From Electronic Beginnings to Orchestral Splendour: A Comparison of Doctor Who's “The Daleks” (1963-64) and “Heaven Sent” (2015)

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ABSTRACT

From Electronic Beginnings to Orchestral Splendour: A Comparison of Doctor Who's "The Daleks" (1963-64) and "Heaven Sent" (2015)

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This study investigates incidental music's role in science-fiction television through the music of the long-running British science-fiction series Doctor Who. I analyse two contrasting stories: "The Daleks" (1963-64), with music by Tristram Cary, and "Heaven Sent" (2015), with music by Murray Gold. Music in Doctor Who is integral to the programme's success, with a wide variety of music deployed across its history, appropriate for its time and production atmosphere: cutting-edge in the 1960s at the forefront of the avant-garde, heralded as the British equivalent of Stockhausen and Schaeffer; and mainstream, grand, orchestral music for the revival. I follow this analysis by exploring musical appropriateness, otherness and the programme's social context. Two particular issues emerge from my analysis of these two stories: the blurring of music and sound effects; and the use of leitmotif. Doctor Who continually blurs the line between music and sound effects, and between diegetic and non-diegetic sound. This blurring has been explored by scholars such as Robynn J. Stilwell and I apply this research to Doctor Who. I critique Doctor Who's use of leitmotif, exploring its role in "Heaven Sent" in the context of David Butler and Stilwell's analyses of earlier uses of leitmotif – both positive and negative – in Doctor Who, as well as using Theodor Adorno and Hanns Eisler's criticism of leitmotif's "automated repetition." This study explores the appropriateness of both styles of incidental music, concluding by looking to the programme's future with its new composer, Segun Akinola. All transcriptions are my own.

Introduction

With a history spanning almost sixty years and a place as an iconic part of British popular culture, *Doctor Who* is an apposite object for studying incidental music's role in science-

fiction television. Surprisingly little academic attention has been given to the music of *Doctor Who*, despite its long history, extreme variety, and place in popular culture. Moreover, this stylistic variety allows consideration of how incidental music functioned and adapted throughout the programme's production eras, and how different musical approaches represented the narrative. The series' scope facilitates a vast array of different situations requiring incidental music, which might be expected to adapt accordingly – the titular Doctor travels everywhere from Ancient Rome to the year 100 trillion.

It is helpful to divide this study by production era. The clearest division is between the 'classic' series (1963-89) and the 'revival' (2005-present). These two eras differ extensively in many production aspects. The classic series was an example of serialised television, with seasons divided into serials consisting of several 25-minute episodes – usually 4-6 for the majority of the classic series – running for many weeks of the year. The revived series consists mostly of standalone 45-50-minute episodes with some two-part stories, broadcast in 10-13-episode series.

According to Kevin Donnelly, classic *Doctor Who*'s music can be split into four main phases: 1963-69, emphasising Radiophonic *Musique Concrète* and stock music; 1969-80, dominated by Dudley Simpson's chamber ensembles with occasional electronic enhancement; 1980-85, returning to the BBC Radiophonic Workshop but with music produced on synthesisers; and 1986-89, with music from freelance composers still largely produced on electronic keyboards.¹ These phases exhibit distinctive musical characteristics dictated by production atmosphere, with the early 1960s providing the best examples of experimental music, making this period useful to study experimental music's interaction with mainstream television. Simpson's work features more traditional instrumentation and offers a precursor to Gold's later domination as sole *Doctor Who* composer. The music in the 1980s shows the development of the Radiophonic Workshop's technology and offers a contrast to the beginnings and revival, as well as charting the decline of *Doctor Who* from mainstream British television to cult programme with declining ratings.

Whereas the classic series featured a plethora of different composers and musical styles, the revival has but two: Murray Gold and Segun Akinola. Gold is far more prolific, encompassing the revival's first ten series (2005-17), whilst Akinola is the current composer, having taken over from Series 11 (2018). As in the classic series, production teams affect musical output. Although Gold's style remained largely unchanged, despite 2010's production team change, his music's development still illustrates this

relationship between producers and composer. Gold brought new orchestral scoring to *Doctor Who*, signalling a significant departure from the Radiophonic Workshop, and transforming the music into a more conventional, cinematic and emotional form to suit the desired mainstream-drama audience. Akinola's music, meanwhile, seems to offer a return to more subdued scoring with electronic elements.

"The Daleks" (1963-64) and "Heaven Sent" (2015) are excellent case studies through which to analyse and critique *Doctor Who*'s music. "The Daleks," the programme's second serial, features music from electronic composer Tristram Cary. The soundtrack offers a detailed insight into early *Doctor Who* music, as well as the sound effects, called "Special Sound," produced by Brian Hodgson and the BBC Radiophonic Workshop.² This story is also the first to feature the programme's most iconic villains, the Daleks, facilitating comparisons with their new-series counterparts. *Doctor Who* has become a highly referential programme, with an awareness of its past, and subsequent continuity, a central part of its identity. This self-awareness has been commented upon in critical literature, and reflected in its music.³

"Heaven Sent," scored by Murray Gold, features incidental music extensively, as the premise involves the Doctor alone, pursued around a castle by a veiled creature. It has an individual CD on the Series 9 soundtrack release and is cited as one of the episodes with the best music.⁴ There is also comparatively little scholarship on Gold's later years, with most studies focusing on his work under executive producer Russell T. Davies (2005-10) rather than Steven Moffat (2010-17).⁵ As such, Gold's work in this latter production era merits study. It must be stressed that "Heaven Sent" is an unconventional episode, only featuring the Doctor, without usual series staples like companions or guest cast. Advantageously, this provides an expanded role for music, having to assist in conveying the narrative without dialogue-based exposition. "The Daleks" and "Heaven Sent" are very different stories that make interesting, effective use of music.

With its focus on all of time and space, *Doctor Who* creates soundworlds that have no discernible terrestrial origin – the worlds they represent only exist in fiction. Addressing this, Louis Niebur asks:

What do alien machines sound like? ... What do alien planets sound like? ...
The Doctor Who crew explored these questions in a fashion unlike any other science fiction production before or since.⁶

Niebur raises a significant point. *Doctor Who* blurs the lines between diegetic and non-diegetic, sound effects and music, creating unique soundworlds. It explores alien worlds

and historical periods in an individual way, varied across the programme's history. Assessing how well the two primary areas of analysis – the 1960s and 2010s – represent the alien and otherness is of paramount importance to this study. Film and media studies will be used to further explore music's role in each era, through consideration of the stories "The Daleks" and "Heaven Sent." This will track how, and establish why, *Doctor Who* moved from electronic beginnings to orchestral splendour.

"The Daleks" and the 1960s

*Music: you can dance to it, sing with it, fall in love to it. Unless you're a Dalek of course. Then it's all just noise.*⁷

1960s Television and the European Avant-garde

First broadcast on 23rd November 1963, *Doctor Who* was like nothing on television before. Envisioned as an educational children's science-fiction programme to fill the Saturday-teatime slot, its serials alternated from historical stories set in Earth's past, to science-based stories set in futuristic alien worlds.⁸ This was reflected in the programme's first companions: history and science teachers, and one of their students. These were intended as audience surrogate figures, in contrast to the enigmatic Doctor.⁹

In the 1960s, television production values were significantly lower than they are today – each episode was rehearsed from Monday to Thursday and recorded as live on Friday – and the number of episodes significantly higher. These production limitations affected the incidental music. Without expensive special effects, dialogue was heavily relied upon, featuring only brief spectacle. Thus, as Ian Potter has stated, "incidental music, being unable to react to live studio action, was generally used to enhance mood, rather than underscore specific action as in later years."¹⁰ Ambient sound-based scores like Cary's were consequently favoured.

From the outset, *Doctor Who*'s music was cutting-edge. Founded in 1958, the BBC Radiophonic Workshop produced music and sound effects for BBC programmes, including *Doctor Who*, and, as Kevin Donnelly claims, can be seen as "the British manifestation of an international drive of experimentalism that embraced IRCAM in Paris ... [and] Darmstadt in West Germany."¹¹ It is astounding that this institution, regarded as the British equivalent of continental experimentation, was responsible for the early music and sound effects of a teatime children's programme. Donnelly goes on to state that "the BBC Radiophonic Workshop took inspiration on the one hand from tape-based *Musique Concrète* inspired by French pioneer Pierre Schaeffer, and on the other from technological developments often tied to these experimental centres."¹² Equating the Radiophonic Workshop with Schaeffer and Stockhausen is a fair assessment in terms of skill and techniques, with both using found sounds to make music using similar equipment. The difference, however, lies within the dissemination of their respective works. Whereas the European avant-gardists shared their works amongst elite music circles, the Workshop's output was beamed into ordinary British homes, through the BBC. This was very much an avant-garde experiment with the mainstream and *Doctor Who* was the perfect catalyst for this.

During the 1960s, *Doctor Who* employed freelance composers, many of whom were active in art music. These composers were known avant-gardists and brought their methods to the programme. One such composer, Tristram Cary, pioneered *Musique Concrète* in Britain, created an electronic music studio at the Royal College of Music, and later enjoyed a prolific career as an academic and composer in Australia.¹³ On the other hand, Humphrey Searle, who scored "The Myth Makers" (1965), was a British serialist adept in Schoenberg's twelve-tone method, although his *Doctor Who* score was comparatively traditional. These composers' presence is testament to *Doctor Who*'s position at the cultural forefront, with Niebur commenting that this "imbued Doctor Who with an aura of musical contemporaneity that no amount of anonymous stock music ever could."¹⁴ Niebur's assessment is appropriate for Cary, yet loses strength when applied to Searle's traditional approach to incidental scoring, rather than utilising his skills as a serialist.

