

Music for Murder, Machines, and Monsters

‘Moat Farm Murder’, *The Twilight Zone*, and
the CBS Stock Music Library

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The re-use of storylines from radio plays on early television was not uncommon; indeed, much of the television programming of the 1950s and early 1960s consisted of repurposed radio scripts. *Columbia Presents Corwin* ‘Moat Farm Murder’ (Bernard Herrmann, 18 July 1944) was among the many radio programmes from the 1940s that had music featured in *The Twilight Zone*. Of the radio plays to feature music in the series, ‘Moat Farm Murder’ provided more cues than any other CBS radio score.

Cues from ‘Moat Farm Murder’ are found in eleven episodes of *The Twilight Zone* (CBS, 1959–1964). The use of music from radio dramas and their re-uses in television has thus far not been examined. This essay looks at the composition of the ‘Moat Farm Murder’ radio score and Corwin’s collaboration with Herrmann in it, as well as the re-use of radio music in *The Twilight Zone*. Through this case study of ‘Moat Farm Murder’, better knowledge of how the CBS Stock music library was used, in tandem with the way in which other similar network and production company cue libraries worked.

On 18 July 1944, Columbia Broadcasting System aired a notorious murder confession created for the public’s entertainment. This confession came in the form of a radio drama called ‘Moat Farm Murder’ that aired on the *Columbia Presents Corwin* radio series with music composed by Bernard Herrmann. This was not simply a radio drama but a verbatim confession of a real-life 1903 London murder by Samuel Herbert Dougal, played by Charles Laughton. Elsa Lanchester played his victim, Camille ‘Cecile’ Holland. The play re-aired two years later on *The Mercury Summer Theatre on the Air* on 26 July 1946. In this re-airing, Orson Welles played the role of Dougal and Mercedes McCambridge played the role of Cecile. Fifteen years after the second airing, *The Twilight Zone* (CBS, 1959–1964) aired

the first of its episodes to use music cues from the ‘Moat Farm Murder’ radio drama. This episode, ‘The Rip Van Winkle Caper’, featured a story about greed, science, and murder. Of the radio dramas that had their music re-used in *The Twilight Zone*, ‘Moat Farm Murder’ provided more cues for the series than any other CBS radio drama with a total of eleven episodes featuring its cues.

In *The Twilight Zone*, as well as other television series of the day, cues from various sources were often pieced together to form a new score. Sometimes these cues came from radio dramas. Similar to the cues from other radio dramas and even television shows, the cues from ‘Moat Farm Murder’ were associated with specific situations that merited their re-use. The re-use of cues from CBS radio dramas in *The Twilight Zone*, therefore, can form a coherent picture of the ways in which we aurally associate certain music with specific events as well as contribute to an understanding of the ways in which those behind the network music libraries worked to create many scores from one. By using these libraries, music editors and supervisors functioned as hidden authors that allowed the music to add another layer of meaning through their re-use.

Although Bernard Herrmann’s scores for radio and television have received some attention, studies of the ways in which his music from one medium was re-used in another have been neglected. This essay discusses the appropriation of radio music in *The Twilight Zone*, using Herrmann’s cues for ‘Moat Farm Murder’ as a case study. To do this, I first examine radio aesthetics, followed by the creation and use of the CBS network music library, where the ‘Moat Farm Murder’ cues were kept for television re-use, and concluding with the composition and role of the music in ‘Moat Farm Murder’. I then analyse two cues from ‘Moat Farm Murder’ that were re-used in *The Twilight Zone* to elucidate the ways in which the original cues’ context mattered in their re-use. Through this case study of ‘Moat Farm Murder’, better knowledge will emerge about the use of the CBS Stock music library in the 1960s, in tandem with the workings of other similar network cue libraries during the same period.

Music and Radio Drama Aesthetics

Dating as far back as the 1920s, radio dramas incorporated music and sound effects in order to achieve a sense of aural realism (VanCour, 2008, p.353). This is because every script direction – dialogue and action – results in sound (Cummings, 2013, p.72). As a result, radio dramas are fully written in sound and require writers to work in two media – literature and sound – at once (Smith & Verma, 2016, p.4). Writing on

radio dramas in 1936, Rudolf Arnheim said that the theme of a radio drama must be one that can be realised sonically (Arnheim, 1936, p.44). Both music and drama have a similar communicative function in that they both convey a message through sound (Tannenbaum, 1956, p.93). In fact, radio drama is the only dramatic medium to use a combination of sound sources in order to create imaginary illusions (Rattigan, 2002, p.126).

Radio positions sounds that occur simultaneously and are related to one another, establishing their context (Arnheim, 1936, p.121). For this reason, music that accompanies dialogue in radio is considered representative of it, creating a ‘melodramatic counterplay of music and text’ (p.122). Neil Verma describes the two predominant styles of radio sound from roughly 1930 to 1946: kaleidosonic, in which there is an aural leaping from one scenario to another, and intimate, in which the listener is positioned around a single character for the majority of the drama (2012, p.13). Intimate sound focused on places while kaleidosonic focuses on events (p.73). Audioposition achieves this (p.35). Sound, therefore, can serve an indexical function in radio drama (Crisell, 1994, p.52).

Many producers noted the importance of music in radio dramas and that it ‘is completely subservient to the ideas in the script’ (Crews, 1944, p.154). Radio dramas typically used music to establish atmosphere and sound effects to establish setting, but the signification of each of these types of sound sources can be combined to create even greater narrative meaning, with or without dialogue (Huwiler, 2010, p.133). There is, however, a constant polarity between the meanings ascribed to words and those ascribed to sound in radio drama. These meanings do not always coalesce (Porter, 2016, p.19). Music in radio drama must be strategically played at a specific volume level: background or bridge music must be maintained at a certain volume level so as to not overpower the dialogue and confuse the audience as to its purpose (Arnheim, 1936, p.69). The music of radio drama is constructed such that, while not inherently representative, it does refer to or involve the narrative, objects, and events from the drama to help aid the viewer in what some refer to as the medium’s blindness (Cazeaux, 2005, p.158).

Those who wrote about radio drama agreed that music should sound at appropriately dramatic moments; that is, the times when no other device – sound or voices – can create the proper emotional effect (Mamorsky, 1946, p.61). Radio dramas are filled with what Clive Cazeaux calls potential appearances of characters or events, but we can only visualise them through dialogue, sound effects, and music and the distance from which each is placed from the microphone in order to give listeners a sense of perspective. For this reason, ‘radio drama seeks to avoid

representing events whose nature is not evident from their sounds' (2005, p.159). Cazeaux calls this a sound-opening-onto-a-world in which sound allows the listener to visualise the images in their mind's eye and creates an intersection and overlapping between the senses (p.163). As we will see, this occurs in the context of 'Moat Farm Murder' and is carried over into the cue re-uses in television.

Radio dramas were just as famous for their strategic underscoring as their judicious use of musical punctuation that created unique and intriguing soundscapes. Radio music, unlike television music, must carefully create dramatic effect since it 'work[s] its magic through hearing alone' due to its lack of any visuals (Kremenliev, 1949, p.75). Therefore, carefully crafted scores that were originally conceived for a radio drama could be used to great effect to enhance a television drama.

There are three categories into which sound for radio dramas fall: evocation, psychological sound, and voice. Evocation is the use of sound and music to create a meaning, action, or event that the listener cannot see. Psychological sound is the manipulation of sound to convey emotion. Voice merges evocation and psychological sound through eloquence or urgency (Crook, 1999, p.24). Each of these deals with a very specific semiotic quality of sound, all of which combine to generate meaning in radio drama though what Cazeaux calls radio drama's invitational structure (2005, p.167). Thus, radio uses sound to generate an interpretive world into which the listener must be attuned (p.173). Part of this depends on the drama's author to construct the work's sound-character (Arnheim, 1936, p.110). Sound effects in radio dramas create points of audition, or aural signals, that allow the listener to obtain a sense of location through sound. However, as Earle McGill wrote in his treatise on radio directing, 'by accent, rhythm, and adroit instrumentation, interesting and telling musical effects attain a mood often beyond the reach of liberal sound effects' (1940, p.35). For this reason, the music in radio is often used to amplify the onscreen emotion.

