

Personal Take: Compositional Approaches to Film, TV and Video Games

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Like music for film and television, video game music is not a wholly artistic endeavour. It is a commercial-artistic one and the commercial factors impacting on the composer are numerous and profound. Unlike film and television music, there are many attendant technical considerations and imperatives that impose strictures upon the form, constructional devices and musical vocabulary available to the games composer. BAYSTED 2016, 152

As a composer of music for video games, film and television, and one who frequently works in all three media simultaneously, I am often asked by students about the different compositional approaches demanded by each. Whilst each medium has its own particular challenges, we should recognise that film and TV music have far more in common with each other than either does with video game music. That this is rarely perceived to be the case has much to do with the fact that the final musical artefact frequently appears to be structurally, functionally and sonically remarkably similar across all three media, if not indistinguishable; that is to say at once through-composed, synchronised to the on-screen action and cut from the same musical cloth.¹

Music written for film and TV is linear, it specifically follows the narrative arc of the material on-screen, and it is usually carefully synchronised to the moving image in order to underpin or emphasise significant moments of action and to convey to the audience an appropriate emotional response to it. It is primarily non-diegetic, that is to say not part of the narrative, and as such it cannot be heard or interacted with by the on-screen characters. In this way, film and TV music can be said to be commenting upon the on-screen action and perhaps even foreshadowing events that are yet to happen, giving clues to the audience through the use of familiar musical tropes about, for example, unperceived dangers, impending doom, or the true nature of a character's feelings. Film and TV music is always fixed at the point of composition and it becomes an integral and unchanging component of the finished cinematic or televisual artefact when it is mixed on the dub stage. Its composition is governed almost exclusively by the demands of the on-screen action (and indeed the vision of the director); tempo, metre, orchestration, dynamics, and sometimes even key structures will necessarily follow its form and narrative arc.

Music in video games conventionally fulfils a much broader range of functions, several of which do not exist in film and TV music: it can accompany on-screen action (gameplay); it can be unobtrusive, ambient,

and sink into the background (in the menu system); it can be synchronised – in precisely the same manner as film and TV music – to in-game movies ('cut scenes'); and music can have an important ludic function.² During gameplay there may be many instances where a player's actions are the outcome of a range of choices. As such they are difficult to predict, but the fact remains that deciding to turn right instead of left, to go through a certain door, or to pick up a sword rather than a potion could have significant ludic ramifications that might alter the game's entire narrative trajectory. The logical corollary of this is that each player's experience of the game has the potential to be different and to be determined by which routes are taken through the game's various levels, the characters and foes encountered along the way, the weapons deployed and the successes and failures in battle, battles which, of course, may or may not even arise if the player chooses to turn left instead of right.

To account for this, the composer must ensure that the music composed can be adapted to underpin the various situations in which the player might find themselves at any given moment. All the while the objective is to maintain the illusion that the music is working non-diegetically in the same manner as it does in film and TV and that it has been composed for the player's particular journey through the game. In order for this to be possible, the compositional process is approached radically differently. When working on a film score, I will study a scene in great detail to determine its function within the narrative and whether there are any significant moments of action that require emphasis. When working on a game, I must instead consider the prevailing context of gameplay – for example, whether a battle may be approaching around the next corner (if the player decides to go in that direction) or whether the player may simply be exploring the game world – and compose music appropriate to that context. Because it is not possible to know how long the player may take in either scenario, the music must be able to 'react' and be dynamically adaptable to all possible outcomes. So instead of thinking of the music linearly, as a single span from beginning to end, it is best broken down into shorter chunks of musical material. These chunks are often layers of 'looped' material that may be as short as eight or sixteen bars. Loops are used because they can be seamlessly repeated, overlapped, crossfaded together, or branched away from rapidly, depending on the duration and changing nature of gameplay. Loops are then layered so that the music can wax and wane in intensity and adapt to the consequences of the player's decisions. A rudimentary trick of the film or TV composer's trade to build excitement or tension in a cue might be to increase the tempo, modulate upwards, or both, and to release that tension and

rebuild it as the scene demands; yet such tempo and modulatory manoeuvres would make seamless contiguous and multi-layered adaptive looping incredibly difficult to achieve in gameplay because loops only function when tempo and key structures remain consistent. To create a similar effect in games, one would instead have a hierarchical system of layered loops, each successive layer having ever-greater detail, intensity and textural complexity than the last. One can then build and release tension by adding or subtracting layers as required from one moment to the next. And where the film and TV composer will attempt to synchronise their music to 'hit points' (fixed points of significant action within a scene), the games composer will be thinking in terms of 'trigger points' (significant stages of gameplay where the character might pass through a door or encounter a foe). A trigger point will set off a musical cue or a complex sequence of looped and branching material.