Use of the avant-garde extended to the programme's use of stock music. One example can be seen in "The Web Planet" (1965), which Donnelly identifies as a defining moment in the history of television music.¹⁵ This serial features recordings from the Baschet Brothers to depict a strange alien world. There is an interesting tension here between *Musique Concrète* as real-world sounds versus their use here to depict

otherworldly ones. Moreover, there was a definite desire on the production team's part to use these sounds, with co-creator Verity Lambert commenting of the theme tune:

I had wanted to use music – whether electronic or by some other means – that had a melody, rather than just *Musique Concrète* ... There was a group of French musicians that I had seen ... who played music on glass rods – a very curious sound. I talked to the head of that group and asked him if he would do something. He was terribly busy and couldn't do it.¹⁶

Lambert had the theme produced in-house by the Radiophonic Workshop, written by Ron Grainer but realised, using *Musique Concrète* techniques, by Delia Derbyshire.¹⁷ The strange, ethereal sounds of the theme were produced through manipulation of recordings on magnetic tapes – a technique used by leading European *Musique Concrète* proponents. What is interesting here is Lambert's desire for melody in addition to *Musique Concrète*. Butler aptly describes the theme as “electronic but with an organic sensuality” ; Derbyshire inputs human imperfection by moving the melody tape slightly out of sync with the accompaniment, fitting for the programme's exploration of humanity against the alien other.¹⁸ The theme had to embody the programme's ethos and it could achieve this better than the incidental music, as the Workshop's Dick Mills makes clear: “All the signature tune could do was give an unearthly feel, a sort of space feel, give a bit of mystery and spookiness, but not necessarily time travel.”¹⁹

As the Doctor travelled across all time and space, the theme had to represent familiarity yet also exude difference. Its electronic, tape-based construction highlights the alien, whilst the timing imperfections represent humanity. As noted by Tulloch and Alvarado, the theme displayed contemporaneity through relation to pop: “the combination of repeated base beat and pizzicato swoop in the *Doctor Who* signature tune had become a very conventional one in pop music by 1962,” and conveyed the future through the Radiophonic Workshop sound.²⁰

Doctor Who's avant-garde approach was highly individualistic. The programme's travels to futuristic alien worlds afforded possibilities of creating truly alien soundscapes. The music had to express the otherworldly and this was achieved through use of the most recent technology. No other programme on television in the early 1960s had quite the same music, with the “insertion of minority culture into mass culture [making] the programme's sound profile most distinct from contiguous programmes.”²¹ This in itself is experimental – a unique attempt to put this most avant-garde of music into the mainstream. Donnelly identifies some limited precedents to *Doctor Who*'s sonic identity in film, but concludes that “*Doctor Who*'s boldness in terms of incidental music's

sound was unique to television during the 1960s and early 1970s. Science fiction shows ... all used much more traditional music.”²² In the 1960s, *Doctor Who*’s music was a pioneering blend of experimental art music and economical television drama which was distinctly recognisable.²³ Although the BBC had programmed electronic music by Berio and Stockhausen in its 1960 Proms season, its use in *Doctor Who* was revolutionary:

“*Doctor Who*, however, was a very different case, with a prominence and regularity ... which ensured that, for many people, in 1963 and 1964, it was the first time that they had heard electronic, tape-based music.”²⁴

So, *Doctor Who*’s music in the 1960s was experimental, highly individualistic, and distinctive. It represented the “otherness” of alien worlds with no real-world sonic reference points through the use of cutting-edge technology, produced by esteemed composers and the ground-breaking BBC Radiophonic Workshop. It is in this context that we turn a more detailed analysis of one of these early serials.

“The Daleks” (1963-4) Analysis

“The Daleks” is one of *Doctor Who*’s most iconic stories. Frequently referenced within the programme’ s continuity, it introduces the Doctor’ s most persistent foes and many important aspects of the programme’ s mythology. The referenced material is not merely limited to the story, however; this serial continues to be sonically referenced throughout the programme’ s history, both in terms of “Special Sound” – for example, the Dalek’ s ring-modulator voices – and music.

“The Daleks” was broadcast in seven parts from December 21st 1963 to February 1st 1964. The soundtrack was composed by Tristram Cary, with sound effects provided by Brian Hodgson and the BBC Radiophonic Workshop.²⁵ In the serial, the Doctor (William Hartnell), his granddaughter Susan (Carole Ann Ford), and her teachers Ian (William Russell) and Barbara (Jacqueline Hill), arrive on the planet Skaro. They are soon captured by the Daleks, a race of radiation-dependent mutants living inside metal shells following a nuclear war (see Figure 1). Following their escape, they ally themselves with the planet’ s other residents, the humanoid Thals, and encourage them to defeat the Daleks. This serial touches on many contemporary issues, including the Cold War threat of nuclear annihilation and memories of Nazism. It also offers many opportunities for musical innovation and representation. Cary has a variety of settings to convey

convincingly: the eerie Petrified Forest, the mechanical Dalek City, and Skaro's cave systems. He must also represent the Daleks themselves, the Thals, and the regular characters. To achieve this, Cary uses *Musique Concrète* techniques to create abstract soundscapes; the public's unfamiliarity with this adds to the otherworldliness of Skaro and its inhabitants, making up for deficiencies in sets and special effects. "The Daleks" showcases how well early *Doctor Who* represented alien soundscapes.

Cary knew from the outset what to employ: "this definitely called for electronic music." ²⁶ In terms of methods, "the largely atmospheric tracks are mostly made by manipulating real sounds mechanically (e.g. speed changing, retrograding) and/or electronically (filtering, reverberating)" with the use of " 'found' sounds in distorted forms, recorded to disk and tape." ²⁷ The music was "composed 'to script' as a number of atmospheric pieces for specific scenes and situations. These were then played 'live' in the studio recording, alongside effects tracks." ²⁸ As such, analysis mapping music exactly to onscreen action is inappropriate, as specific musical cues could not be composed to sound concurrently with specific lines or actions.

Figure 1. A Dalek as they appear in "The Daleks."

Episode One, "The Dead Planet," outlines the sounds to be expected over subsequent weeks. As the characters leave the Doctor's ship – the TARDIS – they emerge in a petrified forest (00:01:18). Accompanying the visuals is "Forest Atmosphere," featuring eerie, high-pitched sounds, reminiscent of screaming, over establishing forest shots, with a bas-relief effect achieved by setting the camera to overexpose the image. Ian describes a "funny mist," represented in the soundscape evoked by Cary through the use of wind-like howling effects. "Forest Atmosphere" also has alternating low bass notes (beginning from 00:05), relatively quiet in the mix and akin to those used for the Dalek city, as if hearing the city from a distance. When the travellers discover a petrified creature, "Forest with Creature" includes a roar in the soundtrack when the creature appears. This blurs diegetic and non-diegetic sound; despite the creature being immobile, the characters' imagined fear is replicated in the soundtrack. For the opening scene's entirety, the music merely resembles wind – it is barely recognisable as music at all, yet

manages to fittingly convey the unease experienced by the characters in this strange, unknown environment.

Figure 2. The Dalek City as seen in "The Dead Planet."

Of all the tracks, "City Music 1 & 2" is one of the most evocative of Skaro's soundworld, depicting the Dalek city's alien nature. It consists of chime-like sounds overlaid against other chimes with an occasional, deep bass note (E flat) penetrating the texture. Quiet metal 'clanging' is heard in the background and a higher, whirring, almost alarm-like sound appears from around 00:16, increasing in volume and intensity until 00:30 when it begins to disappear. In this, Cary creates the sense of a large, cavernous space, reminiscent of a cathedral's acoustics. This gives an idea of the Dalek city's size, coupled with the sense of scale given by the model shot (see Figure 2), whilst the alarm could be interpreted to signal danger within.

Cary's music is highly appropriate; the metallic clanging evokes the Daleks' as-yet-unseen metal casings, and the track gives the sense of a functional society in comparison to the dead surroundings outside the city, albeit an alien society. The lowest part of the texture does have a recognisable note – E flat – repeated at regular intervals. There is a

sense of order, akin to that in the city. The city is only represented onscreen by still, establishing model shots, and as such the music has to compensate for the sparse visuals. Within, the sets are mostly the same corridors slightly redressed. Again, the unfamiliarity of the mainstream audience with contemporary art music served the programme well, assisting in creating an alien soundworld and evoking otherness. "City Music 1 & 2" is thus a key example of how early *Doctor Who* music represented the otherworldly.

"Thing in Jungle," meanwhile, highlights how Cary builds tension with *Musique Concrète*. Susan is convinced someone – or something – is following her and the accompanying music consists of whirring alarm sounds, increasing in volume, phasing in and out of audibility as she is "pursued." This track begins at 00:09:26 in the episode, as Susan realises something is amiss. Beneath the whirring are very low bass notes, seemingly alternating between C and F, giving a sense of cadence. There is therefore a musicality to Cary's soundtrack, which serves to separate it slightly from the sound effects. Yet, audible tension is built up, furthering action without precisely mirroring it. Similar points can be made of "The Storm 1 & 2" from Episode Two, "The Survivors," in which Susan is tasked with returning to the TARDIS to retrieve an anti-radiation drug. A howling wind effect sounds throughout, with occasional banging noises and clashes, evoking the hostile jungle environment through which Susan runs. Above this are sounds, which, though electronic, are employed in a more conventionally musical function (see Figure 3).

The Storm 1 & 2 - 'Melody'

0.0" 5.0" 10.0" 15.0" 20.0" Tristram Cary

♩ = 60 All 8^{va}

25.0" 30.0" 35.0" 40.0" 45.0"

6

50.0" 55.0" 1'00.0" 1'05.0"

11

1'10.0" 1'15.0" 1'20.0" 1'25.0" Repeats from beginning

15

Figure 3. Transcription of "The Storm 1 & 2" melody. The time codes match the timings from the CD recording. A 5/4 time signature has been chosen to best match the timings of the notes.