At the height of radio's popularity, George Davis wrote a treatise on how to use music in radio drama. In the treatise's foreword, he writes that music cues can aid in the characterisations and 'can project the story into perspective, adding extra dimensions. It will infuse cohesiveness by a direct thematic relation to the central characters and story-idea. Failing that, music for radio-drama is inept and ineffectual' (1947, p.2). According to Davis, music functions to clarify the drama's emotional quality (p.2). He continues that music need not be confined to moments of realism, but can be reserved for what he calls idealisation and imagery (p.10). Most importantly, a radio drama should be scored according to its plane of emotional intensity, which is the degree of emotion present

in a scene (p.15). Music can combine with narration to create dramatic reinforcement (Altman, 1994, p.13).

Radio Dramas, Television, and Music Re/use

Television was not merely illustrated radio as some have proposed (Enns, 2012). Like the radio drama, a half-hour television show during the 1950s and 1960s averaged twenty-two minutes without commercials. One reason for this length was television's outgrowth from radio, which also had short programmes with a minimal amount of music. In both radio and television, the story and the music have little time to convey their meaning and with very few exceptions, they often do so with relatively short musical cues. Since the 1920s, television was considered an extension of radio (Sewell, 2014, p.11). Early guides for television writing, such as that by Gilbert Seldes, noted that television viewers should be 'caressed by musical sound' (1952, p.21). The 1940 and 1941 hearings of the National Television Systems Committee demonstrate that the committee 'literally conceived of television as an additive combination of radio sounds plus moving images' (Stadel, 2016). Radio has influenced many of television's features including its 'basic narrative structures, program formats, genres, modes of address, and aesthetic practices' (Hilmes, 2008, p.160). To this I would also add music, forming one reason why radio music – including specific music cues – played such an important role in television.

The relationship between television sound and radio sound, while seemingly related aesthetically, is actually quite complex (Stadel, 2016). Early television dramatic music was composed in a style termed radiophonic in that it borrowed heavily from radio conventions. Overlapping with this period of radiophonic scoring was also a period of both experimentation with and emulation of the filmic style of composition (Rodman, 2007). Television composition was touted as unique from that in radio but more difficult than film composition, mainly because the composer would have to account for the images that the radio composer would not (Sosnik, 1949, p.95). Nonetheless, the practice of television composition has its roots in that for radio.

The musical codes from radio, and silent film before it, were transplanted into television shows and guided the viewer's understanding of the music's role in each scenario. In both radio and television, music can heighten the intensity of explicit dramatic action, clarify the emotional quality in scenes where the drama is implicit, comment on the characters' emotional states, or foreshadow a narrative scene so that the listener can anticipate the mood of the following scene (Davis, 1947, p.19). The music must make its point quickly and 'resembles an epigram: it must be

succinct, pithy, and telling in every tone' (p.37). Therefore, the reason for the music's presence and the purpose it serves must immediately be clear.

The use of cues in multiple episodes over multiple television series is not uncommon, especially since television episodes – and, to a certain extent, radio dramas – usually function as a basic blueprint of narrative stock situations. This is illustrated by their recourse to the same stock music cues at similar moments, thereby revealing the extent to which dramatic situations are stock situations (Donnelly, 2002, p.334). Television tends to rely on commonly understood musical sounds and styles to convey a specific idea or character with which the music creates a bond. Music used in television can contain style topics that can 'connote somewhat ambiguous codes of social acceptability or deviance on TV, describing characters that are cool, or wholesome or socially deviant' (Rodman, 2010, p.33). For this reason, pre-existing music could be used in television if it 'happened to be suited to the needs of a particular drama' (Nalle, 1962, p.120). Often, cues that would easily conform to these musical topics would be re-used in situations within other episodes to achieve the desired effect. As a result, in both music and radio drama, there are meanings present in the varying sounds that may or may not be that which the composer or author intended (Tannenbaum, 1956, p.93).

The music and sounds generated for radio drama stem from the unique composition style needed for the medium. In 1946, NBC staff writer turned composer Morris Mamorsky wrote about the necessity of specific skills when composing for radio. He remarked that radio composition differed in that:

Where formerly [the composer] wrote in terms of themes, variations, and development, he now has to work in terms of bridges and backgrounds. Where previously he had at least eighty men seated in the orchestra to perform his work, he is now expected to produce equally telling effects with small concert groups.

(1946, p.48)

Mamorsky noted as well that music in radio dramas should also be used 'to create an atmosphere of dramatic tension' (p.52) and put the actors in the correct frame of mind. In general, radio background music serves to create atmosphere and heighten emotion, keeping the story moving by capturing and holding the listener's attention and compensate for the missing visual image (Kremenliev, 1949, pp.75–76). The music must also be descriptive, while simultaneously mitigating and negotiating the dialogue and unseen action (p.76; p.80).

As we know, music does often function as one of the many storytellers on the television screen. Visual, musical, and dialogic elements each

contain varying layers of meaning within a moving image with the visual as a reproduction of what is absent and the aural of what is present. Any score combined with an image or visual sequence inherently contains any given set of meanings for the viewer to interpret, but combining any specific musical cue with a specific image often creates a mutual image for the viewer based on their commonalities (Halfyard, 2010, p.25). While some contend that radio is visionless, it actually ‘facilitates a particularly rich way of seeing’, one that forces listeners to use sound to create their own mental image (Hand, 2017, pp.340–341). However, unlike radio (because of the picture), television sound is not the only way that we can locate the character.

This concept of the fusion of music and image in interpretation aligns with Michel Chion’s theory of forced marriages, which in essence stipulates that there is a strained interpretation of the relationship between sound and image (1994, p.188). Sometimes, the music from one context or medium that is re-used in another seems to have the appropriate impact at specific moments or synch points that are complementary, but only because our analysis facilitates this perception. We may perceive the music as appropriate for a scene because the images contain a plethora of information that viewers can interpret as contributing to the scene (p.191). This creates a sense of cross-referrals between the senses that permit the interpretation of meaning for the material presented by one sense – in this case, sound – to influence the interpretation of another – in this case, vision – to create a sensory fusion (p.162). This facilitates a manipulation of sensory perception such that one can interpret the product of one sense to influence the perception of the product of another and generate meaning (Cazeaux, 2005, p.164). From this, the presence of a musical score can influence the ways in which a drama is presented and the meanings that it offers (Tannenbaum, 1956, p.94).

The re-use of previously composed cues in the television shows produced by CBS began in 1956 with the establishment of the CBS Stock Music Library (hereafter The Library) so that the network could re-use music from previously aired television and radio shows in new shows to remedy the problem of the cost of composing and recording new scores. In order to do this, every score composed by a composer on the CBS payroll was recorded for its intended use and subsequently placed in The Library. The studio orchestra recorded each cue several times with various tempos and endings so that one cue could provide a large number of other music cues for a plethora of situations (Henson, 2003). The pervasive re-use of these stock scores and the dearth of freshly composed music resulted in a labour strike by CBS musicians in 1957. This resulted in a mandatory dictum that any television series running a complete season

of thirty-nine episodes must use a minimum of thirteen original scores and the remaining twenty-six or fewer could use music from The Library (American Federation of Musicians, 1959; Wissner, 2013, pp.2–3). Some production companies even had their own music library (Wissner, 2016, pp.33–36).

