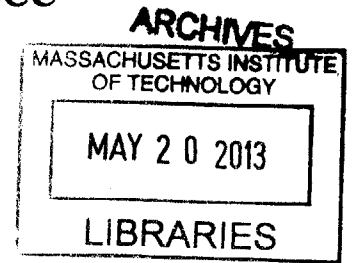# Poetics of the Videogame Setpiece

by

Sonny Sidhu

B.A. Film and Media Studies, Swarthmore College, 2009

SUBMITTED TO THE PROGRAM IN COMPARATIVE MEDIA STUDIES/WRITING IN
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Signature of Author: _____

Program in Comparative Media Studies/Writing
10 May 2013

Certified by: _____

D. Fox Harrell
Thesis Supervisor
Associate Professor of Digital Media
Program in Comparative Media Studies/Writing
Computer Science and Artificial Intelligence Laboratory

Accepted by: _____

Heather Hendershot
Professor of Comparative Media Studies
Director of Comparative Media Studies Graduate Program

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Sonny Sidhu

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ABSTRACT

Many of today's most popular single-player videogames contain short, semi-interactive sequences of tightly scripted, visually spectacular action gameplay, which—despite being generally unrepresentative of a game's 'normal' functions—tend to receive prominent placement in the marketing campaigns that produce desire for the games they appear in. As prevalent as they have become, these *setpieces* (as they are called in gamers' parlance) are often critically dismissed as mere eye-candy—proof, perhaps, of the skewed priorities of an industry that would sacrifice the interactive substance of games in favor of surface qualities that enhance only their commercial appeal.

This thesis attempts to place the technique of AAA videogame setpieces within a series of wider technical, aesthetic, commercial, and cultural problematics relating to the contemporary games industry. It seeks to address the question of the setpiece's artistic merit directly, by understanding the design principles that inform setpieces' creation, and—for the sake of critical context—the aesthetic, cultural, and commercial imperatives these principles exist to serve. Following a historical poetics approach that relates practices of media exhibitionism to the perpetual innovation economy of digital games, this thesis argues that the setpiece is a meaningful site of fluid agency play within games, enabling complex narrative expression as well as *self-reflexive* comment about a game's own relationship to a continuously reimagined technological state of the art.

Thesis supervisor: D. Fox Harrell
Title: Associate Professor of Digital Media, Massachusetts Institute of Technology

Chapter 1: Introduction

On February 20th, 2013, investors, press, and members of the gaming and information technology communities were summoned to New York City's Hammerstein Ballroom, they were told, to 'see the future' (Byford 2013). The occasion was a press event organized by Sony, the global electronics and entertainment giant, that served as the official unveiling of the Playstation 4 videogame console. Nearly an hour into the presentation, the stage lights dimmed and a male operator appeared onstage—illuminated by a small footlight, with controller in hand—to guide the audience through its first live, extended, and unedited glimpse of the long-awaited future of videogaming. *What would this future look like?* The following describes the scene that unfolded onscreen:

> We are in the interior of an airborne transport. A bulkhead door slides open to reveal a futuristic cityscape as our vehicle descends towards its destination: a helipad connected to a lush rooftop garden. We leap the short distance from the transport to the helipad and follow an escort through a series of security checkpoints. Just then, a massive explosion rips through the tower's upper floors. As we lay stunned in the aftermath, a uniformed guard approaches and, looming over us, changes shape to reveal a menacing alien form. Just in time, a message appears onscreen, instructing us to press downward on the Playstation 4 controller's right analog stick to execute a close-range melee attack against the enemy. Though we are now several minutes into the experience, this is in fact the first time we have been called upon, as players, to actually *do* anything.
>
> Following the onscreen prompt, we lunge forward and stab our mysterious enemy in the throat, and, standing up and taking his weapon, we suddenly find ourselves in much more familiar first-person shooter territory: moving around a three-dimensional battlefield, ducking behind cover, aiming and firing at enemies, searching for ammunition, and switching between weapons as we move, goal by goal, towards the completion of our mission.
>
> After a few minutes of this traditional first-person shooter gameplay, we reach the end of a long hallway and watch as we leap towards an escaping enemy transport, miraculously grabbing hold of a length of rope hanging from it. Then, dangling precariously, we are taken on a wild yet tightly choreographed ride through the lavishly realized city, careening between columns of airborne traffic and spiraling through colorful alleyways. Every so often we must use the right analog stick and trigger button to aim and shoot at enemies who appear from inside the vehicle. After a minute or so, a message appears instructing us to push up on the Playstation 4 controller's left analog stick to climb

the rope from which we are dangling. After we comply, another message prompts us to "Press ⊕ to deploy C4." Heeding this last instruction, we watch as we plant an explosive on the escaping ship, leap to the roof of a skyscraper below, and finally destroy the enemy transport with a satisfying click of our handheld detonator.

The camera pulls back with a cinematic flourish, revealing the final image of our avatar surrounded by opposing lines of friendly and enemy ships. As the orchestra swells, the screen fades to black, revealing the words *Killzone: Shadow Fall*, and a link to the game's Facebook page.

As the house lights came back up in New York, the anonymous demo operator exited stage right, holding his controller aloft in the triumphant pose of a victorious prizefighter. The gravity of the moment seemed to impress a single point upon the audience: that what they had just witnessed was, indeed, nothing less than the future of the videogame medium.

But was it, really? The history of the gaming medium has been characterized by a progression of technologies enabling more expansive game worlds and deeper forms of interactive agency. So how could it be that the future of gaming is best represented by a series of guided visual tours and barely-interactive, timed button-pushing sequences? What does it tell us, that Sony not only presented this kind of sequence of gameplay as being representative of gaming's bright future, but that it was largely accepted at face value as such by the gaming press and public?

The preceding anecdote illustrates the *videogame setpiece*, the object of inquiry of this thesis. Setpieces like the one described above are most prevalent within 'AAA' (pronounced "triple-A") videogames—a term used to describe lengthy blockbusters, produced by ever-larger creative teams armed with ever-larger development and

marketing budgets, whose complex interactive demands tend to limit their appeal to a subset of highly experienced gamers. Unlike other ascendant forms such as mobile, indie, or casual games, AAA videogames are most often sold (at relatively high prices) on physical discs distributed through traditional retail channels, and they tend to require dedicated console hardware or a powerful gaming-enabled personal computer to play. These forbidding technical requirements are hardly incidental. Within this branch of videogames, a sense of constant technological advancement is emphasized by developers and valued by players, most often in the form of incremental movement towards interrelated dreams of naturalist perceptual realism, cinematic immersion, and interactive agency (understood as the freedom to navigate spaces and interact with objects with meaningful results, according to the player's free will).

In reality, these dreams often conflict with one another, and in recent years the AAA form has come to be characterized by a particular trend in gameplay design that serves as both a compelling exemplar of these dreams, and of some of the tensions that exist between them: the setpiece. Setpieces are brief, tightly scripted, visually bombastic moments of intense spectacle that stand out from the more dynamic and variable gameplay structures they interrupt. Unlike the purely linear movie clips, or 'cutscenes,' that appear within many videogames, setpieces are interactive. However, the particular qualities of interactivity that define a setpiece always represent a limited, simplified, or otherwise distilled version of a game's normal mode of gameplay, and

players usually have little control over the preordained outcome of a setpiece. Setpieces are thus a hybrid form—part gameplay and part cutscene—suspended in flux between the principles of interactive immersion and visual exhibition. Within a setpiece, gamers too take on a hybrid identity—part player and part spectator.

Setpieces rely on technical advancements to achieve perceptually realistic effects, and draw upon cinematic conventions to construct an enhanced sense of naturalistic immersion, yet they are often maligned by players and critics as an unwelcome reduction of interactivity. In this common strand of criticism, setpieces are dismissed as unthoughtful eye candy—proof of the skewed priorities of an industry that would sacrifice the interactive substance of videogames in favor of surface qualities that enhance only their commercial appeal to gaming's lowest common denominator. This stigma extends into the academy, where setpieces receive little attention despite their continued prevalence, and despite the fact that setpieces have become a central and often foregrounded part of the cultural and economic processes that produce desire for current and future videogames.

I believe this common, dismissive stance towards setpieces is misinformed. Setpieces may exist primarily to exalt videogames' graphical content, but this focus serves a critical cultural purpose, and a great amount of thought and careful design goes into setpieces' construction. Setpieces are indeed candy for the eyes, but they are also complex formal structures that use the dynamics of agency in interactive systems

to marshall computational resources and player attention in the service of particular experiential effects. Moreover, setpieces demonstrate an ability to express meaning not only within a game's narrative, but within the narrative of gaming at large, enabling games to make self-reflexive statements about their own position in the competitive marketplace, and to stand out amidst the historical churn of a fast-moving field of creative technology.

