JAZZ AND THE LEGACY OF FILM NOIR IN THE DETECTIVE ADVENTURE VIDEO GAME

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Abstract

Film noir is often touted as one of the most amorphous and obscure genres of film by film scholars and music scholars alike, partially due to the subgenres of film accepted as film noir and partially due to the retroactive nature of the genre's canon formation. Nevertheless, the detective narrative is a pervasive one in film noir, with its use of jazz both as a soundtrack and as diegetic music being one the hallmarks audiences commonly associate with these films. With such a large film selection spanning many subcategories to deal with, discussing how the detective narrative manifests in video games can equally as obscure. This paper analyzes core narrative tropes largely associated with the classic era of film noir from roughly 1941 to 1958 and addresses how these tropes are adapted and transformed by jazz in the detective adventure video game. I analyze key functions of jazz in portraying the soundscape and gameplay indicators—that give the player information—associated with adventure games. To do so, I analyze musicological research and film research on film noir alongside studies on video game sound. In the first section on narrative functions, I address two main tropes associated with film noir and their adaptations to detective adventure games: 1) jazz as/in the city, and 2) jazz and the *femme fatale.* In the second section on ludic functions, I primarily focus on the concepts of looping, layering, and what I term "plot point chords" to demonstrate how jazz music specifically is mapped to the adventure game format. I also address various shortcomings associated with hardware limitations of early gameplay devices to illustrate a possible origin of the stylistic choices video games use jazz to portray the detective adventure. My findings are primarily achieved through playing four case studies and watching online playthroughs of them. My goal is not to dictate all the commonalities in noir-inspired detective adventure games, but to instead make observations that hopefully lead to a more complete picture of the detective narrative in video games in the future. Doing so will help contribute to figuring out more about how video games use music to achieve goals and how the original implications of film noir are now mapped onto a society with completely different social commentary and context.

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Introduction

From ramshackle settlements for wasteland survivors and hidden cults, to an ill-fated ship stuck on top of a building, the post-apocalyptic Boston of Bethesda's open-world role-playing game *Fallout 4* (2015) tells many stories. Among the many tales players discover in the ruins of this seaside city, one of the most interesting belongs to Nick Valentine: a detective straight out of film noir. Indeed, *Fallout 4* leans heavily on the narrative and visual trappings of film noir to create a postapocalyptic detective story.

Although *Fallout 4* creates a postapocalyptic detective story through narrative and visual clues, music—and in particular jazz—enhances these visual archetypes and solidifies the connection to film noir. When the player first encounters Nick, for example, the detective has been captured by a stereotypical suit-wearing, machine gun-toting Mafia boss and his thugs. After a daring rescue, the player and Nick meet back up at Valentine's office. Upon entering the office, the player is greeted by the soft sounds of a bluesy saxophone, presumably emerging from the in-game radio sitting on a makeshift cinderblock table in the back of the room. Valentine's dimly lit office is a mess: filing cabinets against the wall are open haphazardly, paintings on the patchy walls are askew, and papers litter the floor. His desk is covered in the trappings of film noir detectives: cigarette butts in an ashtray, a newspaper, a coffee pot, a broken desk fan, an open file box, and a bottle of whiskey. Valentine himself—who, incidentally, is a synthetic human with artificial intelligence (a "synth")—sports a fedora and a tattered trench coat with a loose tie. Deep gashes on the side of his face indicate age, neglect, or a history of close scrapes with death.

There are many similarities between *Fallout 4* (2012) and *The Maltese Falcon* (1941)—which many noir scholars argue is the first film noir— demonstrating a close connection between detective

adventure video games and film noir.[1] First, Valentine's accent is similar to the film's lead and famous film noir actor Humphrey Bogart. Like Valentine, Bogart's character in that film, Sam Spade, sports similar business formal attire and pursues cases that he knows could mean his demise. Spade is a heavy drinker and smoker, habits implied by Valentine's office setup and decor. Valentine's secretary, Ellie Perkins, serves as a guide for him. Spade's similarly named secretary, Effie Perine, serves a like purpose as his moral compass, albeit with the addition of dealing with the sexual advances of Spade.

Figure 1. Humphrey Bogart as Sam Spade from *Maltese Falcon* (left). Nick Valentine from *Fallout 4* (right).[2]

Much like *The Maltese Falcon* (1941) and other classic films noirs, other tropes—both character and scenery— appear in *Fallout 4* (2015). Shortly after rescuing Valentine, the player is tasked with a mission involving a club called "The Third Rail," a bar in a dilapidated subway station. Upon entering the club, the player becomes immersed in sultry jazz music, as performed by another synth character,

[1] David Butler, *Jazz Noir: Listening to Music from Phantom Lady to The Last Seduction* (Westport, CT.: Praeger, 2002), 9; Ian Brookes, *Film Noir: A Critical Introduction* (New York: Bloomsbury Academic, 2017), 15; and Sheri Chinen Bisen, *Blackout: World War II and the Origins of Film Noir*, (Baltimore: Johns Hopkins University Press, 2005), 41, 42–48. Brookes acknowledges some debate over the "first" film noir, noting that *Stranger on the Third Floor* (1940) also makes a compelling case.

[2] Old Time Radio Shows, *Sam Spade, the Hardest of the Hard Boiled*, October 2, 2013, accessed March 1, 2020, https://www.oldtimeradioshows.com/2013/10/sam-spade-hardest-of-hard-boiled.html; Devynsims00, The Sims Forum, November 2015, accessed March 1, 2020, https://forums.thesims.com/en_us/discussion/860837/fallout-4-time-fun-pics/p3.

Magnolia, whose music captivates the bar patrons and helps them forget their troubles.[3] Fronting an invisible jazz combo, she sings one of five original songs written for the game by her voice actor, Lynda Carter; all five songs can be transmitted to the player anywhere in-game via Diamond City radio.[4] Suggesting the over-sexualized film noir archetype of the *femme fatale*, the sultry Magnolia wears a knee-length red dress accentuating her curvaceous figure. The player can flirt with Magnolia and even convince her to sleep with them—an action that the player can only pursue with a select few non-playable characters (NPCs). This action mirrors some of the more sexually charged moments present in film noir

The player has one primary opportunity to step into the role of a noir-style detective. For example, players can help Valentine solve a cold-case murder, which involves exploring decades-old crime scenes to collect tape voice recordings from a pre-war mafia boss. Collecting all the clues allows the player to solve the decades old murder. This is much like the murder cases faced by the film noir detective with an added post-apocalyptic twist.

The role of jazz in the film noir detective genre has changed over time. Although mostly absent from 1940s/50s detective films noir (which favored classic Hollywood scores, with jazz relegated to select background scenes, if present at all), jazz has since become synonymous with the hardboiled

[3] Carter is probably best-known for her work on the *Wonder Woman* TV series. Other notable credits include: *The Elder Scrolls III, IV, and V,* as well as the film, *Sky High.*

[4] Lynda Carter, John Jarvis, and Kerry Marx, *Fallout 4: Original Game Soundtrack Selections Featuring Lynda Carter,* Bethesda Softworks, 2015, MP3. Accessed March 1, 2020. https://open.spotify.com/album/47C57TQNELQqnJDS22ZKj6

detectives of yore.[5] This association between jazz and detectives now is used to invoke detectives of the past, such as Sam Spade in *The Maltese Falcon* (1941) or Philip Marlowe in *The Big Sleep* (1946).[6]

Even though jazz is largely anachronistic to classic film noir, many video games use jazz to evoke this hard-boiled aesthetic. Though the genre itself is largely amorphous, I use several trends of classic film noir—ranging roughly from *The Maltese Falcon* (1941) to *A Touch of Evil* (1958) detective films— as the aesthetic basis for selecting my case studies. Classic American film noir, as illustrated by Ian Brookes, is a tough genre to define, but generally speaking, they often contain a variety of narrative and cinematographic tropes, such as the private eye, *femme fatale*, an urban setting (such as New York, Chicago, San Francisco, or comparable cities), black and white cinematography, shadows, smoke, urban settings, crime, and moral ambiguity.[7] Later eras of film noir such as neo-noir have developed on these ideas, further obfuscating the source material that video games work from. Knowing that there is no one set definition of classic film noir, I choose to focus on the video games that emulate the tropes of the classic noir setting, even if through a more modern neo-noir lens (like in the case of *Grim Fandango* (1999) for example). Because detective adventure video games are generally created with many different noir categories as reference, it is harder to separate them into eras like film noir does. As a result, I call this genre as a whole *jeu noir,* or game noir. Like detective noir films, this phenomenon is

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[5] An extended discussion of the precise definition of film noir is beyond the scope of this study. On that subject, however, see for example: David Butler, *Jazz Noir: Listening to Music from Phantom Lady to The Last Seduction* (Westport, CT.: Praeger, 2002); Sheri Chinen Bisen, *Blackout: World War II and the Origins of Film Noir* (Baltimore: Johns Hopkins University Press, 2005); Ian Brookes, *Film Noir: A Critical Introduction* (New York: Bloomsbury Academic, 2017); Robin Buss, *French Film Noir* (London: Marion Boyars, 1994); and Jans B. Wagner, *Jazz and Cocktails: Rethinking Race and Sound of Film Noir* (Austin: University of Texas Press, 2017). David Butler's book has been particularly useful for in applying many of these archetypes through a jazz-oriented lens.

[6] Recent film noir features more jazz music and reminds me of Miles Davis' work on the French film, *Ascenseur pour l'échafaud* (1959), or films such as *Ocean's Eleven* (1960). The style of jazz used in video game adaptations of film noir lies somewhere on this spectrum of late film noir/neo film noir to parody noir. Other famous detectives associated with this aesthetic are Dave Bannion, played by Glenn Ford in *The Big Heat* (1953); Philip Marlowe, played by Humphrey Bogart in *The Big Sleep* (1946); and Inspector Burgess, played by Thomas Gomez in *The Phantom Lady* (1944).

[7] Ian Brookes, *Film Noir: A Critical Introduction,* 1–29.

more common in North American media than other countries, but many countries do have video game outputs based on American film noir.[8]

This thesis outlines the uses and functions of jazz in detective noir games, drawing upon research in media studies, jazz studies, and ludomusicology. This document is divided into two distinct sections. The first deals with how jazz augments and reinforces the detective narrative and aesthetic. The second deals with the ludic (that is, gameplay-related) functions of jazz in video game depictions of the detective. I do not aim for comprehensive coverage of jazz in video games—or even in detective games. Instead, in this study, I will demonstrate the tendency of video games to soften distinct locations, characters, or motifs of American film noir that these films often highlight with the use of swing jazz or cool jazz. Instead, video games may use an all-jazz score with different styles of jazz to highlight these different styles. Ludically, I demonstrate how these case studies utilize jazz forms and harmony to facilitate specific gameplay elements, such as immersion and gameplay element indicators. I will use four case studies from various time periods and gaming platforms to explore how jazz works in the detective adventure game, specifically, and in video games, generally: *Déjà Vu* (1985), *Grim Fandango* (1998, and its 2015 remastered version), *Sam & Max Save the World* (2006), and *Blacksad: Under the Skin* (2019) to demonstrate these points.[9]

In the narrative section of this document, I demonstrate how jazz accompanies the imagery and story of *jeu noir*. I first show how several recurring thematic elements in *jeu noir* clearly derive from film noir, including urban decay, the hard-boiled detective (or parody thereof), the good woman/damsel in

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[8] My focus is American-made games or games that draw directly from American film noir. There are other genres of games that utilize jazz and other countries also have various cultural relationships with jazz that I try to avoid. This study encompasses foreign-based titles, but they explicitly emulate the perceived output of American film noir, and they aid my study for this reason.

[9] I referenced a longplay of the 1990 version of *Déjà Vu* for the Nintendo Entertainment System (NES), the 2018 version of *Grim Fandango Remastered* for the Nintendo Switch, the 2008 version of *Sam & Max Save the World* for the Nintendo Wii, and the 2019 version of *Blacksad: Under the Skin* for the Xbox One in addition to several longplays of each game. Any discrepancies I notice between versions and/or longplays will be addressed as necessary. All longplays are playthroughs of each game played in their entirety; I accessed all of them on YouTube, and some were uploaded in multiple videos, while others were uploaded in one complete video.

distress, and the *femme fatale.* A quote from the *Grove Dictionary of Music* demonstrates a common perception of jazz from early twentieth century that ultimately manifests itself in cinema:

> Throughout the period between the end of World War I and the arrival of the sound era with *The Jazz Singer* (1927), jazz and other syncopated music played a persuasive and influential role in the social upheaval that shook American culture. Its home ground was speakeasies, nightclubs owned and frequented by gangsters, gambling dens, honky-tonks, bordellos, and cheap dance halls, and it was perceived as lowdown and erotic, vulgar and aggressive, cheap and unesthetic, new, freeing, and uninhibited. It was also seen as central to the new spirit, and it became a perfect accompaniment to the 1920s, soon known as the "jazz age." It was therefore natural that the cinema should draw on jazz in order to appeal to the new public mood.[10]

In its earliest uses onscreen, jazz represented these places and ideas of degradation, over-sexualization, and an almost perverse intrigue. Owing to white stereotypes of black musics, jazz quickly became known as a dangerously sexual music as early as the 1920s.[11] In early 1940s film noir, this erotic connotation manifested in the use of jazz to depict the sexualized *femme fatale* character—the alluringly dangerous woman who often seduces or betrays the detective. After the end of the classic noir era, however, films expanded the use of jazz to represent the hustle and bustle of the city's urban spaces. Because of the slow development of jazz usage in film, video games were able to make these associations with film noir characteristics and archetypes immediately; films had already laid the groundwork of developing the common associations between jazz and the previously mentioned film noir characteristics and archetypes.[12]

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[10] Ernie Smith, Josh Ferko, Howard Rye, Barry Kernfeld, and Krin Gabbard, "Films," *Grove Music Online*, 2003; Accessed May 24, 2020, https://www-oxfordmusiconline-com.ezproxy.tcu.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-2000149900.

[11] Butler, *Jazz Noir*, 29–49. On the "low-class" reputation of early jazz, see also, Thomas Brothers, *Louis Armstrong's New Orleans* (New York: Norton, 2006).

[12] Early symphonic jazz pieces such as Ferde Grofé's *Metropolis: A Blue Fantasy* (1929) and George Gershwin's *Rhapsody in Blue* (1924) attempted to capture the essence of the cityscape with jazz, but the world of film was still dominated by symphonic scores. This point merely shows that the concept, "jazz as the city," was developing long before its emergence on the silver screen.