Before a network could assign a composer to the task of writing an original score, CBS first had to determine its necessity. The first step in the process was to decide whether or not an episode needed an original score. The supervising music editor, Eugene Feldman, would view the episode during a spotting session after the editing of the rough cut. If he determined that the episode should have a new score, then he would decide on a composer. After the music was composed, the network would then have the right – as the composer’s contract would stipulate – to re-use the music where the music supervisor or music director saw fit (Wissner, 2013, p.4).

If Feldman felt that it did not need an original score, he or the appointed music director would find appropriate music from The Library and decide on the placement of each cue (Grams, 2008, p.70). This decision resulted in the music supervisor or music director placing existing music into a show as if he were freshly composing its score which, in a sense, he was. As such, the rise of the recorded network library indicated a reallocation of responsibility away from the composer and towards the music and sound editors and music directors in which the latter became the creator of an episode’s soundtrack by selecting the appropriate prerecorded musical excerpts.

The re-use of cues generally depended on the onscreen action. *The Twilight Zone* composer Robert Drasnin, who also worked as the music editor for The Library at various points throughout the series’ run, remarked in personal correspondence on his experience of working to create an episode score from existing music: ‘Creating scores from The Library was both a challenge and a source of frustration. Trying to make a coherent, unified score with music from different composers with different orchestration wasn’t easy. Fortunately, there was music by Jerry Goldsmith and Bernard Herrmann available’ (Drasnin, 2013). As evident from the plethora of episode scores compiled from Library cues, the music directors relied heavily on Herrmann’s music for radio and other television series. In fact, of the 156 episodes of *The Twilight Zone*, fifty-seven used either original scores or at least one piece of stock music by Herrmann (Wissner, 2013, p.87). Some of the episodes for which Drasnin compiled stock scores include a few that used cues from ‘Moat Farm Murder’: ‘The Rip Van Winkle Caper’, ‘Valley of the Shadow’, and ‘Nightmare at 20,000 Feet’ (p.70). Much of the

reason why the re-use of this music was feasible regarded Herrmann's manner of composition. He mostly composed his cues in short modular form, comprised of usually four notes that could be readily condensed (Schneller, 2012, p.128).

As Drasnin recounted, creating a new score and one from The Library music warranted the same basic procedure. Once the music editor spotted the rough cut of the episode, he then waited for the music supervisor, either Lud Gluskin or Feldman, to give him detailed timing notes for each onscreen event. They then broke down these events chronologically into minutes and seconds, creating a frame of reference from which to work. He then considered the appropriate musical idiom for the episode as well as the tempo and places that might require a musical inflection such as a change of scene or dialogue which necessitated a modulation or change in texture, orchestration, or timbre. From here, he went to The Library to see the available cues and their length, choosing ones that he felt would serve the scene well (Drasnin, 2013).

Like other studio libraries of the time, CBS kept a card catalogue of titles as a finding aid. Often these bore the exact dates of all the cues used so they could easily access the series information and use history of a certain cue. CBS also maintained a paper catalogue in binders that contained two different formats of the cues that were organised by year. The music was organised into reels by general use and category – such as suspense, dramatic punctuations, and space fantasy. The reel number indicates the location of that cue's recording within that season to locate it more easily. But there were not only network libraries – there were also production company libraries that housed the music for each show; wild track libraries with music from films, radio, and television shows; and libraries of commissioned production music (Mandell, 2002, p.150).

The cues were then listed by their timings, the name of the composer, a short description, the take number of the recording, and what made it different from another recording of the same cue, such as a different ending or whether or not the musicians played the cue with mutes. This practice enabled a music director to narrow down the possible cues that he could employ in a specific dramatic situation. Who exactly categorised the cues and how he or she made these decisions, however, remains unknown.

In some cases, the music editor considered the orchestration of the cues to tie cues by different composers together since there were often no other unifying features among them. This was easiest with chamber orchestra cues that had a variety of common instruments such as in 'Moat Farm Murder'. Some of this music was original music written for a television show and re-used in another episode or another series; for

example, from one *Twilight Zone* episode to another or from other CBS television series such as *Gunsmoke* (1955–1975) and *Playhouse 90* (1956–1960), and *Perry Mason* (1957–1966), as well as music originally composed as suites or individual cues specifically for The Library like *Outer Space Suite* and *Western Suite*, and music for various CBS radio dramas such as ‘The Hitch-Hiker’ (1941) and ‘Moat Farm Murder’. Consequently, some of these cue re-uses occurred in moments with a completely different context but more often than not, they were used in similar contexts that were determined by their suggested categories within The Library.

The more mainstream a score, the greater the likelihood that its cues would be re-used. *The Twilight Zone* composer Leonard Rosenman noted that CBS considered original scores necessary only if the film was, as he described it, extraordinary (quoted in Bond, 1999, p.128). *Twilight Zone* producer Buck Houghton noted that the CBS Music Department often found themselves using mostly music from The Library unless the scene necessitated music so unique that it would not be found there. He emphasised that they re-used a cue if it was in any way distinguished or had a particular flavour to it, but if the episode featured a generic action such as people dancing and the network wanted to add some background music such as a waltz, then it came from The Library (quoted in Zicree, n.d.).

The scores for *The Twilight Zone* fall into three basic categories: wholly composed of new music, possibly with a stock track or two added; partial scores composed of new and stock music; and scores completely comprised of stock music (Wissner, 2013, p.1). The use and progression of stock cues are often artfully combined to represent specific phenomena in the episodes. As a result, many episodes of *The Twilight Zone* do not contain original scores but rather are a bricolage of stock music culled from The Library, known in the industry as ‘canned music’. Sometimes the re-use of cues from a single source is done so frequently in a single episode that it functions like an original score, as in the case of ‘The Rip Van Winkle Caper’. In a sense, this music re-use creates a hidden authorship. Radio’s hierarchy of sound aids in this hidden authorship, in which ‘the technical construction of audio narrative create[s] effect and meaning’ (Hand, 2017, p.348). Through the choice to use specific cues in a specific televisual context, the music editor puts forth an interpretation about the episode.

Music in radio dramas can reveal a character’s psychological interiority. The re-use of some of the music in ‘Moat Farm Murder’ at points in which Dougal is narrating his inner thought processes is telling. The re-use of this music in a television show at moments that reveal action does not undermine the music’s original purpose; rather, it serves to

amplify it, something that frequently occurs in radio dramas of this period (McCracken, 2002, p.185). In this way, the music can give the listener insight into that which may be unclear (Davis, 1947, p.19). Radio was not only a theatre of the mind but it was also about the mind in that its aesthetics could reveal the characters' psychological interiority (p.3). Returning to Davis's concept of the plane of emotional intensity, since 'any musical composition is susceptible to varied connotations' and can, therefore, lie on this same plane in multiple contexts, music can be successfully used in different – even unrelated – situations (p.15; p.18). For this reason, Chion's theory of forced marriages is especially appropriate here. As listeners, we may interpret the music, given its original context, as relevant to the images onscreen, but this may simply be our own perception given the ways in which the images and plot occur.

Music for 'Moat Farm Murder'

Columbia Presents Corwin was one of the radio programmes of the 1940s that was classified as a thriller drama. This genre of radio dramas grew rapidly after World War II and dominated postwar radio (McCracken, 2002, p.183; p.185). As in other radio drama series of the 1940s such as *Suspense*, many of the stories featured in *Columbia Presents Corwin* focused on the paranoid Gothic with a central male character who murders a female character (p.187). Like many stories featured in *Suspense*, many *Columbia Presents Corwin* dramas focused on the mistrust between couples; 'Moat Farm Murder' is no exception (p.200).