In this thesis, I shall attempt to place the technique of AAA videogame setpieces within a series of wider technical, aesthetic, commercial, and cultural problematics relating to the contemporary games industry. My goal is to address the question of the setpiece's merit directly, by understanding the design principles that inform their creation, and—for the sake of critical context—the aesthetic, cultural, and commercial functions these principles exist to serve. In the process, I will describe the aesthetic and cultural function of the videogame setpiece with a focus on spectacular mainstream commercial gaming, but with implications for staged spectacle in gaming at large and in other media influenced by gaming. Toward this end, in Chapter 2, I introduce an interdisciplinary theoretical framework that incorporates a variety of critical approaches to the study of media and its cultural formation, particularly relating to the themes of visual spectacle and technological novelty in media:

- *Historical poetics* defines my intellectual commitment to providing documented empirical evidence supporting analyses across time periods. Given this

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commitment:

- Videogame studies/economics approaches provide accounts of a phenomenon in which gaming technologies rapidly change in a succession of hardware capability, graphical complexity, and novel modes of interaction, resulting in a permanent culture of *perpetual innovation* in videogames. Setpieces are best understood as an area in which videogames engage directly with this system of values, which celebrates demonstrations of technical novelty for their own sake.

- Cinema and media studies approaches—particularly, theories of attractions and hypermediacy—provide accounts that situate particular strategies of visual image-making as instances of what I shall term *technoattentive media exhibitionism*, and indicate that these strategies become more prevalent within cultural contexts in which the technical novelty of a medium is seen as an important part of its character. Setpieces are best understood in this context, as examples of an interactive form of technoattentive media exhibitionism found in the medium of videogames.

- Digital media theories of *agency* and *immersion* account for a player's sense of being present within the space and storyworld of a videogame. After reviewing various scholarly definitions of the terms 'agency' and 'immersion,' I introduce two constructs supporting the close reading of

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videogame setpieces:

- First, D. Fox Harrell's (Harrell and Zhu 2009; Harrell 2013, forthcoming) notion of *agency play* is adopted as a way to concretely describe—and critically address the expressive potential of—various forms of situated agency, enabled through interactions between user and system in an interactive media text.

- Second, Gordon Calleja's (2012) *player involvement model* is used as a framework for qualitatively delineating the experiential effects of various design strategies along six dimensions of moment-to-moment player engagement and attention.

In Chapter 3, adhering to the intellectual commitment of a historical poetics, I shall present three case analyses of videogame setpieces in light of the concepts of perpetual innovation, media exhibitionism, player involvement, and agency play. The upshot of these analyses is that rather than being mere examples of spectacular but unsubstantive eye-candy—as they are sometimes dismissively understood—videogame setpieces are complex, valuable, and aesthetically effective formal structures that reflect and comment upon videogame culture's relationship to computing technology and to the imagined future of the medium itself. These case studies are followed in Chapter 4 by a section consolidating observations and concluding with final reflections and ideas for future work extending this research.

Chapter 2: Theoretical Framework

This thesis is built upon a framework of theories and analytical methods drawn from various disciplines within the field of media studies. This interdisciplinary framework supports the close reading of individual videogame setpieces, and provides a historical context within which resulting observations may be situated for analysis. This is a historical poetics approach to the topic of videogame setpieces, informed by theories of the perpetual innovation economy of digital games, theories of exhibitionist visual address across media forms, and theories of agency and immersion in interactive media. In the sections that follow in this chapter, I will first provide background on the historical poetics approach that guides this entire thesis, before explaining each of its three major theoretical pillars—perpetual innovation economies, media exhibitionism, and interactive immersion and agency—in individual detail. Finally, I will introduce a pair of complementary analytical strategies—the player involvement model and the agency play model—that will prove central to the setpiece case studies that comprise Chapter 3.

2.1: Historical poetics

The purpose of this project is to develop a historical poetics of videogame setpieces. To understand why this approach will be useful in light of the topic at hand (as well as to provide the reader with a sense of the directions into which these

explorations will unfold), it may be helpful to describe what a historical poetics is, and perhaps even more importantly, what a historical poetics is not.

As a mode of scholarship, historical poetics emerged from the twentieth-century postwar boom in academic literary criticism, though it is now best characterized as a critical approach applicable to works appearing in any creative medium.[1] Indeed, the model of historical poetics used here is that of cinema scholar David Bordwell, whose seminal "Historical Poetics of Cinema" offers both a helpful chronicle of this mode's emergence from the field of literary scholarship[2], and a cogent argument in favor of its application to the study of newer media forms— including visual media (Bordwell 1989). For Bordwell, what distinguishes historical poetics from previous methods of criticism is that it is, in fact, "not a method at all" (Ibid., 370). Across scholarly critical disciplines, Bordwell explains, "'method' has been largely synonymous with 'interpretive school'"—a prescriptive analytical construct

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[1] I use the phrase "historical poetics," here and elsewhere, to refer to a broad field of inquiry defined by a common mode of historically-informed criticism. "*A* historical poetics" (emphasis on the indefinite article "a") is used elsewhere, to more narrowly denote an individual work of scholarship produced in adherence to this critical mode. A third usage appears in quotations drawn from Bordwell (1989), in which the phrase "*the* [historical] poetics [of a medium]" (emphasis on the definite article "the") is used to refer to the entire array of historical and potential practices that comprise work within a given creative medium. Though this third formulation is used sparingly in the body of this thesis, it is the usage implied in the title "Poetics of the Videogame Setpiece." In short, for the purposes of this thesis: *Historical poetics* is the method, used in the production of *a historical poetics*, which seeks to reveal *the poetics* of a particular form of creative expression.

[2] Bordwell traces a lineage of poetics that runs from the era of Aristotle to the modern day, though his formulation of "historical poetics" more explicitly invokes the 20th-century legacy of Teutonic art criticism and the Russian Formalist school of literary criticism—both movements that sought not only to isolate and describe the formal qualities and stylistic conventions that gave a text its character (for the purposes of concrete analysis), but also to contextualize these forms historically and find causal explanations for their evolution over time into their present form (for the purposes of broader insight into culture and the nature of media) (1989, 371).

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consisting of:[3]

> (a) a semantic field with which particular theoretical concepts are associated; (b) a set of inferential procedures that render certain features of [works] salient and significant on *a priori* grounds; (c) one or more conceptual maps of textual progression across which salient features enact a transformation of the semantic field; (d) a set of characteristic rhetorical tactics for setting forth the writer's argument" (Ibid.).

For Bordwell, interpretive schools are intrinsically limited in the forms of knowledge they are able to produce, because their approaches to media texts are predicated on two fundamental assumptions: first, that a certain analytical approach (such as phenomenology, feminism, Marxism, "or whatever") is valid, coherent, and generative; and, second, that particular qualities of a text operate as cues, which can be interpreted as symbolizing meaningful points of difference and transformation that are best (and perhaps, only) understood within this trusted analytical construct (Ibid.). With these assumptions in place, the scholarly work that remains is largely rhetorical in nature, requiring at most a persuasive stringing-together of textual cues to formulate an interpretation (defined as an "ascription of implicit or symptomatic meanings" to a text) that need only be coherent enough to justify the author's evident faith in his or her chosen interpretive school (Ibid.).

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[3] Author's note: I have made a slight change to Bordwell's original quote, replacing the word "films" with the more generic term "works." Bordwell has argued, despite his medium-specific interest in film, that the "shape and dynamics of film" are in fact governed by certain "*trans-media* architectonic principles," which a work of historical poetics can seek to uncover (Bordwell 1989, 375; emphasis mine). Describing historical studies of the poetics of drama, literature, architecture, and cinema, he later writes, "such extensions of the concept [of poetics] are plausible, since it need not be restricted to any particular medium" (Ibid. 370-71). In my efforts to extend this concept to the medium of videogames, I will attempt to similarly generalize Bordwell's medium-specificity, except where explicit reference to the medium of cinema is necessary.