I will demonstrate how these jazz tropes softened over time in video games featuring jazz scores. In the classic noir from which these games draw inspiration, jazz largely represents specific locations (e.g., bars) highlighting the perceived sexual nature of jazz and the people found in those places (e.g., the *femme fatale*). Yet depictions of the *femme fatale* in video games, for example, do not portray sexuality as necessarily lowbrow or seedy. This "softened" depiction is due, in part, to the use of an all jazz score. Juxtaposing classic noir visual aesthetic with jazz music throughout gameplay neutralizes some of the genre's former suggestive power. On the other hand, some games use jazz to either reinforce or undermine these classic noir associations by varying the styles of jazz used in particular game moments—such as swing music or bebop in a club or bar. Lastly, since games are farther removed from the turbulent post-WWII social environment from which film noir emerged, I will explore how jazz tropes differ in video games when compared to their classic noir counterparts.

In the second section of this thesis, I outline the ludic functions of jazz in jeux noirs. Much like film music, music in video games communicates information to the player—but video game music adds an interactive element that immerses the player in the gaming experience.[13] Jazz often adds a special function to the mix: the imitation of live improvised performance. Improvisation is a key component of jazz, and games incorporate it—or simulate it—in a variety of ways. I address how jazz facilitates narrative cueing (e.g., chords or gestures that communicate correct or incorrect responses) and other interactive elements that help facilitate a cohesive game world (e.g., how jazz composition provides narrative continuity).

Although my focus in this study is detective-based adventure games, I do not mean to suggest that jazz does not play a significant role in other types of games. In fact, video games of many genres

[13] Karen Collins, *Game Sound: An Introduction to the Theory, and Practice of Video Game Music and Sound Design,* (Cambridge: MIT Press, 2008), and Tim Summers, *Understanding Video Game Music* (Cambridge: Cambridge University Press, 2016). Both these texts are excellent comprehensive resources for game sound design, and much of my analysis is built on the authors' ideas.

have employed jazz since the 1980s. The arcade classic *Donkey Kong* (1981), for example, featured a simple bass line that is similar to many common blues progressions, while *Ice Climbers* (1985) employed a twelve-bar blues pattern with a simple blues melody on top of it. Recently, the "beat 'em up" game *Ape Out* (2019) featured a reactive jazz drum kit that synchronizes cymbal crashes and snare hits with the action onscreen. The all-jazz soundtrack of the indie run-and-gun game *Cuphead* (2017) won best soundtrack the 2018 BAFTA awards, and its soundtrack catapulted to the no. 1 spot on the Billboard's jazz chart.[14] Despite the presence of jazz in games for decades, however, there is little scholarship on the topic.[15] This paper thus functions as an exploratory venture into what I hope will become a rich conversation between jazz scholarship and ludomusicology. I also outline my vision for what possibilities are for this type of scholarship moving forward.

[14] Andy Chalk, "Cuphead's Soundtrack Hits Number 1 on the Billboard Jazz Chart," *PC Gamer*, September 11, 2019, https://www.pcgamer.com/cupheads-soundtrack-hits-number-1-on-the-billboard-jazz-charts/, and Ted Gioia, Twitter Post, October 11, 2019, 11:01 AM, https://twitter.com/tedgioia/status/1180513287588458496. Ted Gioia expressed displeasure at this event. In context, the lost albums of John Coltrane, *Blue World* (2019), and Miles Davis, *Rubberband* (2019), had just been released, so while I personally felt Cuphead was deserving of the award, his frustration is somewhat understood; many people expressed agreements with this sentiment in that thread. *Rubberband* topped the *Cuphead* soundtrack the next week.

[15] Summers, *Understanding Video Game Music,* 3, 103, 106, 115, 198, 204–206, 209. Summers outlines a few scenarios that do not exactly pertain to my research (as in the fact that jazz is featured in a game is not the important part), but his modified version of Royal Brown's film model (p. 209) indicates "jazz" is utilized by "*Grim Fandango* (amongst many)," indicating a need for observation of this topic.

Case Study Overviews

Before we can begin to explore how jazz works in *Déjà Vu*, *Grim Fandango*, *Sam & Max Save the World,* and *Blacksad: Under the Skin*, we must first gain a basic understanding of each game on both the narrative and ludic levels. To provide the necessary context for each game, I outline their respective narrative arcs while providing relevant details about their hardware and music production processes. Selecting examples from several different console generations allows me to discuss hardware capabilities as a reason for implementing certain scoring strategies on the developer's part. Adventure games in general are particularly suitable for the detective genre because of the storytelling elements built into the adventure framework: finding clues, solving puzzles, and so on. Each of my examples roughly functions within the same narrative and ludic categories and features a male detective—some hard-boiled and some not. Notably absent from my case study list is the most obviously "film noir" game of the past decade: *L.A. Noire* (2011). Because the game *is* most "authentically" modeled on classic film noir, it features a largely symphonic score with little jazz.[16]

Set in a 1940s film-noir film style, *Déjà Vu* (1985) sees players take control of an amnesia-stricken detective who must solve a murder to clear his name. The trappings of film noir are obvious from the start: the protagonist awakens in a bathroom stall where a trench coat and a gun hang on the door. Once the player makes their way out of the stall, they discover that they are in a bar called Joe's. Upon seeing a dead body on the bar, you realize you might be accused of committing murder, even though you have no recollection of how you got there. With a bit of sleuthing helps the player piece together the missing memories, the player discovers that "their" name is Theodore "Ace" Harding. As far

[16] Steven Beverburg Reale, "Transcribing Musical Worlds; or, Is L.A. Noire a Music Game?" in *Music in Video Games*, K.J. Donnelly, William Gibbons, and Neil Lerner, eds., (New York: Routledge, 2014): 97-103; and Andra Ivanescu, "Torched Song: The Hyperreal and the music of L.A. Noire," *The Soundtrack* 8, no. 1–2 (2015): 41–56.

as a point-and-click adventure goes, *Déjà Vu* is a dynamic game open to player choice. The player can take several approaches to solve the murder, each of which result in a different ending that reflect on the morality of the player's choices.[17]

Originally released on the Macintosh operating System in 1985, *Déjà Vu* was ported to several other home consoles and personal computers, including the Microsoft Disc Operating System (MS-DOS), Apple II, Nintendo Entertainment System (NES), Gameboy Color, and XBOX One (as a part of a remastered compilation). The original Macintosh had only a single audio-out channel (used for warning beeps), so the original version featured no music.[18] Later versions did, however—including the NES version. Released late in the console's lifespan in 1990, this port utilized its five-channel PCI chip to the fullest and included a mostly jazz soundtrack by composer Hiroyuki Masuno.

[17] TVTropes, "Video Game/ Déjà Vu," TVTropes*,* Accessed March 1, 2020, https://tvtropes.org/pmwiki/pmwiki.php/VideoGame/DejaVu, and Colette Bennett, "Games Time Forgot: Déjà Vu," Destructoid, Accessed on March 1, 2020, https://www.destructoid.com/games-time-forgot-deja-vu-132419.phtml.

[18] "Apple Macintosh 512K specs," Everymac, Accessed March 1, 2020, https://everymac.com/systems/apple/mac_classic/specs/mac_512k.html#macspecs2; and Karen Collins, *Game Sound,* 28–36. Collins iterates this point without referring to the original Macintosh computer, as it was not the only first-generation personal computer to have this limitation. Third-party sound cards were available to attach to the original Mac in 1984, but this sound card was not a standard feature.

Figure 2. Ace wakes up in a bathroom, trench coat in front of him, with no memory at all. *Déjà Vu.*[19]

Grim Fandango (1998) is an adventure game that combines film noir aesthetics with Aztec afterlife beliefs and the Mexican celebration of Día de los Muertos.[20] The protagonist, Manuel "Manny" Calavera, is a grim reaper/travel agent who guides souls into the eighth underworld while attempting to sell them accommodations to make their traditionally four-year journey much shorter or more comfortable. Manny used to be a top salesman at the Department of the Dead (DOD) but has since fallen out of favor with his boss after a string of poor sales. In an attempt to regain favor, Manny steals a client from a co-worker, which unfortunately results in that client not receiving the travel accommodations she had earned. Before the boss can intervene, however, the client leaves for the four-year walk, leaving Manny on the hook to bring her back and subsequently uncover hidden corruption at the DOD.

Developed by LucasArts on their GrimE engine, *Grim Fandango* was an instant hit. This game took advantage of the audio capabilities of the relatively advanced soundcards of the time, which

[19] Shotgunnova, Gamefaqs, accessed March 1, 2020. https://gamefaqs.gamespot.com/nes/587224-deja-vu/images/26.
[20] Manny's last name, Calavera, refers to skull models, often made of sugar, that are popular during Día de los Muertos. The dead resemble Mexican Calaca figures.

supported MIDI files and allowed for a range of dynamic sounds compared to previous generations of games.[21] The 2015 remastered version I reference in this study features a live recording of the full score in addition to the recovered ProTool MIDI files ported over from aging floppy discs and magnetic tape recordings. One additional contributing factor to re-recording the soundtrack is that composer Peter McConnell did not like the way some of his samples sounded after twenty years.[22] McConnell expressed difficulty with recreating the remastered version of *Grim Fandango* without the audio streaming from iMUSE.[23] Collins points out the revolutionary iMUSE system and its ability to dynamically mix MIDI files. But because McConnell could not use this software, there is little evidence to suggest exactly how he replicated the effect.[24]

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[21] Willem Strank, "The Legacy of iMuse: Interactive Video Game Music in the 1990s," in *Music and Game: Perspectives on a Popular Alliance,* edited by Peter Moorman, (Wiesbaden: Springer, 2013): 81–92; and Tim Summers, "From Parsifal to the Playstation: Wagner and Video Game Music, "in *Music in Video Games*, K.J. Donnelly, William Gibbons, and Neil Lerner, eds., (New York: Routledge, 2014): 208–214.

[22] Dave Tach, "Digital Archaeology: How Double Fine, Disney, LucasArts and Sony Resurrected Grim Fandango," Polygon, January 27, 2015, accessed March 1, 2020, https://www.polygon.com/2015/1/27/7921837/grim-fandango-remastered-interview-double-fine-disney-lucasfilm-sony.

[23] Mike Minotti, "Grim Fandango's Composer in the Invention and Remastering of his Classic Score," venturebeat, February 9, 2015, https://venturebeat.com/2015/02/09/grim-fandangos-composer-on-the-invention-and-remastering-of-his-classic-score-interview/.

[24] Karen Collins, *Game Sound,* 152. I noted that I referenced the remastered version for my playthrough, but I also utilized a longplay on YouTube of the original version and could not tell any major differences. However, I recognize that further investigation and possible analysis of game files may be required to know absolutely.

Figure 3. Manny looks out of the window in his office. *Grim Fandango* (Remastered).[25]

Sam & Max Save the World (2006) is the first 3D game in the long-running *Sam & Max* series, which is based on a comic that ran from the late 1980s to the late 1990s. The series began with point-and-click adventure games the early 1990s—developed, like *Grim Fandango,* by LucasArts—and was followed by an animated television series in the late 1990s. The *Sam & Max* series has produced roughly twenty-five years of comics, webcomics, collections, cartoons, and video games. Sam and Max, an anthropomorphic dog and rabbit (respectively), operate the Freelance Police, an organization that solves crimes in madcap style with minimal regard for the actual law. The *Save the World* installment, developed by Telltale Games, consists of six episodes that (like the series in general) relies heavily on film noir parody. The Nintendo Wii hardware comes encoded with Dolby Pro Logic II and supports stereo sound. This upgrade in audio technology allows it to easily support any format of audio from modern

[25] Screenshot by author.

Digital Audio Workstations (DAWs). This includes both acoustic instrument recordings and MIDI output.[26]

Figure 4. Sam and Max in their office. *Sam & Max Save the World.*[27]

Blacksad: Under the Skin (2019) is the first multimedia adaptation of the Spanish-language *Blacksad* comic series, in which the titular anthropomorphic black cat detective solves crimes. Blacksad is a WWII veteran who both drinks and smokes and had run-ins with the law in his younger days. Using his questioning skills and his cat senses, Blacksad solves crimes in a surreal version of 1950s New York City containing ample references to American film noir. While battling his internal demons, Blacksad paints an external narrative parallel to 1950s American film noir, and *Blacksad: Under the Skin* deals with issues of racism by pitting its protagonist against the ugly deeds of a white-supremacist group, the Arctic Nation, as a sub-plot.

[26] Chris Chiarella, "Nintendo Wii Game Console," Sound and Vision, May 21, 2007, Accessed March 1, 2020, https://www.soundandvision.com/accessories/407nin.
[27] Ray Hardgrit, Superadventuresingaming, accessed March 1, 2020, http://superadventuresingaming.blogspot.com/2015/07/sam-max-save-world-pc.html.

Juan Díaz Canales and Juanjo Guarnido, creators of the *Blacksad* comic series, credit their early childhood experience with classic American films noir and classic detective novels for their work on *Blacksad*. As journalist William Troop notes:

> Back in the 1970s and 80s, Spain wasn't producing much of its own TV, so there was a lot of classic Hollywood fare in prime time. And that's how Díaz Canales and Guarnido became film noir fans.
>
> Díaz Canales also credits Raymond Chandler and Dashiell Hammett, whose classic noir novels gave us detective heroes like Philip Marlowe and Sam Spade, later played on the big screen by tough guys like [Humphrey] Bogart, Robert Mitchum and Dick Powell.[28]

This response reflects typical noir inspiration and explains the detail to the aesthetic of the detective, despite the anachronistic soundscape of the indicated source material.

In this game, Blacksad is hired to investigate the supposed suicide of the owner of a boxing gym, but the circumstances surrounding the owner's death appear inconsistent. The player must interact with the game environment to gain clues, which Blacksad can then "combine" in his head to obtain new leads. The player must also navigate tough choices and quick-time events that can change the outcome of certain story elements. The game was designed for Xbox One, a current-generation console at the time of my writing. It features 7.1 surround sound and 4K video.[29] *Blacksad: Under the Skin* utilizes live instruments much more than the other case studies—except for the *Grim Fandango* remastered version—likely owing to these increased technological opportunities.