Norman Corwin discovered the story of the Moat Farm murder in 1928 when actor Charles Laughton told him about it. Laughton had just purchased an issue of *Life and Letters* magazine at a London Underground station that featured a story called 'A Murderer's Confession' about Dougal's 1899 confession (Corwin, 1947, p.301). So engrossed in the story was he that he accidentally rode three stations past his stop. After reading the article himself, Corwin thought that its vivid details might work well for radio. Corwin wrote the radio script by using the actual court records for the case (Bannerman, 1986, p.135). The 'Moat Farm Murder' story is simple but unsettling or, as Corwin called it, 'the most terrifying study of a murderer's conscience' ('Charles Laughton Heard on Corwin Program', 1944, p.5) and 'as morbid as a morgue' (Corwin, 1947, p.307). Other than several interjections by his victim and questioning during the trial, the drama is largely performed as a monologue.

The radio drama centres on this confession. Dougal shares Coldham's farm with a woman named Cecile and together they rename it Moat Farm. Because he falsely believes that Cecile has hidden a substantial

amount of money in the house, they quarrel often, then reconcile, until Dougal decides to kill her. One night, he shoots her and buries her in a ditch. Haunted by guilt, he begins to have sleepwalking episodes that take him to the site of the crime. Eventually, he confesses and is sentenced to hanging, which occurs four years after the murder (Heyer, 2005, p.195).

Norman Corwin took a great interest in the music for his radio dramas, often writing in his scripts where the music cues and sound effects should go; this included musical directions and instructions for the composers, conductors, and musicians about what he had in mind (Cummings, 2013, p.76). Corwin used these scripted music cues to communicate his musical intentions to the composer with whom he was working and often called himself ‘a composer’s helper’ (p.77; pp.83–85). Corwin had musical training and aspired to be a composer during his youth, so it is unsurprising that he took a special interest in the music cues for his radio dramas (p.76). He did not write typical directives in his scripts but rather wrote overly descriptive, and sometimes humorous directions, such as ‘A schmaltzy Rumanian combination, playing a good five-cent tzugarnya’ and ‘The orchestra glimmers like a spray of sequins’ (p.9). Some critics even satirised these types of outlandish musical instructions (Verma, 2016, p.41). Because of these elaborate and specific directions, Corwin was often described as a composer (Smith & Verma, 2016, p.5).

Corwin frequently collaborated on his radio dramas with Bernard Herrmann. Unsurprisingly, then, Corwin specifically asked Herrmann to compose the score for ‘Moat Farm Murder’ (1947, p.302). This is understandable, since Corwin recounted that of all his collaborators in radio, he was closest to Herrmann (1994, p.99). He remarked on working with Herrmann in radio:

He was very resourceful, and I quickly learned to trust his judgment. I would tell him what my concept of the spirit of the music was and what my intention was, dramatically, and leave the rest up to him. Every now and then he would inform me of what he was about to do, and if I had any objections, I would make it. But I usually did not, as he always hit exactly the right note.

(p.100)

He would send Herrmann either only the pages of the script that dealt with the music or the entire script draft so that they could work on their respective roles simultaneously. Corwin often called him to explain the script’s premise and intended development (pp.100–101). This demonstrates that Corwin, playing an active role in the music’s composition, most likely ascribed to Crews’s perspective on the subservience of music in radio drama.

In all of his radio scores, Herrmann composed his musical cues by considering the plot and dialogue. He composed his radio scores differently depending on with whom he worked. Herrmann's music for Corwin's radio dramas differed from his other radio compositions in that the cues were comprised of relatively long, lyrical passages, demonstrating that Corwin seemed to inspire Herrmann to focus on a fuller style of composition (Kosovsky, 2002, p.224), most likely because of the nature of his radio dramas. However, despite these long, lyrical passages, the cues could be broken down into smaller melodic units, something that made his cues particularly good for music library use.

Herrmann's first wife, author Lucille Fletcher, spoke about her husband's composition of radio music, noting that he was most likely the first radio composer to write original cues for each drama on which he worked. He believed that this was necessary for two reasons: 'the first being that familiar music tends to distract the listener's attention from the drama itself, and the second, that freshly composed music, inspired by the script, is more likely to hit the nail exactly on the head than music culled from symphonies or opera' (Fletcher, 1936). At this time, many radio dramas were scored with classical music, demonstrated by a catalogue of music cues for this purpose (Columbia Broadcasting System, 1942).

Herrmann also discusses his approach to radio scoring, writing that '[i]n radio drama, every scene must be bridged by some sort of sound device, so that even five seconds of music becomes a vital instrument in telling the ear that the scene is shifting' (Herrmann, 1941, p.X6). According to Herrmann, then, music serves as a bridging device in radio. He would later use music in the same way for both his film and television scores. His score for 'Moat Farm Murder' contains musical language that he would later use in film scores such as *Vertigo* (1958), *Psycho* (1960), and *Torn Curtain* (1966) (Smith, 2002, p.116).

Herrmann's biographer, Steven C. Smith, referred to the 'Moat Farm Murder' score as his most cinematic radio score (p.115). He describes it as having:

Rich instrumental textures – even by Herrmann standards – evoking a precise mental image of madness and death. Much of its effectiveness comes from cold orchestral understatement: rhythmic bass pizzicatos, dissonant snarls from muted brass, cobweblike piano glissandos, subtle timpani 'footsteps,' and soft chromatic flute harmonics, as icy as a corpse's fingertips. Both music and narration achieve a unique grayness of color that suggests a foggy, indeterminate mind growing cloudier, most memorably during Dougal's account of his victim's death paralleled by low falling woodwinds – a device Herrmann later featured in his score for *Torn Curtain*. Also looking ahead to Hitchcock is the hushed

processional that accompanies Dougal's disposal of the body, in which high string harmonica and weird timpani echo the chill in Dougal's voice. Herrmann also uses swirling, high string glissandos to suggest the damaged workings of Dougal's mind. A last foreshadowing of *Psycho* comes at the finale, with the end of Dougal's confession; Herrmann accents this self-pronounced sentence with violent string punctuations, a grim ending for this tragedy without a hero.

(pp.115–116)

This style of composition is an example of what Rick Altman terms 'panic events' in which music underscoring combines with voice tone and sound effects to express panic, fear, or stress (1994, p.13). As Smith notes, it is precisely the use of timbral techniques that makes the music so evocative in this context. Each of these effects serves a single purpose; Corwin recounted that 'whatever in Dougal's narration did not raise goose pimples was taken over by the orchestra' (Corwin, 1947, p.307). This was typical of all of the radio dramas Herrmann composed; he often 'creat[ed] musical shortcuts into characters' psyches and surroundings' (Monahan, 2006, p.8). As we will see in 'Moat Farm Murder', he does this by musically representing Dougal's mental state before, during, and after the murder. In fact, the volume at which the music is dubbed is related to audioposition in that it helps us to locate our position relative to Dougal's. The more unstable his emotions are, the louder the music, placing us as listeners close to him.

Like his other radio scripts, Corwin wrote very specific directions for Herrmann to use when composing most of the drama's cues but he does not describe them all. These instructions along with their cue number and the dramatic action that occurs simultaneously with the cue are shown in Figure 1. Herrmann never gave the cues titles other than Roman numerals, so that is how I will refer to them here.