According to Bordwell, unlike a traditional critical "method," historical poetics "does not constitute a distinct critical school; it has no privileged semantic field, no core of procedures for identifying or interpreting textual features, no map of the flow of meaning, and no unique rhetorical tactics. It does not seek to produce interpretations" (Ibid.). Rather than seeking to inscribe some preferred meaning upon a text, a work of historical poetics seeks to understand a text on its own terms, examining its contours directly in an attempt to uncover and understand the forces that shaped them. For instance, whereas an interpretive approach to the 1941 Orson Welles film *Citizen Kane* might try to explicate the film's narrative themes through, say, a Freudian analysis of its characters, events, and dialogue, a historical poetics approach to the same work might examine its use of focal depth of field effects to establish thematic continuity across visual frames, tracing this new technique's historical development as a technical and creative counterpoint to traditional, editing-based modes of montage. Whereas the former approach is concerned primarily with the final result of a creative process, the latter approach is concerned primarily with the creative process itself. As Bordwell explains,

> 'Poetics' derives from the Greek word *poiêsis*, or active making. The poetics of any medium studies the finished work as a result of a process of construction—a process which includes a craft component (e.g., rules of thumb), the more general principles according to which the work is composed, and its functions, effects, and uses. Any inquiry into the fundamental principles by which a work in any representational medium is constructed can fall within the domain of poetics (Ibid., 371).

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According to Bordwell, whereas a work of critical interpretation can, at best, hope to produce knowledge about the meaning conveyed by a given work, a historical poetics can potentially reveal insights about a work itself, producing knowledge about the conventions that structure it, the medium within which it is contained, and even the culture that produced all of the above. In this thesis, the type of works I examine in this manner are contemporary AAA action-shooter videogames, with a particular focus on setpieces as a design convention.

Let us take a moment now to address the unique nature of videogames as a medium. Videogames are hardly a 'brand new' medium: they have existed in their modern form since the early 1960s (with Steve "Slug" Russell's 1962 *Spacewar!* widely acknowledged as this form's inaugural text), and allowing for antecedents such as Wally Higginbotham's *Tennis for Two* potentially extends this history into the 1950s (Burnham 2003; Newman 2012, 41). Though videogames are still a relatively young form, there already exists a half-century history of continuous creative practice within this medium, which ought to enrich and inform studies of contemporary games. However, many academic studies of games situate their objects of study within an exceedingly narrow historical context. In games studies, it is not unusual to see a game lauded for its technical sophistication, or alternately characterized in terms of its humble technical underpinnings, as though these qualities were absolutely inscribed in the game itself, and not merely reflections of an individual critic's particular historical

perspective relative to constantly shifting technological benchmarks. Since gaming-related video and computing technologies are indeed constantly advancing (a peculiar material condition of production that will be examined in depth in the next section of this chapter), such perspective-dependent studies create historical silos of understanding within the landscape of games scholarship and criticism, as many critical responses remain valid and useful only so long as the historically specific technological conditions they take for granted remain in effect (or at least, remain accessible to the reader through memory or external reference).

A historical poetics approach to works in the medium of videogames might produce more meaningful and durable forms of understanding, by positing that seemingly all-important categories such as 'new,' 'old,' 'past,' 'present,' 'future,' 'cutting-edge,' and 'outdated' are not historical absolutes in the context of games, but rather shifting discursive frames that operate similarly across historical eras, even as particular technological conditions continue to change. These categories may emerge from a rhetoric of revolution and rupture, but, when examined from a broad historical perspective, they are indeed quite stable and continuous in their operation. What is cutting-edge now may become outdated later, but the abstract notion of the 'cutting-edge' itself—and the predictable ascription of value to products that reflect this ideal—persists. A historical poetics approach to games encourages us to understand that all games—regardless of their date of release or apparent degree of

technical sophistication—emerge from similar processes of active making, in which

creators must negotiate with a series of historically specific technical constraints while

satisfying certain predictable cultural expectations. By foregrounding a narrative of

creative continuity across eras of technological change, historical poetics transforms

what has been a liability in games studies (namely, the implicit historical specificity and

resulting context-dependency of technologically informed critical perspectives on

games) into a cross-comparative strength.

Paraphrasing Bordwell's definition of a 'historical poetics of cinema,' a historical

poetics of videogames entails an intellectual commitment to producing knowledge in

answer to two broad questions: (1) What are the principles according to which games

are constructed and by means of which they achieve particular effects? (2) How and

why have these principles arisen and changed in particular empirical circumstances?

(Bordwell 1989, 371). This thesis does not claim to advance a holistic historical

poetics of the entire medium of videogames—its focus is more narrowly trained on

the particular design convention of the videogame setpiece. This framing constitutes

an adjustment of scope, not of overall approach. As a work of historical poetics, this

thesis is committed to a better understanding of the principles that guide the

construction of game setpieces, the particular effects they achieve, and the means by

which they achieve these effects, coupled with a historical understanding of how and

why these aesthetic norms developed in the context of the empirical circumstances

within which they arose. Through the development of such a historical poetics, this thesis seeks to produce insights regarding the historical formation of the videogame setpiece as a medium-specific aesthetic norm, the role videogame setpieces play in games culture and in contemporary visual culture at large, and the ways in which material technological conditions and commercial exigencies combine to produce discourses that systematically privilege certain forms of artistic output within the medium of videogames.

2.2: The perpetual innovation economy of videogames

As mentioned in the previous section, a major factor in the historical development of the videogame medium has been the constant advancement of the computing and video technologies that support games' creation and consumption. In this section, I will introduce a related concept, which holds that this condition of constant technological advancement is central to the commercial and fan *cultures* that surround digital games as well. In this view, videogames emerge from and exist within a *perpetual innovation economy* that equates technical novelty with desirability, reinforcing a relentless cycle of obsolescence and supersession that is as much a cultural dogma as it is a material technological reality.

In the cultural imagination, videogames cannot seem to escape their own aura of novelty. In large part, this is because games both benefit from and must contend with

a cycle of hardware upgrade and platform supersession that divides the course of the medium into discrete eras encompassing some part of gaming's past, present, or future. With the apparent waning of each era comes the dawning of a new one, and in these moments of transition, yet another opportunity to renew discourses of technological novelty regarding the videogame medium itself. Other media forms, such as cinema, have also operated within such discourses of technological novelty, particularly around the time of their initial introduction. But in the cases of other media, that initial moment of self-conscious novelty—usually characterized by a frenzy of technical experimentation and self-reflexive interest in the new medium's properties and potential—eventually subsides as the medium begins to take on a more stable, enduring form. Uniquely for videogames as a medium, this condition of apparent novelty has proven to be more than just momentary—in games, the endlessly renewable discourse of technological novelty *itself* seems to be all that endures across eras.

In "Where Do You Want to Go Today?: The Rise of Information Capital," the critical race theorist Arun Kundnani (1999) introduces the concept of the *perpetual innovation economy* as a system of production characteristic of firms and markets that have become integrated, via low-latency information technologies, into a globalized industrial sphere, which, the author argues, is best thought of as a unified information system—rather than a network of intersecting systems, each with their own centers

and peripheries:

> Information technology does not only make possible the emergence of
> the globalised market—within that market it also makes possible the rise
> in the importance of informational and symbolic goods. There are three
> components to this process. First, informational and symbolic goods
> become one of the most dynamic and profitable areas of the world
> economy... Second, firms in other economic sectors, such as
> manufacturing, come to rely for their competitiveness on the production
> of information, knowledge and symbols. So the symbolic component
> (style) of goods like cars and trainers becomes more and more
> important, with firms' marketing departments contributing as much to
> design as design departments. Third, in the manufacturing process itself,
> firms are forced to enter a state of perpetual technological innovation
> (of which automation is just one part) in order to remain competitive
> (Kundnani 1999, 50).

Within a culture of perpetual innovation that celebrates novelty for its own sake, the

desirability of a product is often inseparable from its relative novelty. In such a

market, the primary appeal of a product lies not in any intrinsic use-value, but rather

in its own apparent desirability, and with the obvious social capital conferred by one's

ownership of a desirable product. What Kundnani's model describes is, essentially, a

post-modern market in which the most precious resource is not sellable goods

themselves, but rather the images and symbols produced in relation to these goods.

Within the perpetual innovation economy for athletic trainers, for example, Nike's

newest Air Jordans need not be demonstrably *better* than last year's in order to become

the object of intense consumer desire—they need only be newer. In perpetual

innovation economies, latest *is* greatest.