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[28] William Troop, "This is One Cool, Epic, Black Cat Detective," Public Radio International, December 15, 2014, https://www.pri.org/stories/2014-12-15/one-cool-epic-black-cat-detective.

[29] Sharif Sakr, "Xbox One hardware and specs: 8-core CPU, 8GB RAM, 500GB hard drive and more," Engadget, May 21, 2013, Accessed on March 1, 2020, https://www.engadget.com/2013/05/21/xbox-one-hardware-and-specs/; J2 Global. "Xbox One Hardware Specs." In-Game Name. Last edited November 4, 2016. https://www.ign.com/wikis/xbox-one/Xbox_One_Hardware_Specs.

Figure 5. Detective Blacksad in his office, searching for his lockpicks. *Blacksad: Under the Skin.*[30]

Each of my case studies shares several key characteristics. All have a mostly if not completely urban setting. Each one has visual aesthetic ties to the heart of classic noir, complete with much of the imagery I describe in the introduction. Each one uses mostly jazz, if not an all jazz score. Lastly, each one keeps a cleaner-cut private eye narrative structure and does not deviate away much if at all from this set of archetypes. The next section explains more about the narrative significance of these games and their ties to jazz.

[30] Screenshot by author.

Part I: Narrative Functions

The term "film noir" refers to an extremely broad category of film, encompassing films from what the average viewers considers "classic noir" to more modern films called "neo noir." The broad and fluid nature of the genre offers a "large and increasingly amorphous field of study."[31] The detective genre in film, game, and literature, a subset of film noir, is marked by several specific visual and narrative elements, from costuming and cinematography to sound effects and music. The male detective attire is a clear example of specific noir coding: a trench coat and a fedora seem required to mark the role. The detective is often a veteran whose experiences overseas have left hidden or unacknowledged mental scars, leading to problems with alcohol, drugs, or other coping mechanisms. At his core, the detective is an imperfect hero. At some point, he is usually approached by a damsel in distress or *femme fatale* (or both) from whom he receives a case. His search for clues leads him into danger, but eventually his wit and sleuthing skills allow him to prevail, solve the case, and convict the criminal. [32]

The use of jazz to underscore these detective noir narrative tropes has a long and complex history. Many scholars have explained these gradual shifts in jazz's usage in media. In his article "Birth and Death of the Cool: Glorious Afflictions of Jazz Onscreen," for example, Jeremy Barnham discusses the history of jazz in film that lies outside the commonly accepted narrative of jazz. The common narrative of the genre positions "the trajectory of jazz onscreen from early ragtime accompaniments for

[31] Ian Brookes, *Film Noir: A Critical Introduction* (New York: Bloomsbury, 2017): 1–2.

[32] Filmmakers and video game directors have at some point taken a deliberate reframing of this narrative, creating the neo-noir genre. The same archetypes usually hold true, but sometimes the removal of the 1940s/50s film noir aesthetic is a key to these iterations. Although, I will mention neo-noir media as I see fit. My *Sam and Max Save the world* case study falls under this neo-noir category with their parody of the noir archetypes, which obscures this distinction. Some specific examples of this genre, which produce a twist on the detective narrative, are the films *Enter the Matrix* (2003) and the video game *Bioshock* (2007).

silent film, through the symbolizing of 'all-American vitality' and 'promise of good times' in the 1930s and 1940s pre-war and wartime big-band swing era, to a long-lasting screen identification of jazz with urban sleaze that quickly developed in the postwar years."[33] Though this narrow analysis helps explain retroactive ascriptions of jazz to neo-noir film, Barnham's more accurate analysis of the three basic periods of jazz depiction onscreen provide a more useful point of reference:

I. Vitaphone "documentary" shorts, experimental animation, short and feature African American fantasy/comedy, and biopics up to the early 1950s
II. Film noir, urban corruption, and the "cool" influence in the 1950s/early 1960s
III. Post-1960s decline in popularity and increase in elitism: individualism, idiosyncrasy, and historicism, with partial revivals of jazz biopic and documentary forms, and a pervasive typecasting in the direction of madness, dysfunctionality[34]

This narrative partially challenges the one many jazz scholars have previously used to explain jazz onscreen. During the post-WWII era of film noir in particular, the United States saw an odd disjunct between "popular jazz" and jazz onscreen. As Barnham notes: "just as the time when jazz was considered by some to have come of age artistically at the price of losing its commercial viability—in the bebop and cool-jazz era of roughly the mid-1940s to the mid-1960s cinema tended more and more to channel the music by typecasting it as an emblem of the criminal, corrupt, and seductively cool: the second, partly film-noir period."[35]

Bebop's underground role sheds light on why jazz was "typecast" as a criminal theme music onscreen, particularly in the postwar era. The pioneers of bebop were, as Ted Gioia puts it, "an underclass of an underclass" and were "unfettered by the commercial pressures that beset the name

[33] Jeremy Barnham, "Birth and Death of the Cool," 376; Gary Giddins and Scott DeVeaux, *Jazz,* (New York: Norton, 2009): 657–664. In the article, Barnham cites Giddins/DeVeaux (p. 461), but the jazz on film section appears much later. The Giddins/DeVeaux book does frame this history reductively as Barnham describes, but this narrow perception proves the typecasting jazz in these narrow roles point both Barnham, Butler, and other scholars make.
[34] Barnham, "Birth and Death of the Cool," 378.
[35] Ibid. The in-text citations refer to: Scott DeVeaux, "Constructing the Jazz Tradition: Jazz Historiography," *Black American Literature Forum* 25, no. 3 (Autumn 1991): 525–560; Scott DeVeaux, "Struggling with Jazz," *Current Musicology* 71–73 (Spring 2001–2002): 353–374.

bandleaders of the day."[36] In short, the public did not like bebop. Bebop existed for its practitioners, not consumers. These elitist perceptions of bebop compounded the genre's more unsavory associations: alcohol and substance abuse. Famous saxophonist Charlie Parker, for example, notoriously used heroin, which contributed to his early death. The film industry deemed bebop unfit for use on the screen until later when several biopics about beboppers were released.[37] Bebop's unpopularity and unsavory associations contributed to the "new" negative connotations of jazz as shaped by its portrayal in film.

Although less broadly reviled than bebop, cool jazz also acquired negative connotations in film. Like bebop, cool jazz was connected to a variety of counterculture movements. According to Barnham, "cool" was an early term that changed meaning over time:

> The relationship of jazz to "coolness," like the very definition of jazz itself, has been remarkably fluid (the term "cool" possibly originating as a label for physically attractive male jazz musicians and their clientele in the 1930s). It shifted from mostly positive social and musical identification of the one with the other during the first decades of the twentieth century to, on the one hand, the narcissistic dissipation attached to an alternative value system of exclusivity and drug culture associated with high-intensity 1940s bebop, and on the other hand, the smooth musical restraint of West Coast jazz and the orderly elitism of the college jazz concert.[38]

Although the West-Coast style bore the same connotations as bebop, it had a more screen-friendly style. Its simpler melodies, harmonies, and somewhat slower tempos offered a stark contrast from bebop. Scholars often point to the on and offscreen work of Miles Davis as an example of coolness, from his work on *Elevator to the Gallows* (1958) to his aptly-name album *Birth of the Cool* (1957).

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[36] Ted Gioia, *The History of Jazz,* (Oxford: Oxford University Press, 2011), 189–190.
[37] Barnham, "Birth and Death of the Cool," 375–387.
[38] Ibid, 380–381.

Barnham refers to post-cool jazz in film as a "descent into madness." Jazz and detectives remain connected to ideas of darkness and crime, but with some variation. Barnham explains this shift as "cultural fragmentation and opposition set in in its cinematic usage."[39]

As I noted above, the private eye/detective narrative in film gradually began to use jazz as a signifier for specific parts of the city (such as the bar), but eventually used them as an auditory symbol for the city as a whole. Video games are no different, and *jeu noir* use cool jazz to underscore the narrative and indicate setting of these detective narratives. The use of cool jazz in film noir was a stark departure from earlier films in the genre. Butler explains the shift towards cool jazz in his book, and another often-mentioned development is Miles Davis.[40] His work on the film *Ascenseur pour l'échafaud* (1959) is an excellent lightning rod for the style of jazz most often referenced in video games. Like the soundtrack for the film, *jeu noir* often use a subset of a specific instrumentation—drums, bass, piano, muted trumpet, vibraphone, or saxophone. Butler also highlights the importance of the composer Henry Mancini and the Modern Jazz Quartet (MJQ) both in terms of jazz style and instrumentation.[41] Mancini's work on later noir franchises such as *The Pink Panther* and spy films such as the *007* film series became standouts in each genre, and Mancini's work has become as iconic as the series themselves. MJQ has had many progressive ventures in jazz, such as recording music for the noir film *The Odds Against Tomorrow* (1959). Their instrumentation, which includes a standard rhythm section of drums, bass, and piano, with the addition of a vibraphone would prove influential on both cool jazz and the noir genre.

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[39] Ibid, 382. What is missing, however, is an in-depth discussion on modern jazz or jazz-adjacent styles like funk. TV shows like *Knight Rider* (1982–1986) or the film *Dirty Harry* (1971) utilize funk in key places almost in the same manner that classic noir films utilize swing styles. To be fair, Butler does lay the groundwork for some of these studies and I do agree with much of what he says on the subject from the influence of Henry Mancini and the Modern Jazz Quartet can and should be expanded on (both of which I reference in this study). This analysis is important, especially to my research, because game developers have been exposed to these detectives too, and the games I study reflect this. See Butler, *Jazz Noir,* 105–109, 147–155

[40] Butler, *Jazz Noir,* 12, 16.

[41] Ibid*.,* 105–109, 147–155.

Next, I provide an overview of the narrative archetypes of film noir and how jazz portrays them aurally in video games. I will first delve into two related archetypes connecting film noir, jazz, and video games: jazz as a depiction of urban life and jazz as a characterizing element of various character elements like *femmes fatales.* I will also discuss minor recurring narrative tropes involving music, such as the "wrong man" and "accusation" tropes associated with film noir. Often, the road to solving a case is not a clear-cut one. The detective may make a wrong guess or even implicate himself. While these tropes may not have specific musical themes associated with them, games often emphasize these moments with jazz scoring.

Jazz as/in the City

Since its earliest usage in film, jazz has been tied to the city. More specifically, jazz indicates the dark undersides of the city. In classic film noir, the hard-boiled detective or private eye has an office in a skyscraper—the symbol of the modern city. Given the history of jazz as an art form, its association with the city is reasonable. From early Dixieland street parades in New Orleans to the migration of jazz up the Mississippi river to the urban centers of Chicago and New York, the city was the birthplace of jazz, and musicians thrived in larger population centers. Assuming that viewers might already associate jazz with urban centers—where it was more likely to be encountered—jazz underscoring could help reinforce a specific cinematic setting. But because jazz differed from its orchestral score counterpart, it often required narrative justification (e.g., the characters go to a dance club). One way to provide narrative justification, as David Butler notes, was to make jazz music diegetic.[42] *The Asphalt Jungle* (1950), for example, emphasizes this amoral world of jazz with diegetic music pouring out from each of the onscreen establishments.[43]

Consider the opening scene of *The Asphalt Jungle* for example. The camera follows a police car across an empty midwestern town accompanied by a symphonic score. As the cruiser turns up a street, the camera cuts away to a man walking alone by the train tracks. He is well-dressed, wearing a suit, fedora, and trench coat. He enters a somewhat run-down restaurant, where the sounds of a jazz combo greet the protagonist's ears. The man sits down at the bar and hands his gun to the cashier, who stashes it in the cash register before turning up the radio, revealing the music as diegetic.

Even without dialogue, the viewer learns a few key points from this scene. The initial shots feature a barren cityscape, devoid of activity except for the police cruiser. The symphonic score evokes a

[42] David Butler, *Jazz Noir,* 61–62.
[43] Ibid.

sense of foreboding. The music changes to a jazz combo only when the man enters the restaurant and hides a gun behind the cash register, which could be construed as an illicit activity. The cashier even turns the radio's volume up to create more noise—possibly to make it tougher for the police to focus on the true inner workings of the restaurant. From a narrative perspective, the radio suggests an urban setting because radios and jukeboxes are staples of restaurants and bars, especially in spaces where a live ensemble might be impractical.

We might also consider the last classic noir film *A Touch of Evil* (1958) for another example of jazz in urban spaces. The original cut of the film featured an original score by Henry Mancini, a composer essential to jazz in post-classic film noir. The film's famous opening shot follows a couple through the crowded streets of a U.S./Mexico border town, littered with smoke, partying patrons, and signs advertising various amenities offered by the local establishments, such as exotic dancers. The re-released version of the film replaces Mancini's original theme with diegetic Latin jazz-sounding "source" music to underscore densely packed streets of the fictional town.[44] This re-orchestration does not undermine Mancini's work; timeline constraints seem to have forced the studio to commission the original main theme, while the Latin jazz re-release music aligns with producer Orson Welles' original intent of scene setting.[45]

Newly composed music gives the composer and director freedom to explore mood as it relates to setting without the same baggage pre-existing music has. For example, Billy Strayhorn's "Take the A Train (1941)" (written for Duke Ellington's Orchestra) presents commentary on life in Harlem, but it does not otherwise possess communicative power—unless the point is to stage a jarring juxtaposition.[46]

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[44] Walter Murch, "New York Times September 6, 1998: Restoring the Touch of Genius to a Classic," Reel Classics, archived from *New York Times* (September 6, 1998): II, http://www.reelclassics.com/Articles/Films/touchofevil-article.htm

[45] Ibid. Welles made note of this in his memos, some of which were adhered to, many of which were not.

[46] Lyrics written by Joya Sherrill in 1944. The use of pre-existing jazz is not unorthodox, but it has a very specific purpose. For example, in Bioshock (2007), a neo-noir first person shooter, pre-existing music from artists such as Django Reinhardt and the Andrews Sisters can be heard throughout the underwater city of Rapture, but its

Newly composed music communicates the feeling of the city without the limiting factors of pre-existing music; the player may think of Duke from a stylistic view when they hear newly composed music in-game, but that image does not obstruct the setting that jazz depicts.

Jazz is the primary music style used throughout games, unlike classic film noir. Jazz functions like symphonic scores do in the golden age of Hollywood, taking the place of the overture-like introduction, scene transitions, and dramatic underscoring. In conjunction with some of the ludic functions of this diegesis shift, non-diegetic jazz music enhances the narrative aspects by giving a sense of place and time. However, this tradition may be better likened to the overworld tradition of video games. Walking around an open world with no music can be boring, so developers include music the fill the remaining space and communicate narrative information.