The quality of these sound events is pure, using generated sine wave sound. Cary assembles these in an almost melodic fashion; his use of dissonant minor seconds which fade in and out (e.g., 00:08-00:14 and 01:01-01:08) convey Susan's fear. G appears to be something of a tonal centre, with 00:34-00:45 appearing particularly cadential – the A and C could imply a dominant seventh harmony, resolved by the B natural and G which follow. However, analysis of melody and harmony can only achieve so much; it is important to remember the music has not been written to precisely match the onscreen action; rather, the music is ambient and conveys general mood. This is evidenced by the looping of "The Storm 1 & 2," which occurs at 01:26, and the track being used three times in the episode.²⁹ Cary's compositional thought process is informative: "A

‘theme’ in electronic music is not necessarily melodic – it may be a special way of attacking sound, or a distinctive combination of tone colours.” ³⁰

In his score, Cary sought to convey the narrative in a more abstract way, desiring “music that just conveys the alienness of the situation.” ³¹ Cary’s avoidance of melody in favour of abstract soundscapes was advantageous, making the music easier to cut. Alien threats represented through soundscapes leads to “a more generalised evocation of menace.” ³²

Figure 4. Barbara (Jacqueline Hill) is cornered by a Dalek.

The iconic ending to “The Dead Planet” is appropriately scored with the track “The Daleks.” A whirring effect permeates the soundtrack as Barbara runs through the city corridors. When the Dalek makes its first appearance, the camera following its point of view, a high-pitched whirring on B natural sounds and increases in intensity as the Dalek – at this point only an arm, its precise nature unknown – approaches Barbara (00:23:25, see Figure 4). There is an otherness to the sound here; it is cold and

mechanical, providing no comfort for the viewer who is left wondering the creature’s nature. Moreover, a comparison between “City Music 1 & 2” and “The Daleks” yields an interesting observation: the bass note (E flat) of “City Music” forms an augmented fifth (minor sixth) against the high B whirring of “The Daleks.” The Daleks’ whirring appears in a very similar form in “City Music,” fading in from 00:19 and reaching a dynamic climax at 00:30, sounding dissonant against the bass note in the context of the bell-like harmony in the middle of the texture. One could interpret this as a clash between the Dalek creatures and their own surroundings, further enhancing the alien menace that Cary imbues in the score.

“The Ambush” shows an instance of Cary more closely following onscreen action within production limitations. Peace is attempted between Daleks and Thals, invited into the city to receive food. Drumming sounds throughout, creating a sense of foreboding with military connotations that hint at the Daleks’ true intentions. At higher frequencies,

strange noises (reminiscent of the whirring of "The Daleks" and "City Music") fade in but are quickly snatched out. The visuals partly work with Cary's music, with a close-up shot of a Dalek "death ray" twitching at 00:14:37, matching general noises in the score. Over this track, Thal leader Temmosus makes an impassioned speech for cooperation. The Daleks, unresponsive, slowly approach, as the drumbeats in Cary's score become louder and more frequent. The noises above are higher-pitched than before and an alarming whirring sound is added, growing in intensity as the Daleks approach Temmosus. Ian tries to avert disaster, "No, it's a trap, get out of here, run!" yet, too late. The Daleks exterminate the Thals. In the aftermath, Cary's score reflects the macabre mood with the appropriately titled "Funeral Chords." This is Cary's score at its most harmonic. Clearly, an electronic score is capable of going beyond ambience where necessary to more closely follow onscreen drama, with Cary building tension through the traditional means of increasing the tempo, quickening the rhythm, and raising the pitch, as well as functioning harmonically, as in "Funeral Chords," and melodically, as in previous examples.

Returning to this section's opening quotation, it is apt that the programme would later comment that the Daleks hear music as "just noise." For creatures like these, incidental music which is close to "noise" – Cary's *Musique Concrète* score – seems fitting. Moreover, avant-garde electronic scoring – "noise" to many viewers – had invaded the nation's living rooms. With "The Daleks," the soundscape of Skaro had become part of the soundscape of Britain.

The Blurring of "Special Sound" and Music

You couldn't tell the difference between the sound he made and the sound they made for effects.³³

This was Dudley Simpson, *Doctor Who*'s composer from 1969-80, commenting on Cary's electronic music. Simpson's assessment is fitting; Cary's electronic soundscapes are often indistinguishable from sound effects produced by Brian Hodgson and the Radiophonic Workshop. This ambiguity blurs diegetic and non-diegetic sound.

Much has been written in film and television studies in recent years about the somewhat porous border between diegetic and non-diegetic sound. Scholars such as David Neumeyer and Robynn J. Stilwell have explored this in the context of film music; however, it can equally be applied to television music.³⁴ Stilwell terms the liminal space between diegetic and non-diegetic sound the “fantastical gap,” a phrase which captures the magic transition between these two soundworlds.³⁵ She calls crossing this border “not so much an event as a process,” in which it is often unclear to the viewer at what point the sound has changed from non-diegetic to diegetic and vice versa.³⁶ This process is evident in Cary’ s score and Hodgson’ s sound design, with the added element that it is often hard to discern at which point in the soundtrack it moves between these two men’ s works.

In “The Daleks,” the track which best demonstrates this blurring is Hodgson’ s “Skaro: Petrified Forest Atmosphere (‘Thal Wind’),” which sounds when the characters are in the forest (00:01:40 in “The Dead Planet”). It has the qualities of sound effects and functions diegetically, “although,” as Donnelly adds, “when heard contiguously with Cary’ s austere avant-garde music, it sounds more conventionally musical.”³⁷ A comparison with the preceding track, Cary’ s “Forest Atmosphere,” highlights this. Both tracks display a howling wind-like effect and have no sense of melody, although “Forest Atmosphere” has discernible bass notes. These notes have a sound quality similar to Hodgson’ s “Dalek Control Room” pulsing, which in turn are of a similar timbre to Cary’ s track “The Daleks,” giving a sense of unified sound design. The characters hear “Thal Wind” diegetically; its presentation following Cary’ s score leads viewers to question whether the characters can hear any aspects of Cary’ s score in other scenes. Given that the music was played “live” into the studio recording, it follows that the actors could hear Cary’ s score.³⁸ Consequently, their reaction to the score may bleed into their performances, as if the characters themselves can hear the ambient music. In “The Daleks,” the lines between diegetic and non-diegetic sound, and between music and sound design, are heavily blurred.

Stilwell provides numerous examples of the fantastical gap in film, with examples of scores which allow the viewer to be drawn into a character’ s subjectivity, as well as how this gap can be used to destabilise and provide ambiguity.³⁹ Similar to these examples, Cary’ s score also draws the listener into the Daleks’ subjectivity. “City Music 1 & 2,” with its ethereal bells, low, resonant bass notes, and strange high-pitched whirrings attempts to bridge the gap between the audience and the unknown otherness of the Daleks and their city. Cary achieves this through his strange, otherworldly music, unfamiliar to an audience with limited experience of electronic music and *Musique*

Concrète, which affords the audience an opportunity to connect with the Daleks' subjectivity and enter into their world. Furthermore, it is again unclear to what extent "City Music 1 & 2" is non-diegetic. It would not be beyond the realm of possibility to hear this music diegetically – it is indeed full of the sort of strange, mechanical noises that one might expect to hear in a mostly mechanical, alien city – therefore, at least some elements of the music heard by the audience could be interpreted as the actual sounds of the Dalek city. Stilwell's fantastical gap is present here, providing the destabilisation and ambiguity that we would expect the characters to experience on Skaro, whilst also allowing the audience to experience this destabilisation too, through ambiguity of sound design and score.

This ambiguity is a far cry from *Doctor Who* music of later years; Simpson's 1970s music was more conventional and easily heard as non-diegetic, in contrast to sound effects. Cary's score, meanwhile, can realistically function as sound effects, as we have seen with "City Music." He creates soundscapes representing Skaro's atmosphere and imagined sound. The wind-like howling of "Forest Atmosphere" can be heard as exactly that; this could be what the atmosphere of the forest sounds like. Conversely, it is also possible to view Hodgson's "Special Sound" as more than mere sound effects – his sound can function as *music*. "Thal Wind" still has something of a melodic contour; the wind effect gradually rises and falls, with different pitches becoming more foregrounded in the sound mix as the track progresses, changing the texture. If heard as music, one can hear the characters' fear and uneasiness as they wander through this otherworldly forest. It is hard to discern when the music ends and the sound effects begin, and at which point these sounds traverse the gap from non-diegetic to diegetic. In many ways, this confusion actually makes the overall sound design more effective. It is disorientating because it ought to be – this is the soundscape of an alien world, produced by Cary and Hodgson in what amounts to a unified sound design between sound effects and score, diegetic and non-diegetic, composer and sound designer.

Niebur's study of *Doctor Who*'s "Special Sound" is useful to consult here. Sound effects were used in the 1960s in much the same way as music, generating "suspenseful, truly alienating soundworlds." ⁴⁰ Niebur, analysing the sound effects of "The Wheel in Space" (1968), makes reference to Hodgson's TARDIS interior sound and its function in "The Daleks": "Susan returns to the TARDIS to retrieve the crew's anti-radiation drugs ... the sound of the TARDIS seems to embrace her like a blanket as she enters." ⁴¹

A perfect fifth is used for the TARDIS interior. Sound effects acquire musical characteristics and familiarity, akin to familiarity accompanying music reuse, and here it

is used to connote the ship's safety and security. Hodgson's sound effects are also highly effective at building tension. "Capsule Oscillation (Dalek Destructor Fuse/Bomb Countdown)" does this as the Daleks prepare to detonate their bomb through simple alternation of high-pitched beep and low drumbeat – again, not too dissimilar to Cary's "The Ambush." The 1960s sound effects and incidental music are both highly evocative and function together to create the soundworlds in which the action unfolds. The function of sound effects as music is assisted in *Doctor Who* by the fact that, for the most part, these sounds have no real-world reference, harking back to Niebur's question: "What do alien machines sound like?" ⁴²

The music and "Special Sound" of "The Daleks" have been established as sonic stars in the series. Niebur calls Cary's music "*the* sound of the Daleks – in effect, their theme" after its reuse in subsequent serials.⁴³ Recognisably Dalek, it functions akin to Murray Gold's use of leitmotif. Certain sound effects were used continuously throughout the classic series, acquiring a role more than mere "effects," becoming audible points of reference through which viewers heard meaning. As Donnelly states, "One could argue that sound 'starred' rather than simply being there to convince audiences of the veracity of screen representations." ⁴⁴ Sound effects functioned thematically, signifying returning villains, or accentuating emotions onscreen. Obvious examples of this include Hodgson's TARDIS-interior sound, as well as the TARDIS materialisation. Yet there is one track from "The Daleks" which has taken on further sonic meaning on its own terms, acquiring topical and referential power: "Dalek Control Room," a throbbing ambience with rhythmic pulsing, used originally as diegetic sound for the Dalek headquarters. Although reused in further classic Dalek serials, its appearance in the revival best displays its sonic function, specifically at the conclusion of "Bad Wolf" (2005), as the Doctor's companion finds herself on an unknown spaceship (00:36:51). The soundtrack is "Dalek Control Room." For longstanding viewers, this instantly codes the ship as Dalek. There are aspects of Cary and Hodgson's work in the Daleks' sound design in the revival, yet this never seems to quite achieve the otherness evoked in "The Daleks." A respect for the programme's sonic history, however, is displayed.

