Racial Recursivity as Critical Race Game Studies Methodology

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ABSTRACT

Seeking to build a critical race studies methodology that bridges formalist and cultural approaches to game studies, the article explores how a videogame's various structures function as interconnected systems through which videogames communicate meaning via repetition. Drawing parallels between how games generate meaning through repetitive play and how racial formations are naturalized through repeated cultural practices, the article offers *racial recursivity* as a methodology for critical race game studies while demonstrating that formalist analysis and critical race studies are not oppositional but complementary tools for understanding how race operates in videogames and culture writ large. The article applies this critical race studies methodology to the videogame *BioShock*, showing how the game is informed by racial ideas, which are, in turn, naturalized through repetition within both the game and across culture. This article establishes the theoretical groundwork for analyzing how game mechanics, aesthetics, and narratives work recursively to reinforce racial logics.

Keywords

Critical Race Studies, Methodology, *BioShock*, Race, Repetition

INTRODUCTION

Can game studies build a critical race game studies methodology? For most humanistic fields, the answer would be exceedingly simple: *Of course! For what is the role of criticism if not to theorize the object under consideration and develop methodologies to yield broader insights into the field?* And yet, for game studies, a critical race studies methodology does not exist, nor are there sustained efforts to develop one. Of course, this should not be misinterpreted as a claim that *no* work in game studies uses critical race theory or race studies methods to explore games; as this article will discuss, there is a large corpus of game studies research exploring precisely that terrain. Rather, I make this point about the lack of a *formalist critical race studies methodology* in game studies to highlight an unstated yet implicit truism in the field: the methodological approaches to game studies are implicitly framed against the cultural studies approaches and vice versa.

Throughout the field's history, there has been a trend of thought that formalist game studies methodologies that engage critically with videogames and theorizing about the medium are distinct from, and sometimes exclude, cultural studies approaches

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focusing on representation, identity, and power. This divide was initially seen in the narratology versus ludology debates. Amanda Phillips (2020, 19) encapsulates this tension, noting that ludologists "won the battle" in early game studies by offering formalist perspectives that avoided cultural critique of race, gender, and sexuality in games while minimizing "the impact of women on the field." On the so-called "other side" of the field, Jesper Juul (2015a) points out that formalism's "only universal meaning [in game studies] is the derogatory function of denouncing someone as theoretically, morally or politically bankrupt." Phillips and Juul both rightly identify the oppositional tendencies of cultural and formalist game studies, a division that persisted in the mid-2000s and early 2010s when code and platform studies were implicitly positioned against the social science methods. Even with the emergence of third-wave game studies emphasizing intersectional and player-centric approaches (Aaron Trammell 2023, 18), there remained "a bifurcation […] where the representational work is implicitly framed as antithetical (i.e., 'lesser') to the highly theoretical (i.e., 'more serious') work that is exploring the computational elements of the medium or theorizing about the work games do" (Austin Anderson 2025b, 19). As such, the major games studies works exploring narratology (Janet Murray 1997), cultural studies (Soraya Murray 2018), sexuality (Edmond Y. Chang 2017a; Bo Ruberg 2025; Adrienne Shaw 2015), race studies (Anna Everett 2009, Tara Fickle 2019; Kishonna Gray 2020; Christopher Patterson 2020; Trammell 2023), and feminism (Phillips 2020; Shira Chess 2020) are seen as the domain of a general cultural studies approach to games, while methods such as ludology (Espen Aarseth 1997; Gonzalo Frasca 2002), formalism (Alex Mitchell and Jasper Van Vught 2023; Holger Pötzsch 2017), platform studies (Jesper Juul 2024b; Alex Custodio 2020), and proceduralism (Ian Bogost 2007) are positioned as the terrain of a general formalism. Under this view, a critical race game studies methodology appears incomprehensible because its two components—race studies and formalist methodology—are positioned in direct conflict.[1]

Yet, this article rejects the notion that formalist methods and cultural studies must be in opposition. Following the research of prominent (Steven Dashiell; Fickle; Gray; David J. Leonard; Lisa Nakamura; Patterson; Trammell) and emergent (Austin Anderson; Mark Hines; Taylore Nicole Woodhouse) scholars in critical race game studies, I view games as decidedly informed by larger racial considerations. I place this work in dialogue with ludology and videogame formalism (Mitchell and van Vught 2023; Pötzsch 2017), the latter of which asks the player-critic to look at the various structural elements within a work and determine how meaning emerges in videogames. Since Mitchell and van Vught (2023, 20) emphasize that videogame formalism "consider[s] the game to be part of a socially and discursively constructed reality in which certain power structures are reflected, reproduced, or resisted," a formalist approach to critical race games studies emerges as a viable and necessary project. This article offers *racial recursivity* as one such methodology for critical race game studies by building a methodology that focuses on the role of repetition in games and racial practices.