Similarly, to later film noir and neo-noir, *jeu noir* use jazz to indicate the urban settings of their detective narratives. They often take Miles Davis's work on the film *Ascenseur pour l'échafaud* (1959) as a point of reference, but *jeu noir* draw from a diverse set of post-cool styles such as bebop in addition to the cool style popularized by classic noir. Like the soundtrack for the film, *jeu noir* often use a subset of a specific instrumentation—drums, bass, piano, muted trumpet, vibraphone, and saxophone. I will show how this works in my four game case studies below.

Many games use this cool/modern jazz influence paired with the 1940s/50s noir aesthetic. *Blacksad*, which uses cool jazz similarly to neo-noir films, adheres closely to the visual and narrative style of classic noir: the main character is a hard-boiled private detective wearing 1940s business attire complete with a trench coat, a war veteran battling his own internal demons that prevent him from

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inclusion adds to the game's political and social commentary rather than its mood. William Gibbons points out the musical irony that these popular songs display; the juxtaposition of the optimism of the Andrews Sisters' "Bei Mir Bist du Schön (To Me You Are Beautiful)" with the decrepit state of Rapture shows a critique of unchecked laissez-faire capitalism. This use of jazz serves a much narrow narrative purpose than most of the games I will discuss. William Gibbons, "Wrap Your Troubles in Dreams: Popular Music, Narrative, and Dystopia in Bioshock," *Game Studies* 11, no 3, (December 2011): http://gamestudies.org/1103/articles/gibbons.

forming close relationships.[47] The player has control over every major decision Blacksad makes, so how good (or crooked) of a detective he is depends almost entirely on the player. Throughout the game, *Blacksad: Under the Skin* uses cool jazz—both diegetically and non-diegetically—to represent New York City, from the nicer neighborhoods to literal and metaphorical dark alleys. One journalist has described the soundtrack as "sultry jazz," while the Steam store touts the music as "a jazz soundtrack to rival the very best of Hollywood's film noir."[48] A slow swing beat accompanied by string bass underscores most gameplay, with occasional interjections from a muted trumpet or saxophone. Different background tracks accompany different areas, although without connections to specific location types (bars, lounges, etc.) as in classic film noir or other *jeu noir*.

The style of jazz in *Blacksad* is heavily influenced by cool jazz, which fits within the historical context of the game–the anachronistic portrayal of cool jazz in 1940s film noir perpetuated by later neo-noir, that is–and creates a connection between what the player hears and what Blacksad hears within the game.

Grim Fandango features a more dynamic (that is, interactive) soundtrack than *Blacksad*, utilizing classic Hollywood orchestral scoring, jazz, and a fusion of the two (symphonic jazz).[49] *Grim Fandango*'s opening sequence features a cutscene in which Manny tries to sell afterlife accommodations to a client. In Manny's office, the player hears a swing pattern similar to what I described in *Blacksad* with (MIDI)

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[47] Daniel Goldmark, *Tunes For 'Toons: Music and the Hollywood Cartoon* (Berkeley: University of California Press, 2005). Goldmark outlines what types of soundscapes are typical of cartoon animations. A discussion of differences lies outside the scope of this paper.

[48] Jason Frye, "Blacksad: Under the Skin Developers Talk About Music and Animations in Latst Trailer," Pure Playstation, September 13, 2019, https://pureplaystation.com/blacksad-under-the-skin-developers-talk-about-music-and-animations-in-latest-trailer/2019/09/.
Valve Corporation, "Blacksad: Under the Skin," Steam Store, Accessed March 1, 2020. https://store.steampowered.com/app/1003890/Blacksad_Under_the_Skin/.The soundtrack sounds almost like an alternate take of Miles Davis' Kind of Blue (1959) combined with either Dave Brubeck's Time Out (1959) or Paul Desmond's Take Ten (1963), which is arguably what audiences retroactively associate with films noir.

[49] Max Harrison. "Symphonic Jazz," Grove Music Online, 2001, Accessed June 10, 2020. https://www-oxfordmusiconline-com.ezproxy.tcu.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000027249. Symphonic jazz refers began with early artists such as Paul Whiteman and Duke Ellington fusing symphonic and jazz elements. George Gershwin also falls into this category.

instrumentation of drums, bass, and clarinet.[50] (Here, the clarinet serves as a bridge between jazz and symphonic jazz.) This swing pattern emphasizes Manny's office as a "cool," metropolitan space, and because this location is central to Manny's identity in the first section of the game, it helps to establish the relevance and importance of the drastic change in Manny's life from that of an unsuccessful salesman to a hero as the story continues.

Grim Fandango also is an interesting case in the ways that it plays with the archetypes of film noir. In fact, it pays homage to many classic noir films in terms of visual and musical settings. Manny's dimly lit office building is an idea borrowed straight from film noir, but the addition of Aztec religious beliefs creates opportunities for the developers to explore different locales and narrative elements, each with their own underscoring. For example, when the player leaves the office building near the beginning of the game, the jazz music stops to allow music coming from a nearby parade to enter. This change reinforces the narrative connections between jazz and the skyscraper and, by extension, the connection between jazz and the urban environment. Later during Manny's travels, he enters a poetry club called the Blue Casket, a reference to the Blue Parrot from *Casablanca* (1942). Upon entering, the player sees a dimly lit room with blue neon lights adorning certain spaces like... Patrons are sitting around small tables enjoying their drinks. The music instantly shifts from the cool/symphonic jazz style to a more intimate jazz combo—a track called "Blue Casket Bop" on the official soundtrack. It sounds as if there are only four instruments in the combo: drums, bass, piano, and saxophone. As the title suggests, the angular saxophone lines and bold harmonic patterns indicate something more akin to contemporary bebop.[51] This piece reminds me of something that Michael Brecker would play, and his

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[50] Michael Hahn, "What Is MIDI? How To Use the Most Powerful Tool in Music," LANDR, Accessed March 1, 2020, https://blog.landr.com/what-is-midi/. Musical Instrument Digital Interface (MIDI) produces no sound on its own, it merely transmits a signal that tells a computer which sounds to produce. Usually used in conjunction with a Digital Audio Workstation (DAW).

[51] In this scene, the music remains non-diegetic, even though the setting is perfect for diegetic music. The club houses an empty stage. When Manny walks up to the lone microphone, the music cuts out while Manny speaks into the microphone.

playing features a synthesis of bebop, funk, blues, and other styles that are often heard in contemporary jazz music. Also, the patrons in the club exude a snobbish elitist attitude, literally hissing at Manny's poetry while cheering as Olivia recites the same dialogue. This may also serve as reference to the perceived elitist status of bebop. Overall, this scene combines a 1940s club visual aesthetic with bebop, even though bebop was not played in the club in classic film noir much, if at all.

Déjà Vu, like most of *Grim Fandango* and *Blacksad,* uses cool jazz as an indicator of urban spaces. However, it also uses the blues. Because of the memory limitations of the NES system, relatively few unique themes accompany the various areas Ace traverses in the game. Whenever Ace does move into a new area, however, the underscore transitions to a different loop, giving the player a sense of change. The music is typically swung, but there are a few instances with a straight eighth-note pattern and a swung melody, which still indicates an overall swing feel, as it is a practice sometimes done by jazz musicians. The five-channel system of the NES audio system is a good fit for the thinner textures and simpler forms of cool jazz, and the early limitations of memory likely encouraged game developers to come up with efficient ways to communicate information to the player, both with visuals and sound.

With minimal on-screen motion and limited game memory, *Déjà Vu* emphasizes specific visual and aural details in order to convey storytelling information. The game features many urban locales such as a bar and a casino, all of which fit in with the crime and immorality archetypes that often occur with film noir. Visually, the walls of the buildings are often peeling and have many holes; cobwebs abound in unused corners, and the entire landscape seems to be in disrepair. Various themes serve as "sonic wallpaper" that paints the soundscape in the same way that most buildings are in some form of disrepair, such as the "Peoria Streets" theme with its cool jazz depicting the empty city.

Sam & Max likewise employs jazz cues to illustrate varying parts of the city. Because of the comic and cartoon background associated with the *Sam & Max* series, there may be other cartoon tropes employed in this series. I will avoid most of these and instead focus on the traditional film noir

tropes.[52] In the game's opening scene, the player is introduced to the main characters in their office. The space is typical of a film noir private eye, much like in *Fallout* or *Blacksad*: it is cluttered, with file cabinets haphazardly placed along the walls, files strewn about the office, and coffee cups on the desk. There are a few notable cartoon differences, however. For example, their water cooler contains the trappings of a fish tank; there is a wall with bullet holes arranged as an outline of Max next to a dartboard; and their closet is currently full of cheese. It is clear this franchise does not take itself too seriously. The intro cinematic or cutscene features an overtly bluesy saxophone cadenza, which leads into a small jazz combo reminiscent of the cool jazz aesthetic of the Modern Jazz Quartet (MJQ). The instrumentation is fairly standard: drums, bass, piano, saxophone, trumpet, and the occasional addition of a synthesizer (much like the MJQ). A simple swing pattern fits the cool aesthetic associated with film noir.

Sam & Max utilizes various styles of jazz to accentuate different locations within the game environment. When the player leaves Sam and Max's office, the background music features the same jazz instrumentation as used in the office space but changes to a heavy, straight eighth-note, robotic pattern. Muted trumpets and trombones play crescendos and dense harmonies that almost sound like traffic, signifying the hustle and bustle of the city—much like symphonic jazz.[53] Trash litters the street, parking meters are bent, and graffiti adorns many of the walls lining the streets, while the non-diegetic jazz score underscores the experience.

Sam and Max uses other types of jazz to underscore different locales. In the first episode, for example, Sam and Max travel to an abandoned movie theater, and the hybrid symphonic/jazz music

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[52] Daniel Goldmark, *Tunes For 'Toons: Music and the Hollywood Cartoon* (Berkeley: University of California Press, 2005): 77-106. This chapter lays much of the foundation for the connections between early cartoons and jazz, but *Sam & Max* was created far after that, so it is difficult to say exactly how much cartoon tradition the series draws from in terms of early jazz. Cartoons do not have the same history of jazz onscreen as films.

[53] *Metropolis: A Blue Fantasy. A Tone Parallel to Harlem, Harlem Airshaft, etc.* Duke Ellington and Grofé have composed similar gestures in many of their pieces to indicate the same kind of shorthand for the city.

distorts as if now coming from a broken radio somewhere onscreen despite no visible audio source. When the player moves into the theater, the music continues, so the texture shift and downgrade in audio quality serves to mirror the drastic change in scenery without implying a change in diegesis. When Sam and Max later enter a "mafia-free" casino in the third episode, the jazz score reflects the swing styles of the 1920s/30s. Jazz music in the form of swing draws overt connections to the noir detective environment filled with gangsters, crime, and shady business practices: the casino is in fact a front for a mafia crime organization.

I have demonstrated several examples that use this cool/modern jazz influence paired with the 1940s/50s noir aesthetic. Yet this pairing is anachronistic: classic noir films rarely utilized jazz. So why use it in detective video games? Butler refers to this phenomenon as "jazz nostalgia":

> The perception that jazz was a consistent feature of 1940s and 1950s film noir is the result of retrospective illusion functioning on a grand scale: It is the retrospective illusion of not just a single film, but an entire film era. In fact, the retrospective use of jazz has become one of the main purposes for the music being employed in contemporary films.[54]

This definition also lines up with an observation made by Tim Summers about video games in general. In his "Conceptual Toolkit," Summers outlines several approaches that game developers employ for the benefit of the game. The relevant tool in detective games is "More real than real": "music may deploy 'signs of the real' to imply realism and help construct the game world, rather than using music (or musical absence) that is closer to the actual world sonic reality."[55] Simply put, it is more important to meet the player's expectations of authenticity than to actually be authentic to the time period.[56] Each of

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[54] Butler, *Jazz Noir,* 166. Krin Gabbard, *Jammin' at the Margins: Jazz and the American Cinema* (Chicago: University of Chicago Press, 1996), 266. In this section, Butler develops ideas found in Gabbard's book, which he cites shortly after.

[55] Summers, *Understanding Video Game Music,* 115.

[56] This is also like the discussion of authenticity of the Spanish music in George Bizet's *Carmen* or depictions of various Asian musics in Western Opera. While not related to this study directly, the smiliarity between the discussions is apparent.

the examples I have outlined projects a form of modern jazz onto a 1940s/1950s aesthetic: the developers constructed their jeux noirs by combining the 1940s visual aesthetic of Humphrey Bogart films with 1960s cool jazz. Doing so reinforces this idea of nostalgia. But while setting is a large part of the noir detective narrative, jazz is used in myriad situations to indicate other essential aspects of the story.

Character Tropes

Apart from the cityscape, various common character tropes or associations with film noir exist in *jeu noir*. While not every film contains every single trope or archetype, these tropes identify a common pool from which *jeu noir*s draw. First, I will outline Brookes's analysis of these tropes and archetypes in film. I will then supplement this analysis with readings by Butler, Wagner, and Barnham. Lastly, I will discuss how my case studies uphold or subvert these tropes within these analytical frameworks.

Besides the detective trope, one of the most prominent tropes in film noir is aggressive sexuality, particularly as exemplified by the *femme fatale*, or, "fatal woman." The widely accepted stereotype of a *femme fatale* is that she is overtly sexual and manipulates men to get what she wants. She frequents bars, clubs, and other seedy establishments, and is often the source of the detective's downfall. However, in the end, she usually gets punished for her misdeeds.[57] Both Wagner and Brookes acknowledge how power struggles between men and women—in terms of traditional gender roles during WWII and the postwar period—manifest in sexual tension onscreen.[58] The woman's portrayal as either completely "good" or "evil" depends on her adherence to social norms. As Wagner says about "deviant" women in film:

> During and after World War II, these existentially dark movies reflected the threats to masculinity lurking on the home front for many returning veterans, threats embodied in an ungirdled woman found drinking in juke joints, who played on male susceptibility to gain her advantage.[59]

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[57] *The Maltese Falcon* (1941), mentioned earlier, provides an early example. A damsel in distress approaches Spade and his partner, Archer. She pleads for the safe return of her missing sister, but her partially fabricated explanation gets Archer killed and Spade nearly so. In the end, she is arrested for her crimes after Spade spurns her advances.
[58] Brookes, *Film Noir,* 67-68.
[59] Wagner, *Jazz and Cocktails,* 8.