"Heaven Sent" and the Revival

Reinventing *Doctor Who*

Doctor Who returned in 2005 a changed programme. Russell T. Davies, responsible for its revival, envisioned a mainstream family drama, emphasising human emotion and downplaying science-fiction elements.⁴⁵ This desire to “mainstream” *Doctor Who* is obvious in the radical change in incidental music. Murray Gold’s music is all-pervasive and not subordinate to dialogue; rather, it is foregrounded in the sound mix, occasionally even at the expense of other elements, including dialogue, which conventionally reigns supreme.⁴⁶ His music rejects the ambient soundscapes favoured in the 1960s, 1970s light chamber music, and 1980s synthesisers. It has a new tone: “loud, grand and orchestral,” influenced by the film scores of Danny Elfman and Erich Korngold.⁴⁷ Gold felt that he owed a great debt to Elfman’s *Batman* (Tim Burton, 1989) score, making use of a “big movie sound,” which he says is called the “Korngold” sound in Hollywood.⁴⁸

Gold is clear on the sort of music desired by the producers: “There was only one type of music they specifically didn’t want, and that was Radiophonic Workshop-style electronic stuff. They said they wanted an orchestra. Or rather ... the sound of an orchestra – there wasn’t the budget for a real one!”⁴⁹ Electronic textures were thus rejected. Although in Series 1 (2005), Gold was working like his 1980s predecessors as a one-man operation with synthesisers and occasional chamber groups, his music is orchestral in quality, with emotional character themes and action scores. That is not to say that electronic elements do not feature at all – Gold’s music for the Daleks has some pulsing elements alongside acoustic instruments, as well as the aforementioned reuse of “Dalek Control Room.” Yet, overall Gold’s approach has much more in common with contemporary film music than art music. His music’s importance has been commented upon by Davies, writing after watching an edit of “The Runaway Bride” (2006) without music: “It was the flattest hour of *Doctor Who* ever, particularly when it’s supposed to be a big, blousy Christmas episode. The music is so vital to this version show.”⁵⁰

The new series clearly relies heavily upon music for emotive and narrative power, with music “a crucial weapon in the fight to win and sustain a large mainstream audience.”⁵¹ Gold’s music has defined the revived series and is a significant part of its appeal and visibility. It is not, however, without detractors. One aspect lost, by sounding like contemporary film scores and other television dramas, is individuality: “unlike the threatening ambient menace of, say, Tristram Cary and Brian Hodgson, *Doctor Who* no

longer has scores that sound quite unlike anything else in music.” ⁵² Whether this loss of individuality is important is to be assessed.

During Steven Moffat's time as executive producer, Gold's music continued to emulate film music as a constant presence on the screen, albeit perhaps not as bombastically as in the Davies years. Gold's later scoring for *Doctor Who* offers an opportunity to explore his slightly more refined and subdued style, which has not been the focus of much prior scholarship.

“Heaven Sent” (2015) Analysis

“Heaven Sent” offers a different perspective from existing writing on Gold's music. There is such variety in this soundtrack, displaying Gold's orchestral flair whilst also making use of synthesised sounds.⁵³ In this story, the Doctor (Peter Capaldi) finds himself transported to a rotating castle in an ocean following his companion's (Jenna Coleman) apparent death. He continually attempts to escape whilst pursued by a veiled figure, continuously dying and being resurrected to repeat the process over billions of years until eventually escaping by punching through a diamond wall. Discussion of its music is best framed by looking at Gold's understanding of the episode: “It was a theatrical tour de force in which The Doctor is something between Sisyphus and Theseus, alien but somehow representing all humankind in its perpetual mission to cheat death.” ⁵⁴

The allusion to classical mythology is appropriate for the Doctor's continued suffering in “Heaven Sent” and this is reflected in Gold's score. In many tracks, the music is slow to change character, often having continuous rhythmic ideas reflecting the plot and the Doctor's stoic determination. However, more important is Gold's suggestion of the Doctor representing “all humankind,” which is a major change from his mysterious character in “The Daleks.” The Doctor is cast as a heroic figure throughout the revived series, and reflects evolving approaches towards the programme. It is through this lens – relating music to this changing character – that an analysis can be best conducted.

Gold's score for “Heaven Sent” can be characterised as Beethovenian. The orchestral writing demonstrates this. Gold's use of repeated chords in the lower strings, with melodies eventually entering above in violins and oboes, all of which pervades the soundtrack, is reminiscent of the second movement of Beethoven's Symphony No.7. The

Beethovenian gestures are first heard in "The Veil" when the Doctor opens a door only to find a wall; they are more pronounced in "A Change of Clothes." This opens with the lower strings playing the repeated chords, soon accompanied by a violin melody. Oboes double the violins from 00:34 and the full orchestra plays from 00:44, preceded by a timpani roll. The chords are played by wind, the melody by strings and upper woodwinds.

The relationship to the seventh symphony functions on a number of levels. *Doctor Who* is self-referential, yet this outside musical reference adds substantially to the narrative power. Gold's classical-inspired scoring furnishes the programme with cultural value in an episode trying to defy its conventions, whilst still functioning as mainstream entertainment. Gold himself is culturally aware – evidenced by his Sisyphus and Theseus reference – and this shows in his music. The music aids the narrative far more closely than in "The Daleks," helped by being able to write music for specific moments in the action. The slow harmonic changes and the music's stoicism relate to the episode's premise of the Doctor continuously going through the same actions to escape, dying each time. This has not yet been revealed in the episode at this point, yet the music hints at the plot's resolution. The action is followed closely – when the Doctor looks at his jacket drying by the fire, the timpani roll begins and the full orchestra joins. The jacket is an important clue towards the episode's resolution, and, consequently, is musically signposted. This would not be possible with Cary's ambient scoring. Gold returns to this material in later tracks, such as "Two Events in Life," which adds a cello countermelody, and a very sombre presentation towards the episode's end, "The Final Room."

Figure 5. The castle in which the Doctor is imprisoned

Contrary to Butler's assessment of Gold's music as orchestral and pervasive, "Heaven Sent" has elements of electronic music and a subtle approach to scoring, making ample use of electronics and dissonant writing where appropriate.⁵⁵ As such, it is somewhat unfair to criticise his music in comparison to Cary's for not being avant-garde; Gold weaves some of these elements into his score, even in this more intentionally mainstream incarnation of *Doctor Who*. "A Mechanical Maze" features highly dissonant string writing, beginning at 00:17:02. At 00:08 in the track, a descending string motif begins as the Doctor realises the nature of the screens around the castle, continuing until his conclusion that "It's all about fear" (00:17:37). Around 00:18:00 in the episode, dissonant semitones are heard in the strings, matching the dissonance of pots clattering, as he realises that he is in a torture chamber. The music grows more dissonant as the Doctor leaves the room looking for the Veil. In the following track, "Digging a Grave," string tremolos connote unease, referencing conventional horror tropes. Matt Hills has argued that Gold's scoring of the revived series shifts its style to align more with horror than science fiction; with the use of conventional horror tropes in "A Mechanical Maze" and "Digging a Grave," this is evident in "Heaven Sent."⁵⁶

Gold's use of electronic music contrasts with Cary's. "Tell No Lies," at 02:19 (00:26:30), uses electronic music as the camera comes away to reveal the castle's true extent (see Figure 5). These sounds are melodic rather than ambient – a crucial difference

between Gold and Cary. This melodic approach is also heard in the earlier track "A Fly on a Painting," which also highlights the importance of reference. The track opens with a descending 'bounce' as the Doctor flicks a suspended fly at 00:07:43 in the episode; at 00:08:56 electronic synthesised sounds play as the Doctor remarks that the painting of his deceased companion is "Old, very old." These synthesised sounds are highly reminiscent of 1980s *Doctor Who* music, particularly the electronic scorings of Roger Limb, who scored a number of *Doctor Who* stories from 1981-85. The reference works on a number of levels; by using synthesisers Gold references both *Doctor Who*'s 'classic' sound and the length of the Doctor's imprisonment. Gold clearly has awareness of and respect for the programme's sonic past and uses this to serve the narrative and evoke nostalgia, which was obviously not possible for Cary.