The rest of this article is organized into four parts. The next section explores how repetition functions as a structuring force in both games and racial practices, landing on the metaphor of racial recursivity to understand the role of repetition in both arenas. The article then builds the racial recursivity methodology for critical race game studies. It then applies the methodology to *BioShock* (Ken Levine 2007), focusing on the racial dimensions of the game's upgrade mechanics, narrative design, intertextual

reference, and architectural design. It concludes with some final thoughts for future directions for formalist approaches to critical race game studies.

REPETITION AS A STRUCTURING FORCE IN GAMES AND RACIAL PRACTICE

How do players come to *know* a videogame? How does the knowledge of one game inform a player's knowledge of a larger game genre? Why does knowledge about one game traverse across the videogame medium? To answer these questions, I often conduct an experiment in my classroom or in small research talks where I bring in a gaming console and ask each member of the classroom or audience to play a specific videogame until they discover how to perform a specific action—shooting, moving, opening a menu, etc. Once that person completes the action, they pass the controller to the next person, who repeats the exercise. I most recently conducted this micro-experiment among a group of interdisciplinary race studies scholars who do not study videogames. I brought in my Steam Deck, loaded up with *Hollow Knight: Silksong*, and asked each person to make the player character, Hornet, jump. Even though not a single member of the audience had played the game or even heard of it, each person was able to make Hornet jump within mere seconds. Why?

Repetition.

To become a game rather than a mere act, there must be a gameplay loop, which is "the repeating sequence of actions that the player performs in the game" (Volodymyr Liubchuk). Players learn how to engage with a game's systems by repeatedly engaging with its gameplay loop. The repetitious structures work both within individual games where players might make Mario jump 1000s of times in *Super Mario Brothers*, as well as across games where players will likely press the exact same button to make their on-screen avatar jump across every instance of a 2D platformer.[2] Across thousands of games and for nearly fifty years, players have been habituated to know which button to push to make the on-screen platformer character jump. The same is true with other mechanical actions; shooting, crouching, sprinting, parrying, etc., are all typically indexed to the same buttons across games.[3] Repetition is a foundation of the videogame medium, and Torben Grodal (2004) has highlighted how videogames offer an "aesthetic of repetition," while Christopher Hanson (2023, 275) notes "a player practices their play through actions of repetition."[4] Shane Denson (2014) has similarly described "processes of repetition and variation that take place *within* games themselves" as intra-ludic seriality. An overarching ludic grammar that most games follow has emerged, and the syntax is communicated via repetition, naturalizing the logics of games. Repetition, then, is how we come to know videogames.

It is also how we come to know race. Race was invented yet is made real by actions. Karen E. and Barbara J. Fields (2012) have explained that race is created through social practices and discourses that become habitual in society; they offer the neologism *racecraft* to explain the arcane nature in which "racism [transformed] into race, disguis[ing] collective social practice as inborn individual traits." From the repetition of these social practices, racial ideology emerges as an "interpretation in thought of the social relations" where "people make sense of the social reality that they live and create from day to day" (Fields and Fields 2012, 133). Crucially, this ideology is taught and then naturalized through repetition.

Black studies has long drawn our attention to the role of repetition in global racial practice. When, in *Kindred*, Octavia Butler invites us to follow Dana, that "present-past subject" (Katherine McKittrick 2007) straddling the line between the contemporary moment and antebellum slavery, we are asked to note the repetition of anti-Blackness in American culture. When Kendrick Lamar (2015) simultaneously invokes Kunta Kinte and Ralph Ellison's titular *Invisible Man* in "King Kunta," he is positioning himself as part of a lineage and repetition of the Black radical tradition. When Du Bois writes, "the Black man is a person who must ride Jim Crow in Georgia" (1940, 77), he is drawing our attention to how the repeated social practices of Jim Crow are a habituating force in the structure of race. The great Black Studies philosopher Sylvia Wynter (n.d) also turned to repetition to explain how "by a process of repetition, 'humanity' came to be synonymous with European culture. To be non-European was to be 'non-human'," and "this myth" was used by "the West […] in its rise to world domination." The repetition of social structures and habituated practices creates a racial logic, whereas "logic is used in the sense of 'the way things work together' to create a whole and cohesive cultural world" (Alison Gazzard and Alan Peacock 2011, 500). As with videogames, repetition is a central technique of race.