Yet Wagner also proposes that a pure good/evil binary is not an acceptable methodology to analyze the complexities of female characters within classic noir. To allow for some freedom of female expression, Wagner redefines the categories of women in noir as 1) the *femme fatale*, who facilitates her own demise, and 2) the *femme attrapée,* who is trapped by the patriarchy.[60] Julie Grossman further suggests that the *femme fatale* is not as an object to be affected by masculinity (much like Wagner) but instead functions as her own narrative apart from the male protagonist.[61] Grossman argues that:

> In some sense defining the women in exceptional noir films who aren't really "*femme fatale*s" begs the issue [of the identity or traits of the archetypal *femme fatale*], since the comparison relies on *a prioi* "*femme fatale*" which is drawn from the many films that, read closely, reveal the absence of a "*femme fatale*": she exists as an effect of problems in the culture, not as a thing in herself.[62]

Grossman's analysis suggests that the "*femme fatale*" concept is not as rigid as previous analyses might suggest. Each woman is unique. Understanding the context around the role she fills is essential in many regards. A *femme fatale* may be a sex icon, or she may not be. She may prove her own undoing through behavior that challenges domesticity, or she may not.

Jazz is inextricably linked to sex and sexuality in film noir. Consider, for example, *The Phantom Lady* (1944). The film opens with an extremely suggestive scene where the drummer of the band has an encounter with a mysterious woman during a jam session in a cellar. This scene shows quick shots of the drummer's face and the Phantom Lady's, in which both exchange sexually suggestive expressions. The

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[60] Wagner, *Jazz and Cocktails,* 12–13.
[61] Julie Grossman, *Rethinking the Femme Fatale in Film Noir: Ready for Her Close Up,* (New York: Palgrave Macmillan, 2009): 5.
[62] Grossman, *Rethinking the Femme Fatale,* 40.

drummer's solo ends in a "climax" with a cymbal crash and a facial expression indicating release as well. Butler describes the drummer's playing as "masturbatory," and Wagner describes it as "orgiastic."[63]

Even more frequent is the sexualized depiction of the female jazz singer in film noir. Marilyn Monroe's iconic role as Sugar "Kane" Kowalczyk in *Some Like it Hot* (1959) is an apt example.[64] In this film noir, Kane is a singer and ukulele player in an all-female jazz band. Monroe was known on and offscreen for her overt sexuality, and her character in *Some Like It Hot* played into this aspect of her persona. The film plays with the sexuality motif, however, by filling the anti-hero role—a role which is traditionally filled by the detective—with two men who cross-dress to flee the Mafia. Sugar Kane has several diegetic performances of jazz in the film. In one instance, she sings "Through with Love" while perched atop a piano and wearing a flashy outfit that sets her apart from the band. One of the cross-dressing anti-heroes sees her and is instantly smitten, which throws a wrench in the men's plan to escape the mob.[65]

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[63] Butler, *Jazz Noir,* 62; and Wagner, *Jazz and Cocktails,* 8.

[64] "The Chanteuse aka: Lounge Singer," TVTropes, Accessed June 10, 2020, https://tvtropes.org/pmwiki/pmwiki.php/Main/TheChanteuse?from=Main.LoungeSinger. It is important to note that *Some Like it Hot* is not a film noir in the traditional sense. Noir-inspired is a better description. I use it to highlight Julie Grossman's depiction of the spectrum of feminine depiction in theses noir-esque roles, of which Marilyn Monroe was a prime example. See also Grossman, *Rethinking the Femme Fatale in Film Noir,* 5, 40, 60, 141–142. It is important to note that this shifting perception of the *femme fatale* is likely how modern game developers viewed the role as opposed to that expressed in its initial introduction. I am aware there are more stereotypical *femme fatale* examples, but I used this one to highlight the ambiguity of the role.

[65] "The Chanteuse aka: Lounge Singer," TVTropes, Accessed June 10, 2020, https://tvtropes.org/pmwiki/pmwiki.php/Main/TheChanteuse?from=Main.LoungeSinger. Performances like Sugar Kane's likely inspired the overt uses of sexuality in parody noir, such as the animated character Jessica Rabbit from *Who Framed Roger Rabbit* (1988), Susie Diamond from *The Fabulous Baker Boys* (1989), Breathless Mahoney from *Dick Tracy* (1990), and Dorothy Vallens from *Blue Velvet* (1986), among many others. In turn, they inspired portrayals such as Magnolia from *Fallout 4*, who I described in the introduction.

Figure 6. Marilyn Monroe as Sugar Kane in *Some Like It Hot* (left). Magnolia sing in the Third Rail bar from *Fallout 4* (right).[66]

Although the club scene is essential to Sugar Kane's character, Butler illustrates how more contemporary neo noir removes jazz from the club environment. The example Butler cites is neo-noir *Taxi Driver* (1976), in which three important things happen: 1) jazz is removed from the exclusivity of the jazz clubs and placed in the streets (with regard to the sexual metaphor); 2) the sexual metaphor is perpetuated with the use of jazz; and 3) cool jazz takes the place of swing jazz typically found in clubs when illustrating sexual metaphor.[67] My case studies do not overemphasize these overtly misogynistic film tropes, but rather offer twists on the genre narratively and (sometimes) musically. To demonstrate the use of the *femme fatale* and sexuality tropes in *jeu noir*, however, I will begin with an "on the nose" example from a game not included in my case studies.

[66] IMDB, accessed March 1, 2020, https://www.imdb.com/title/tt0053291/mediaviewer/rm1599243264?ft0=name&fv0=nm0000054&ft1=image_type&fv1=still_frame. (left). Screenshot by author (right).
[67] Butler, *Jazz Noir,* 156–173. Butler does not emphasize all the points I do; points two and three especially are extrapolated from other observations he makes in this section. I merely draw attention to them in order to build a foundation for observations I make about games.

The 2011 game *L.A. Noire* embodies classic film noir in the literal sense. Our protagonist is a WWII veteran-turned-cop who has not quite dealt with his war experience in a healthy way. The 1940s/50s Los Angeles cityscape is punctuated by a symphonic jazz score. Although this is normal for classic film noir, it is not common for video games. The player only hears jazz in diegetic moments featuring the car radio and inside the Blue Room Jazz Club, where the singer Elsa Lichtmann headlines. When the detective first meets Lichtmann, he is struck by her beauty and her singing. She sings very subdued and sultry jazz during her sets: not quite cool jazz and almost more like a ballad or a torch song of unrequited love.

Soon after meeting her, the player finds out that Lichtmann is both a drug user and a star. She is prized for her voice, but her German heritage causes understandable rifts in postwar Los Angeles. She and detective Phelps end up having an affair, which ruins his career after it is leaked to the press. The detective gets demoted to the arson unit, within which he soon discovers a high-profile crime ring. To make amends for his infidelity and subsequent fall from grace, the detective uncovers the source of this ring, sacrificing his life in the process.

In this scenario, Lichtmann recalls the *femme fatale* type associated with Marilyn Monroe in *Some Like It Hot* (1959). Operating within patriarchal confines, Lichtmann is a jazz singer who uses her sexuality as a form of social mobility. She is physically slapped and verbally berated by men who despise her independence. When her affair with Phelps is discovered, the police officers even call her a "German whore," despite Phelps' shared role in the relationship. Lichtmann, however, does not succumb to the typical "fatale" trope, presumably living a normal life after Phelps' death. Here, jazz serves as a quick symbol for this more fluid archetype of the *femme fatale*.

Gr*im Fandango* also plays with the *femme fatale* stereotype, though in a much more playful way. Like *L.A. Noire, Grim Fandango*'s protagonist encounters the *femme fatale* first in a club, the Blue

Casket. Olivia Ofrenda, the club owner, wears a trench coat and a beret in a manner more akin to a slam poet than a detective or jazz singer-seductress. She speaks in a deep, seductive voice and smokes cigarettes through a cigarette holder. When the player first sees Ofrenda in the game, she emerges from a back closet with a man who is not her boyfriend. She confidently leans against the door frame and takes a drag on her cigarette. Her real boyfriend, a mob boss, provides access to the finer things in life, and Ofrenda uses her charm to get what she wants. Later in the game, Ofrenda reappears to aid Manny Calavera on his quest to root out the afterlife travel embezzlement. Ofrenda double-crosses Calavera, and, like most *femmes fatales,* Ofrenda is punished for her transgressions: she is "sprouted" (the only way to kill someone in the afterlife) by one of Calavera's allies.

Unusually, bebop-esque jazz accompanies Ofrenda in the club. But the use of bebop suggests her higher level of sophistication, which is underscored during several gameplay moments that take place inside the club. For example, Ofrenda and her club's patrons are slam poetry connoisseurs, mirroring bebop's focus on a niche audience of practitioners. The audience promptly boos and hisses when Calavera approaches the microphone and recites a poem, which is constructed by the player who selects the poem's various phrases. But when Calavera saunters over to the microphone and repeats the exact same poem, the audience applauds. Calavera—who admittedly is not the best or luckiest detective to begin with—is in *Ofrenda's* world, not vice versa. It is *her* club. She calls the shots in *her* relationships, and she pulls the strings in *her* own destiny. Arguably, bebop parallels Ofrenda's status and sophistication, while simultaneously underscoring her sexuality via the club environment. When Ofrenda reveals her true colors later in the game, the sexual metaphor is no longer relevant. From a narrative standpoint, she is an enemy who holds the protagonist at gunpoint.

Figure 7. Ofrenda reciting poetry in the Blue Casket (left). Ofrenda caught cheating with Nick (right).[68]

These examples from video games subvert the established tropes of sexuality and the *femme fatale* in ways that classic noir does not. The *femme fatale* in these games is clearly more than just a hyper-sexualized character; her goals are foregrounded, and her sexuality becomes a means to achieve said goals and is not afraid to abandon it if necessary. These moments often become difficult to distinguish, as scores consisting solely of jazz do not offer the same compartmentalization as classic noir, where jazz is typically restricted to specific spaces. *Grim Fandango* manages to circumvent this challenge by using different styles of jazz to mark different areas, including symphonic jazz in the street, cool jazz in the exploration areas, and club-style jazz in the club. Yet the *femme fatale* is not on the only film noir trope that video games frequently subvert. Building on Grossman's analysis of the *femme fatale*, I present a character who has traits of many character tropes associated with the detective adventure game.

Blacksad is clearly aware of its place in the film noir tradition. In fact, Blacksad the detective is aware that he is in a noir scenario. Appropriately, he uses voiceovers to narrate specific situations to the player, which not only literally communicate this self-awareness but plot development as well, much like

[68] Screenshots by author.

in noir film.[69] This in-game voiceover, for example, references noir literature, which would have been popular during this era:

> I wish I was a noir fiction writer. At this very moment, I could write a couple of pointed, ironic remarks for the narrator to recount what I just lived through. "The dark, crooked alleyways reminded me of the state of my own soul…" Ugh. No. "Fall loomed over me with the…" "Fall struck me with the full force of my long-lost youth." No, not that. [Blacksad gets attacked by some thugs.] "Fall Descended over me with the full weight of a heavy conscience." God, that's worse… "I felt fall seep through my bones like the pain of a good beating." Mediocre, but appropriate.[70]

This self-awareness adds a new layer for the players. A non-diegetic voiceover communicates what Blacksad is thinking in real time, while the cool jazz background heightens the player's game immersion and sense of place in a dark alley. This ambiance is also punctuated visually with shadows in classic noir fashion. When Blacksad gets attacked, the entire altercation happens by shadow. The camera pans away from Blacksad as he walks behind a building; a trash can containing a fire illuminates the encounter, and the player can only see the shadows cast on the adjacent building.

Another *Blacksad* character pushes the boundaries of noir categories. Sonia Dunn approaches Blacksad with a case. She is understandably conflicted over her father's death and the responsibilities of running his gym. Dunn reveals that her relationship with her father was strained, and she is seemingly more concerned with resolving this case and moving on with her life. Dunn is attractive (as far as an anthropomorphic lynx goes), but she gets her way by using her brains and business acumen instead of her sexuality. She was in the process of earning a business degree when she was called back to take care of her father's affairs. Dunn struggles with maintaining the gym, and she does not get many favors because she is a woman—although the ones close to her support her fiercely.

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[69] Brookes, *Film Noir,* 42–44.
[70] Pendulo Studios, *Blacksad: Under the Skin,* Microids, XBOX One, 2019.

Early in the game, Sonia begins carrying her father's gun, and Blacksad even has to stop her from using it on her father's suspected murderer. At the end of the game, Blacksad discovers that the person behind her father's death is one of her father's closest friends and a man Dunn affectionately refers to as "Uncle Tim" (Tim Thorpe). He was the only family member who encouraged Dunn to pursue a business degree. Dunn shoots Thorpe (if the player chooses to accuse him), and the player must react quickly if they wish to prevent Dunn from then using the gun on herself.

Dunn does not fit neatly into the *femme fatale* or good woman category. Her identity is uniquely her own, and the actions of the detective have little to no bearing on her outcome. Dunn presents Blacksad with the case but seems annoyed with his slow progress. She is progressive in the sense that she ignores the domestic sphere entirely, but she orchestrates her own downfall at the end in typical *femme fatale* fashion. Grossman's analysis is important here: even if based in classic noir, modern characters are less susceptible to rigid character archetypes. In the final scene where Dunn shoots Tim Thorpe, a happier, more triumphant jazz loop occurs in the moments before Blacksad accuses Thorpe of the murder. The loop cuts out after Thorpe attempts to kill Blacksad and the police commissioner. The game strategically uses silence to highlight the moment when Dunn shoots Thorpe from off camera. In the aftermath of the shooting—whether or not Blacksad prevents Dunn from turning the gun on herself—a darker loop used to accompany the game's seedier environments begins to play, underscoring the equally dark story onscreen.[71]

[71] Going from the more subtle uses of jazz in *Blacksad* to the more overt ones associated with *Sam & Max*, we can see varying levels of true-to-life portrayals of the private eye from film noir in video games. With the *Sam & Max* example, I hope to have made clear the ubiquity of some of these archetypes, often to the extent of parody. The comic and cartoon origins of *Sam & Max* allow me to showcase that these archetypes need to have clear and quick associations in order to be explained in a single comic, or in this case, a single episode. Typecasting jazz, as Barnham terms it, in this way allows developers to communicate a lot with implicit storytelling techniques such as setting, attire, and music, all of which require no explicit explanation—the player just "gets it." Butler's discussion on jazz nostalgia shows that no matter when or where the game is set, developers are likely to use jazz as background noise and the narrative aid, even if the source material dictates otherwise. Maybe this should go somewhere in the main body of text, where most relevant?

