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Review of *The Game Music Handbook*

A Practical Guide to Crafting an Unforgettable Musical Soundscape *by Noah Kellman*
(New York: Oxford University Press, 2020, 312 pp, $35.00)

The video game industry has achieved a robust and rapidly maturing presence in the world of entertainment and has established itself as a strong and profitable business. Understandably, there have been an increasing number of texts written about the art, craft, and culture of the video game industry, including but not limited to books on game production, game art, game design, and game business and marketing. In this context, Noah Kellman's *The Game Music Handbook* is being published at a time when an increasing number of academic and practical texts on video game audio and video game music are becoming available.[1] Kellman's book occupies an important niche in educational material for a composer looking to learn the strategies and skillsets needed to compose for video games.

The book is structured logically, with the contents broken up into five sections. At a high level, the sections proceed from "large strategy" to "granular execution," which is a nice way to lead the reader through the process of scoring a game.

The first section, "Game Scoring Fundamentals," is built to educate a musician or game music enthusiast about the fundamental mindset toward designing and creating a game score. I use the word "designing" because one of the compelling concepts that Kellman articulates through this section is the idea of music in games being *designed* rather than written. Because so much of a game score is dependent upon the player's actions (or inactions), creating music as a fluid design structure, rather than a linear narrative, more cohesively maps to the gameplay experience, Kellman posits. This idea is an important one, and it is good to see it being addressed so early in this book. Kellerman also dives a bit deeper into the three ways the game can be scored: through locational scoring (music associated with a particular place), character scoring (tying a musical idea and its development to characters), and gameplay scoring (the musical ideas interacting with gameplay decisions and control structures the player implements). Again, this is

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1. For instance, Ciarán Robinson, *Game Audio with FMOD and Unity* (New York: Routledge, 2019); Chance Thomas, *Composing Music for Games* (Boca Raton, FL: CRC Press, 2016); and Gina Zdanowicz and Spencer Bambrick, *The Game Audio Strategy Guide: A Practical Course* (New York: Routledge, 2020).

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a clear and concise overview to articulate so early in the book, as it shows some of the unique strategies inherent in game music creation. The section continues with discussion of the core elements of game music: notably, looping pieces of music, branching transitions of music, and musical stingers, all of which can be dynamically layered horizontally or vertically. These are good, fundamental concepts that all game composers should know, and although these ideas are covered in other books by Winifred Phillips and Karen Collins,[2] this section would be incomplete without them. The third part of this section covers the history and evolution of game music, from its earliest incarnations to current console games. This is a necessary part of the overview section, but it is also covered in other textbooks[3]—a necessary evil, given the book's aspiration to be a complete, comprehensive text.

The second section ("Creating the Music Design") is, in my opinion, the most valuable section of the book. Kellman investigates in detail the musical codes and identifiers that help create a consistent experience of emotion and gameplay for the player, while still providing development. This is an idea that, to my knowledge, has not been analyzed or codified in other books in a practical context, and it is an essential concept for game composers.

Kellman's observation is that music has codes that can be either universal or cultural. Understanding what musical elements contribute to either the universal or cultural codes, and specifically how these can be applied to game scoring, articulates a process that composers often use but may not be consciously aware of. The explicit consideration of this approach and process will serve a game composer well, allowing them to quickly and effectively shape the player's emotional state while engaging with the game. The section concludes with strategies of designing effective musical interaction between the player and the music. This section is well written but is fundamentally a standard layout of a typical compositional solution that has also been covered in other books. As I said before, though, this section is important for a book that has a completionist roadmap through the process of scoring a game, and Kellman has laid out the various game state interactions clearly, and in a well-communicated format.

The third section ("Advanced Reactive Music Concepts") is the most conceptual of the sections, and this area delves into experimental creations of game music. Kellman begins with the premise of emergent music and emergent gameplay. At the most basic level, emergence indicates when a player attaches emotional or narrative meaning to events in the game that were procedurally or randomly generated. Famous examples of emergent gameplay include players discussing excitedly how their city in *Civilization 5* held off the troops for "just one more turn," until their artillery could be built, as if it was a dramatic third-act moment in a film, when, in fact, it was just the game's algorithm's "rolling the dice" well for that player. The idea of emergent entertainment is unique to

2. Karen Collins, *Game Sound: An Introduction to the History, Theory and Practice of Video Game* Music *and Sound Design* (Cambridge, MA: MIT Press, 2008); Winifred Phillips, *A Composer's Guide to Game Music* (Cambridge, MA: MIT Press, 2014).

3. See Collins, *Game Sound*; Michael Sweet, *Writing Interactive Music for Video Games* (Upper Saddle River, NJ: Addison-Wesley, 2015); and many other individual book chapters and articles on this topic.

games, and Kellman uses this aspect to discuss several game-specific paths of creating and implementing music, including procedurally generated scores, algorithmic music-creation systems, and scoring for virtual reality. These aspects are important for a game composer to be aware of, but the knowledge and skillset required to become comfortable in composing for these areas are outside the scope of this book; Kellman rightly keeps his discussion of these strategies at a high, informational level. Having said that, the content and layout that he gives of these structures is well researched, well written, and effectively conveys the approach of scoring a game using these methods.

The final section, "Implementing the Score," walks the reader through the process of implementing the game score into the game engine. This section is another one that differentiates this book from others on video game composing and video game music. Kellman describes, thoroughly and deeply, the technical skills needed at an audio programming level to have video game music properly implemented in the game. He even goes as far as to talk about version control of the code and committing of changes. Yes, this idea is basic team-based programming 101, but it's valuable and worthwhile that Kellman took the time to expose this idea here, as it will help new composers learn how they will fit into the development team's creative cycle. This section alone creates a significant advantage for a composer looking to work with a game development team, as it teaches them the fundamentals of pushing game music structures up into the code stack, and it creates team value for the composer in the eyes of the development team.

In summation, this book is designed from a pragmatic and practical approach, helping a composer understand and navigate the process of creating music for a video game. The layout and flow of the book are clearly designed to walk a composer through the creative and technical steps of building a game score, from early conceptualization of "what is game music," through the formulation of the musical ideas, to advanced concepts such as procedurally generated scores and finalizing in the actual programming and technology of "hooking up" the game music assets and algorithms in the game engine. Kellman does a pleasingly thorough job of researching each "training section," providing good examples of game scores that exemplify the concepts he is teaching.

I would see this publication being quite useful to several categories of individuals. First, this book provides a well thought out, practical roadmap for brand-new composers who wish to develop their creative and technical skills as video game composers. Second, this book is a good resource for existing professional composers in traditional production music, film, television, or album music, as the book describes in good detail the creative and technical differences, challenges, and opportunities that are unique to creating effective video game music. And finally, the book will be a valuable resource for those academics looking for reference texts on game music; they would find this book to be a quality text to reference. In short, well done, Mr. Kellman!

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