RACIAL RECURSIVITY AS METHOD FOR CRITICAL RACE GAME STUDIES

Given the key role repetition plays in race and videogames, this article offers racial recursivity as a methodology for critical race game studies. Kishonna L. Gray's (2020, 30) call to "explore video games as racial projects" where "racialized ideas, bodies, and structures are constructed, mediated, and presented through a safe medium" has contributed to a much-needed increase in critical race game studies. Yet, while most of the work around race in game studies has focused on questions around racial representation or games with overtly racial themes, we must extend our focus to how race *functions* as a logic and organizing principle in and across videogames, including those games that appear "non-racial," i.e. games that lack a notable character of color or overt racial themes. Elsewhere, I have offered racial recursivity as a tool that "explore[s] the underlying racial ideology within a gamic text, note[s] how these narratives connect to previous historical ideas of and around race, and acknowledge[s] how these racial ideologies create a self-referential feedback loop by their continual reoccurrence" (Austin Anderson 2025a, 6).

This article seeks to formalize this research into a methodology for interpreting how videogames can sustain and challenge larger racial formations. By racial formations, I reference Michael Omi and Howard Winant's (2015, 109) influential argument that a racial formation is "the sociohistorical process by which racial identities are created, lived out, transformed, and destroyed." Omi and Winant suggest that there have been successive racial projects in the world, which are sustained and created by these racial formations. Given that one of the techniques of creating these racial formations is repetition, exploring how racial recursivity works in and across videogames allows us to see how race is actualized in digital spaces. This, in turn, can provide key insights into how race functions in the world writ large. By examining how game mechanics, narrative structures, and visual design recursively reinforce socio-cultural ideas around race, racial recursivity reveals how racial logics are embedded within videogames, game studies, and gaming culture while naturalizing larger racial formations through interactive play.

Before detailing how the racial recursivity methodology functions, I must clarify what constitutes a methodology and then define critical race studies. Beyond good scholarly practice, both endeavors are necessary given the haphazard and irregular nature in which both terms have been used in game studies and political discourse, respectively. In my usage, a methodology is a formalist approach to game studies that offers a systemic analysis of the various component parts of the game text under consideration, and this methodology is, crucially, repeatable across different videogames. A methodology should thus be easily definable and offer clear steps of analysis. Given the humanistic foundation of my approach to game studies, a methodology need not be rigid and can instead be a flexible formalistic approach to studying different dimensions of games. Nevertheless, a videogame methodology should provide clear instructions on how the methodology can be applied to the videogame under-consideration and be repeatable in other contexts. There are only a handful of game studies methodologies that meet these criteria, including close playing (Edmond Y. Chang and Timothy J. Welsh 2025), videogame formalism (Mitchell and van Vught 2023), and methodological toolkit game analysis (Mia Consalvo and Nathan Dutton 2006). Chang and Welsh's close playing offers a step-by-step guide to using literary studies techniques to research videogames and teach them in the classroom. Mitchell and van Vught detail how analysis techniques developed by Russian formalism can be applied to videogames. Finally, Consalvo and Dutton provide the foundations for the qualitative and critical study of games as texts. Each approach informs this article's view of methodologies as systemic approaches of analysis that are repeatable across various videogame texts.

Critical race studies is a field that explores the outsized role race plays in society, social practices, law, geography, governmental practices, and cultural production. While "critical race theory" has been co-opted by the global political right as something of a cipher for any discussion of race—up to and including simply teaching about prominent Black figures—critical race studies is a specific interdisciplinary field that explores how race influences and structures our world. Broadly encompassing critical race theory, Black studies, Black feminism, Africana studies, and African American literary studies, critical race studies use race as an essential analytic to explore the various dimensions of race in society or in texts. Some prominent figures include Hortense Spillers, bell hooks, Achille Mbembe, Frantz Fanon, Kimberlé Crenshaw, Jennifer C. Nash, and Cedric Robinson, each of whom explores how race operates as a persuasive force in society from a variety of specific perspectives.

Placing game studies in direct conversation with critical race studies, we can begin building a methodology for critical race game studies. Given that a methodology must be applicable and repeatable to multiple games, it is incumbent on scholars offering methodological analysis to provide the steps for conducting their method. In 2006, Consalvo and Dutton pointed out that the scholars doing methodological analysis (Espen Aarseth 2003; Will Brooker 2001; Lars Konzack 2002) had begun building methodologies without, however, "systematically lay[ing] out elements in a game that can help a researcher with the specifics of analysis."[5] With the limited exception of the scholarship mentioned above, this has remained true in game studies to this day. To address this, I offer a systematic step-by-step guide on how to conduct a critical race game studies methodology.