Herrmann's radio scores, in general, were musical responses to the narrative situations that the drama depicted (Kosovsky, 2000, p.2). The only cue that does not have a music direction is Cue 1, so it is likely that Herrmann added the music here with Corwin's permission. It is telling that Corwin refers to what are now known as Cues 2 and 3 as the murder motif (Corwin, 1947, p.281). Cue 2 is comprised of a descending chromatic line in the melody, juxtaposed with descending chromatic suspensions in the bass. This establishes the main musical motif that is present in most of the drama's cues; descending lines, often chromatic, that depict Dougal's downfall and Cecile's death. Given that Herrmann often composed to replicate or enhance mood, it is worth noting that just by examining the descriptions for Cues 2, 7, 8, and 13, we can see these descriptions outline the trajectory of the story (Herrmann, 1941,

Herrmann's Cue Number	Corwin's Description	Action
1	(No description)	
2	Murder motif comes in and winds under narration	Dougal narrates: he could not decide whether or not to murder Cecile or make her death look like an accident
3	The murder motif	Dougal narrates: he was drinking heavily and tried to persuade Cecile to give him money one final time
4	Muttering	Dougal narrates: he tested the revolver
5	Tremolando passage	Dougal narrates: the murder
6	Out, damned spot	Dougal narrates dragging Cecile's body and feeling under her dress to see if she was still alive
7	The first curdlings of conscience	Dougal narrates: he was perspiring heavily and drinking brandy from nerves
8	The grim procession	Dougal narrates: he carried her body for disposal and thinks about ways to get rid of it
9	A brutal, strident effect; bassoons mutter beneath	Dougal narrates: Cecile's ring
10	Now the morbid motif returns. It follows the contour of the narration	Dougal narrates: removing Cecile's ring
11	A nasty percussive effect in the strings	Dougal narrates: ripping Cecile's gold cross off her neck
12	Insomnia motif, darker colour	Dougal narrates: has insomnia and is searching Cecile's desk drawer. Recounts how he tried to convince himself that he should check the coach house to prove Cecile was not there
13	Insidious, horror and insinuations of insanity	Dougal narrates: walking over to the ditch where Cecile is buried; leaves for Paris and decides to return home after several days
14	Curtain; Conclusion	Dougal narrates: he often sat in his cell contemplating suicide

Figure 1: Corwin's musical instructions in the script

p.X6). It is crucial that any musical theme used for a specific situation must affect the unfolding story (Davis, 1947, p.26). This occurs especially in cues 5 and 9, as we will see shortly.

The orchestration for ‘Moat Farm Murder’, as with other CBS radio dramas, was determined by making advance reservations for the musicians and determining their availability. CBS had a house orchestra which would work for various programmes each week. In order to obtain the instrumentalists needed for a radio score, the director would have to request those musicians that they required at least one week prior to the airing since the dramas were performed live (pp.103–104). For ‘Moat Farm Murder’, the orchestra was relatively small and played in varied combinations throughout each cue. Herrmann used a chamber orchestra comprised of one each of flute, clarinet, oboe, bassoon, trombone, vibraphone, percussion, violin (first and second), viola, cello, and double bass. Using these instruments served a two-fold purpose: to save money and use instrumentation that could be both easily available and work well with other library cues that the network would re-use later in other broadcasts.

‘Moat Farm Murder’ in *The Twilight Zone*

Like the scores for other CBS radio dramas such as ‘The Hitch-Hiker’ or ‘Brave New World’, the re-uses of the ‘Moat Farm Murder’ score had specific types of television episodes in which the cues were re-used. The music for ‘Moat Farm Murder’ was re-used in *Twilight Zone* episodes that featured one or more of four main themes: murder, madness, monsters, and machines. *The Twilight Zone* episode ‘The Rip Van Winkle Caper’ contains the most cues from ‘Moat Farm Murder’. The fourteen cues from ‘Moat Farm Murder’ are re-used in eleven episodes of *The Twilight Zone*, listed in Figure 2.

For the purposes of this study, I focus on the re-uses of ‘Moat Farm Murder’ Cue 5, since it is the most frequently used cue in these eleven episodes – used thirteen times in seven episodes – as well as Cue 9, used five times within four episodes. Cue 5 is the most significant of all the ‘Moat Farm Murder’ cues in that it occurs at the exact moment of the murder. Often the cue re-uses occur at moments that also depict murder in the television episodes.

Example 1 reproduces Cue 5 and Figure 3 reproduces the dialogue and action in both the radio play and *The Twilight Zone* episodes whenever this cue appears. Corwin indicated that Cue 5 should be a *tremolando* passage. Rather, the cue is composed of a series of descending chromatic lines in multiple voices. There are multiple musical codes for danger here, one of which is a short descending chromatic melody paired with dissonances

Cue Number	<i>Twilight Zone</i> Episode Re-uses
'Moat Farm Murder', Cue 1	'The Rip Van Winkle Caper'
'Moat Farm Murder', Cue 2	'The Parallel' 'The Old Man in the Cave' 'Queen of the Nile'
'Moat Farm Murder', Cue 3	'The Rip Van Winkle Caper' 'The New Exhibit'
'Moat Farm Murder', Cue 4	'The Rip Van Winkle Caper' 'Nightmare at 20,000 Feet'
'Moat Farm Murder', Cue 5	'The Rip Van Winkle Caper' 'Four O'clock' 'In His Image' 'Valley of the Shadow' 'The New Exhibit' 'Nightmare at 20,000 Feet' 'Queen of the Nile'
'Moat Farm Murder', Cue 6	'The Rip Van Winkle Caper' 'The Parallel' 'Queen of the Nile'
'Moat Farm Murder', Cue 7	'The Old Man in the Cave'
'Moat Farm Murder', Cue 8	'Queen of the Nile'
'Moat Farm Murder', Cue 9	'The Rip Van Winkle Caper' 'The Old Man in the Cave' 'Uncle Simon' 'The Encounter'
'Moat Farm Murder', Cue 10	'The Rip Van Winkle Caper'
'Moat Farm Murder', Cue 11	'The Rip Van Winkle Caper' 'In His Image' 'Nightmare at 20,000 Feet' 'Queen of the Nile'
'Moat Farm Murder', Cue 12	'The Rip Van Winkle Caper'
'Moat Farm Murder', Cue 13	'In His Image' 'Nightmare at 20,000 Feet' 'Queen of the Nile'
'Moat Farm Murder', Cue 14	'Four O'clock' 'Nightmare at 20,000 Feet'

Figure 2: Re-use of 'Moat Farm Murder' Cues in *The Twilight Zone*

Reba A. Wissner ♦ Music for Murder, Machines, and Monsters

Slow

② ③ ④ ⑤

Flute

Oboe

2 Clarinets

Bassoon

2 Horns

2 Trumpets

Trombone

Timpani

Cymbals

Organ

Violin I

Violin II

Viola

Violoncello

Double Bass

p

ppp

div.

a2

4

muted

Example 1: ‘Moat Farm Murder’, Cue 5, from original manuscript (example in concert pitch)

‘Moat Farm Murder’:

00:7:32 – ‘And I pushed the trap into the coach house by this time so I stepped up to the side of the trap, reached down the revolver, and then Miss Holland stood just near the door, looking at the moon. I shot her. She dropped just like a log. Then, I pulled her into the coach house. If I live to be a thousand years old, I shall never forget the feeling as I caught hold of both her hands, and drew her along until I got her into the trench house. All kinds of things came into my mind and my heart seemed almost to stand still. And I put my hands inside her dress to see if her heart was beating. Of course, I knew that she was dead, yet I don’t know what made me do it, but I knelt down on one knee and pulled her head in, asked her to speak if she could.’

‘The Rip Van Winkle Caper’:

00:13:59 – The truck strikes Brooks and Farwell runs over to him.

00:19:53 – Having just heard that the price of water is now two bars of gold per swallow, Farwell kneels down to take two bars out of his knapsack.

Farwell: ‘Water, please?’ DeCruz hands his canteen to Farwell, who drinks desperately as DeCruz laughs and kneels to pick up the gold Farwell dropped. Cut to Farwell as he stops drinking and suddenly raises his right arm.