There is an infinite amount of variation possible in games. Even though my four case studies are clearly imitating classic film noir of the 1940s/50s, no single game displays each trope I addressed in an easily identifiable way. There are many tropes I did not have time to discuss here. Film noir is a nearly infinitely variable genre, and games have the unique position of drawing from other video game narratives in addition to film. Also, the tropes portrayed in jeux noirs are seldom as overt as those in film, largely because of the temporal separation between classic noir and more modern noir subgenres. Arguably, Ofrenda in *Grim Fandango* is a much more subdued *femme fatale* than the average one in classic noir. By using a completely jazz score, developers ironically take away some of the impact that a sudden shift to a jazz score has on a narrative. In classic film noir, jazz was relegated to specific locales and had specific connotations, and these are softened when jazz is used for the entire narrative. Granted, *Grim Fandango* uses different styles of jazz to best connote specific meanings, while *Sam & Max* make use of other cartoon tropes to convey meaning in a more "cartoony" sense; this appears to not be the norm. *Jeu noir* narratives are more complex than their film counterparts, and I believe that further analysis of different games would elucidate these points. The unique medium of video games presents many opportunities and challenges to storytelling that films do not possess. A unique media requires unique visual and sound elements. I next explore how jazz is tailored specifically to the video game medium.

Part II: Ludic Functions

Although jazz helps situate *Déjà Vu* (1985), *Grim Fandango* (1998, and its 2015 remastered version), *Sam & Max Save the World* (2006), and *Blacksad: Under the Skin* (2019) within the context of film noir history, the uniquely interactive nature of video games as a medium require adapting and reimagining jazz in ways not required in cinema. A player-driven narrative necessitates the use of audio clues to direct or encourage actions to progress the story. That is not to say that video game music does not fill other linear film-like roles, such as cueing a cutscene or providing transition material between scenes. However, the cues that underscore actions in film noir must now *motivate* story-progressing actions on the player's part in a video game.[72] This is the basis of my "ludic" analysis of *jeu noir*: I intentionally isolate the larger narrative uses of jazz in *jeu noir* from the gameplay uses.

Video games are predicated on a dynamic relationship between the player and the medium. The indeterminate nature of this relationship necessitates a creative approach with communication–both visually and aurally—to create a cohesive and immersive game world. But what does "immersive" mean? Tim Summers adopts the view that immersion is a "progressive experience that includes suppression of all surroundings (spatial, audio-visual, and temporal perception)."[73] Karen Collins further proposes an "imaginative immersion," in which the player has "a chance to use her imagination, empathize with the characters, or just enjoy the fantasy of the game."[74]

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[72] Collins, *Game Sound,* 125–28.

[73] Summers, *Understanding Video Game Music,* 58. Summers acknowledges the complexity and confusion associated with the word "immersion," and the debate about the term's precise definition is different between scholars and fields.

[74] Collins, *Game Sound,* 134. Summers, *Understanding Video Game Music,* 59. The idea of imaginative immersion is not Collins's, but both she and Summers make use of this research: Laura Ermi and Frans Mäyrä,"Fundamental Components of the Gameplay Experience: Analysing Immersion," paper presented at Changing Views: Worlds in Play, Digital Games Research Conference, Vancouver, British Columbia, Canada, 2005.

Both definitions indicate that an immersive game includes audio that reacts to player input, builds up the game world, and communicates essential information to the player. One useful tool for analyzing immersion offered by Summers is "texturing," which can be described as filling in or fleshing out the visuals of a game in order to enhance its narrative.[75] An example Summers offers of this concept is the science-fiction game *Elite* (1984).[76] In it, the game pays homage to the Stanley Kubrick film *2001: A Space Odyssey* (1968) by using a simple version of *The Blue Danube*, thereby creating an intertextual relationship between the two space adventures. In *Elite*, the use of the *Danube* conjures up the images, sensations, and awe of space travel introduced in *2001* without using any of the visual prompting present in the film; the player recalls the iconic docking scene by being reminded of the musical underscoring present in the source the game borrows from.[77] The simple texture and formal structure of *The Blue Danube* fit well within the limited channel and memory capacity of the NES. Again, this allows a technically limited console to provide a lot of texture with little memory.

I use the term "texturing" to highlight specific narrative-driven elements of *jeu noir* as opposed to the larger connection between *jeu noir* and film noir aesthetics. These individual narrative-driven elements are derived from what Collins describes as dynamic audio.[78] She uses the terms "dynamic audio" to encompass interactive and adaptive audio, defining it as audio that "reacts both to changes in the gameplay environment, and/or to actions taken by the player."[79] Later, Collins highlights four characteristics of dynamic audio that Koji Kondo, composer for the *Super Mario* series, suggests game producers consider:

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[75] Summers, *Understanding Video Game Music,* 58–63.
[76] Summers, *Understanding Video Game Music,* 60–61.
[77] Ibid*,* 60–61. See also, William Gibbons, *Unlimited Replays: Video Games and Classical Music* (New York, Oxford University Press, 2018): 74–78.
[78] Collins, *Game Sound,* 4.
[79] Summers, *Understanding Video Game Music,* 60–61.

1. The ability to create music that changes with each playthrough;
2. The ability to create a multicolored production by transforming themes in the same composition;
3. The ability to add new surprises and increase gameplay enjoyment; and
4. The ability to add musical elements as gameplay features.[80]

Both Collins and Summers offer the primary lenses through which I will analyze my case studies. Though considerations of immersion and interactivity are broad, and I will appropriately narrow the focus further for the purposes of this thesis.

The specific types of interaction required of game music depend heavily on genre. Video games typically have two genres: one based on narrative content (in this case, detective noir) and the other based on gameplay (in this case, adventure games). Music can be helpful in navigating both. To quote Gibbons:

> Exploring the differences between musical approaches to Western and Japanese role-playing games has several benefits. First, it sheds light on the complex relationship between music and genre in games, particularly on the notion as of music as a determining generic factor rather than simply as a reflection of preexisting generic identity. In both types of RPGs, traditions of musical style and position have assumed a central role in the genre's identity that they profoundly shape players' ability to situate new games into generic frameworks; in some instances, music, as much as gameplay, shapes which games we perceive as, say, a JRPG.[81]

Using Gibbons's observations about JRPGs, it seems that adventure games—and by extension, detective adventure games—require specific types of cues. The adventure game has specific hallmarks which players have come to expect or have otherwise become familiar with. Andrew Rollings and Ernest Adams identify exploration, puzzle solving, conceptual challenges such as physical challenge (albeit

[80] Collins, *Game Sound,* 139.
[81] William Gibbons, "Music, Genre, and Nationality in the Postmillenial Fantasy Role-playing Game," in *The Routledge Companion to Screen Music and Sound,* Miguel Mera, Ronald Sadoff, and Ben Winters, eds. (New York: Routledge, 2017), 414.

rarely) as important gameplay characteristics of the adventure game.[82] Music, then, also provides a few essential functions for gameplay: patterns that reflect either right or wrong choices, clue indicators, or even character interactions that reveal narrative information.[83]

I have parsed ludic functions of jazz into two categories: 1) functions that facilitate narrative cueing, and 2) functions that use interactivity to facilitate immersion. Narrative cueing refers to jazz that communicates pertinent story information to the player. For this section, I make use of both Steven Reale's analysis of *L.A. Noire*'s correct/incorrect accusation indicators as well as Elizabeth Medina-Gray's term "earcons" to bring attention to narratively significant artifacts in the game world.[84] The second section, which I refer to as immersion, discusses the ways in which games use jazz traits such as formal structures and improvisation to disguise looping in order to prevent "listener fatigue."[85] Different areas often have different looping structures, and I explore how these modular structures interact with each other. I also explore how layering of different jazz-related cues enhance immersion and storytelling; one common example across *jeu noir* is the radio.

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[82] Andrew Rollings and Ernest Adams, *Andrew Rollings and Ernest Adams on Game Design* (Boston: New Riders, 2003): 43.
[83] Collins, *Game Sound,* 142–165. Collins's discussion of methods for achieving this goal "nonlinearity in games" and "ten approaches to variability in game music" have been especially useful in this discussion.
[84] Steven Beverburg Reale, "Transcribing Musical Worlds; or, Is L.A. Noire a Music Game?" in *Music in Video Games*, K.J. Donnelly, William Gibbons, and Neil Lerner, eds. (New York: Routledge, 2014): 97-103; Elizabeth Medina-Gray, "Modular Structure and Function in Early 21st-Century Video Game Music," (PhD diss., Yale University, 2014), 192–195.
[85] Collins, 67, 140–142.

Narrative Cueing

Steven Reale presents a multitude of important points of how audio cues work? in the detective game through his analysis of *L.A. Noire* as a music game. In particular, Reale highlights the branching score—where player choice affects the path which the score takes—that occurs whenever Phelps interviews someone. He also highlights the tones that sound when Phelps interacts with a clue.[86] *L.A. Noire* appears to be the most detailed game in which this happens, but similar gestures occur in my case studies as well.[87]

In Reale's diagram, the correct response in an interrogation leads to a C minor/major9 chord with the C and G prepared as an arpeggio over a C# major pedal chord. The former is played on piano, and the latter is played on strings. An incorrect response produces an arpeggiated C major7 chord (minus the third) that resolves the B natural down to an A# while adding a C# diminished triad underneath, creating a C# half diminished seventh chord. The C# major pedal in the strings remains in either scenario.

An incorrect response thus creates auditory tension and induces a desire for relief or resolution in the player. The correct response, on the other hand, sustains unease and suspense but not a desire for resolution. As composer and theorist Vincent Persichetti puts it:

[86] Reale, "Transcribing Musical Worlds," 97–103. To be fair, Reale does mention that his comparisons to the music games are abstract, they just all use musical gestures to indicate a right and wrong choice.
[87] I would also venture to say that similar non-jazz gestures in non-detective video games happen as well, but that is outside this scope of study.

> The seventh and ninth members of chords are traditionally dissonant tones but they have been freed of some of their former restrictions. These chords have become stable entities in themselves with their dissonant tones not necessarily prepared or resolved. Seventh and ninth chords, like triads, may progress within or outside any scale formation, original or traditional. Under certain formal conditions the seventh and ninth are treated as dissonant tones needing resolution; but as independent seventh and ninth chords they have the facility of triads.[88]

It is common practice to have chord extensions on just about every chord in a chart; even a twelve-bar blues progression is usually written with all dominant seventh (major/minor seventh) chords. My point in bringing Persichetti into this is that the principles he applies to classical music have been applied to jazz for years; It is common for chord extensions to express both consonance and dissonance in the jazz tradition, depending on the context, as evidenced by the abundance of notated chord extensions on lead sheets and the many different chord voicings pianists employ, to name a few examples. Reale's branching score in *L.A. Noire* presents clear examples of both consonance and dissonance to communicate right/wrong responses to the player. Although *L.A. Noire* utilizes a mostly symphonic score, these shared principles between jazz and classical music opens up a new world of compelling interpretations that I believe fit in my interpretation.

Blacksad best emulates *L.A. Noire*'s use of jazz-influenced harmonies as a plot signifier. Blacksad, the detective, can ponder clues in his head. The interface is merely a tool for the player to simulate Blacksad's thoughts, as this menu suspends both time and audio. Whenever the player selects two or more clues to combine into a deduction, the game responds in one of two ways. If the clues result in a successful deduction, the player hears an ascending F# half-diminished arpeggio beginning on an A played on piano. If the combination does not make a deduction, the player hears a lone F# played by the piano. While the player quickly catches on to the idea that hearing a full chord is good and a single tone is bad, I wish to apply Persichetti's analysis again to show the commonalities between the two games.

[88] Vincent Persichetti, *Twentieth Century Harmony* (New York: W.W. Norton, 1961), 74–75.

The F# half-diminished 7th in first inversion does not utilize a 9th extension, but we can still reference Persichetti to justify its stability. Persichetti might argue that arpeggiating A-C-E-F# takes out some "sting" of the diminished triad of the same chord in root position, thereby keeping its uneasy yet pensive feeling.[89] The incorrect choice sounds a single F#, which on its own is relatively uninteresting. But the absence of the pensive quality is probably indication enough that the player has made an incorrect, or at least unproductive, choice.

In contrast to *Blacksad*, neither *Grim Fandango* nor *Sam and Max* contain these same jazz-related narrative signifiers. Both games rely on a system where the player selects the correct object and interact with another character or item to solve the puzzle. Making the correct choice triggers a cutscene where the characters solve the puzzle or progress the story in some way. *Sam and Max* does not have many specially crafted cutscenes with specific musical cues, but *Grim Fandango* does. The example Collins presents takes place at Manny's club. If the player presents Glottis, Manny's driver/mechanic, with a VIP pass to the local racetrack, he will leave and the player can then interact with the piano, which cues a piano riff that cannot be altered in any way by the player.[90]

Sound design in *Blacksad* can also underscore these very specific moments, but these events are less scripted and often happen by chance. In film noir, important events are often underscored by either stingers or deliberate cadence points paced to happen at specific points. The latter can happen in *Blacksad*—but almost always by chance. For instance, at one point I left Sonia Dunn's office in the gym, and the main smooth jazz swing track began. As I descended the stairs, it continued. I walked around a bit and observed the scenery and decided to approach another character to question them. As soon as I selected the talk command, the musical loop ended at the cadence point. I remember noting that it felt as if it was a scripted film scene; but upon watching another playthrough online, I noticed that player did

[89] Persichetti, *Twentieth Century Harmony,* 17-23.
[90] Collins, *Game Sound,* 127.

not have the same experience. They moved through the scenery much quicker than I did, and as a result, the loop did not end at the cadence point when they initiated the same conversation.[91] Although random, these unscripted moments of synchronicity can be immersive and satisfying when they occur.