"The Shepherd's Boy" demonstrates Gold's successes in scoring "Heaven Sent." It combines orchestral and electronic elements to great effect and conveys narrative without precisely mimicking action. Beginning at 00:46:02, it plays as the resolution of the episode is explained – the Doctor must go through the process of being trapped in the castle repeatedly, dying each time, until he has broken the wall to escape. The track has rhythmic beeping, functioning harmonically, with string swells and gentle guitar strumming. More instruments join as the visuals show repeats of the Doctor in the castle, with the number of years he has been there increasing each time. The harmony is repetitive, mirroring the Doctor's repeated torture. A climax is achieved slowly over several minutes and reached at 03:50 (00:49:53), after which the Doctor breaks through the wall. Overall, Gold's score for "Heaven Sent" demonstrates how traditional mainstream film scoring can be used to great effect in *Doctor Who*. This music works because the programme has changed – it is no longer the mysterious version from the 1960s; the Doctor is heroic and represents "all of humankind." ⁵⁷

Leitmotif

Leitmotif as a term has a fraught history in film and television studies, with it often being used as a catchall for any recurring musical theme. Scholars such as Matthew Bribitzer-Stull, Robynn J. Stilwell, and David Butler have written at length about leitmotif, with Stilwell and Butler having focussed on its successes and failings in *Doctor Who*.⁵⁸ "One Confession Away" and "Break Free" demonstrate the advantages of Gold's approach

to leitmotif in "Heaven Sent." It is helpful to first take a closer look at these tracks. Beginning with "One Confession Away," – occurring at 00:36:33 in the episode – the music becomes more agitated, with strings and brass playing arpeggios and repeated notes (00:37). The action has paused as the Doctor imagines himself in the TARDIS. It is at this point that the Doctor remembers having endured the castle many times before. At 00:36:55 (00:59) the music halts, with the Doctor asking "Why is it always me? Why is it never anybody else's turn?!" There is a real sense that the Doctor may give up. The music has marked his endurance and heroism throughout the episode; its halt here reflects the Doctor's conflict and doubt. At 00:37:00 further dissonant strings begin – "Can't I just lose?" – with the music reaching a climax at 00:37:15 (01:19) as the Doctor considers confessing to the Veil. At 00:37:28 a repeating descending scalar pattern begins in the strings, later being doubled by oboe and horns. The Doctor's repetition of time in the castle is met by the repetition of the musical sequence. Gold's close scoring continues in "Break Free" (see Figure 6).

'Break Free'

Murray Gold

$\text{♩} = 60$

Horn in F

Timpani plays on downbeats

36:24 (1:36)

Vins./Vla.

Vc./Db.

5

Woodwind join on downbeats

"So I'm telling you nothing." - The Doctor resolves not to tell the Veil anything and punches the wall again and again.

39:44 (1:36)

Vins./Vla.

Vc./Db.

9

"I'm going to get out of here, and find whoever put me here in the first place, and whatever they're trying to do, I'm going to... stop it!" - the music is leading to this point with the appearance of the Twelfth Doctor's theme in the Horn part.

40:02 (2:14)

Hn.

Vins./Vla.

Vc./Db.

2

13

"So do you want me to tell you a story?"

40:16 (2:28)

Hn.

Vins./Vla.

Vc./Db.

Lower brass join chords

17

Trumpets join horn melody

40:30 (2:42)

Hn.

Vins./Vla.

Vc./Db.

20

Bass drum on 1st and 3rd beats

"How many seconds in eternity?"

40:40 (2:52)

Hn.

Vins./Vla.

Vc./Db.

Timpani roll

Figure 6. Transcription of "Break Free" by Murray Gold. This track continues from the previous track with slow, sombre strings (00:37:48), "But I can remember, Clara... And you'll still be gone." The music is emotional and fully scored, only stopping when Clara begins to speak (00:38:22). Music begins again (00:38:39) after Clara tells the Doctor to "break free" and win. Melodic lines ascend and crescendo, with a scale ascending in the double basses and cellos (00:59). Woodwinds join and the rising scalar figure continues as a violin and flute melody enters, volume and emotion increasing, reaching a climax (01:35) when the Doctor punches the wall for the first time (00:39:23), following a timpani roll. The transcription begins from this point, and importantly features the Twelfth Doctor's theme.

Although Theodor Adorno and Hanns Eisler's comments on leitmotif have been superseded by more recent studies, notably that by Bribitzer-Stull, their classic study of film music is worth revisiting in this context.⁵⁹ In particular, their criticism of "automated repetition" of leitmotifs without development, going against their Wagnerian origins, is relevant here. Adorno and Eisler are completely disparaging of the use of leitmotifs in film, believing film a simplistic enough medium to be understandable without them.⁶⁰ While this bold claim no longer holds sway, their reasonable criticisms of some applications of leitmotif can be applied to Gold's work.

Adorno and Eisler considered leitmotif in film "a musical lackey" which the composer "can quote where he otherwise would have to invent."⁶¹ We shall explore how the Twelfth Doctor's theme in "Heaven Sent" is an effective use of leitmotif, aided by the longer form of a television series running for numerous years.

Gold has been criticised for his use of leitmotif: Butler, for example, has noted the lack of development in "Rose's Theme" from "The Age of Steel" (2006), as it is reused three times in five minutes in an attempt to convey generic emotion.⁶² Practical constraints were a partial cause of this; for Series 2 Gold only had access to 90 minutes of recorded orchestral music, necessitating frequent repetition. This also demonstrates one of the limitations of television as a medium, with its smaller budget, in comparison to film, particularly regarding the potentials of leitmotif. The repetition of "Rose's Theme" is exactly the sort of automated repetition that Adorno and Eisler criticised, with the piece used as a signpost to instruct the viewer to feel the required emotion. This is not as effective as music's reuse in the 1960s, where Cary's ambient music had no discernible melody and was thus far easier to cut and paste into different surroundings. For example, "City Music 1 & 2" can be used, reasonably effectively, for any alien city and not lose the sense of otherness. Meanwhile, the Twelfth Doctor's theme, when it appears in "Break Free," is not an exact copy of appearances in previous episodes; it is its own unique reference, appearing at a key point in the narrative when the Doctor takes action. As such, it fulfils the Wagnerian ideal of development and does not fall into the automated repetition criticised by Adorno, Eisler, and Butler.

While Adorno and Eisler may have considered leitmotif unsuitable in film compared to Wagnerian drama, on account of the medium's length and focus, let us instead consider leitmotif's potential in television. Television affords the opportunity to bear the load of functional narrative leitmotifs. This is particularly true of programmes such as *Doctor Who* which run for 10-13 episodes each year as part of a continuous series, rather than programmes that can be broadcast in any order with many episodes a year,

making use of what Donnelly terms “music blocks” which are reliant on cultural associations.⁶³ Stilwell has suggested that the leitmotivic structure of Series 1 (2005)

“demonstrates a large-scale structure reminiscent of music.”⁶⁴ She charts two leitmotifs used in the first series which she believes assume a “narrative power beyond most character themes,” concluding that Gold’s use of leitmotif is “meaningful.”⁶⁵ Butler, however, points out that Stilwell’s analysis requires a fusion of musical, narrative, and dialogue motifs, rather than any actual leitmotivic development in the musical themes alone.⁶⁶ This view has merit, though I would contend that Gold’s use of leitmotif in Series 1 is still meaningful, even if it does rely on a fusion of motifs – certainly more meaningful than the repetition of “Rose’s Theme” in “The Age of Steel.” I suggest that Gold’s use of the Twelfth Doctor’s theme in “Break Free” is also a meaningful use of leitmotif, at least according to Stilwell’s definition, but also arguably fulfilling some of Butler’s leitmotivic demands. The theme is not repeated in the same way each time; instead, it accrues a meaningful narrative and thematic power. In Series 8 (2014), broadcast a year before “Heaven Sent,” Gold introduces the Twelfth Doctor’s theme subtly throughout the season, culminating in its full presentation in an action sequence in the finale, “Death in Heaven,” played by high trumpets, shortly before he realises who he is and what he stands for (00:33:20) – the Doctor’s identity as a “good man” having been a key focus of that series. Its leitmotivic power grows as the series progresses, displaying development rather than automated repetition. In “Heaven Sent,” we similarly do not hear this leitmotif until it is thematically relevant. The theme is presented in “Break Free” by the horns, with traditionally heroic topical connotations. This is late in the episode, once the Doctor has resolved to persevere (00:40:02). The narrative power is clear – this is the moment in which events turn to the Doctor’s favour and we see the character for who he really is – both in his onscreen actions and in the music. It also appears as a moment of consonance in the dissonant “A Mechanical Maze” (00:19:29), presented softly by strings as the Doctor asks Clara (his deceased companion) her thoughts. Finally, at the episode’s end (00:52:34), it appears more menacingly as the Doctor plots revenge on his captors. These presentations meet Adorno and Eisler’s criteria for effective development of leitmotif: they are not mere repetitions, but they appear only where thematically relevant and they are adapted for the specific narrative demands.

Gold’s position as the programme’s longstanding composer allows him to reference his previous scores and develop themes organically across years. This was not available to *Doctor Who* in the 1960s, with its many composers, but was an option in the 1970s;

Dudley Simpson often reuses a leitmotif for the villainous Master.⁶⁷ This is an advantage of the musical approach adopted by the revival, as well as television more generally.

A series of *Doctor Who* is effectively, as Stilwell suggests, a large-scale musical structure, with themes and leitmotifs running through the different episodes as part of an overall narrative, akin perhaps to a romantic symphony or, more appropriately to Adorno and Eisler, Wagner's *Ring Cycle*.⁶⁸ Television has specific advantages over film in the potential for leitmotifs, which Gold exploits in "Heaven Sent." Thus, television can overcome some of the problematic criticisms of Adorno and Eisler to make meaningful use of leitmotifs, though this is also possible in certain films.⁶⁹

Musical Appropriateness, Social Context, and Otherness

Doctor Who is a significant part of British popular culture. It has engaged with society and politics in numerous ways and these engagements have influenced the music. Of particular note, regarding Cary and Gold's scores, is the theme of otherness. Other concerns across the programme's history will also be addressed, including the appropriateness of music to social context.

The 1970s, 1980s and Musical Appropriateness

Music for other periods of *Doctor Who* is varied, sometimes matching a story's tone, sometimes failing to convey the narrative satisfactorily. Carey Blyton's score for "Death to the Daleks" (1974) is an example of the latter. Compared to the 1960s and 2010s, *Doctor Who* music for the 1970s and 1980s raises multiple issues. 1969-80 is comparable with the 2010s through domination by a single composer; yet, with Dudley Simpson, *Doctor Who* abandoned the alien otherness of its earlier experimental scoring. This is related to production changes.