The central concept animating this methodology is racial recursivity, which highlights how gameplay mechanics, narrative elements, visual design, paratextual materials, and other aspects of videogames and their culture repetitiously reinforce racial logics

in the larger culture.[6] These logics are then naturalized through their repetitive structures within the individual game, across the videogame medium, and the larger world. By recursivity, I highlight how these racial ideas loop back onto themselves and subsequently naturalize the racial logics that are foundational to the larger racial order. This recursive repetition, in the words of Kojin Karatani (2012, 2), functions "in terms of form (structure) and not event (content)," but the recursive cycle creates a self-reinforcing feedback loop of race. In other words, the human invention of race is made real through the repetition of racial practices, and the continual recurrence of said practices works to naturalize the racial order.

Videogames, as self-evidently designed worlds, provide a useful testing ground for how race operates within this recursive cycle. Further, since videogames are produced with a larger culture, racial logics naturally seep into the text. Racial recursivity works to disentangle the racial logics of a videogame text by exploring how the following devices of a game are foregrounded and might be influenced by racial logics: gameplay mechanics, narrative elements, intertextuality, visual design, UI, mission structure, architectural design, and paratextual materials. This is an open method, as some elements will naturally be more foregrounded than others, and thus some will be worthy of extended study. However, the critic should make note of each. The first step of the methodology, then, is to identify each of these devices in the videogame under consideration and highlight the foregrounded devices.

Once these devices are identified, racial recursivity then draws attention to three different dimensions of racial repetition: within the game, across the medium, and across culture. We will now explore how the methodology functions at each level and can be put into practice.

Since games are structured by repetition, racial recursivity asks scholars to focus on which elements are repeated within the game. The gameplay mechanics will necessarily be repeated throughout the game, but other devices will also repeat. For instance, *Hollow Knight: Silksong* (2025) is filled with Hunting Wishes where players are asked to find specific enemy types and kill them. Players can then focus on which enemies are the focus of the hunts, and ask, for instance, if the game uses techniques of racialization to rationalize which enemies need to be killed. At times, the moments that break repetition are just as important as those that conform to it. Take, for instance, the inability to attack the indigenous Wapiti Tribe in *Red Dead Redemption 2* (2018), which is a stark contrast to the ability of the player to attack most NPCs. The breaking of repetition can be informed by racial ideas: did Rockstar restrict attacking the Wapiti to prevent players from reenacting Native American genocide, for instance? Paying attention to the recursive structures within a game and then exploring their potential relation to racial logics is an important step of the racial recursivity methodology.

Next, we must focus on repetition across games. Espen Aarseth (2003, 4) encapsulated this reality when he wrote, "After having played quest games for nearly twenty years, I am struck by the repetitiveness of the situation" where the player is asked to "explore, kill, explore some more, kill some more, etc." Videogames often follow certain tropes and can repeat certain mechanical and story beats, and racial recursivity asks us to explore how these repetitive structures can contain racial elements. Just like with the repetition within individual videogames, there can be a racial dimension to the repetitive structures across games. For instance, several CRPGs throughout the 1990s and 2000s default to a white, male character design on

the character creation screen. Some games also seek to challenge the racial logics propagated by other games; for instance, *Nine Sols* (2024) is a cyberpunk videogame that directly refutes the techno-orientalism so often seen in the genre by drawing upon Taoism and offering a narrative about racial oppression. The racial recursivity methodology helps identify the potential reproduction of or challenge to racial structures across videogames.

The final element of repetition is a game's repetition with larger cultural ideas. When it comes to race, this can mean that a videogame aligns with its culture's racial logics or challenges them. For example, *Spec Ops: The Line* (2012) draws direct inspiration from Joseph Conrad's *Heart of Darkness* (1899), and Conrad's presentation of the Congo as antithetical to European civilization, albeit from a decidedly anti-colonialist perspective, seems to inform *Spec Ops*' imagined Middle East as a nowhere place—again, admittedly from a decidedly anti-American 'War on Terror' perspective. On the other hand, certain games might deploy racial ideas from culture to make an anti-racist statement; *Mafia III* (2016), for instance, interrogates the 1960s South while subtly hinting at congruences between anti-Blackness in the past and the present. In highlighting the potential congruence between the racial ideas embedded within a videogame, the larger medium, and the broader world, racial recursivity allows us to realize how videogames are enmeshed within larger racial structures.