Elizabeth Medina-Gray addresses this idea of modular synchronization, which she calls smoothness/disjunction.[92] In her analysis, this distinction occurs between two separate modular segments of music, which line up (or don't) by means of compatible meters, tempos, and/or pitch centers/keys. The smoothness between the jazz segment and the dialogue serves a similar function. The cadence point creates the desired aesthetic smoothness by imitating the underscoring timing of film noir. The interactive portion of this moment depends on the anticipated amount of time the player moves through the environment—presumably stopping to look at clues along the way. More deliberately timed cues or perhaps shorter cues timed to specific interactions could heighten these moments.

[91] Nokzen, "Blacksad Gameplay – Part 2 (No Commentary)," YouTube Video, November 5, 2019, https://youtu.be/TNI24goh0Lc?t=1554. The cadence happens around 00:27:15.
[92] Elizabeth Medina-Gray, "Meaningful Modular Combinations: Simultaneous Harp and Environmental Music in Two Legend of Zelda Games," in *Music in Video Games,* K.J. Donnelly, William Gibbons, and Neil Lerner, eds. (New York: Routledge, 2014), 105.

Interactive Elements

Aside from narrative cueing, interactive or dynamic music can be crucial to maintaining a sense of player immersion in the detective adventure game—a sense, in other words, that the player is starring in a film noir they can control. Composers use a range of techniques to create these effects. The first I would like to discuss is the most basic: looping, or the composition of music that can be infinitely repeated based on the game's needs.[93] Most games contain some form of looping, which is essential because the amount of time players spend completing tasks is highly variable. Looping presents some particular challenges in the case of the detective adventure genre. How do detective adventure games cope with keeping the background music interesting and unobtrusive when the "level" spans a completely indeterminate as opposed to a predictable amount of time in games with more linear levels? And how do detective adventure games adapt complex jazz elements such as traditional formal structures and improvisation to looped formats?

Déjà Vu has the least complex soundscape of my four case studies, which is understandable since it is the earliest example. Although countless games on the Nintendo Entertainment System made the most out of the resources available to them, we cannot ignore the limitations of the console. Collins points out that the loops in early games are often simple and do not reflect a common song form (e.g., verse-chorus format).[94] For example, the very first location theme in *Déjà Vu* is "Joe's Bar"—a simple AABA form with each section lasting four bars, totaling twelve bars and lasting about forty-five seconds, which was unusually long for the time. This form allows for endless repetition, as jazz standards are designed to repeat ad nauseum. In *Déjà Vu,* each location's loop cuts out immediately when the player moves to a new location. However, this normally disjunct transition is sometimes softened by the introduction of the new area's loop. For example, the loop that plays when the player leaves the bar,

[93] Collins, *Game Sound,* 140–141, and Summers, *Understanding Video Game Music,* 21–25.
[94] Collins, *Game Sound,* 27.

"Peoria Streets Theme," begins with a drum intro that is not repeated on subsequent loops. The result is a "smoothing" effect in the sense that the two loops may not necessarily conflict. The harmonic structure of "Joe's Bar" will always transition to the drum intro of "Peoria's Street Theme" (in that particular transition), so there is no conflicting harmonic material. By contrast, the "Danger" track begins with a minor third tremolo, so moving from any other location to one that uses the "Danger" theme can cause a disjunct modular transition. However, as Medina-Gray notes, pitch content is an important consideration for smoothness.[95] By using a melodic gesture like a third, which is essential to the jazz idiom (as the "blue" note or otherwise), the game creates opportunities for less disjunct transitions, even if the key centers are not similar. While not completely smooth, the similar melodic shapes help maintain some smoothness, albeit little.

The musical texture in *Déjà Vu* uses three of the available four audio channels available on the NES (excluding the fifth sampler channel) because this game has to leave one channel open for the mid-range triangle wave to produce the pen sound at any given moment. The drums usually use the "noise" channel, the bass uses the note channel, and there are normally two melody channels, which is reduced to one in this case. I will address the significance of this instrumentation in relation to building immersion later, but at this point note that this texture resembles a traditional jazz trio.[96] With three channels, *Déjà Vu* covers the essential aspects of a jazz combo: drums for steady triplet swing, the bass which uses walking bass lines to imply harmony, and a solo instrument for melody.[97]

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[95] Medina-Gray, "Meaningful Modular Combinations," 108–109.

[96] William Gibbons, "Blip, Bloop, Bach? Some Uses of Classical Music on the Nintendo Entertainment System," *Music and the Moving Image* 2, no. 1 (Spring 2009): 40. Gibbons points out the textural match between Bach fugues and similar pieces and the audio channels of the Nintendo Entertainment System.

[97] The harmony of the A section centers around C by using a ground bass. It descends chromatically from C down Ab, then moves to F and then to G (to complete the encircling motion), and back to C in half notes. There is clearly a I-IV-V-I harmonic pattern occurring here, and the bluesy melody on top reinforces this analysis. There are no other harmonic indicators so I can only assume that these chords are implied, but this is a reasonable analysis. The B section bass pattern goes F-Bb-Eb-C, F-Bb-D-G, which implies a shift to the subdominant for the B section, which is a common progression in jazz music.

This theme repeats endlessly every time the player visits Joe's Bar, as do the similar loops for each in-game location. With a total of five location-based tracks of similar length (all the game's music excluding the title, end, and game over tracks), these loops get boring quickly. The one beat loop "Who Am I" plays whenever Ace makes a discovery pertaining to recovering his memory and repeats until the player clicks to another item or screen. Even compared to other NES titles, *Déjà Vu* contains relatively little music, possibly due to its origin on machines without a soundcard. The original *Super Mario Bros.* (1985), for instance, has at least three times the number of tracks, which are mixed together in a significantly more dynamic (that is, interactive) fashion.[98] *Déjà Vu* has minimal adaptability to player response other than having different location themes. These short loops distinguish each location by being technically different but still maintain a simple cool jazz texture with similar melodic and harmonic content. Though eventually grating, the frequency at which the player moves between these locations eases the repetitive nature of the loop.

Figure 8. Interior of Joe's Bar. *Déjà Vu.*[99]

[98] Neil Lerner, "Mario's Dynamic Leaps: Musical Innovations (and the Specter of Early Cinema) in *Donkey Kong* and *Super Mario Bros.*," in *Music in Video Games,* K.J. Donnelly, William Gibbons, and Neil Lerner, eds. (New York: Routledge, 2014); Andrew Schartmann, *Koji Kondo's Super Mario Bros. Soundtrack* (New York: Bloomsbury, 2015). These documents go into depth on the content of the *Super Mario Bros.* game; the former discusses the application of these musical segments and the latter discusses the composition and development process.
[99] Strategywiki, "Déjà vu/versions" Accessed March 1, 2020, https://strategywiki.org/wiki/D%C3%A9j%C3%A0_Vu/Versions.

Sam and Max employs a similar looping method, but in a significantly more nuanced way. Each area still has its own theme, but the greatly enhanced technological capabilities of the Nintendo Wii allow for much longer loops. The "Office" loop, compared to "Joe's Bar" in *Déjà Vu,* is about three minutes and ten seconds long, which is over four times the length of "Joe's Bar." Intriguingly, these tracks incorporate the illusion of jazz improvisation to lengthen the loop.

Consider, for example, the title sequence and first area. The title card opens with Sam and Max driving in their 1960s DeSoto while a bluesy saxophone solo underscores the action. As the camera pans around the car, a cool jazz track enters with some stingers vaguely reminiscent of 1970s/1980s detective tv shows. The camera pans to a blank red spot, which suddenly switches to the off-white walls of Sam and Max's office accompanied by a stinger. As Claudia Gorbman might say, jazz here is both a narrative cue and a continuity tool. First, cool jazz accompanied by the referential scenery puts the player in the mindset of a buddy detective duo like Starsky and Hutch. Second, it fills the space between the title card and the transition to the introductory cutscene in the office.

When the cut to the office occurs, the music immediately transitions to a prelude to the main office theme. The prelude, which coincides with a cutscene, contains all the non-melodic material from the office loop—drums, bass, piano, vibes, and organ—with stingers from muted and unmuted trumpets. This transition serves two purposes. First and foremost, background music without melody is quieter and more invisible, foregrounding the dialogue of the cutscene. Second, it allows a bit of narrative and emotional cueing in the form of jazz nostalgia. This prelude transitions almost seamlessly from the pre-rendered cutscene into the actual gameplay, when the usual office loop begins. The form of the office loop is AAABA, and each section is eight measures, totaling forty measures per repetition. Notably, the first A section is an introduction, which normally is not included in the standard AABA song form and its repetitions, is still included in the loop in this scenario, which is why the loop seems odd.

This initial repletion of just the melody with no improvised solos is called the head or chorus. The loop begins with the A section (minus the melody). When the ensemble enters with the head, both the saxophone and muted trumpet trade the melody through each repetition of the A section. In the B section, the piano plays the melody with flute accompaniment. In the final A section, the trumpet enters with the melody while the saxophone plays a countermelody.

After one time through the head, the saxophone and trumpet take turns playing improvised solos over the form. To be clear, although the solos were likely improvised at the time of recording, they repeat identically in the game. Under normal circumstances, the intro A with no melody would not be repeated, making a thirty-two bar AABA form; but in this case, the intro A section is repeated during the solo section. The saxophone takes the first half of the chorus (the first three As), the trumpet takes the second half, and both instruments solo on the last A section. Collins offers some insight to the use of (micro/meso/macro) loops as a manner of what appears to be loop management in this case.[100] In this case, the head plus the solo section is the macroloop. Each macroloop is comprised of one mesoloop repeated twice with solos over the second time. The head, or song form is the base mesoloop that the entire structure revolves around, and the solos provide an additional layer on top of the head. I could separate each phrase (A,B) into a microloop to complete Collins's concept, but the mesoloop in this case is the smallest unit of repetition.

When the saxophone plays a solo, the trumpet provides melodic fills or plays "under" the other, both dynamically and as harmonic support, and the saxophone does the same when the trumpet plays a solo. Also, during the solos, the backgrounds are exactly the same as the head only without the melody, which includes the saxophone countermelody in the final A section.[101] The major difference is that *Sam*

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[100] Karen Collins, "In the Loop: Creativity and Constraint in 8-bit Video Game Audio," *Twentieth Century Music* 4 (2007): 211–212.
[101] Bay Area Sound, "Sam & Max Season One by Jared Emerson-Johnson," Bandcamp, accessed March 1, 2020, https://bayareasound.bandcamp.com/album/sam-max-season-one.

and Max utilizes a more complex composition strategy than *Déjà Vu* by using expanded jazz forms and layering solos on top of loops to create a longer module, much like a live jazz combo would in a club. Notably, the instruments are acoustic as opposed to MIDI, which hinders the use (if not foregoes entirely) the use of smart software to employ adaptive samples.

Grim Fandango takes this approach and alters it even further. There are still loops tied to each game area, but here each loop shifts fluidly back and forth between various styles, forms, and instrumentation. [102]I would argue that this approach serves two purposes: 1) it masks the looping nature of the music, and 2) it allows for potential seamless transitions, smoothness, or seamless transitions between different game areas, which was a large consideration for LucasArts games.[103] The first is the most self-explanatory. For example, the theme that plays in Manny's office, appropriately named "Manny's Office," features an almost constant hi-hat rhythm with a clarinet lead. At some points, the clarinet is accompanied by strings playing long notes and the hi hat drops out. At other times, a string bass accompanies the hi hat and clarinet. Both differing ends break up some of the redundancy of either figure dominating the entire time. These open forms with fluctuating instrumentation and rhythm demonstrate the fluid shift from symphonic music to jazz that the score often makes. From my playthroughs, this track plays straight through as written until interrupted by moving into another area. Manny's office is an emptier space used for quiet contemplation. Compared to other surrounding areas, Manny's office has a less active loop, encouraging the player to seek action in adjacent areas.

[102] In the original 1999 version, this is completely due to the dynamic layering of the iMuse system. In the Remastered version, I am unsure of how the effect was recreated, but in my observations, the game recreated the effects of iMuse in good faith.

[103] For in-depth looks at the function of iMuse and other LucasArts adventure games, see Willem Strank, "The Legacy of iMuse: Interactive Video Game Music in the 1990s," in *Music and Game: Perspectives on a Popular Alliance,* edited by Peter Moorman (Wiesbaden: Springer, 2013): 81–92; Summers, *Understanding Video Game Music,* 72–77; Collins, *Game Sound,* 51–57.

The second point is more nuanced, which aids in its invisibility. As I mentioned, some tracks, especially those with generic settings, have different parts within their loops that differ from one another. Some of the loops for different areas have sections within them that "link up" with other adjacent parts of the map, much like a puzzle piece. Granted, these interactions can make a smooth aural transition but can just as easily conflict with one another, as each loop restarts when you enter a new area. Again, Medina-Gray's ideas of smoothness and disjunction apply here.[104] Often, loop modules of adjacent map areas will contain either similar instrumentations, melodic/harmonic content, and/or tempos, which allows for seamless transitions to happen. The opposite can occur accidentally or intentionally. Equally important are Karen Collins's observations about branching pathways.[105] There are multiple different ways to go about finding the next location or clue, and the player can travel through many different areas within the same location. Each area has its own loop module, so each path the player takes results in a unique branching score.

In the second act, for example, Manny can follow several paths after leaving his café. The path to the left leads to a central bridge location on the harbor with several more branching paths. The music that underscores this section is similar to the type I described earlier: a hi-hat accompanies a baritone saxophone playing free, improvisatory licks. A few seconds in, a bass clarinet enters with longer notes interspersed with similar licks and takes over the lead from the saxophone. If the player takes one path to the north, the player enters the docks. The loop in this area begins with a long bass clarinet note. In my tests, I found that walking into the center of the path, briefly pondering which path to take, then choosing the north path, results in a seamless transition from bass clarinet note to bass clarinet note. The loops also have similar textures and harmonic content, which aids in smoothness. Any faster or

[104] Medina-Gray, "Meaningful Modular Combinations," 104–106; Matt Arnold, "iMUSE and the Future of MIDI in Game Audio," matarnoldaudio, June 18, 2018, http://matarnoldaudio.com/adaptive-music/imuse-and-the-future-of-midi-in-game-audio/
[105] Collins, *Game Sound,* 142–147.

slower movement causes the loop to be in a different spot and creates an abrupt change from saxophone to bass clarinet. From that point, the player can make their way to the harbor, which has similar instrumentation, harmonic, and melodic content, but the game adds traditional harbor sounds such as ship horns, bells, and faint bird sounds into the mix to create a more complex environmental sound that blends with the jazz score. Each playthrough will ultimately yield different results, giving players different "cinematic" moments of transitional bliss each time.