When Simpson began regularly composing, *Doctor Who* had been on-air for numerous years, having survived “regeneration” from William Hartnell to Patrick Troughton. Season 7 (1970) saw Jon Pertwee’s Doctor exiled to Earth; as such, the drama became grounded in contemporary Earth, with no more alien soundscapes to create. The series itself became more action-based; the music changed to match. Although the music reflects the onscreen action, this was not without detractions – the sense of the alien other, so integral to 1960s *Doctor Who*, is dampened. To his credit, Simpson admirably portrays Pertwee’s action sequences (1970-74) as well as gothic horror for producer Philip Hinchcliffe (1975-77). Donnelly identifies fault elsewhere, pointing to Carey Blyton’s aforementioned score for “Death to the Daleks,” in which incongruously jaunty saxophones make the Daleks appear comical; a far cry from Tristram Cary’s ethereal score and, as such, “a whole dimension of the programme is lost through its lack of musical ‘alienness’ .” ⁷⁰ This is despite Blyton and Simpson’s scores being treated by the Radiophonic Workshop to add electronic elements.

Simpson’s later scores are also emblematic of their respective production eras. His music for Seasons 16 and 17 (1978-80) becomes increasingly comical and reliant on traditional musical tropes. Contextually, the series was at the height of its popularity, becoming increasingly mainstream and light on science-fictional themes. “City of Death” (1979), is frequently idolised as one of *Doctor Who*’s greatest and funniest stories, averaging 14.5 million viewers over four episodes. Compare this to the equivalent part of the revived series – the late 2000s. The programme is mainstream with high viewership, downplaying science-fiction; as such, the music is traditional and orchestral, whilst failing to convey the otherness other periods of the programme conveyed. By the time of “Heaven Sent,” *Doctor Who* had fallen in popularity and viewership, facilitating a more ambitious and unusual episode; Gold’s score is more varied here than in his 2000s work.

The 1980s pay more respect to *Doctor Who*’s original sound. As with many musical changes, Simpson’s removal was caused by incoming producer John Nathan-Turner, who desired a return to science-fiction based stories.⁷¹ Music was produced internally alongside sound effects by the Radiophonic Workshop. From 1980-84, *Doctor Who* regained its distinctive, unique approach to sound design through integration of sound effects and music.⁷² As in the 1960s, sound effects and music were blurred. Roger Limb’s music for “The Caves of Androzani” (1984), for instance, provides an example of the effectiveness of this era’s sound design. High-pitched synthetic wails are used, designed to be heard as electronic noises; percussion is used extensively, often alone. The music effectively represents Androzani and its cave systems, imbuing a sense of the

alien, functioning to assist the narrative: "Limb's music is premised upon building atmosphere and follows a through-composed pattern, matching the development of momentary dynamics of the drama." ⁷³

Modernity and Otherness

In a programme involving futuristic alien worlds, the concepts of modernity and representation of the other are central. The classic series uses technology as a symbol of the future. Musical technology was used to achieve this. Technology offers the promise of a future; unfamiliar, unusual sounds are heard as forward-looking. Cary's music for "The Daleks" certainly made use of this association, as did Delia Derbyshire's original theme. The Daleks themselves signify modernity through their voices, emanating through loudspeakers, ostensibly in their casings. In the 1980s, *Doctor Who* had the advantage of being amongst the early broadcasts in NICAM stereo, permitting a spatialisation of sound. ⁷⁴

With *Doctor Who*'s early music, it is helpful to place the programme in its social context. 1960s Britain experienced great social change, and this is reflected in television output, as noted by Philip Hayward and Jon Fitzgerald:

Doctor Who can be seen as one of a series of programs that helped the BBC transition from a somewhat staid and predictable programming schedule to one that reflected aspects of the significant socio-cultural changes that Britain ... experienced during the 1960s. ⁷⁵

These changes can be heard in the music. The early music saw the introduction of modernist scoring from late 1950s science-fiction cinema into television. Hayward and Fitzgerald's account of *Doctor Who*'s engagement with other music references the theme tune's influence by contemporary popular music. Whilst the theme tune signifies suspense and modernity through its timbres and sound effects, they also see it as "mirroring the instrumental functions of a rock-pop ensemble ... the theme incorporates two prominent musical 'hooks' ... a catchy bass pattern made from repeated notes [and] a striking melodic idea that highlights a large ... upwards leap followed by a descending semitone." ⁷⁶ This view of a combination of *Musique Concrète* with repetitive

hooks and timbres from pop culture highlights *Doctor Who*'s modernity, signifying the future whilst also having some grounding in the present. In the 1960s, this grounding is in the background, in comparison to the emotional grounding of Gold's scores for the revival.

Tied to modernity is the presentation of the other. Western music has a long history of representing the other, with music used to evoke, represent, or construct difference of a musical or a sociocultural kind.⁷⁷ *Doctor Who* has presented otherness through sound design in a variety of ways. "The Daleks," for example, takes advantage of the fear of otherness; the Daleks themselves are hateful, squid-like mutants that hide inside a metal, armoured shell, vastly unlike humanity in their appearance. This is further emphasised by the other alien group in this serial, the Thals. The Thals are blue-eyed and blonde-haired, reflecting an almost Aryan conception of the ideal human body. They value peace and culture, in contrast to the Daleks' desire to exterminate others. Indeed, the concept of the Daleks was inspired by the Nazis, making the Thals' Aryan appearance all the more apt. Though Cary's score sounds menacing and unsettling to the audience, to the Daleks this is the sound of their city and their normal state of being. Otherness works on multiple levels in "The Daleks": the audience see the Daleks as other, whilst empathising with the Thals, the Doctor, and his companions; the Thals fear the Daleks as other; the Daleks are consumed with a hatred for anything other; and Ian and Barbara, new to life aboard the TARDIS, see the Doctor and Susan and their way of life as other, in addition to their conception of the Daleks (and to a lesser extent the Thals) as other. As such, the music and sound design have a great deal of otherness to represent.

Cary's depiction of the Daleks through electronic, mechanical means has great success in conveying their otherness and alien menace, as does his ambient music for Skaro. When budgets do not stretch to elaborate visual effects or convincing costumes, sound design steps in to compensate. This can be highly successful, as with Cary's score for "The Daleks," with the ambient soundscape imbuing the Daleks with a sense of menacing otherness likely impossible without the soundtrack. However, music and sound design can also fail to enhance a story – in fact, it can even hinder depictions of the other, as we have seen with Blyton's comic score to "Death to the Daleks." The soundscape of Skaro must be utterly unfamiliar in order to satisfactorily convey the strangeness and sheer alienness of that world. By using avant-garde, *Musique Concrète* and electronic scoring, which the audience would almost certainly be unfamiliar with (particularly in a television setting), Cary achieves the sense of otherness.

Matt Hills designates sound a vital tool in conveying otherness in *Doctor Who*: "The 'otherness' or non-naturalistic 'difference' of the programme's science-fictional elements has frequently been constructed and reinforced through the use of sound."⁷⁸ Despite Gold's orchestral scoring, sound design works to code the inhuman. Michel Chion's concept of the *acousmètre* in film is useful here. An *acousmètre*, in Chion's conception, is a voice deriving mysterious powers from being heard and not seen, "being in the screen and not, wandering the screen without entering it, [bringing] disequilibrium and tension."⁷⁹ Many *Doctor Who* monsters are portrayed this way, appearing as sound without origin before appearing visually. This is true of the Daleks, as Hills notes, "The popularity of the Daleks can also be related to their status as constant *acousmètres*. Even when placed in the visual field, Daleks have no identifiable, localizable source of speech."⁸⁰ For Hills, part of the Daleks' enduring popularity is related to their status as constant *acousmètres*; the Dalek voice is rarely explicitly "seen," as its source is within the casing and thus neither identifiable, nor localisable. Hills' view of the Daleks as constant *acousmètres* has limitations, however. The Daleks, by Chion's original definition, are not true *acousmètres*. In "The Daleks" they appear visually before their voices are heard. There is still something unnerving about not being able to see the precise source of sound within the Dalek casings, as Hills claims, yet it is still obvious that the voice is coming from the Dalek. The Dalek voices themselves are never shown to have a clear source; although their casings light up when they "speak," they seem "detached from the rules of diegetic space."⁸¹

In "Heaven Sent," the Veil has elements of an *acousmètre*. Its appearances are preceded by the sound of flies buzzing, which function as part of Gold's Veil leitmotif. However, like the Daleks, much of the Veil's horror rests upon its visual presentation. In the context of the episode, the Veil is quite literally "being in the screen and not, wandering the screen without entering" as it is always wandering the castle in pursuit of the Doctor.⁸² This certainly brings tension akin to Chion's conception of an *acousmètre*, and the presentation in Gold's score of the Veil's audio before each visual appearance functions as an *acousmètre* would in film. Thus, for both the Veil and the Daleks, elements of *acousmètre* are important in their depictions as menacing others, even if they are simply displaying characteristics of acousmatic sound, rather than full realisations of Chion's *acousmètre*.

Even everyday objects in *Doctor Who* convey otherness through music and sound. In the first serial, "An Unearthly Child" (1963), the TARDIS, a police telephone box, is an everyday object. However, it is coded as unusual both by its location within a junkyard and by its sound, emitting an ambient hum which, when entered, replaces the incidental

music.⁸³ Sound modifies visuals. In *Doctor Who*, sound and music work to change the interpretation of visual imagery to facilitate presentations of otherness and modernity. Without Cary' s score, the Daleks would struggle to obtain their otherness and menace. Without Gold' s score, the Veil would have to solely rely upon its visual qualities, which, though unnerving, work best in tandem with sound design and the aforementioned elements of acousmatic sound.

Conclusions

Music in *Doctor Who* is integral to the programme' s success, with a wide variety of music deployed across its history, influenced by its time and production atmosphere: cutting-edge in the 1960s at the forefront of the avant-garde, mainstream orchestral music for the revival. Music had to compensate for the classic series' limited sets and special effects. The 1960s music is more alien, more science-fictional – appropriate for the mystery, *Doctor Who*? The revival conversely tries to be approachable, mainstream, and emotional. The two musical worlds offer different things. Overall, the changes are about a shift of perspective in the Doctor' s character, from a mysterious man of questionable morals, to an emotional hero, and almost god-like figure in the 2010s. The music has changed because the programme has. It is in many ways unrecognisable, but in other ways still the same programme through reference.