The final step is to synthesize these findings to uncover how a videogame functions as a racial text, meaning how it is informed by larger racial structures and reifies and/or challenges the racial formation of its culture. Applying the racial recursivity method thus draws our attention to how games exist within a larger culture informed by racial ideas while also highlighting how each game functions as a racial project.

RACIAL RECURSIVITY CASE STUDY: *BIOSHOCK*

Published in 2007 by the major American studio *2K*, Ken Levine's *BioShock* is widely considered one of the greatest videogames ever made and is one of only a handful of games that has been canonized by players, videogame journalists, and game studies scholars (Felan Parker 2015). Some have even made the admittedly hyperbolic claim that *BioShock* was the first videogame that demonstrated that videogames could achieve the status of "art" (Peter Suderman 2016), yet the very existence of this claim speaks to the central role the game plays in the gaming cultural imagination. Game studies has unsurprisingly embraced *BioShock* with enthusiasm, and it has been subject to over 100 peer-reviewed articles and book chapters from some of the most important voices in the field. Despite an expansive critical conversation—spanning representation of gender (Evan Watts 2011), repudiation of Objectivism (Joseph Packer 2010), and relationship with queerness (Edmond Y. Chang 2017b)—game studies has, to the best of my knowledge, not produced a single article or book chapter that includes a substantive engagement with race in *BioShock*. This absence is striking, especially considering, as we shall see, that a reading of race in *BioShock* is easily achieved by taking a systemic approach to the game text. Further, since *BioShock* lacks overt racial themes, it emerges as an ideal case study because it allows the racial recursivity methodology to surface racial logics in videogames independent of overt representation. While there are numerous elements of *BioShock* that lend themselves to a racial interpretation, in the interest of space, this paper will limit its focus to how applying the racial recursivity methodology to *BioShock*'s narrative twist, intertextuality, upgrade mechanic, and architectural design can reveal the racial logics embedded within the text.

The first step of the racial recursivity methodology is to play through the game and determine the major devices at play within the text. For *BioShock*, its central gameplay loop sees the player explore relatively linear levels, encounter enemies, and then attack those enemies with either a weapon (pistol, wrench, shotgun, etc.) or a plasmid ability (electro bolt, insect swarm, telekinesis, etc.). This gameplay loop iterates upon the foundations of *System Shock* and *Ultima Underworld*, and understanding this lineage situates *BioShock* within the first-person shooter genre. It likewise includes lite-RPG elements as players can obtain a resource called ADAM to upgrade their plasmid abilities. The visual and sound design invokes popular associations of 1920s and 1930s America, especially the Jazz Age and *The Great Gatsby*-style representations of so-called high society. The underwater city of Rapture is directly modelled on New York City, replete with submerged skyscrapers. The game also uses elements of survival horror within its visual design, narrative, and resource management system. Each identified device is foundational to the experience that *BioShock* curates.

The other major device in *BioShock* is its narrative.[7] Set in an underwater city named Rapture, *BioShock* tells the speculative story of a society constructed in the 1940s by business magnate Andrew Ryan, whose name and philosophy are a direct reference to Ayn Rand and her individualistic Objectivism. Ryan believed he could create a utopia for the "elite" members of society that was free from government intervention and the moral degradation of "lesser" people. However, while this extreme libertarian approach led to rapid technological advancements including the discovery of gene-altering technology called ADAM, it also created extreme wealth inequality among the citizens of Rapture. Eventually, a working-class man named Atlas led a revolt against Ryan, and Rapture descended into an outright dystopia filled with genetically altered monstrosities as the pro-Atlas and pro-Ryan factions fought each other. The player character, Jack, enters Rapture in 1960 after his plane crashes into the Atlantic Ocean. At *BioShock*'s climactic midpoint, Jack confronts Ryan who reveals that Jack is his illegitimate son and has been under a form of mind control triggered by the phrase "would you kindly." Ryan delivers his famous speech about Jack's lack of freedom, culminating in the now-iconic line: "A man chooses, a slave obeys." Ryan then reveals that both he and Atlas have been using Jack—and, by extension, the player—as their respective "slave" to commit acts of violence against each other. At the conclusion of the monologue, Ryan repeats the phrase "A man chooses, a slave obeys" as he commands Jack to brutally beat him to death in one of the most famous plot twists in the history of videogames. Atlas is eventually revealed as the fictional persona of the underworld criminal Frank Fontaine, and the game concludes with Jack defeating a genetically altered Fontaine and escaping Rapture, to either serve as the patriarch for several young girls he saves or to attack the surface world.