In Kundnani's model of a perpetual innovation economy, new industrial

practices concerned with the production of desire in consumer markets (as well as the purposeful obsolescing of that desire and its inevitable replacement by new desires) come to gain importance alongside traditional industrial practices, in some cases even supplanting these practices entirely. According to Kundnani, these practices take on different forms within different industrial contexts:

> In high-technology fields, perpetual innovation is characterised by short product cycles—the time it takes from the launch of a new product to the point where it becomes obsolete and production ceases... In the media industries, perpetual innovation is characterised by the need for constant creativity in finding new ways to build audiences. The constant reworking of genres and styles found in the music, film and television industries derives from this. In the field of marketing, companies like Nike, McDonalds and Coca Cola use techniques which follow similar principles. They aim to dominate a field through the sheer weight of perpetual marketing. Each season brings a new twist to an established brand name. As well as acquiring scientific expertise, such companies try to sign up every basketball star, or sponsor major sporting events (Kundnani 1999, 57-58).

As a heavily marketed, technologically enabled media industry, the videogame industry exhibits several of the features of each of the three fields (high-technology, media, and marketing) outlined above. Like other high-technology fields, games are characterized by shortening hardware and software product cycles; like other media fields, games are characterized by the constant reworking of genres and styles to build new audiences; and like other marketing fields, games are characterized by forms of perpetual marketing that situate new product releases as meaningful 'twists' within long-running narratives. But, as Kundnani observes, the orientation of any industry

around economies of perpetual innovation carries both potential rewards and potential risks:

> The shortening product cycles, and the increased cycles of information flowing from producers to consumers and back, amount to a higher circulation of capital and, therefore, a potentially higher rate of profit, compared to the slower cycles of traditional manufacturing. But with this dynamism comes a greater risk, as the investment needed for innovation is high and the window of opportunity to realise the investment is ever smaller (Ibid.).

Historically, the games industry and the critical, fan, and marketing discourses surrounding it have been characterized by the sense of increased dynamism that Kundnani sees as a feature of all perpetual innovation economies. This sense of dynamism has propelled the growth of the commercial market for videogames, but has also exaggerated the stakes of both success and failure in this market. This thesis argues that it has also changed the way games address their audiences, since for a game to succeed in this kind of market, it must not only entertain, it must also *appear innovative* in a way that will attract the attention and desire of potential buyers.

Not surprisingly, given these conditions, many scholars in the field of media studies have analyzed the games industry within the perpetual innovation economy framework in recent years. In *Digital Play* (2003), Stephen Kline, Nick Dyer-Witheford, and Greig De Peuter examine the "interaction of technology, culture, and marketing" in a games industry oriented around constantly obsolescing and upgrading its own products. In *Game Cultures* (2006), Jon Dovey and Helen Kennedy specifically address

"computer games as new media," with an emphasis on the cultural practices that produce and reinforce the medium's status as 'new.' In *Media Work* (2007), Mark Deuze examines game industry labor practices by approaching game-making as a technological enterprise, subject to the same forces of supersession and obsolescence that influence the allotment of development resources within other technology industries. In his work on the pervasive culture of "upgrade" in digital gaming, Daniel Ashton examines the effects of the perpetual innovation economy on both the producers and consumers of videogames (2008; 2011). Christopher Moore observes the ways in which new digital distribution marketplaces for games reflect, respond to, and in some cases reshape discourses of obsolescence around gaming technologies (2009). Digital media scholar James Newman has perhaps explored the topic of perpetual innovation at greatest length, examining how interrelated discourses of supersession and obsolescence influence every phase of games' lifecycles, including their inception, development, marketing, reception, and even archival preservation (2008; 2012; Ashton and Newman 2011).

Together, these media scholars are uncovering the manifold processes that support discourses of innovation, upgrade, obsolescence, supersession, and progression around the medium of videogames. As their studies universally show, these discourses are relentlessly teleological in nature—even when they reference the past, they do so through a forward-facing rhetoric of progress, oriented around the

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celebration of a future that is apparently as bright as it is inevitable. As Newman
(2012) notes, these discourses have not only followed the medium throughout its
history, they have also shaped subsequent efforts to chronicle this history:

> ...There is a palpable sense of 'progression' in gaming histories, which
> are invariably presented as chronologies that codify the movement not
> only from one decade to another but even from dominant genre or
> interface... What we detect in these and other chronologies, timelines,
> and histories is not just a movement through time, not just progression,
> but rather a sense of 'progress' towards better, faster technology, if not
> better games. Indeed, the consistency of gaming histories and their
> focus on discourses of technical progress bear much in common with
> the broader historical narratives of computing and technology (e.g.
> Burnham 2003; DeMaria and Wilson 2002; Kent 2001)... (Newman
> 2012, 41-42).

Like many historical narratives of computing, Newman suggests, histories of the
videogame medium tend to traffic in a rhetoric of 'progress' in which every technical
advancement is cast as an intentional step towards an exalted future. However, as
Newman points out, this narrative of progression may be consistent, but it is hardly
continuous:

> [W]hile it is incontestably moving forward, the trajectory of gaming
> history and technology enshrined in these narratives is far from
> continuous or smoothly progressive. Rather, the pattern is one that is
> overwhelmingly characterised by a series of 'ruptures' that demonstrably
> and inexorably alter the course thereafter... These 'generations,' as they
> are known in gaming parlance, generally refer to versions of hardware
> and remind us of the significance of hardware platforms in delivering
> and ordering gameplay experience and the historical memory of it...
> (Ibid.).

Newman is not alone in his emphasis on the generational rhythm of hardware

platform supersession as a structuring condition of the perpetual innovation economy

of digital games. In his study of the PC-based digital games distribution marketplace,

Steam, Christopher Moore notes that:

> The games industry relies on a rapid production and innovation cycle,
> one that actively enforces hardware obsolescence. Current video game
> consoles, including the PlayStation 3, the Xbox 360 and Nintendo Wii,
> are the seventh generation of home gaming consoles to appear within
> forty years, and each generation is accompanied by an immense
> international transportation of games hardware, software (in various
> storage formats) and peripherals (2009, 1).

These intergenerational transitions are far from incidental; in fact, they are treated in

popular, industry, and academic discourses alike as salient points of inflection in the

history of the medium itself.

As Mark Deuze points out in his study of labor in media industries, this

powerful cycle of hardware obsolescence, supersession, and upgrade is driven in part

by the market for new, more technologically demanding software—two intertwined

forms of consumer demand whose very mutuality, he argues, drives the growth of the

entire industry:

> Technology is intrinsically tied to the work in computer and video
> games. Since its inception, game production shared a relationship with
> technology that simultaneously builds upon the creative process while
> using technological innovation to coax developers to higher levels of
> adaptation. Most predominant in this respect are the advancement of
> console generations and PC graphics cards that allow game developers
> to create rich, ornate worlds... The market for technically advanced
> games further drives the market for advanced graphics cards and
> next-generation consoles as consumers must purchase the latest
> upgraded computers or new consoles to play games developed to meet

the technological specification particular to these new technologies (2007, 216).

Dovey and Kennedy similarly assert that the "permanent upgrade culture" of digital games fixes the work of game creators and scaffolds the meaning of their creative output within a permanently future-oriented interpretative frame:

> It is impossible to discuss the creative work of games designers or programmers without the sense that they are constantly constrained by hardware specifications, which will be ameliorated by the ever promising 'next generation.' The platform is never stable; designers find themselves permanently looking for and exploring new capacities, falling enthusiastically upon each new generation and its development kits trying to work out what it will be capable of (2006, 53).

As Dovey and Kennedy indicate, game culture's fixation on a pair of complementary discourses—lamenting the limitations of present technology while anticipating the enabling innovations of the future—means that games are often regarded as near-obsolescent by their own creators, even while still in production. The games of the near future (because their creators are assumed to be encumbered by present technology) necessarily suffer in comparison to the imagined games of the distant future, just as the games of the present must suffer in comparison to those of the near future.

The cultural narrative and historical reality of perpetual innovation in the digital games market certainly structures the work of games creators, shapes the results of their work, and conditions audience and critical responses to those results. But as Newman warns, citing the theories of cultural critics Evan Watkins and Michael

Thompson,

> We must also be mindful of any temptation to consider these processes as 'natural'... Obsolescence is a category that is discursively produced in the service of particular goals and objectives... The categories of obsolescence, longevity, and durability are socially constructed and frequently do not refer to the material qualities, functionality, or utility of the things themselves... In relation to videogames, much of what we see is related to and driven by commercial imperatives (2012, 44).

Literally speaking, no game that is still accessible to be played is intrinsically obsolete, so in order for any playable game to be *seen* as obsolete, cultural processes must first construct a category of obsolescence within which that game may be framed, and through which it may be actively endowed with certain negative connotations. Indeed, for Newman, "the brute fact is that videogames exist in commercial and cultural contexts which are designed to ensure that history and heritage fades from visibility and memory as much as the codebase of games fades from disks and cartridges" (2012, 36). Games do not merely become obsolete as a result of the passage of time; rather, they are actively *obsolesced* through intentional cultural and commercial processes.