00:20:23 – Farwell strikes DeCruz with a gold bar and the canteen. Looking at what he just did, he starts to laugh.

‘Four O’clock’:

00:23:24 – Cut to reveal Crangle is two feet tall. He screams.

‘In His Image’:

00:26:51 – Cut to close-up of Alan’s wrist, which is slit. He starts to pull on his skin to reveal the wires.

‘Valley of the Shadow’:

00:27:38 – Dorn stabs Evans with the letter opener. Redfield watches in horror. Dorn quickly aims the device at Evans and starts to turn a knob.

‘The New Exhibit’:

00:5:46 – Activated by Martin’s foot, Jack’s knife swings at him as he ducks. A woman in the tour group gasps.

Second Sailor: ‘Boy...’

00:27:28 – Cut to close-up of Jack’s face. Dissolve to upstairs.

Martin (off camera): ‘Emma! (comes downstairs) Emma!’

00:39:44 – Cut to Dave, who opens his mouth wide in horror. Dissolve to Martin at his kitchen sink.

‘Nightmare at 20,000 Feet’:

06:52 – Bob looks out of the window and sees nothing after just seeing the creature on the wing.

Figure 3: Dialogue and action during Cue 5 in ‘Moat Farm Murder’ and *The Twilight Zone*

00:9:12 – Bob pulls the curtain aside to reveal the creature’s face pressed against the window.

00:11:08 – Bob: ‘... Julia, wake up!’

Julia: ‘What? (Bob watches creature fly away) What are you looking at? Bob?’

16:10 – Bob, Flight Engineer, and Julia look out of the window and see an empty wing.

‘Queen of the Nile’:

00:22:43 – A skull replaces the elderly face and comes into focus. The skull breaks apart. Cut to Pamela. Cut to beetle sitting on ribs.

(Wissner, 2016, p.90). Within film music, tremolos were historically used to represent suspense and used in contexts of dramatic transitions (Swynnoe, 2002, p.73). However, here the movement of the first horn line combined with a stationary second horn line on a repeated note imitates the sound of a tremolo.

Some episodes use a large section of Cue 5 while others simply use the stinger from measures 7–8. Stingers function as gaze sonorities that draw the viewer’s attention to the visual element that they accompany (Neumeyer, 2015, p.157). In this instance, the stinger, which is comprised of a triple f A minor muted brass chord, with an Ab minor chord floating above in strings and organ, uses and a cymbal crash draw attention to what is happening at the exact moment that it sounds. The timbre of this stinger is unlike the rest of the cue, such that even when the cue is played in its entirety it draws attention to itself. The radio drama uses the stinger at the point in which Dougal reveals his knowledge that he killed Cecile when he says, ‘I shot her’. This may be a musical evocation of a gunshot, but it serves to heighten the tension at the moment of the murder.

Those episodes in Figure 2 that use the stinger feature it at shocking moments or points of revelation, such as when Alan Talbot (George Grizzard) removes his skin and reveals the wires in his wrist in ‘In His Image’ (Figure 4) and when Oliver Crangle (Theodor Bikel) is revealed as two feet tall in ‘Four O’clock’ (Figure 5). The most commonly used camera angle at these moments, as Figure 4 demonstrates, is the extreme close-up, although there are also moments that use a long shot; they are not only drawing attention to the location but are also attempting to illustrate the character to scale, as in Figure 5. The episodes that use more of the cue than only the stinger place the cue in dramatic moments that feature murder. This is not always the case, however, as the four uses of Cue 5 in ‘Nightmare at 20,000 Feet’ demonstrate. In the re-uses that use more of the cue than the stinger, they establish a



Figure 4: Alan Talbot, 'In His Image' (Image Entertainment)

Figure 5: Oliver Crangle, 'Four O'clock' (Image Entertainment)



mood of tension and suspense, hence Corwin's indication for a *tremolando* passage and Herrmann's composition of faux tremolo music. Its volume also positions us kaleidosonically, moving from concentrating on the events leading up to the murder and aurally focusing on Dougal at the time of the murder.

There is also the issue of thematic re-use, which becomes even more complicated with re-use of a cue multiple times within a single episode. In this case, Cue 5 appears more than once in three of the eleven episodes. Sometimes the cue serves as a pervasive theme that accompanies a character or event each time it returns, such as during the multiple murders in 'The Rip Van Winkle Caper', or the stinger, for example, which is used in all three uses in 'The New Exhibit' when the wax figures are murdering someone off screen. Sometimes it returns in unrelated contexts. In 'Nightmare at 20,000 Feet', the stinger first sounds when Bob Wilson (William Shatner) sees the gremlin (Nick Cravat) on the wing of the airplane (Figure 6), but the opening portion of the cue sounds



Figure 6: Bob Wilson and The Gremlin, ‘Nightmare at 20,000 Feet’ (Image Entertainment)

when Bob awakens his wife, Julia (Christine White). This opening portion features a chromatic descent immediately after the faux tremolo motion, which, using the musical semiotic codes above, establishes an atmosphere of danger for the viewer, as we see from the extreme close-up of the gremlin at the window, coming face-to-face with Bob.

Cue 9, which was re-used six times in four episodes of *The Twilight Zone*, also illustrates an interesting set of re-uses. At the moment that Cue 9 plays in ‘Moat Farm Murder’, McDougal is having a flashback to a conversation he had with Cecile about the ring that he removed from her finger after the murder. Example 2 reproduces the cue and Figure 7 reproduces the dialogue and action in both the radio play and *The Twilight Zone* episodes.

Like Cue 5, the function of Cue 9 is not stated; rather, Corwin describes its musical quality. Cue 9 is often used in *The Twilight Zone* during flashbacks or moments of nefarious behaviour. Like Cue 5, it does not appear in its entirety and is based upon chromatic descents and sustained notes but here Herrmann adds leaps in the timpani. However, the chordal structure here is what is most striking. Given the original context and its re-use, we can see that this cue is reserved for moments to which the audience must pay attention, giving us a musical moment that functions as a stinger but is not one. This is accomplished both through timbre and melodic movement. By using instrumentation including horns and oboes, the music sounds particularly nasal compared to the rest of the cues, combined with a chromatic descent on half notes

Slow //

Oboe *fp* *ff* *pp*

2 Clarinets *fp* *ff* *pp*

Bassoon *fp* *ff* *pp*

2 Horns *fff* *ppp*

2 Trumpets *fff* *ppp*

Trombone *fff* *ppp*

Timpani *ff* *p* *ff*

Example 2: ‘Moat Farm Murder’, Cue 9, from original manuscript
 (example in concert pitch)

that then return to the upper neighbour tone, in which our ears are longing for that resolution. This stagnancy on a dissonant chord mimics the discomfort present in the scenes that it accompanies.

Particularly in ‘The Encounter’ and ‘Uncle Simon’, the cue appears in moments of violence: in the first use in ‘The Encounter’, Fenton (Neville Brand) is recounting the war in Japan when Arthur ‘Taro’ Takamori (George Takei) becomes so engrossed in his story that he begins to believe that he is back in Japan during World War II and almost attacks Fenton with the Samurai sword that he stole from a dead Japanese soldier. In

‘Moat Farm Murder’:

00:14:21 – ‘She was very fond of this ring. It’d been given to her by, well, I guess the only man she’d ever really loved. I asked her to tell me the story one day and she did. She said that her aunt kept her in a lady school in Liverpool, she used to help her in the management.’

‘The Rip Van Winkle Caper’:

00:10:37 – Farwell and Brooks arrive at Erbe’s coffin. Cut to close-up of rock on top of coffin and pan down to skeletal remains of Erbe’s hand. Farwell: ‘This is what did it.’

‘The Old Man in the Cave’:

00:21:59 – Cut to Goldsmith.

