Stood Still and The Thing from Another World, Bernard Herrmann and Dmitri Tiomkin were still blazing the trail that linked the theremin's distinctive sonority to noises that conceivably could be emitted by extraterrestrials. It may be that Henry Mancini was already falling into a musical rut with his contributions to the 1953 It Came from Outer Space, but it was a rut that had only recently been dug.

As in the psychological thrillers of the late 1940s, the theremin in these Golden Age science fiction films was ear-catching to the extreme. But in its triple signification—not just as a vehicle for purely musical expression and as an aural leitmotif, but also as a suggestion of a diegetic sound emanating from an on-screen entity—it was unlike anything that audiences had ever before encountered. Over-used and over-imitated, the thereminesque gesture eventually lost its potency. At least for a glorious while, however, the theremin's weird vibrations formed the perfect voice for Hollywood's extraterrestrial Other.

NOTES

1. The peasants who rub against the aristocracy in Mozart's 1786 The Marriage of Figaro and 1787 Don Giovanni are introduced with suitably rustic dance rhythms; the bloodthirsty Scythians who make the Greeks, in comparison, seem so civilized in Gluck's 1779 Iphigénie en Tauride are given music that has a convincingly barbaric ring. One does not need to read the libretti of Verdi's 1871 Aida, Bizet's 1875 Carmen, or Puccini's 1926 Turandot to know that the eponymous protagonists are, respectively, a noble Ethiopian slave, a seductive gypsy, and a cold-hearted Chinese princess, for their accompanying music clearly identifies not only their personalities but also their ethnicities. In the case of Halévy's 1835 La Juive and Meyerbeer's 1865 L'Africaine, the titles speak for themselves.

2. Probably the best known of the mentally aberrant Others are the title characters of Bellini's 1831 *La Sonnambula*, Donizetti's 1835 *Lucia di Lammermoor*, and Puccini's 1918 *Suor Angelica*.

3. Examples of the morally degenerate Other include the title characters of Massenet's 1884 *Manon*, Verdi's 1853 *La Traviata*, and—perhaps most famously— Berg's 1937 *Lulu*.

4. The orchestras tended to be small between twenty and thirty players—but their instrumentation for the most part matched that of the conventional symphony orchestra.

5. These include Johannes Kepler's Somnium, published posthumously in 1634; Francis Goodwin's The Man in the Moon: Or a Discourse of a Voyage Thither, from ca. 1640; and Cyrano de Bergerac's 1656 L'Histoire comique des états et empires de la lune.

6. Burroughs, who lived from 1875 to 1950, published prolifically. He is best known for his "Martian" series of stories that ran from 1912 to 1948, but his works also include *The Moon Maid* (1926) and a trilogy of novels (1934–39) set on the planet Venus.

7. Most notable among them, in terms of their focus on extraterrestrials, are *The Colour Out of Space* (1927) and *The Call of the Cthulhu* (1928).

8. The *Buck Rogers* and *Flash Gordon* comic strips began in 1929 and 1934, respectively.

fiction. Astounding Stories was started by John Wood Campbell, Jr., in 1937, and it stood apart from its competitors in that its stated goal was to attract science fiction writing of the highest literary quality.

10. Like the 1875 operetta by Jacques Offenbach, the film is based—albeit very loosely—on the same-titled novel by Jules Verne.

11. These include The Deadly Ray from Mars (1938, based on the Flash Gordon's Trip to Mars serial and also known as Flash Gordon: Mars Attacks the World), Destination Saturn (1939, based on the Buck Rogers serial), and Purple Death from Outer Space (1940, based on the Flash Gordon Conquers the Universe serial).

12. The ondes martenot, an electronic instrument whose sound is in some ways similar to that of the theremin, was featured in Arthur Honnegger's score for the 1934 French film L'Idee.

13. *The Green Hornet* first aired on Detroit's WXYZ in 1936; it was syndicated by the Mutual network in April 1938 and continued until December 1952. Throughout the run, the theremin player was Vera Richardson Simpson (Glinsky 199–200).

14. These include Joseph Schillinger, whose First Airiphonic Suite, for theremin and orchestra, was premiered in Cleveland, Ohio, in November 1929; Edgard Varèse, who used two theremins in his 1934 Ecuatorial; Percy Grainger, who called for four theremins in his 1935 Free Music; and Anis Fuleihan, whose Concerto for Theremin and Orchestra was premiered by the New York Symphony Orchestra in February 1945.

15. Rockmore's recorded legacy, collected and reissued on a compact disc (Delos D CD 1014) titled The Art of the Theremin, consists of piano-accompanied arrangements of Rachmaninoff's Song of Grusia and Op. 34 Vocalise; Saint-Saëns's "The Swan" from The Carnival of the Animals; the "Pantomime" from De Falla's El Amor Brujo; the "Romance" from Wieniawski's Violin Concerto in D Minor; Joseph Achron's Hebrew Melody; the "Berceuse" from Stravinsky's The Firebird; Ravel's Vocalise-étude (en forme de habanera); Tchaikovsky's Berceuse (Op. 72, No. 18) and Valse sentimentale (Op. 51, No. 6), and Sérénade mélancolique; and Glazunov's Op. 71 Minstrel's Song.