A major component of these processes is the body of "advertising, marketing, and journalistic discourse and practice" that surrounds games, discursively producing and continually reconfiguring the categories of obsolescence, longevity, and durability (Newman 2012, 9). According to Newman, the specialist gaming press—comprised of a 'magazine culture' of online and offline publications—"inevitably focuses attentions

on the forthcoming" at the implicit expense of the already-available (2008; 2012, 60). These publications, with their "prevalence of previews and features... centered almost exclusively on games or projects that [are] in development, unavailable and often many months or even years from release," work continually to place readers "at the intersection of the present and next generation" and inculcate within them a continuous and fundamentally insatiable desire for the games of the future (Ibid.). "The pages of the specialist gaming press," Newman writes, "brim over with anticipation, communicating palpable longing and desire for the next game... What we see painted in the pages of the specialist gaming press is a picture of a medium and a marketplace in a constant state of flux where the best game is the next game" (2012; 60-61).

As Newman points out, this continual focus on the gaming medium's future, at the necessary expense of its present, appears inconsistent with the commercial imperatives of an active media industry. These practices "might initially seem at odds with the interests of retailers and, by extension, publishers and developers," Newman writes (2012, 68.).

> Aside from generating this palpable sense of excitement about what is yet to be released or even developed and committing readers to a continued interest in seeing that which is around the corner, a discourse that proudly proclaims that the best is yet to come seems diametrically opposed to the retailer's imperative of selling games... In the face of this overwhelming message of inevitable progress it would seem that the most rational consumer response would be to perpetually defer any purchasing decision (Ibid.).

After all, how could players find what is already attainable desirable, when the discourse of perpetual innovation in digital games consistently establishes desire in positive correlation with present unattainability? To understand how and why players continue to participate in the present-day retail commerce of games, even while being encouraged to place highest value on the games and platforms not yet available for purchase, Newman argues, one must regard digital games and platforms as what the cultural historian of technology Arnold Pacey (1983; as cited in Newman 2012) has called "halfway technologies"—incomplete, perhaps flawed, even unpredictable partial solutions to technological problems that may not have been fully appreciated at the time of their creation. Embracing this logic of 'halfwayness' allows players to feel as though they are glimpsing the future, even participating in it, through their engagement with present-day gaming technologies. This stance is supported by a constellation of ancillary game production and retail practices—including the iterative model of sequel game development; the trade-in market for used games; and the 'buy now, play later' retail pre-order market for still-unreleased games—which encourage players to construe present-day commercial activities in direct relation to the anticipated future of the medium (Newman 2012; 64-72).

Existing studies of the perpetual innovation economy of videogames have generated useful insights about how the games industry, its specialist press, and its audience of players inevitably anticipate, receive, interpret, remember, and forget

games in relation to discursively produced categories of past, present, and future. However, despite their sensitivity to the conscious construction of these categories through a variety of industrial practices, such studies nevertheless regard individual games as though their apparent possession or lack of technological sophistication were an absolute, rather than relative, property. In this tautological framework, games of the present exclusively exhibit the formal qualities of present games because they exist in gaming's present, and the desirability of future games relates entirely to their exhibition of certain qualities that are assumed only to exist in the games of the future. This flawed logic assumes that the rhetorical and poetical stances videogames may take towards these widely acknowledged categories of past/present/future are necessarily constrained by the linear progression of time: even in the popular imagination, videogames must only be announced as games of the future, arrive as games of the present, and recede into history as games of the past.

I argue instead that the continuous accrual of value to the discursive category of the 'future' in videogames has, by now, had a profound effect—not only on gamer culture and the commercial games industry, but also on the content of games themselves. The games of the present now purposefully invoke the category of the 'future' through their conscious exhibition of novel technical properties, often enabled and framed through the careful use of design conventions like the graphically spectacular, interactively constrained setpiece. In effect, the games of the present,

fully conscious of the necessarily unfavorable terms on which they are continuously compared to the imagined riches of gaming's future, have begun to perform their own futurism, to don the trappings of gaming's anticipated future during those moments of concentrated technical virtuosity that we refer to as "setpieces."

2.3: Media exhibitionism: attractions & hypermediacy

Since the videogame setpiece is a hybrid of interactive gameplay and non-interactive cutscene, it is best approached with a combination of theories drawn from both games and cinema scholarship. From games scholarship, this project invokes theories regarding interactive agency and experiential effects of immersion, which will be described in detail in the next section of this chapter. From the field of cinema studies, this thesis owes a debt to the seminal early-cinema scholarship of Tom Gunning, whose historically informed, critical reassessment of a much-maligned early cinematic form serves as a model for my own attempts to illuminate the aesthetic and cultural functions of videogame setpieces. Gunning's work is useful to this thesis on videogame setpieces because it offers an example of a successful historical poetics approach to exhibitionist modes of spectator-address in a specific visual medium—a medium which, like videogames, was marketed and received as a novel, apparatus-dependent technology during the time period in which these modes were most prevalent. In this section, I will briefly relate Gunning's approach and insights from within the field of cinema studies, before introducing media theorists

Jay David Bolter and Richard Grusin's model of hypermediacy as a generalized corollary to Gunning's 'cinema of attractions' model. These related theories of what I call *technoattentive media exhibitionism*—concerning aesthetic practices that actively seek to redirect audience attention towards the technologies, apparatuses, interfaces, and infrastructures underlying a particular media experience—will enrich our understanding of the particular functions of spectacular videogame setpieces.

In his influential work on the aesthetics of early cinema, Gunning describes a turn-of-the-century 'cinema of attractions'—a historically precise critical construct coined to describe the cinema as it existed in its earliest forms of production and exhibition, around the turn of the twentieth century (Gunning 1986). According to Gunning, the cinema of this period was an "exhibitionist cinema" that represented "less a way of telling stories than a way of presenting a series of views to an audience" (1986, 62). Unlike later, narrative cinema—in which the camera serves as a virtual 'fly on the wall,' capable of seeing figures through its lens but not of being seen by them—this early exhibitionist cinema featured characters who would address the camera directly, providing a constant visual reminder of the entire apparatus of recording and projection enabling their performance. These early films featured little in the way of narrative depth, instead focusing on the visual conveyance of novel sights such as physical stunts, magic tricks, and exotic animals in motion. Narrative concerns, Gunning argues, did not come to dominate the practice of filmmaking until

the middle of the twentieth century's first decade, at which point the exhibitionist aesthetic of the 'cinema of attractions' was gradually supplanted by the voyeuristic visual codes of later narrative cinema, such as close-ups, action-matched editing, and thematic montage.

Gunning's historical reading of film aesthetics is enriched by his penetrating insight into the socio-cultural context within which the technologically novel visual spectacle of the early cinema resonated within the collective psyche, and was elevated from mere diversion to attraction. The necessary element of audience attraction that supports Gunning's model of early cinema stems from a combination of technological discourses and resulting social and psychological impulses far more complicated than a simple interest in visual spectacle for its own sake. Like contemporary videogames, turn-of-the-century cinematic works emerged from an innovation economy organized around visual entertainment technologies.

As Gunning reminds us, early cinema spectators were generally savvy and self-possessed subjects of a late nineteenth-century visual culture that placed great emphasis on the technological novelty of a variety of 'realistic' visual entertainments—usually presented with the aid of scientifically named apparatuses like the "phenakistoscope," "zoetrope," "praxinoscope," and "Kinetoscope." Tracing cinema's lineage through these predecessor technologies and back to the magical theatre of nineteenth-century stage illusions, Gunning writes, "the projection of the

first moving images stands at the climax of a period of intense development in visual entertainments, a tradition in which realism was valued largely for its uncanny effects" (1989, 116). The appeal of these entertainments was understood, by creators, exhibitors, and audiences alike, to lie not in the visual spectacles themselves, but in the uniquely thrilling *ontological uncertainty* of the images they contained—in the power of new technologies to bring about new conceptions of what was 'real' and what was 'unreal.' Just as contemporary videogame culture espouses a narrative of technological 'progress' towards greater and greater feats of naturalistic visual realism, so too did the culture of visual entertainment around the end of the nineteenth century.