With these elements identified, racial recursivity next asks the player-critic to examine the repetitive structures within the game and explore how they might be related to larger racial logics. These recursive structures can occur within the game, across videogames, and/or across culture. *BioShock*'s famous twist, "A man chooses, a slave obeys," provides an ideal entry point to the game's resonances with larger racial ideas. While the twist has been a point of consideration for discussions about choice in videogames (Jessica Aldred and Brian Greenspan 2011; Roger Travis 2015; Lars Schmeink 2009), no critic has offered an extended reading of the potential racial dimensions of the twist; yet, when applying the racial recursivity method, we can see how the moment resonates with race, especially given how the twist hinges on the binary opposition of "man" and "slave." Though slavery has existed throughout much

of recorded human history, the category of the "slave" is culturally indexed by race, specifically Blackness, in the American imagination because of the transformative significance of the trans-Atlantic slave trade on the Americas and the larger world. In short, the idea of *the slave* is always invoking the *Black slave* in the Western cultural imagination.

BioShock self-evidently taps into this racial imagery in its binary presentation of "man" vs. "slave." Wynter discusses how the "human" was constructed in Enlightenment thought to be synonymous with whites while deliberately excluding people of color. Further, Rand (1943, 637) herself frequently referenced chattel slavery when advocating against government welfare, following a long-standing rhetorical trend in conservative speech where an imagined person being lowered to the status of slave—again, implicitly the Black slave—is the most degraded position that can befall the rhetorician's audience, implicitly whites. Therefore, when *BioShock*'s most famous moment positions "slave" against "man," the game is entering into a larger discourse deeply enmeshed in a racial imaginary, and this twist—perhaps the most famous twist in videogame history—serves as the structuring idea of the entire narrative. Further, this moment takes control away from the player to highlight the limits of player agency; that this mechanical decision relies on pitting "man" vs "slave," we can surface a racial logic within the lack of player agency this twist affords the player. As such, "A man chooses, a slave obeys" contains three moments of recursion: recursion within the game's narrative, recursion as a seminal twist in videogame history, and the recursion of the racialized construction of the man-slave binary.

We can next explore how *BioShock*'s intertextual references to Randian Objectivism are informed by Rand's racial thinking. The game is explicitly critical of Rand's philosophy and explores the dystopia that would emerge if a society fully adopted her vision of Objectivism. This intertextual reference is a recursive force within the game for Ryan's character and the entire city of Rapture. While scholars like Packer (2010) have done the critical work of exploring the game's repudiation of Objectivism, it is also necessary to explore how Rand's project was tied up in her racist worldview and note how this informs the game's critiques. While Rand's defenders often cite her one essay where she called racism "the lowest, most crudely primitive form of collectivism," her political and artistic project was colonial, Eurocentric, and white supremacist in addition to its obvious elitism and classism.[8] She opposed the Civil Rights Act and openly justified genocide against Indigenous Americans, saying, "I do not think that they have any right to live in a country merely because they were born here and acted and lived like savages" (Apciv, 2017). *BioShock* suggests that Rand's philosophy is predicated on violence, and there is potential to read the game as a consideration of race's role in supporting Rand's violent political project of extreme capitalism.[9]

Yet even though "the collapse of Rapture represents a clear alternative vision for a world built on objectivist ethics with violence, crime and disrepair replacing the peaceful efficiency" imagined by Rand (Packer 2010, 215), the game stops short of fully repudiating Rand's hierarchical understanding of humankind. Rapture is founded when a group of elites remove themselves from society and build a *laissez-faire* capitalist society underwater. While inequality quickly arises in Rapture, the city does not collapse because of Ryan's failed ideals but because of an outsider disrupting the peace. Frank Fontaine was a conman who tricked his way into Rapture and eventually led Rapture to a civil war by convincing the aggrieved elites to fight against Ryan. Fontaine even set the game's events in motion as he tricks Jack into arriving in

Rapture. Rapture, then, is not directly destroyed because of the failure of Objectivism but because an outsider, one explicitly framed as a lesser conman, exploits the inequities that occurred in Rapture. As such, we can draw out the limitations of the game's critique by exploring how the game's intertextual narrative resonates with Rand's hierarchical, and decidedly racial, understanding of humans. *BioShock*'s iteration of a recursive intertextuality is ultimately ambivalent, both critiquing and sustaining aspects of Rand's racial thinking.