French (starting off camera): ‘All right! All right! All right! (stands on computer) All right, you’re all free now.’

‘Uncle Simon’:

00:21:38 – Finish zoom into Barbara. Cut to damaged robot on the floor. Robot: ‘Barbara! Barbara! Help me! Help me!’ Cut to Barbara, again looking sick. Dissolve to Schwimmer walking out of study as he meets Barbara coming downstairs.

Schwimmer: ‘Ah, how are you this evening, Miss Polk?’

‘The Encounter’:

00:11:34 – Fenton lunges at Taro but becomes entrapped in a picture frame and falls to his knees. Taro holds the sword in position to stab Fenton. Fenton: ‘Wait a minute, wait a minute. I was only tellin’ you how it was.’ Taro seemingly comes out of a trance.

00:13:38 – Coming out of commercial, Fenton still can’t open the door. He heads upstairs.

Fenton: ‘Well, I don’t know what’s makin’ it stick. It never did that before. But never mind, boy. There must be some tools up here. (Taro stares out of window) We’ll take it off the hinges. Nah, forget the window. It’s too high.’

Figure 7: Dialogue and Action During Cue 9 in ‘Moat Farm Murder’ and *The Twilight Zone*

‘Uncle Simon’, Barbara Polk (Constance Ford), upset that the robot has taken her uncle Simon’s (Sir Cedric Hardwick) mannerisms, pushes him down the stairs in an attempt to kill him, just as she did her late uncle. The other three instances come at moments of revelation: in ‘The Old Man in the Cave’ when the soldiers free everyone from the old man’s control as they find out that he is a computer, in ‘The Rip Van Winkle Caper’ when the men discover that one hundred years have passed when DeCruz (Simon Oakland), Brooks (Lew Gallo), and Farwell (Oscar Baregi Jr.) find Erbie’s (John Mitchum) skeleton, and in ‘The Encounter’ when

Fenton and Arthur discover that the attic door has mysteriously jammed, trapping them both to avenge history. Each of these instances demands the audience should pay attention to the pivotal moment onscreen.

Conclusion

Radio drama music from the CBS Library continued to be used on television through the 1960s. That these cues persisted for so many years can be attributed to two variables: budgeting issues and the music's stylistic timelessness due to the musical presentation of established semiotic codes. Because radio music had to clearly illustrate that which the listener could not see, it worked especially well to heighten that which television viewers could.

Although there are too many cue re-uses to go into specifically here, I have attempted to discuss Cues 5 and 9 of 'Moat Farm Murder' not only to illustrate the different ways that the cues were re-used at the CBS network but also to reveal the ways that other networks and production companies may have employed their music libraries. The case of 'Moat Farm Murder', therefore, is not unique. The re-use of cues from radio dramas has also occurred in other television series and, more specifically, other episodes of *The Twilight Zone* such as those from both parts of 'Brave New World' (CBS Radio Workshop, 1956) (Wissner, 2015). Although many viewers of *The Twilight Zone* may not have remembered 'Moat Farm Murder' or its music, the musical style that depicts things like danger and moments of high drama make the music seem right at home in their re-use. In this way, the music helped the music director to function as a hidden author; by using music closely associated with a specific moment or action, it helps to establish the scene and the characters' psychological interiority in a way that the drama alone cannot.



References

- Altman, Rick (1994) 'Deep-Focus Sound: *Citizen Kane* and the Radio Aesthetic', *Quarterly Review of Film and Video*, 15 (3), pp.1–33.
- American Federation of Musicians (1959) 'Television Film Labor Agreement'.
Obtained from American Federation of Musicians.
- Arnheim, Rudolf (1936) [1971]. *Radio*. Trans. Margaret Ludwig & Herbert Read. London: Faber & Faber.

- Bannerman, R. LeRoy (1986) *On a Note of Triumph: Norman Corwin and the Golden Years of Radio*. Secaucus, NJ: Carol Publishing.
- Bond, Jeff (1999) 'Interview with Leonard Rosenman'. In: *The Music of Star Trek: Profiles in Style*. Los Angeles: Lone Eagle Press, pp.127–131.
- Cazeaux, Clive (2005) 'Phenomenology and Radio Drama', *British Journal of Aesthetics*, 45 (2), pp.157–174.
- CBS Library Cue Inventory. Library X, Binders 44 and 45. University of California, Los Angeles.
- 'Charles Laughton Heard on Corwin Program' (1944) *The Times* [Shreveport, LA] (18 July), n.p.
- Chion, Michel (1994) *Audio-Vision: Sound on Screen*. Trans. and ed. Claudia Gorbman. New York: Columbia University Press.
- Columbia Broadcasting System (1942) *Dramatic Cues Based on Broadcast Music Inc. Orchestral Library: Analyses Prepared by Columbia Broadcasting Inc.* New York Public Library Performing Arts Division.
- Corwin, Norman (1944) 'Moat Farm Murder'. In: *Untitled and Other Radio Dramas*. New York: Henry Holt, pp.288–308.
- Corwin, Norman (1947) *Untitled and Other Radio Dramas*. New York: Henry Holt.
- Corwin, Norman (1994) *Years of the Electric Ear*. Metuchen, NJ & London: Directors Guild of America.
- Crews, Albert (1944) *Radio Production Directing*. Boston & New York: Houghton Mifflin.
- Crisell, Andrew (1994) *Understanding Radio*. 4th ed. London & New York: Routledge.
- Crook, Tim (1999) *Radio Drama: Theory and Practice*. London: Routledge.
- Cummings, Troy (2013) 'Mood Stuff' and 'Metaphoric Utterance': Norman Corwin's *Radio Art* (MA Thesis), University of Missouri-Kansas City.
- Davis, George (1947) *Music Cueing for Radio Drama: A Practical Treatise on the Application of Music to a Radio Script*. New York: Boosey & Hawkes.
- Donnelly, K.J. (2002) 'Tracking British Television: Pop Music as Stock Soundtrack to the Small Screen', *Popular Music*, 21 (3), pp.331–343.
- Drasnin, Robert (2013) Personal Correspondence.
- Enns, Anthony (2012) 'The Acoustic Space of Television', *Journal of Sonic Studies*, 3 (1). Available from: <http://journal.sonicstudies.org/vol03/nr01/a08> (Accessed: 4 April 2017).
- Fletcher, Lucille (1936) 'Bernard Herrmann – Radio Days'. *Screen and Radio Weekly*. Available from: <http://www.filmscoremonthly.com/board/posts.cfm?threadID=78936&forumID=1&archive=0> (Accessed: 12 December 2016).
- Grams, Martin Jr. (2008) *The Twilight Zone: Unlocking the Door to a Television Classic*. Lanham, MD: OTR Publishing.