In the early 'cinema of attractions,' the cinematic illusion of reality through movement did not merely conjure the attraction—for most audiences, it *was* the attraction. As Gunning sees it, the films of this era adopted a direct, exhibitionistic mode of visual address, not (as misinformed critics would later suggest) because it was the only mode available to 'unsophisticated' early filmmakers, but rather because audiences of the period demanded to be addressed in this way. Audiences had not paid to see a particular film—they paid to see a cinematic projection, and they wanted whatever film they saw to be an effective exhibition of the technological capabilities of the apparatus itself. They had no desire, in this moment of consciously celebrated novelty, to 'forget' that they were engaging in a mediated, technologically enabled experience, as the voyeuristic codes of later narrative cinema would have them do.

Unsurprisingly, the cinema of the day worked to satisfy the audience's demand for technological feats of visual novelty, adopting an exhibitionist mode of direct spectator-address that foregrounded the dynamics of looking and the sense of perception as an embodied, technologically enabled form of social agency. The exhibitionist framing of early cinema as self-conscious spectacle was hardly a naïve aesthetic—if anything, it was a sophisticated form of visual rhetoric, participating in a wider cultural discourse around the new medium of cinema itself.

As this thesis attempts to do, Gunning's scholarship on the early 'cinema of attractions' provides a historical poetics account of exhibitionist modes of spectator-address in a particular visual medium, specifically one that was marketed and received as a novel, apparatus-dependent form of technological spectacle during the time period examined. However, the specificity of Gunning's work (which attends to a particular moment in a particular medium's development) makes it difficult to apply his critical model directly to the analysis of videogame setpieces. Despite whatever parallels exist between the cultural contexts of late nineteenth-century cinema and early twenty-first-century videogames, the gulf between these contexts and forms remains vast, and—since a historical poetics approach demands sensitivity to the particular material conditions within which works are produced—such differences are not easily dismissed.

Fortunately, an analogous and more general model of exhibitionist, self-reflexive

spectator-address across media forms has been advanced by Bolter and Grusin (2000), who, like Gunning, draw a distinction between modes of presentation that seek to make audiences less aware of the technologies supporting them, and those that seek to make audiences *more* aware of these technologies. The former approach, the authors suggest, operates upon a "logic of transparent *immediacy*" that erases interfaces and other outward signs of the medium, in an attempt to make audiences forget that what they are experiencing is not natural, but rather a highly mediated, constructed presentation (Bolter and Grusin 2000, 23). The latter approach, according to Bolter and Grusin, seeks the opposite of immediacy—it operates on a logic of "*hypermediacy*," seeking to produce an enhanced state of medium-awareness by directing audience attention to the existence and nature of the technologies supporting the presentation being consumed.

What Gunning refers to as the voyeuristic visual code of narrative cinema is, in essence, a mode of filmmaking that operates on the transparent logic of immediacy. Gunning's exhibitionist 'cinema of attractions' is a historically specific mode of filmmaking that tends more towards the opaque logic of hypermediacy. This thesis asserts that, like the early 'cinema of attractions,' videogame setpieces intentionally use a logic of hypermediacy to increase awareness of the novel technologies underlying and enabling a media experience. This logic is technoattentive in nature: rather than diverting audiences' attention from the mediated nature of a creative work, it actively

seeks to redirect audience attention towards the technologies, apparatuses, interfaces, and infrastructures supporting that work.

A better understanding of the expressive potential of various techniques of visual media exhibitionism can help us to discern why setpieces appear and function the way they do, within different moments in the history of the videogame medium. By uncovering these rhetorical dimensions, the attractions model reveals the real and powerful substance behind foregrounded spectacles that may at first seem to be all surface. Relating these concepts to Bolter and Grusin's non-medium-specific models of immediacy and hypermediacy allows us to extend Gunning's insights on early cinema to the field of videogames, allowing us to reconsider videogame setpieces' cultural role as a latter-day 'gameplay of attractions.'

2.4: Immersion and agency in interactive media

Videogames differ from many other forms of media in that they are interactive—they often allow a user to actively express some form of agency within a system, rather than more passively receiving material over which they have no control. Many critics and scholars consider this element of interactivity to be the medium's defining feature, and suggest that videogames are more immersive than other media forms because they require gamers to become directly involved in the traversal of a narrative and the accomplishment of gameplay goals. Videogame setpieces are moments in which interactive player agency becomes reduced, to some degree.

However, the results of this reduction of agency, in terms of immersion, are complex: while setpieces often use cinematic techniques to present richly immersive graphical imagery, they also (as this thesis asserts) serve to disrupt the player's sense of immediate immersion within a game's fictional world, instead encouraging a more conscious, hypermediated appreciation of a game's technological qualities.

The interrelated notions of immersion and agency in interactive texts are clearly important to this thesis, but the current lack of consistency and precision in scholarly constructions of these terms complicates their use in empirical analysis. In this section, I will introduce a variety of approaches to the concepts of *immersion* and *agency* in videogames. With both concepts, my intent is not to definitively reconcile ongoing scholarly debates around their precise nature and function. Rather, by introducing some of the key, underlying conceptual differences driving these debates, I hope to define the notions of immersion and agency as broadly as possible for the purposes of this study, allowing subsequent empirical observations of setpiece content to take analytical precedence over potentially incomplete or contentious scholarly theories.

The idea that media can be immersive is a familiar one, which has proven to be recurrent across discourses and cultures. Many of us have experienced a feeling of 'being lost' in a good novel, film, or videogame—of being so engaged with a work that one actually feels, to some degree, present within it. At times, particular works in

various media have been described as immersive, and indeed, immersive qualities have often been ascribed to entire media forms, including fictional literature, perspective paintings, panoramic photography installations, and moving-picture projections (Nell 1988; Grau 2003; Schwartz 1995; Bazin 1968). However, the meaning of immersion has been inconsistent across these media contexts, owing to the different ways in which immersive qualities are externalized through different media forms. More recently, the experiential phenomenon of immersion has become central within studies of ergodic media (Aarseth 1997)—forms in which the active input of an "operator" is not only capable of reshaping a text, but is indeed required in order for that text to come into being in any appreciable form. Yet even within this narrower context, immersion has been inconsistently defined.

Many scholars have asserted that in videogames, as in other ergodic media forms, the phenomenon of immersion is so prevalent as to be considered a major, perhaps even defining, component of player experience (Ermi and Mayra, 2005; King and Krzywinska, 2006; Tamborini and Skalski, 2006; Brown and Cairns, 2004; Jennett et al., 2008; as cited in Calleja 2011). However, as videogames scholar Gordon Calleja (2011) points out in his much-needed survey of the term's historical deployment across popular and academic discourses in games, there has been little consensus as to what immersion precisely means:

> ...In the context of digital games... it is used to refer to experiential states as diverse as general engagement, perception of realism, addiction,

suspension of disbelief, identification with game characters, and more. This plethora of meanings is understandable when it comes to industrial or popular uses of the term, but it is also common within academic game studies. Given that the phenomenon that immersion and presence have been employed to refer to is increasingly important in shaping the experience of digital games, we require a more precise approach (2011, 25).

Calleja identifies two major strands of thought within which most games scholars' constructions of immersion can be classified: *immersion as absorption* and *immersion as transportation*. In definitions that follow the *immersion-as-absorption* model, the primary focus is on player interaction within a structure defined by engrossing game mechanics, whereas in the model of *immersion-as-transportation*, immersive effects result primarily from players' interactive control over an embodied avatar in richly represented, navigable space.

According to Calleja, one metaphor—that of *immersion as absorption*—has been advanced by scholars whose primary focus is on videogames' use of interactive design principles to construct engaging gameplay scenarios (Scholder 2003; Salen and Zimmerman 2003; Calleja 2011, 26). In this formulation, *immersion* refers to the sense of intense, sustained cognitive engagement that a person feels whenever they are deeply involved in an engrossing task, whether that task is playing a videogame or finishing a crossword puzzle. Videogame scholars Katie Salen and Eric Zimmerman stress that in the model of immersion they employ, immersion is not a condition for play—it is the *result* of play: "When we play a game, we feel engaged and engrossed,

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and play seems to take on its own 'reality'... A game player does become engrossed in the game... but it is an engagement that occurs *through play itself*" (2003, 451; emphasis in original). As art historian and film scholar Elena Gorfinkel notes, the experiential and perceptual phenomenon of *immersion* in this model is seen as an effect engendered by a game's abstract qualities, particularly its gameplay rules and interactive mechanics. Thus, for scholars like Gorfinkel, the question of whether a game produces a sense of immersion within its players has little to do with the richness of its audiovisual representations, or even with the configurations of the spaces being represented:

> Immersion is not a property of a game or media text but is an effect that a text produces. What I mean is that immersion is an experience that happens between a game and its player, and is not something intrinsic to the aesthetics of a game. The confusion in this conversation has emerged because representational strategies are conflated with the effect of immersion. Immersion itself is not tied to a replication or mimesis of reality. For example, one can get immersed in Tetris. Therefore, immersion into game play seems at least as important as immersion into a game's representational space (Gorfinkel 2000; as quoted in Salen and Zimmerman 2003, 452).