This use of reference is also in the music of *Doctor Who*. Gold' s music was appropriate for the type of programme the producers wanted in the 2000s/2010s, while Cary' s was appropriate for the programme' s limitations in the 1960s and the desired alien soundworlds. Importantly, the music is under the control of the programme' s producers, rather than just the composer.

We have seen that two particular elements of the music of "The Daleks" and "Heaven Sent" – the blurring of sound effects and music, and the use of leitmotif – have highlighted the advantages of the different approaches to scoring *Doctor Who*. "The Daleks" displays a unified sound design in which the audience is drawn into its alien world, through its blurring of diegetic and non-diegetic sound. The sonic design of this story is crucial to the enduring popularity of *Doctor Who*, bringing life to necessarily sparse visuals and helping to spark the "Dalekmania" trend in 1960s popular culture.⁸⁴

So much of what makes the Daleks what they are – strange, calculating aliens devoid of all compassion – is sonic, from their ring-modulator voices to the music and sound effects accompanying them. "Heaven Sent," meanwhile, displays how a more conventional, orchestral score and the use of leitmotif and musical reference can create a soundtrack which satisfactorily conveys the narrative and heightens the emotion of an unconventional episode. It may not have the sheer alienness of Cary's ambient soundscape, yet Gold's music enhances the onscreen action and allows the audience to more closely empathise with the Doctor, with whom the majority of screen time is spent. The contrast between the two composers and their approaches is stark, yet Gold's successor, Segun Akinola, displays how aspects of both approaches can be combined.

Segun Akinola and the Future

Cary's scoring, praised for its electronic depiction of otherness, is unable to precisely follow onscreen action and emotions. Gold's orchestral sound, at times criticised as overbearing, conveys the narrative admirably. So, where is new composer Segun Akinola taking the music of *Doctor Who*?

Series 11 (2018) has many similarities with 1960s *Doctor Who*, with three companions and educational themes in history (Rosa Parks in "Rosa") and science (anti-matter in "The Tsuranga Conundrum"). This extends to music, as Akinola admits: "The intention was to go back to the original and to use it as a starting point. In Series 11 there's a lot of experimental electro-acoustic music so it felt right to take this approach."⁸⁵

Akinola had a definite intention to reference 1960s *Doctor Who* music, his scoring "influenced by different musical styles: electronic, popular, classical and electro-acoustic."⁸⁶ His realisation of the theme samples the original, bearing far more resemblance to it than any of Gold's themes. Akinola, however, changes the theme to meet contemporary demands, having to convey the exciting, unprecedented addition of the first female Doctor whilst still displaying a reverence for the programme's sonic past, akin to how the original scoring was at the forefront of 1960s avant-garde culture.

"Rosa," for example, uses the track "Rise Up" by Andra Day in lieu of the closing theme, a song associated with the Black Lives Matter movement, in an episode about Rosa Parks and Civil Rights, while "Demons of the Punjab" uses an Indian-inspired version of the theme, in an episode about 1947's Partition.

Experimentation is key to Akinola's scoring. Executive Producer Matt Strevens comments on "[Akinola's] experimentation... the use of found sounds along with orchestrated sounds... he was very interested in building a sound world around the show." ⁸⁷ Akinola's blending of sounds has given *Doctor Who* a distinct sound profile, forming something of a hybridisation between 1960s scoring and Gold. He cites the Radiophonic Workshop as having influenced him, whilst showrunner Chris Chibnall describes his music as "ambient soundscape-y stuff" that, according to Akinola, "doesn't leave behind live instruments or influences from the classical world either." ⁸⁸ Akinola is demonstrably influenced by composers like Cary and the Radiophonic Workshop, whilst not having completely cast away influences from Gold.

Doctor Who sought to reinvent itself in 2018, with its first female Doctor, new executive producers, and a new composer. Perhaps the decision to hark back to the 1960s – including the heavily sampled theme and electro-acoustic score – was an effort to reassure fans concerned by these changes, lest they desert the programme, as well as a reaction against Gold's orchestral mainstream scoring, which after twelve years was arguably tired and overdone. Akinola's approach seems to fit with the programme's new direction whilst also paying homage to its origins. Perhaps, *Doctor Who*'s music will regain its position as "quite unlike anything else in music." ⁸⁹

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BBC. "Composer Segun Akinola on the new sounds of *Doctor Who*." YouTube video, 05:26. November 1, 2018. Accessed April 5, 2019. <https://www.youtube.com/watch?v=MGEc97I2iK4>.

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Appendices

Appendix 1 – "The Daleks" CD Track Listing

Music by Tristram Cary with Special Sound by Brian Hodgson and the BBC Radiophonic Workshop. Album compiled, mastered and produced by Mark Ayres. Track 1 composed by Ron Grainer, realised by Delia Derbyshire, BBC Radiophonic Workshop. Tracks 2, 4-6, 8, 10, 11, 13-29, 32-36 composed, realised and produced by Tristram Cary. Tracks 3, 7, 9, 12, 30-31 Special Sound by Brian Hodgson, BBC Radiophonic Workshop.

Episode 1 – The Dead Planet

01. *Doctor Who* (Original Theme) - 01:25
02. Forest Atmosphere - 01:08
03. Skaro: Petrified Forest Atmosphere ("Thal Wind") - 04:53
04. Forest With Creature - 00:55
05. City Music 1 & 2 - 00:56
06. Thing in Jungle - 00:52

07. TARDIS Computer - 01:13

08. City Music 3 - 00:43

09. Dalek City Corridor - 03:46

10. The Daleks - 00:33

Episode 2 – The Survivors

11. Radiation Sickness - 00:52

12. Dalek Control Room - 03:26

13. The Storm 1 & 2 - 02:01

Episode 3 –The Escape

14. The Storm Continued (Susan meets Alydon) - 02:38

15. Inside the City - 00:27

16. What' s Inside a Dalek - 00:35

Episode 4 – The Ambush

17. The Fight - 01:02

18. The Ambush - 02:00

19. Fluid Link - 00:26

Episode 5 – The Expedition

20. Rising Tension - 01:18

21. Demented Dalek - 00:22

22. The Swamp - 02:31

Episode 6 – The Ordeal

23. The Cave I - 02:07

24. Barbara Loses the Rope - 00:18

25. High Sound and Heartbeats (Antodus and Ganatus) - 02:06

26. Pebble Dropped - 00:13

27. Captives of the Daleks - 00:16

28. Heartbeats (Antodus Falls) - 02:17

Episode 7 – The Rescue

29. The Cave II - 02:21

30. Capsule Oscillation (Dalek Destructor Fuse/Bomb Countdown) - 01:09

31. Explosion/TARDIS Stops - 01:10

Bonus Tracks

32. Five Explosions - 00:31

33. The Ambush (Loop) - 01:45

34. Funeral Chords - 00:17

35. Funeral Chords (Alternative) - 00:32

36. Funeral Chords (Loop) - 00:46

Total Duration: 50:29

The 2017 CD release also provides a number of cues from the script combined with the appropriate musical cue, as well as information on Cary's methods and Ayres' editing.

Appendix 2 – "Heaven Sent" CD Track Listing

All music written by Murray Gold, orchestrated and conducted by Alastair King, with additional orchestration and conducting by Ben Foster:

01. A Second Shadow - 01:27

02. The Veil - 02:45
03. A Fly on a Painting - 05:11
04. A Change of Clothes - 01:45
05. A Mechanical Maze - 02:40
06. Digging a Grave - 03:41
07. Tell No Lies - 04:46
08. Two Events in Life - 03:13
09. Waiting for the Veil - 02:26
10. The Final Room - 01:21
11. One Confession Away - 01:50
12. Break Free - 03:03
13. Same Old Day - 03:13
14. The Shepherd's Boy - 04:47

Biography

Alexander Walls is a musician, musicologist and educator with interests in soundscapes and the relationship between music and space. Originally from Newcastle upon Tyne, he read music at Oriel College, Oxford, from 2016-19, followed by an MSt in musicology (2019-20), also at Oriel. His master's dissertation, "Soundscapes in the Age of the Coronavirus," was supervised by Gascia Ouzounian and was well-received; he has also delivered an academic talk on the phenomenon of silent disco walking tours as part of the Oriel Talks series in January 2020. Alexander is an active pianist, cellist, and singer. He is currently preparing doctoral applications.

Footnotes

1. Kevin J. Donnelly, "Between Prosaic Functionalism and Sublime Experimentation: *Doctor Who* and Musical Sound Design," in *Time and Relative Dissertations in Space: Critical Perspectives on Doctor Who*, ed. David Butler (Manchester: Manchester University Press, 2007), 191. [↵](#)
2. John Tulloch and Manuel Alvarado, *Doctor Who: The Unfolding Text* (London: Macmillan, 1983), 18. [↵](#)
3. *Ibid.* [↵](#)
4. Murray Gold, liner notes to Murray Gold, *Doctor Who: Series 9*, Silva Screen Records, 2018. [↵](#)
5. Examples of these studies of Gold's work under Davies include: David Butler, "The Work of Music in the Age of Steel: Themes, Leitmotifs and Stock Music in the New *Doctor Who*," in *Music in Science Fiction Television: Tuned to the Future*, ed. K.J. Donnelly and Philip Hayward (New York: Routledge, 2013), 163-178; Robynn J. Stilwell, "'Bad Wolf': Leitmotif in *Doctor Who* (2005)," in *Music in Television: Channels of Listening*, ed. James Deaville (Abingdon: Routledge, 2011), 119-142. [↵](#)
6. Louis Niebur, "The Music of Machines: 'Special Sound' as Music in *Doctor Who*" in *Time and Relative Dissertations in Space: Critical Perspectives on Doctor Who*, ed. David Butler (Manchester: Manchester University Press, 2007), 204. [↵](#)
7. The Doctor (David Tennant) in "Evolution of the Daleks" (2007). [↵](#)
8. Tulloch and Alvarado, *The Unfolding Text*, 15. [↵](#)
9. *Ibid.*, 15. [↵](#)
10. Ian Potter, "The Filipino Army's Advance on Reykjavik: World-Building in Studio D and its Legacy" in *Time and Relative Dissertations in Space: Critical Perspectives on Doctor Who*, ed. David Butler (Manchester: Manchester University Press, 2007), 163. [↵](#)

11.