Next, we can look at how a central gameplay mechanic is a recursive device throughout the game and connected to larger cultural ideas around racial sympathy. The player repeatedly encounters Little Sisters, young white girls who have been genetically modified to produce large amounts of Adam. When certain conditions have been met, the game offers players the ability to "RESCUE the Little Sister or HARVEST her" and informs the player that harvesting her will provide "MAXIMUM ADAM to spend on plasmids, but she will NOT SURVIVE the process" while rescuing her provides "LESS ADAM, but [may be] worth your while." This choice is repeated several times and serves as one of the central upgrade mechanics for the player character. Further, this mechanical system is the only influence on *BioShock*'s ending. If the player harvests 0-1 Little Sisters, they receive the good ending while if they harvest 2+ Little Sisters, they receive the bad ending.[10] Mechanically speaking, there is no reason to save the Little Sisters, as harvesting them provides the player with significantly more power. While a desire for the good ending may encourage a player to rescue the Little Sisters, a first-time player has no way to know that the decision to rescue/harvest the Little Sisters will affect their ending. Yet, as Grant Tavinor (2009, 90) writes, the Little Sisters "effectively and sentimentally manipulate our emotions of sympathy and care." *BioShock* repeatedly leans into the player's presumed sympathy for these young girls; for instance, when Atlas encourages the player to extract ADAM from the first encountered Little Sister, he says, "You think that's a child down there? Don't be fooled. She's a Little Sister now. Somebody went and turned a sweet baby girl into a monster." This framing is tied up in a larger lineage about the purity of specifically white children.

Each Little Sister is a young white girl, and their whiteness is not incidental to *BioShock*'s invocation of sympathy. The cultural understanding of children as uniquely worthy of sympathy is informed by the larger construction of childhood innocence, a category historically—and often presently—only available to white children. For instance, Robin Bernstein (2012, 4) describes how children were viewed by Calvinists as deviant and devoid of God's grace, yet childhood innocence was constructed in the mid-19th century as a social category that was purposely "raced white." Whiteness has remained pivotal for constructing the image of the innocent child in children's literature (Rebecca Rogers and June Christian 2007) and Hollywood films (Wanda Parham-Payne 2021). *BioShock*'s Little Sisters rely on this larger cultural construction of childhood innocence, and they are thus exclusively presented as white. Further, this technique finds recurrence with other videogames that similarly provide a player character with the opportunity to protect a young white girl while invoking racial sympathies—*The Last of Us* and *Resident Evil 4* are two prominent examples. The choice-based upgrade mechanic of harvesting or saving the Little Sister is therefore a recursive structure within *BioShock* that relies on a repeated trope of innocent white girlhood often seen in other videogames and the larger culture.

We will finally turn our attention to the architectural design in *BioShock*, focusing specifically on the many skyscrapers in the game. In the splendid moment when

Rapture is first revealed to the player, they are shown an underwater skyline in the style of 1930s New York City, replete with impressive skyscrapers. Skyscrapers remain omnipresent throughout the game and are a constant presence in the background. At first glance, this architectural reference point appears decidedly non-racial. Yet, applying the racial recursivity methodology to the game's cultural influences quickly reveals how this seemingly benign image is informed by a racial logic. In *The Black Skyscraper*, Adrienne Brown (2017, 2) examines how the skyscraper reshaped urban environments and destabilized racial perception, arguing "The skyscraper potentially disrupted the ability to perceive race as well as the capacity to *feel raced*." The first skyscrapers were built towards the end of Reconstruction as Jim Crow codes became institutionalized in the South and scientific racism began to spread. Further, there were substantial demographic shifts in the United States as Asian, Black, Brown, and not-quite-yet-white immigrants arrived in the US, and the first wave of the Great Migration of Black Americans moving to the North began. During this moment's substantial social and demographic shift, the "idea that one could determine race by sight was fraught even in the most stable perceptual conditions," and the extreme dimension of the skyscraper "disrupted the operation of racial perception precisely when the nation most desired to assert and extend the meaningfulness of race" (Brown 2017, 18, 17). The skyscraper thus appears as a common image in early 20th-century American letters as an example of the waning perceptive power to determine one's race.

BioShock is almost certainly *not* a deliberate reference to the distortive capacity of the skyscraper for early 20th-century racial perception. Yet, when we look at *BioShock*'s skyscrapers through the racial recursivity lens, the game's ubiquitous skyscrapers no longer appear racially neutral, especially when we consider the game's narrative justification for Rapture's existence. Rapture was created when the ruling elite in 1940s America decided to exit America and built a city for and by the elite class. From the background visual design that the game offers, Rapture's founders were nearly all white. While the game does not directly explore a potential racial dimension for Rapture's creation, the ubiquitous skyscrapers offer an opportunity for what Saidiya Hartman (2008) calls "critical fabulation" where we can view the many skyscrapers as connected to a larger racial lineage of the skyscraper's ability to disrupt racial perception. Finally, when applying the racial recursivity method to the skyscraper, we can note that many videogames that have nostalgia or parodic nostalgia for an earlier era of American history feature skyscrapers in prominent locations: *Fallout 4* immediately comes to mind. We are thus able to use the racial recursivity method to explore how this seemingly non-racial symbol, the skyscraper, appears repeatedly within the game and beyond while remaining deeply influenced by racial logics.