However, there are some visual necessities for hard cuts in these loops. For example, when the player enters the Blue Casket club, the audio cuts directly to the "Blue Casket Bop." The club is situated in the middle of surrounding areas with relatively subdued audio, so there is no chance for audio to match in a "smooth" fashion. These hard cuts bring attention to the change of scenery. I mentioned at the end of the narrative section that an all-jazz score softens the distinction between these stereotyped locales, unlike their classic film noir inspirations. While *Grim Fandango* breaks the mold by using a mix of symphonic music like these films, it still uses a mostly jazz score. The Blue Casket example is an excellent case study for how games can use a mostly jazz score to create these stark differences between locales with their loops.[106] By switching from symphonic jazz to bebop instantly, the player experiences different sensations and picks up different connotations about this new location, similar to classic noir. This is a more extreme example of *Sam and Max* having different themes associated with each locale because each hard cut seems intentional due to the stark differences between the surrounding areas.

[106]Collins, *Game Sound,* 131–133. Collins discusses a similar premise to this in that game audio either grounds the player in the game reality or builds up the illusion by creating these specific soundscapes for specific areas. More importantly, she references *Grim Fandango* as well.

Figure 9. Manny at the dock hub (left). Manny outside the Blue Casket club (right).[107]

As with *Grim Fandango*, *Blacksad* allows similar moments for audio to "link up," but in this case with visual rather than audio elements. *Blacksad*'s score is by far the sparsest compared to the other games mentioned in this thesis; it often has free-flowing motifs that start seemingly at random, which is common to more recent adventure games; if there is no constant loop in the environment, the listener is less likely to experience listener fatigue. Each motif contains lines by the rhythm section (drums, bass, piano), but the lead instrument changes between the tenor saxophone, trombone, and trumpet; sometimes two of these leads form a duet. The motifs themselves sound at least somewhat improvised, as if the chord progressions were written down and the melody improvised. Whenever a motif begins, it continues until its completion unless cut off by a pre-rendered cutscene. Entering dialogue in-game will not stop a loop. The game cycles between a few different motifs, and there seem to be a few common motifs but no set order. This does not appear to change no matter where the player moves. Michiel Kamp and Michael Sweeny point to similar techniques with motifs in *Skyrim* (2011), which can align with the beautiful landscapes in a series of "happy accidents."[108] A good example of this is the one I referenced previously about *Blacksad* and plot point chords: the conversation that the player enters into

[107] Screenshots by author.
[108] Michiel Kamp and Michael Sweeny, "Musical Landscapes in Skyrim," in *Music in the Role-Playing Game: Heroes & Harmonies,* William Gibbons and Steven Reale, eds. (New York: Routledge, 2020): 179–181.

at the end of the loop is the significant event in this scenario, even though the event itself is not tied to any particular event.

Another way the detective adventure game creates a cohesive game world is through its modelling of specific detective milieu to communicate information. In the narrative section of this paper, I addressed the diegetic use of jazz to give a sense of place in classic film noir, such as visible jazz combos or onscreen radios that layer on top of dialogue. Jeux noirs use similar tactics, although the traditional diegetic/non-diegetic relationship of music is often "ill-suited" for games.[109] Often, an onscreen (or implied onscreen) radio will increase or decrease in volume to serve dialogue or break temporal restrictions the game places on other aspects of the game world.

Abruptly lowering the volume with no narrative justification, however, can damage the player's sense of immersion; the ludic necessity of softer volume comes into conflict with the cinematic narrative. One common strategy for achieving the necessary volume change without creating a rupture in the narrative illusion is a subtle shift from non-diegetic to diegetic musical sources. By placing the music source onscreen, it allows the player to reason with the decreased volume in an organic fashion, increasing the invisibility of the music and immersion in the game. The opening few minutes of *Grim Fandango* utilizes this technique. As soon as Manny leaves his office and walks down the hall toward his boss' office, the music shifts to a grainy radio playing a track called "Mr. Frustration Man," which is a 1920s/30s-style swing jazz (as opposed to the cool or modern jazz in the rest of the game). It is an especially stark shift from the symphonic jazz associated with Manny's office. There are a few items onscreen that could be the audio source, but it is not immediately clear. This implied diegetic audio source is significantly quieter than the normal background music. This shift, clear or implied, is important for the same reason I discussed regarding the onscreen radio in *Blacksad:* grounding onscreen

[109] Collins, *Game Sound,* 124–127.

audio sources to the background music with similar styles of music reinforces a single, immersive game world because it connects non-diegetic music which the player may or may not assume the characters cannot hear with music onscreen that the characters can definitely hear. This reinforces the idea that the player is an active participant in the game world because now both the player and the main character hear the same music.

In *Grim Fandango*, the volume of the radio increases when Manny approaches his boss' secretary because he is approaching the source of the audio. In Manny's office, the music sounds more open and fills in the space with stereo sound. When the radio enters, its sound is grainy and compressed, which gives the illusion of monophonic (from one speaker) sound. Even though the radio sounds as if it is mixed down to one channel, it is not; but manipulation of this audio makes the player feel as if it is coming from one location.[110] Reducing the number of layers present foregrounds dialogue. Creating a singular point from which the music resonates also draws the player to important places in the environment, such as Eva's desk in this case; she is an invaluable distributor of plot information in this section, and this location-based layer portrays that. When the player speaks to Eva, the radio volume decreases in deference to the dialogue.

To revisit the diner scene from *Blacksad,* its deliberate layering and diegetic shift via the radio demonstrates a similar technique albeit a different function to the radio in *Grim Fandango.* When Blacksad speaks to Mary in the diner, he can use his cat senses, which disrupt time and suspend all audio, much like the act of combining clues and making deductions. The camera shifts to a first-person view, and the player is free to look around and discover clues in the environment. A white arrow points to a clue when the player is relatively close, and the arrow turns into a complete circle when the player

[110] Michel Chion, *The Voice in Cinema,* translated and edited by Claudia Gorbman (New York: Columbia University Press, 1999). Perhaps there is a comparison to be made to Michel Chion's research on acoustematic and acoustmere sound. Its application is similar but not exactly the same.

places the cursor directly on a clue. When the player "sees" the clue, it triggers a "whoosh" sound, and Blacksad narrates his observations.[111] However, the radio in the diner presents a unique approach to clue discovery. Before the player selects the radio, there are visible waves emanating from it, indicating sound. When discovered, the radio breaks the suspension of time, and both Blacksad and the player hear what is playing in real time. All the clues disrupt the silence and give way to a Blacksad voiceover. This one does not. All the clues discovered have strong ties to Blacksad's heightened cat senses—sight, sound, and smell—which explains why the radio is available as a choice, but I cannot explain the significance of the jazz on the radio other than to ground the cohesive soundscape of the game world and immerse the player as the detective.

Collins discusses in-depth the dynamic layering of cues in *Grim Fandango,* and her analysis can be applied to my discussion of various jazz-layered cues. This concept is simple, yet revolutionary for the time. For example: when Manny is walking around Rubacava and enters the racetrack area, a smooth jazz background cue enters. When Manny moves around the area, he can go nearer to the track, and, idle chatter is layered on top of the background music if he walks into an area with visible spectators. More dynamic instances happen as well. Back to the coat check girl: when she is looking for Manny's coat, the rising melodic line that accompanies her search is layered over the dialogue within the game and is not part of a pre-rendered cutscene. These are a couple of the examples that serve the environment best.

The outlier in this category, *Déjà Vu,* has other ways to simulate layering in its limited hardware. Like most games during this era, much of the music in this game is non-diegetic, but the music is accompanied by a pseudo-diegetic pencil-writing sound. I argue for this hybrid diegesis status because

[111] I acknowledge the one-to-one comparison this makes with Reale's observations about finding clues in *L.A. Noire*, but the lack of a jazz indicator made it seem irrelevant to the point I was trying to make. Mentioning it here allows me to set up the layering associated with the radio.

of the game's inventory and narrative delivery system. Throughout the game, the player's inventory is displayed on a notebook to the right of the main game window. Beneath it, text scrolls by, describing what happens onscreen and what Ace is thinking. When the player interacts with an item, the result appears in the text window as opposed to happening onscreen (i.e. "you take the key" in lieu of the key moving). In this manner, the game plays more like a text adventure game than a point-and-click adventure game. The text is written on another notebook by what we assume is Ace's pencil. So, the pencil noise is diegetic in the sense that it depicts Ace scribbling things in his notebook, but non-diegetic in the sense that some of the text written is not something a detective would write and serves the player only. For example, text like "you approach a long hallway" is not normally a phrase someone would write down, but it is more important narration for a player.

As these examples illustrate, detective adventure games use jazz in a variety of ludic functions that aid in immersion, storytelling, and communication. Specific chords or stingers can highlight correct/incorrect choices and auditory clue hints, while loops of varied types of jazz portray different locations and accommodate indeterminate playtimes. *Grim Fandango* and *Sam and Max* in particular contrast starkly different jazz styles to portray various locations in the game world. *Grim Fandango* demonstrates the use of swing or bebop in club areas and symphonic jazz and symphonic music in less stereotyped locations, while *Sam and Max* utilizes equally on-the-nose jazz styles for its locations and hard cuts to get the point across. Finally, detective adventure games use musical layers to foreground dialogue and accent different aspects of the onscreen narrative and environment. Implementing a diegesis shift with an onscreen radio is a common choice in my case studies to ground the non-diegetic jazz heard by the player to the diegetic jazz heard by the characters and the player, creating an immersive experience and a unified game world through jazz.

Conclusion

In this thesis, I synthesized studies of music in film noir with research on video game music to explore the uses and functions of jazz in the detective video game. In the "narrative" section of the paper, I addressed the use of jazz to represent the common tropes in film noir such as "jazz as/in the city." For this analysis, I relied heavily on David Butler's *Jazz Noir.* His observations about jazz nostalgia served as the basis for both my analysis and the reason games use jazz to represent the narrative worlds of film noir when the source material does not. Tim Summers' observations about games' tendency to have more "real than real" soundscapes, or soundscapes that portray gamers' expectation of reality to serve as an auditory signifier for the game world also played a part in my analysis. In using an all jazz score, games soften the stark contrast that classic film noir has by using a mostly symphonic score with jazz localized to specific locations such as clubs, brothels, and "seedy" underground areas of crime and sin. Video games mostly overcome this by using heavily stereotyped styles of jazz to represent various locations, such as 1930s swing for casinos and clubs, bebop for bars, and symphonic jazz for other parts of the city. Also, cool jazz becomes the standard jazz style for any location not specifically outlined by another style of jazz.

I also examined the portrayal of several film noir character tropes in detective adventure video games, such as the *femme fatale* and the good woman, along with an analysis of sexuality. I found that here again, the depictions are softer compared to their silver screen counterparts. The trope of the *femme fatale* as a jazz singer is not common in my case studies, but I brought in another game to mark its existence. Games often portray the locations where classic film noir house overt sexuality but do not highlight them in the same visually sexualized way. The *femme fatale* was originally a response to the sexual tension between the changing roles of women in society following WWII, and the trope's role as

commentary has shifted. So, too, has its depiction in games. Game developers are free to reduce the sexual connotations associated with their characters, but a few games, such as *Grim Fandango* and *L.A. Noire,* depict the *femme fatale* similarly to classic noir. But because the social commentary of the *femme fatale* is rooted in this postwar power imbalance, the references in both *Grim Fandango* and *L.A. Noire* simply serve as an intertextual reference to the *femme fatale* in film noir.

As for the ludic functions of jazz in the detective game, I outlined several important aspects in which jazz is used. The two categories I highlighted are narrative cueing and interactive elements. As Steven Reale points out in his analysis of *L.A. Noire,* there are pathways in clue discoveries, making deductions, and conducting interviews. Elizabeth Medina-Gray's application of "earcons" also play a role in these indications as well. It is common, but not ubiquitous, that these cues are underscored by jazz. I use one of my cases studies and harmonic justification from Vincent Persichetti to analyze how and why these jazz chords indicate specific correct or incorrect responses.

Interactive elements function to create a cohesive game world and utilize specific traits of jazz music to establish the environment. Jazz has common song forms that songwriters and artists used to write melodies and improvise over. From my oldest case study to my most recent, I found examples of games both adhering to common song forms and drifting away from them. With those games that follow jazz forms, improvisation is a key element to extending the length of loops and preventing them from getting boring. For those that ignore or modify common forms, improvisation becomes the main melodic material. Each one gives a distinctly cool jazz feel, which reinforces much of what I discuss in the narrative section. Some use sparse loops drawn out over a large area, giving players a chance to sync up visual events with audio, much like classic noir does intentionally. With constant loops, like in *Grim Fandango,* opportunities emerge for different areas' loops to match up with one another, and this allows for cohesive transitions between areas if the player moves at an appropriate pace.

Layering and shifts in diegesis serve the dialogue of the game and give specific information to the player about their environment. Volume decreases to serve dialogue, which is not a strong example of layering on its own, but a diegesis shift from non-diegetic background music to diegetic jazz on the radio serves to foreground the dialogue and ground what the player hears to what the characters hear, increasing immersion. The radio is an important vehicle for jazz, creating a unified soundscape.

Jazz and the detective commonly appear together with a seemingly infinite amount of variation in all facets of media. My goal here is to provide an introductory foray into the relatively untouched topic of jazz in video games, and while my observations are by no means all-encompassing, I do hope that they provide a jumping-off point for scholars to begin to meet the needs of this emerging facet of ludomusicology.

Moving forward, I hope to expand the study of other factors that affect *jeu noir* such as cultural context and of course my number of detective adventure games. I also will tackle the relatively untouched impact of viewing classic noir through a post-neo-noir lens. By cataloguing how many different detective games employ these narrative and ludic functions of jazz I outline, I hope to gain more insight into how the detective adventure game sets itself apart from its film counterparts. I also notably avoided discussed the cultural differences of how: 1) jazz itself is perceived in different societies, 2) how American film noir is perceived in different societies, and 3) how countries adapt American film noir into their own noir-inspired styles, to name a few. Each of these factors seems like it could affect how each country and developer produces *jeu noir*. Such studies could affect how I analyze my own case studies, as many of these criteria apply; I even addressed some of these criteria in passing related to the Spanish perception of American film noir in *Blacksad.* This study barely scratches the surface of what I think these studies could become, and I look forward to pursuing them in greater detail in the future.

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