Desmond Briscoe and Roy Curtis-Bramwell, *The BBC Radiophonic Workshop: The First 25 Years: The Inside Story of Providing Sound and Music for Television and Radio, 1958-1983* (London: BBC, 1983), 101;

Donnelly, "Doctor Who and Musical Sound Design," 196. [↵](#)

12. *Ibid.*, 196. [↵](#)

13. Andrew Ford, "Tristram Cary," *The Music Show*, February 11, 2006, accessed February 10, 2019, <https://www.abc.net.au/radionational/programs/musicshow/tristram-cary/3337710>. [↵](#)

14. Niebur, "The Music of Machines," 204. [↵](#)

15. Donnelly, "Doctor Who and Musical Sound Design," 199. [↵](#)

16. Verity Lambert, quoted in Tulloch and Alvarado, *The Unfolding Text*, 19. [↵](#)

17. Briscoe and Curtis-Bramwell, *The BBC Radiophonic Workshop: The First 25 Years*, 101. [↵](#)

18. David Butler, "'Way out-of This World!' Delia Derbyshire, Doctor Who and the British Public's Awareness of Electronic Music in the 1960s," *Critical Studies in Television: The International Journal of Television Studies* 9, no.1 (2014): 63. [↵](#)

19. Dick Mills, quoted in Tulloch and Alvarado, *The Unfolding Text*, 20. [↵](#)

20. Tulloch and Alvarado, *The Unfolding Text*, 18-19. [↵](#)

21. Donnelly, "Doctor Who and Musical Sound Design," 192. [↵](#)

22. *Ibid.*, 200. [↵](#)

23. Tulloch and Alvarado, *The Unfolding Text*, 13. [↵](#)

24. Butler, "'Way out-of This World' ," 63. [↵](#)

25. The recording used for analysis is the 2017 CD release. As this has been remastered, it is helpful to remember that the audio fidelity would have been much worse coming through a 1960s television set; this may affect the way the music is heard. Appendix 1 lists the tracks alongside their composer and duration. [↵](#)

26. Tristram Cary, liner notes to Tristram Cary, Brian Hodgson and the BBC Radiophonic Workshop, *Doctor Who: The Daleks*, Silva Screen Records, 2017. [↵](#)
27. *Ibid.*;
- Mark Ayres, liner notes to Cary, *The Daleks*. [↵](#)
28. *Ibid.* [↵](#)
29. 00:19:14-00:20:30, 00:21:35-00:22:00, and 00:22:24-00:22:42 from Episode Two, "The Survivors." [↵](#)
30. Cary, liner notes to Cary, *The Daleks*. [↵](#)
31. Cary, quoted in Niebur, "The Music of Machines," 206. [↵](#)
32. Niebur, "The Music of Machines," 206. [↵](#)
33. Dudley Simpson, quoted in Donnelly, "Doctor Who and Musical Sound Design," 197. [↵](#)
34. David Neumeyer, "Source Music, Background Music, Fantasy and Reality in Early Sound Film," *College Music Symposium* 37 (1997): 13-20;
- Robynn J. Stilwell, "The Fantastical Gap Between Diegetic and Nondiegetic," in *Beyond the Soundtrack: Representing Music in Cinema*, ed. Daniel Goldmark, Lawrence Kramer, and Richard Leppert, (London: University of California Press, Ltd., 2007), 184-202. [↵](#)
35. *Ibid.*, 184. [↵](#)
36. *Ibid.* [↵](#)
37. Donnelly, "Doctor Who and Musical Sound Design," 198. [↵](#)
38. Ayres, liner notes to Cary, *The Daleks*. [↵](#)
39. Stilwell, "The Fantastical Gap," 186. [↵](#)
40. Niebur, "The Music of Machines," 205. [↵](#)
41. *Ibid.*, 213. [↵](#)

42. *Ibid.*, 204. [↵](#)
 43. *Ibid.*, 207. [↵](#)
 44. Donnelly, "Doctor Who and Musical Sound Design," 197. [↵](#)
 45. Butler, "The Work of Music in the Age of Steel," 164. [↵](#)
 46. *Ibid.*, 163-164. [↵](#)
 47. *Ibid.*, 165. [↵](#)
 48. Bafta Guru, "Murray Gold: Conversations With Composers," November 6, 2012, accessed May 15, 2021. <https://www.youtube.com/watch?v=6vl33oYcNlo>. [↵](#)
 49. Murray Gold, quoted in Butler, "The Work of Music in the Age of Steel," 165. [↵](#)
 50. Russell T. Davies and Benjamin Cook, *Doctor Who: The Writer's Tale: The Final Chapter* (London: BBC Books, 2010), 257. [↵](#)
 51. Butler, "The Work of Music in the Age of Steel," 164. [↵](#)
 52. *Ibid.*, 173. [↵](#)
 53. Appendix 2 lists the tracks and their durations from the CD release. [↵](#)
 54. Gold, liner notes to Gold, *Series 9*. [↵](#)
 55. Butler, "The Work of Music in the Age of Steel," 163. [↵](#)
 56. Matt Hills, *Triumph of a Time Lord: Regenerating Doctor Who in the Twenty-First Century* (London and New York: I.B. Taurus, 2010), 179. [↵](#)
 57. Gold, liner notes to Gold, *Series 9*. [↵](#)
 - 58.
- Matthew Bribitzer-Stull. *Understanding the Leitmotif: From Wagner to Hollywood Film Music*. (Cambridge: Cambridge University Press, 2015);
- Stilwell, "Leitmotif in *Doctor Who*," 119-142; Butler, "The Work of Music in the Age of Steel," 163-178. [↵](#)
- 59.

Bribitzer-Stull, *Understanding the Leitmotif*, 263;

Theodor Adorno and Hanns Eisler, *Composing for the Films* (London: Continuum, 2005).⁶⁰

60. Adorno and Eisler, *Composing for the Films*, 4-5. ⁶¹

61. *Ibid.*, 4-6. ⁶²

62. Butler, "The Work of Music in the Age of Steel," 170. ⁶³

63. Kevin J. Donnelly, *The Spectre of Sound: Music in Film and Television* (London: BFI, 2005), 119. ⁶⁴

64. Stilwell, "Leitmotif in *Doctor Who*," 137. ⁶⁵

65. *Ibid.*, 136-137. ⁶⁶

66. Butler, "The Work of Music in the Age of Steel," 168. ⁶⁷

67. Niebur, "The Music of Machines," 207. ⁶⁸

68.

Stilwell, "Leitmotif in *Doctor Who*," 137;

Adorno and Eisler, *Composing for the Films*, 5. ⁶⁹

69. Film series in particular can make use of leitmotifs on a large, quasi-Wagnerian scale, with Howard Shore's *Lord of the Rings* (Peter Jackson, 2001-2003) and John Williams' *Star Wars* (George Lucas, 1977) often being cited. This can also work in series or franchises with multiple composers – the Marvel Cinematic Universe contains over twenty films in the same fictional universe, each with different composers, yet musical themes can nevertheless be borrowed, used and developed across different sub-series. ⁷⁰

70. Donnelly, "Doctor Who and Musical Sound Design," 201. ⁷¹

71. *Ibid.* ⁷²

72. *Ibid.*, 193. ⁷³

73. *Ibid.* ⁷⁴

74. *Ibid.*, 201. ⁷⁵

75. Philip Hayward and Jon Fitzgerald, "Rematerialization: Musical Engagements with the British TV Series *Doctor Who*," in *Music in Science Fiction Television: Tuned to the Future*, ed. K.J. Donnelly and Philip Hayward, (New York: Routledge, 2013), 136. [↵](#)
76. *Ibid.* [↵](#)
77. Georgina Born and David Hesmondhalgh, eds., *Western Music and Its Others: Difference, Representation, and Appropriation in Music* (London: University of California Press, Ltd., 2000). [↵](#)
78. Matt Hills, "Listening From Behind the Sofa? The (Un)earthly Roles of Sound in BBC Wales' *Doctor Who*," *New Review of Film and Television Studies* 9, no.1 (2011): 28-29. [↵](#)
79. Michel Chion, *Audio-vision: Sound on Screen*, trans. Claudia Gorbman (New York: Columbia University Press, 1994), 24. [↵](#)
80. Hills, "Listening From Behind the Sofa," 35. [↵](#)
81. *Ibid.*, 35. [↵](#)
82. Chion, *Audio-Vision: Sound on Screen*, 24. [↵](#)
83. Tulloch and Alvarado, *The Unfolding Text*, 22. [↵](#)
84. "Dalekmania" refers to the sudden explosion in popularity of the Daleks during the mid-1960s, which resulted in the release of much merchandise, as well as two films starring Peter Cushing: *Dr. Who and the Daleks* (Gordon Flemyng, 1965) and *Daleks' Invasion Earth 2150 A.D.* (Gordon Flemyng, 1966). [↵](#)
85. Christel Dee, "Scoring Doctor Who Series 11: An Interview with Composer Segun Akinola," *Doctor Who*, February 4, 2019, accessed February 6, 2019, <https://www.doctorwho.tv/news/?article=segun-akinola-scoring-series-11#>. [↵](#)
86. *Ibid.* [↵](#)
87. BBC, "Composer Segun Akinola on the new sounds of *Doctor Who*," November 1, 2018, accessed April 5, 2019, <https://www.youtube.com/watch?v=MGEc97I2iK4>. [↵](#)
88. *Ibid.* [↵](#)
89. Butler, "The Work of Music in the Age of Steel," 173. [↵](#)