As characterized by the quote above, according to the general model of *immersion as absorption*, immersion results from a player's preoccupation with engaging gameplay structures. While this effect may be enhanced by a game's audiovisual richness, the only necessary precondition for this form of immersion is engrossing gameplay.

According to Calleja, an alternate metaphor exists in the form of *immersion as transportation*, which describes the feeling of being present in another place (such as in

the fictional space represented graphically in a videogame). This formulation emerged

from research exploring presence-related phenomena in the field of human-computer

interaction (including Steuer, 1992; Tamborini and Skalski, 2006; Ijsselsteijn, 2004;

Ijsselsteijn and Riva, 2003; Waterworth and Waterworth, 2003; and Slater, 2003; as

cited in Calleja 2011), but has since been adopted by humanities scholars working in

parallel with these inquiries, such as Janet Murray (1998) and Brenda Laurel (1991; as

cited in Calleja 2011). The representation of spatiality is key to this formulation of

immersion: for a game to be truly immersive, it has to provide its player not only with

an engaging task to be completed, but also with a world to be navigated—a space to

be *present* within. As Calleja explains, "A player who assimilates this game world into

their gameplay as a metaphorically habitable environment can be thought of as being

transported to that world. This experience is made possible by the anchoring of the

player to a specific location in the game world via their avatar, which the game world

and its inhabitants, including other players, react to" (2011, 27; emphasis his).

The notion of *embodied* interaction—of participating in a world by puppeteering

a virtual body in virtual space—is important to many proponents of the

immersion-as-transportation model.[4] For the interactive media scholar Janet Murray, even

the etymology of the word *immersion* suggests an inextricable link to bodily concerns:

Immersion is a metaphorical term derived from the physical experience of

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[4] For an in-depth examination of the complex cognitive processes associated with various degrees of motor control over a virtually embodied avatar, see Harrell and Chow (2012).

being submerged in water. We seek the same feeling from a psychologically immersive experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus. We enjoy the movement out of our familiar world, the feeling of alertness that comes from being in this new place, and the delight that comes from learning to move within it. Immersion can entail a mere flooding of the mind with sensation... but in a participatory medium, immersion implies learning to swim, to do the things that the new environment makes possible (1998, 98-99).

As Murray's description suggests, *immersion-as-transportation* is a complex model that views immersion not as a single, narrowly defined effect, but as an experiential gestalt made up of a number of interrelated effects. When applied to videogames, the *immersion-as-transportation* model incorporates elements of a player's sensory perception, spatial awareness, and occupation with control-oriented input tasks, in addition to his or her intellectual engagement with a game's rule-based, goal-oriented demands. As in *immersion-as-absorption*, a player's engagement with gameplay systems and goals is seen as important, but (uniquely) so is his or her engagement with purely aesthetic elements of a game's representational layer—such as its audiovisual representations of fictional space—as well as with the continuous demands of exerting control over an in-game surrogate body, or avatar.

Scholars have generated various, subtly shaded definitions of immersion in digital games, and given that the effect to which the term refers is highly subjective and experiential in nature, true consensus around a single definition is unlikely.

However, by organizing leading scholarly models of immersion according to the central metaphors of *absorption* and *transportation* upon which they variously operate, Calleja clarifies a complex scholarly debate: proponents of the *immersion-as-absorption* model primary focus on player interaction within a structure defined by engrossing game mechanics, whereas proponents of the *immersion-as-transportation* model believe immersive effects result primarily from players' interactive control over an embodied avatar in richly represented, navigable space.

For the purposes of this thesis, what is interesting about these contrasting formulations of immersion is not the aforementioned differences, but their common emphasis on meaningful player involvement, or *interactive agency*, as an essential, constructive element of immersion in digital games. However, as is the case with *immersion*, the exact nature and operation of *agency* is hardly a settled question within the field of digital media scholarship, despite the concept's centrality within the discourse. Most agree that agency is a central feature of digital media, and there is even broad agreement on the general definition of the concept offered by Murray (1998), but many disagree sharply on the particularities of how and why user agency should be incorporated in interactive narratives.

In her influential study of interactive narrative forms (a field that encompasses graphical videogames as well as other forms of ergodic storytelling, such as text-based interactive fiction), Murray points to increased user agency as a defining feature of

digital media at large. Interactive media (such as videogames), Murray argues, invite

users to take on much more active roles within a narrative than traditional,

non-interactive forms. Within an interactive media work, the user is not merely a

reader or a viewer, but is indeed an *agent*: an active subject with "the satisfying power

to take meaningful action and see the results of our decisions and choices" (126). Of

course, interactive media is a broad term that encompasses a number of unique media

forms, ranging from text adventures to virtual pets to AAA videogames. Depending

on form, Murray contends that agency may be expressed in a variety of ways: perhaps

as spatial navigation in three-dimensional space, or as traversal of links in a hypertext

narrative, or even through solving puzzles and interacting with objects and characters

within a gameplay structure that incorporates such user-initiated actions into an

unfolding story. In Murray's view, user agency in a digital narrative can be externalized

in the form of a broad variety of activities, but, importantly, "activity alone is not

agency" (1998, 128). For a user to feel agency within a system, they must feel that

their actions are motivated by their own choices, and that these choices have real

consequences within the system. Agency entails meaningful action, not mere

interactive busywork.

Many scholars have adopted Murray's general definition of agency, and few

would argue that agency is *not* a novel and foundational property of digital media

forms. But whereas some take a limited, context-specific view of agency as users'

active negotiation of a range of choices, others view agency much more expansively, as the ability of users to express their free will within a system, without being excessively limited by predetermined choice structures. And whereas some believe that allowing users to express significant agency within a text expands its narrative possibilities and immersive potential, others (see Ryan 2001; Louchart and Aylett 2003) suggest that a user's ability to express agency might actually be at odds with narrative imperatives—that is, with the system's capacity to structure the user's experience of a narrative with some measure of authorial control.

As we have seen, many scholars across fields such as media studies, videogame studies, literary studies, and human-computer interaction have deemed user agency to be a defining property of interactive media works, and have deemed the experiential effect of immersion to be a salient quality of some interactive media. However, despite the fact that scholars broadly agree on the importance of these concepts, there is little agreement around precise definitions for the terms themselves. Recognizing that the dynamics of interactive agency and immersive effect are an important part of the videogame setpiece's expressive language, it is important to introduce these concepts and characterize a few leading scholarly approaches to them. But, given the lack of scholarly consensus on either issue, it would be imprudent to align the subsequent analyses in this thesis with any one scholar's view of immersion or agency, at the expense of all others. Rather, I have opted to introduce these

competing definitions in productive juxtaposition with one another. By invoking these concepts more broadly, I hope to enable a thoughtful mode of analysis that examines the dynamics of immersion and agency within a setpiece, without being constrained by adherence to any one, potentially incomplete formulation of either term.

2.5: Analytical framework: agency play & player involvement

As the previous section shows, scholars have offered a diverse and at times conflicting range of definitions and interpretations for the important concepts of *agency* and *immersion* in videogames and interactive narratives. Since accurately describing the technical function and subjective experience of videogame setpieces requires paying close attention to the moment-to-moment dynamics of agency and immersion in these sequences, this thesis demands an analytical framework that is at once precise enough to support close readings, yet broad enough to accommodate the diverse formulations of *immersion* and *agency* found within contemporary games scholarship. Toward these ends, I adopt Harrell's (Harrell and Zhu 2009; Harrell 2013, forthcoming) agency play model and Calleja's (2011) player involvement model for the purposes of the subsequent setpiece analyses. In this section, I shall describe these models and explain how they will be used to support the case studies that comprise Chapter 3 of this thesis.

Media theorist and artificial intelligence researcher D. Fox Harrell's agency play model addresses the question of agency in videogames directly and with an

analytically productive level of precision, without picking sides in the ongoing debate around the 'true' nature or 'rightful' degree of user agency in games (particularly in relation to cultural notions of free will or the imperatives of structured narrative in game design). Rather than treat agency as a descriptive label referring to a specific mode of interactive engagement, Harrell's approach is sensitive to a diverse field of possible interactive phenomena, capable of comprising both highly expansive and highly constrained constructions of agency, as well as everything between. Agency within an interactive narrative such as a videogame, Harrell argues, is "contextually situated, distributed between the player and system, and mediated through user interpretation of system behavior and system affordances for user actions" (Harrell and Zhu 2009, 1). In this framework, agency does not exist *in spite of* designed constraints and other techniques that intentionally frame user experience—rather, agency is defined by and operates *within* these constraints, and indeed becomes recognizable only *because of* them. Furthermore, in the agency play model, agency is a quality that applies both to the user and to the system itself, and varying degrees of user or system agency can emerge from various relationships between user and system.