In applying the racial recursivity method, we can draw out how *BioShock* operates as a racial text. Yet, this article has just begun scratching the surface of the potential racial readings of *BioShock*. For instance, the game's music is deeply influenced by American jazz music from the 1930s-50s, which offers the potential to interpret the role of Black music in the game's sonic presentation and explore if the music informs the game's racial logics. There are other moments where the game's narrative directly invokes race, such as Frank Fontaine describing how he once disguised himself as "a Chinaman for six months," which indicates a potential engagement with what Fickle has described as the "ludo-Orientalism" seen in videogames. Further, positioning *BioShock*'s gameplay loop within its generic predecessors allows us to draw a racial throughline through *D&D*-inspired high fantasy (*Ultima Underworld: The Stygian Abyss*), cyberpunk (*System Shock*), and Jazz Age dystopia (*BioShock*). Placing game

studies methods in conversation with critical race studies allows us to comprehend how *BioShock* operates as a racial text.

CONCLUSION

This article has offered an early insight into the generative potential for combining formalist game studies analysis with critical race studies to build a critical race game studies methodology. It has focused on the key role that repetition plays as a structuring force in both racial practices and videogames, offering racial recursivity as a methodological approach to studying race in videogames. As this year's DiGRA conference focused on "intersectional pleasures" shows, there is a broad appetite for more research into how videogames, play cultures, and gaming broadly conceived overlap with racial considerations. As such, this methodology should be considered an opening salvo for building systemic, formalistic methodologies for studying race in videogames. I hope that future research of both myself and others will address the limitations of the racial recursivity method offered herein and that the field will continue developing methods that will allow scholars to explore the racial foundations of videogames while encouraging developers to build liberatory and anti-racist game worlds.

ENDNOTES AND REFERENCES

Endnotes

[1] The actual scholarship is far more nuanced than presented here. There have always been individual scholars seeking to combine methodological analysis and cultural studies. I have no doubt that most of the scholars mentioned here would oppose their positioning within a discrete taxonomy. And yet, the field has implicitly phrased these two "camps" as oppositional.

[2] The jump button is typically the spacebar on a keyboard, A on Xbox, X on PlayStation, and B on Nintendo. The same is true with other mechanical actions; shooting, crouching, sprinting, parrying, etc., are all typically indexed to the same buttons across games.

[3] There are, however, clearly exceptions. For instance, *Dark Souls* requires players to press O/B to sprint and then press it again to jump, and there are dozens of online forum posts complaining about the atypical jumping button.

[4] There are a few notable pieces examining the role of repetition in videogames. In addition to the works cited herein, Rolf F. Nohr (2013, 79) has drawn attention to how "restart/re-entry is first and foremost a structural principle within" the videogame medium because "most of the games does not 'punish' failure with stopping the game but instead offers the player at least one second try," and Gazzard and Peacock (2011) have observed how the repetitious nature of videogames is akin to ritual. These scholars helpfully draw our attention to the pivotal role that repetition plays in videogames.

[5] I will note here that I disagree with their reading of Konzack, who I believe precisely does provide a detailed methodology.

[6] While outside the scope of this essay, it is also possible to look at the repetitious structures of gaming communities like speedrunners or streaming culture who repeatedly play the same game.

[7] In listing these devices, I do not wish to imply that they are separate pieces. In any game, all devices are interrelated, and Aldred and Brian Greenspan describe how "*BioShock*'s procedurality is […] dependent upon its narrative and vice versa" (2011, 481). Rather, racial recursivity identifies a game's devices and determines how they might relate to racial logics.

[8] For more, see "Ayn Rand Had a Fragile Ego, Incoherent Ideas, and Bad Taste" by Lisa Duggan (2024) and "Ayn Rand on Racism" by John Jackson (2018).

[9] The game's sequel *BioShock 2* begins exploring some of these ideas explicitly, especially through the character Charles Milton Porter who is featured in the *Minerva's Den* DLC.
[10] There are technically two bad endings. If you harvest 2+ but not all Little Sisters, the ending voice-over is sad in tone. If you harvest all of them, the voice-over tone is angry. Other than the vocal performance, the script and visual cues are the exact same.

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