- Halfyard, Janet K. (2010) 'Mischievous Afoot: Supernatural Horror-Comedies and the Diabolus in Musica'. In: Lerner, Neil (ed.). *Music and the Horror Film: Listening to Fear*. New York & London: Routledge, pp.21–37.
- Hand, Richard J. (2017) 'Radio Adaptation'. In: Leitch, Thomas (ed.). *The Oxford Handbook of Adaptation Studies*. New York: Oxford University Press, pp.340–355.
- Henson, Karen (2003) 'Interview with Fred Steiner', *Archive of American Television* (25 June). Available from: <http://www.emmytvlegends.org> (Accessed: 10 August 2013).
- Herrmann, Bernard (1944) 'Moat Farm Murder', radio score. University of California, Los Angeles, Bill Wrobel Film Music Research Collection, Box 3, Folder 10.
- Herrmann, Bernard (1941) 'Score for a Film: Composer Tells of Problems Solved in Music for "Citizen Kane"', *New York Times* (25 May), p.X6.
- Heyer, Paul (2005) *The Medium and the Magician: Orson Welles, the Radio Years, 1934–1952*. Oxford: Rowman & Littlefield.
- Hilmes, Michelle (2008) 'Television Sound: Why the Silence?' *Music, Sound, and the Moving Image*, 2 (2), pp.153–161.
- Huwiler, Elke (2010) 'Radio Drama Adaptations: An Approach Towards an Analytical Methodology'. *Journal of Adaptation in Film and Performance*, 3 (2), pp.129–140.
- Kosovsky, Robert (2002) *Bernard Herrmann's Radio Music for the 'Columbia Workshop'* (PhD Dissertation), The Graduate Center of the City University of New York.
- Kremenliev, Boris (1949) 'Background Music for Radio Drama', *Hollywood Quarterly*, 4 (1), pp.75–83.
- Mamorsky, Morris (1946) 'Composing for Radio'. In: Chase, Gilbert. *Music in Radio Broadcasting*. New York: McGraw-Hill, pp.47–65.
- Mandell, Paul (2002) 'Production Music in Television's Golden Age: An Overview'. In: Newsom, Iris (ed.). *Performing Arts Broadcasting*. Washington, DC: Library of Congress, pp.146–169.
- McCracken, Allison (2002) 'Scary Women and Scarred Men: *Suspense*, Gender Trouble, and Postwar Change, 1942–1950'. In: Hilmes, Michele & Loviglio, Jason (eds). *Radio Reader: Essays in the Cultural History of Radio*. New York & London: Routledge, pp.183–207.
- McGill, Earle (1940) *Radio Directing*. New York & London: McGraw-Hill.
- Monahan, Mark (2006) 'Music that Makes a Man a Killer'. *The Daily Telegraph* [London, UK] (1 July), p.8.
- Nalle, Billy (1962) 'Music for Television Drama', *Music Journal*, 20 (1), pp.120–121.
- Neumeyer, David (2015) *Meaning and Interpretation of Music in Cinema*. Bloomington & Indianapolis: Indiana University Press.

- Porter, Jeff (2016) *Lost Sound: The Forgotten Art of Radio Storytelling*. Chapel Hill: University of North Carolina Press.
- Rattigan, Dermott (2002) *Theatre of Sound: Radio and the Dramatic Imagination*. Dublin: Carysfort Press.
- Rodman, Ronald (2007) 'Television Music', *Grove Dictionary of Music and Musicians* (Accessed: 1 August 2017).
- Rodman, Ronald (2010) *Tuning In: American Narrative Television Music*. Oxford & New York: Oxford University Press.
- Schneller, Tom (2012) 'Easy to Cut: Modular Form in the Film Scores of Bernard Herrmann', *Journal of Film Music*, 5 (1–2), pp.249–271.
- Seldes, Gilbert (1952) *Writing for Television*. New York: Doubleday.
- Sewell, Philip W. (2014) *Television in the Age of Radio: Modernity, Imagination, and the Making of a Medium*. New Brunswick, NJ & London: Rutgers University Press.
- Smith, Steven C. (2002) *A Heart at Fire's Center: The Life and Music of Bernard Herrmann*. Berkeley & Los Angeles: University of California Press.
- Smith, Jacob and Verma, Neil (2016) 'Introduction'. In: Smith, Jacob & Verma, Neil (eds). *Anatomy of Sound: Norman Corwin and Media Authorship*. Oakland: University of California Press, pp.1–11.
- Sosnik, Harry (1949) 'Scoring for Television', *Variety* (5 January), p.95.
- Stadel, Luke (2016) 'Radio/Television/Sound: Radio Aesthetics and Perceptual Technics in Early American Television', *Journal of e-Media Studies*, 5 (1). Available from: <http://journals.dartmouth.edu/cgi-bin/WebObjects/Journals.woa/xmlpage/4/article/458> (Accessed: 30 July 2017).
- Swynnoe, Jan G. (2002) *The Best Years of British Film Music, 1936–1958*. Woodbridge: Boydell Press.
- Tannenbaum, Percy H. (1956) 'Music Background in the Judgment of Stage and Television Drama', *Audio Visual Communication Review*, 4 (2), pp.92–101.
- Twilight Zone Café Fan Site. 'Music Cues'. <http://www.twilightzonewor.fr.yuku.com/topic/4163> (Accessed: 10 July 2013).
- VanCour, Shawn Gary (2008) *Sounds of 'Radio': Aesthetic Formations of 1920s American Broadcasting*. (PhD Dissertation), University of Wisconsin-Madison.
- Verma, Neil (2012) *Theater of the Mind: Imagination, Aesthetics, and American Radio Drama*. Chicago: University of Chicago Press.
- Verma, Neil (2016) 'Radio's "Oblong Blur": On the Corwinesque in the Critical Ear'. In: Smith, Jacob & Verma, Neil (eds). *Anatomy of Sound: Norman Corwin and Media Authorship*. Oakland: University of California Press, pp.37–52.
- Wissner, Reba (2013) *A Dimension of Sound: Music in The Twilight Zone*. Hillsdale, NY: Pendragon Press.
- Wissner, Reba (2015) 'For Want of a Better Estimate, Let's Call It The Year 2000: The Twilight Zone and the Aural Conception of a Dystopian Future'. *Music and the Moving Image*, 8 (3), pp.52–70.

Wissner, Reba (2016) *We Will Control All That You Hear: The Outer Limits and the Aural Imagination*. Hillsdale, NY: Pendragon Press.

Zicree, Marc Scott (n.d.) Interview with Buck Houghton. Obtained from UFO TV.

Media Cited

- ‘Brave New World, Part 1’, *CBS Radio Workshop* (1.1), CBS Network, USA, 27 January 1956.
- ‘Brave New World, Part 2’, *CBS Radio Workshop* (1.2), CBS Network, USA, 3 February 1956.
- ‘The Encounter’, *The Twilight Zone* (5.31), CBS Network, USA, 1 May 1964.
- ‘Four O’clock’, *The Twilight Zone* (3.29), CBS Network, USA, 6 April 1962.
- Gunsmoke*, CBS Network, USA, 1955–1975.
- ‘In His Image’, *The Twilight Zone* (4.1), CBS Network, USA, 3 January 1963.
- ‘Moat Farm Murder’, *Columbia Presents Corwin* (1.18), CBS Network, USA, 18 July 1944.
- ‘Moat Farm Murder’, *Mercury Summer Theater on the Air* (1.8), CBS Network, USA, 26 July 1946.
- ‘The New Exhibit’, *The Twilight Zone* (4.13), CBS Network, USA, 4 April 1963.
- ‘Nightmare at 20,000 Feet’, *The Twilight Zone* (5.3), CBS Network, USA, 11 October 1963.
- ‘The Old Man in the Cave’, *The Twilight Zone* (5.7), CBS Network, USA, 8 November 1963.
- ‘The Parallel’, *The Twilight Zone* (4.11), CBS Network, USA, 14 March 1963.
- Perry Mason*, CBS Network, USA, 1957–1966.
- Playhouse 90*, CBS Network, USA, 1956–1960.
- Psycho*, Alfred Hitchcock, USA, 1960.
- ‘Queen of the Nile’, *The Twilight Zone* (5.23), CBS Network, USA, 6 March 1964.
- ‘The Rip Van Winkle Caper’, *The Twilight Zone* (2.24), CBS Network, USA, 21 April 1961.
- Torn Curtain*, Alfred Hitchcock, USA, 1966.
- ‘Uncle Simon’, *The Twilight Zone* (5.8), CBS Network, USA, 15 November 1963.
- ‘Valley of the Shadow’, *The Twilight Zone* (4.3), CBS Network, USA, 17 January 1963.
- Vertigo*, Alfred Hitchcock, USA, 1958.