16. The fascinating story of what happened after Léon Thérémin's repatriation is told in Steve Martin's 1993 documentary film *The Electronic Odyssey of Leon Theremin* and in Albert Glinsky's 2000 book *Thérémin: Ether Music and Espi*onage.

Weird Vibrations: The Theremin

17. In casual writings about film music, one occasionally encounters mention of a theremin being used in the scores for King Kong (1933) and The Bride of Frankenstein (1935). In fact, these scores used only conventional orchestral instruments.

18. Rózsa had been interested in the theremin since 1939, when he tried—without success—to use it in the genie segments of his score for *The Thief of Bagdad* (Prendergast 69).

19. Three of Hoffman's albums—Music out of the Moon, Perfume Set to Music, and Music for Peace of Mind—were reissued in a 1999 compact-disc collection (Basta 30-9093) titled Dr. Samuel J. Hoffman and the Theremin.

20. Along with Rocketship X-M, Grofé scored only The King of Jazz (1930), Yankee Doodle Rhapsody (1936), Minstrel Man (1944), Time Out of Mind (1946), and The Return of Jesse James (1950).

21. The only musical credit in *It Came from Outer Space* goes to Joseph Gershenson, who is listed as the film's "musical director." The score was collaboratively written by Mancini, Herman Stein, and Irving Gertz, and the theremin passages are generally considered to be the work of Mancini.

22. Other films from the 1950s that feature the theremin include The Five Thousand Fingers of Dr. T. (1952), The Mad Magician (1953), Murder at Midnight (1953), Please Murder Me (1956), The Ten Commandments (1956), The Delicate Delinquent (1957), and Voodoo Island (1957). In the comic Delicate Delinquent, the character played by Jerry Lewis actually encounters the instrument on screen.

23. The instrument heard in the theme for My Favorite Martian was actually an "electro-theremin." The device—invented in the late 1950s by the trombonist Paul O. W. Tanner—differed from the theremin largely in that it was capable of staccato articulations and more precise pitch control (Glinsky 289).

24. Elfman's score for *Mars Attacks!* features not a theremin per se but, rather, digital samples of theremin tones.

25. In the 1950s, "thereminesque" musical effects that emphasized tremulousness of tone were commonly produced on the Hammond organ, the vibraphone, and string instruments played with a wide *vibrato*. Passages emulative of the theremin's characteristic smooth connection of melodic notes were easily realized on the electrical keyboard instrument known as the Novachord, the so-called musical saw, string instruments played with an exaggerated *glissando*, and human whistling or vocalizing.

26. The same could be said for Rózsa's theremin music in his score for *The Red House*, and for Roy Webb's and Max Steiner's use of the theremin in *The Spiral Staircase* and *The Fountainhead*, respectively.

27. In film music, this figure can be traced back to Franz Waxman's masterly score for the 1935 *The Bride of Frankenstein*, but its origins lie in the so-called Expressionistic music that Arnold Schoenberg and other Viennese modernists were writing in the years surrounding World War I.

28. Actually, in the robot passages Herrmann used a pair of theremins.

29. In the 1950s, thereminesque sounds generated exclusively as musical references to extraterrestrial or mutant activity were hardly limited to the major productions. Among the weaker examples whose soundtracks prove the point are Abbott and Costello Go to Mars (1953), This Island Earth (1955), Tarantula (1955), Earth vs. the Flying Saucers (1956), The Black Scorpion (1957), and The Attack of the 50 Foot Woman (1958).

30. They were so called at the insistence of the Los Angeles chapter of the American Federation of Musicians, which vigorously resisted the use of the term "music" to describe sounds generated entirely by electronic means.

31. The "Darth Vader" theme, for example, recalls "Mars: The Bringer of War" from Gustav Holst's *The Planets*, and the second section of the "main title" music bears a striking resemblance to its counterpart in Tchaikovsky's *March Slav*.

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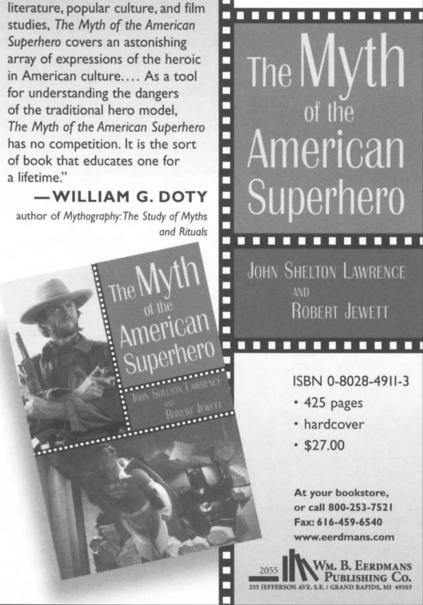
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