To achieve these and other intricate adaptive structures, the games composer must normally work very closely with an audio programmer whose job it is to implement the music. Where film and TV composers deliver 'stems'³ of their music to be mixed together with dialogue and sound effects on the dub stage at the end of the postproduction process, the games composer delivers potentially many hundreds of loops, 'stings',⁴ and transitional passages to the games company to be implemented in software that plugs into the game's physics and graphics engines.

There are yet further generic and deep-rooted technological issues that the games composer must contend with.⁵ In some game genres I work in, such as racing simulation games, music is never heard during gameplay because it interferes with the principal auditory mechanisms necessary for actually playing the game: since music plays no part in the real-world activity being simulated, its use would shatter verisimilitude.⁶ I am forced to make all of my musical impact on the player from within the ambit of the menu system. In my score for *Project Cars* (2015), far from being relegated to the level of muzak, the music in the menu system is instead fully orchestrated and 'epic' in scale, and makes use of dramatic cinematic musical tropes that build tension and trigger emotional responses from the player, preparing them for the gameplay. Embedded within the musical material is an additional layer with a broad range of real-world sounds recorded from motor racing ('pit to car' radio transmissions, engines, trackside ambiences) to help to further immerse the player in the simulated world. Because the music is contained within the menu system, its construction is relatively simple: the main body of each musical cue is composed linearly and unfolds in that way until the player decides to press 'start' and trigger the

game-loading process (where cars, circuits and opponents are compiled). At that trigger point, a complex multi-layered sound effect masks the transition between the linear version and a shorter looped section of the same music track that replaces it as the game loads. Because it is impossible to predict how long the game will actually take to fully load, the loop must be repeated until loading has been completed. In contrast, in my score for the mobile zombie game *The Walking Dead: Assault* (2012), looping the music was not possible at that juncture due to the constraints of the Apple and Android platforms. As a result, I was forced to predict the normative playthrough-durations of each level and write linear pieces of music that gradually built in intensity and whose length was pre-determined to cover most playthrough scenarios. In both examples, these were far from ideal solutions to attendant technological limitations, but they were necessary in order to maintain the illusion of cinematic musical linearity.

From what I have described above it may seem to the reader that the games composer's lot is not always a happy one; that is in fact far from the case. Whereas the mechanical processes of film and TV composition have changed little in the past three decades, the processes of games composition and the technologies that support its implementation continue to evolve rapidly.⁷ It is an exciting time to be involved in the industry, not least as it embarks upon the latest generation of affordable virtual reality devices such as Oculus Rift and Morpheus; as composers we will have to think very differently about how we approach interactive scores and audio to take best advantage of the new and enhanced immersive possibilities VR affords. It will also be extremely interesting to see whether games music is able to successfully emerge from the long shadow cast by film music vocabulary and its tropes, and develop its own language that is perhaps more appropriate to gaming contexts.

Notes

- 1 This should not be in the least surprising from a stylistic and generic perspective since many composers work in all three media, and (all too frequently) the points of musical reference provided by producers, editors and directors of films, TV and games have largely been defined by music from other film scores. For an insightful discussion of the role of the 'temping' process in film post-production, see Sadoff 2006.
- 2 In the crime thriller game *L.A. Noire* (2011), for example, music plays a critical role in the narrative and the actual playing of the game: subtle musical cues help guide the player-protagonist Cole Phelps to the location of clues and notify him when all clues contained within a particular crime scene have been exhausted.
- 3 Stems are sub-mixes of the entire music mix, and usually comprise instruments from the same family (brass, strings, woodwind, etc.). Their mixing and adjustment of relative volumes can help alter the texture, density and perceived intensity of musical cues. They are extremely useful on the dub stage as they help the dub mixer to balance levels between dialogue, sound effects and music more effectively.

- 4 Repertoires of musical 'exit points', literally cadential passages, which can be bolted onto individual loops or layers of loops.
- 5 See Baysted (2016, 161) for a more detailed exploration of the technological constraints imposed by different platforms and their impact on music and audio design.
- 6 For further discussion on the various genres of racing games and their use of music, see Tim Summers (2016, 88).
- 7 For example, looping is now possible to achieve on mobile platforms; and *Project Cars 2* (2017) no longer requires ungainly structural devices to overcome transitions between game phases.