This sensitivity to the importance of design and user-system interaction in enabling and framing user agency informs Harrell's use of the term *agency play*, which stresses that the presence or absence of agency is itself a dynamic quality, and that

this quality can be exploited for expressive purposes within a narrative. Thus, in skilled hands, "multiple dimensions of agency can be tuned during story execution as a narratively situated mechanism to convey meaning" (Ibid.). These dimensions of agency are defined as follows (Harrell 2013, forthcoming):

- **Agency relationship**: User actions and system actions operate in relation to one another. This relationship can vary in relative magnitude and degree of dependency between the two types of actions (e.g., an inverse relationship or independent operation).
- **Agency scope**: Results of either user or system actions may have immediate and local impact (e.g., turning a character left or right) or longer-term and less immediately apparent results (e.g., a series of actions may determine narrative structure itself).
- **Agency dynamics**: The relationship between possible user and system actions, and their scopes, can vary dynamically during runtime.
- **User input direction**: The user may establish a pattern of input that directs agency dynamics and/or agency scope.

The four dimensions of agency described above operate in relation to one another, and together provide the complex means by which user and/or system agency may be constrained or expanded during execution of an interactive narrative to enable various forms of narrative expression. Such fluctuations between states of player agency (which, as we will see, are a foundational characteristic of videogame setpieces) are considered to be an important part of videogame makers' expressive palette, according to Harrell's model of agency play.

In the case studies that follow in Chapter 3, the dimensions of agency defined by the agency play model provide a vocabulary for precisely describing

moment-to-moment variations in user and system agency that occur during setpieces, and for describing how such fluctuations can be directed towards particular expressive effects. This study will attempt to extend the agency play model by demonstrating that, in setpieces, movement between various states of situated agency functions not only as a tool for *narrative* expression (as described in Harrell and Zhu 2009), but also as a tool for *self-reflexive*, meta-narrative expression. Setpieces, in this view, do not merely encode meaning within the narrative world of a game itself— they additionally enable a game to express complex statements about its own relationship to competing products; its own place within discursively produced historical categories of 'past,' 'present,' and 'future'; and its own degree of achievement relative to a nebulous, continuously re-imagined technical state of the art. By calling attention to this as-yet unexamined self-reflexive expressive dimension of agency play, I hope to further demonstrate the various ways in which user agency in videogames can be tuned during setpieces to achieve complex effects.

The agency play model asserts that agency within interactive narratives such as videogames can be tuned at runtime (that is, at the moment of execution) to achieve various effects. Executing close readings of individual videogame setpieces according to this model thus requires an analytically precise way of recording and describing these effects, as subjectively experienced in real time by an active player. For this purpose, I have chosen to adopt videogames scholar Gordon Calleja's *player involvement*

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model—a conceptually inclusive yet analytically precise framework for recording experiential phenomena of engagement, such as attention, involvement, and immersion, as they occur during interactive gameplay. Though this thesis will ultimately argue that Calleja's player involvement model is incomplete (because it does not presently account for the devotion of conscious attention to a videogame's audiovisual content for the sake of non-instrumental technical and aesthetic appreciation, as opposed to more instrumental forms of purposeful looking and interpretation determined by goal-oriented gameplay demands), its multidimensional framework is nevertheless an essential component of the subsequent analyses, serving as a useful heuristic device enabling the systematic recording of highly subjective gameplay experiences. I shall now briefly describe the player involvement model's conceptual foundation, disciplinary orientation, and critical forebears, before proceeding to introduce the model itself.

As Calleja describes it, the player involvement model was formulated in response to a perceived "scarcity of comprehensive conceptual frameworks that can be employed to understand the multiple facets of player involvement and, consequently, immersion in digital games and virtual worlds" (2011, 35). The challenge Calleja seeks to address with this model is one that has troubled many researchers before him— how can scholars define, observe, and record the operations of an elusive subjective phenomenon like immersion with adequate qualitative flexibility, while still

maintaining the level of rigor and specificity required for serious aesthetic analysis?

Though previous studies in the field of human-computer interaction (such as Jennett et al. 2008 and Brown and Cairns 2004, as cited in Calleja 2011) have attempted to provide such comprehensive conceptual frameworks, Calleja argues that these frameworks similarly seek to quantify the phenomenon of immersion without first rigorously defining the term *immersion* itself (therefore oscillating freely and unproductively between the metaphors of *immersion-as-absorption* and *immersion-as-transporation*).

Calleja sees a more useful and direct antecedent for his own work in the multidimensional model of immersion provided by psychologist Laura Ermi and games scholar Frans Mäyrä (2005), who model the experience of gameplay as a combined effect emerging from three modes of immersion: sensory immersion[5] (relating to engagement with games' representational, audiovisual layer), challenge-based immersion (relating to players' use of mental and motor skills to overcome gameplay challenges), and imaginative immersion (relating to all other forms of engagement and identification with a game's narrative, characters, and world). Like Ermi and Mäyrä, Calleja views player involvement as a multidimensional

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[5] With a similar focus on players' non-instrumental (read: non-goal-oriented) engagement with videogames' audiovisual content, Ermi and Mäyrä's concept of sensory immersion is, in some ways, quite similar to my own model of technoattentive player involvement, which I advance in this thesis. However, unlike Ermi and Mäyrä, I do not presume that *immersion* (with its implied logic of immediacy) is the intended or inevitable effect of high-fidelity graphical displays in videogames. Rather, through my use of Calleja's word *involvement* (rather than *immersion*), I hope to remain open to the possibility that graphical spectacles (immersive though they may be, in a strictly visual sense) can intentionally operate in a mode that is performative, exhibitionistic, and hypermediated—encouraging conscious appreciation of a videogame as a media object, instead of the absorptive or transportive state of immersion that interests Ermi and Mäyrä.

phenomenon, and attempts to define its component dimensional spectra with some degree of analytical precision. However, unlike Ermi and Mäyrä, Calleja does not conflate mere interest, attention, or engagement with immersion; rather, in Calleja's view, immersion is a high-level effect that emerges only after certain prerequisite states of involvement have been established. Since this thesis purposefully does not take for granted that a transparent, immediate state of immersion is the goal of most setpieces, utilizing Calleja's more cautious formulation of *involvement* enables the subsequent close readings to remain conscious of the potential for game creators to intentionally favor hypermediated, exhibitionist modes of address over more immediate and immersive strategies—even at the representational, audiovisual level of their content.

Scholars have long recognized the value of creating a comprehensive conceptual framework for observing and recording subjective player experiences in videogames, but due to the sheer complexity of the media objects and theoretical questions involved, their attempts to craft such a framework have not always been successful. Calleja attempts to address this longstanding challenge in videogame studies by providing a more expansive, multidimensional model of player involvement, effectively consolidating the insights of immersion-related researchers across engineering fields and humanities disciplines within a structure whose very complexity is a reflection of the author's intimate familiarity with and appreciation of videogames

as a unique media form. Though Calleja's model is clearly not without its own faults and omissions—only some of which this thesis can engage with directly—as a heuristic device enabling the close reading of gameplay sequences, it is well suited to the spirit, methods, and goals of this study.

The player involvement model holds that the in-the-moment experience of playing a videogame is a complex effect, emerging from a circuit of engagement encompassing continuously varying degrees of involvement with avatar control; spatial navigation and exploration; interactions with other in-game agents; engagement within a structure defined by game rules; involvement in embedded and emergent narrative developments; and emotional/affective responses to game content and gameplay experiences (2011, 43-44). These dimensions of involvement (respectively, kinesthetic, spatial, shared, ludic, narrative, and affective) are not exclusive, and they may operate together or even prove functionally dependent upon one another, in certain contexts. That said, the six dimensions of involvement need not all operate at once, nor must they operate in equal measure to one another. Calleja's model assumes that player attention is a limited resource, and one that must be divided between the six dimensions of involvement efficiently in order for immersion to take hold: "Since... humans have a limited attentional capacity, devoting more conscious attention to one of the dimensions leaves less that can be invested in others" (2011, 45). Likewise, "with more attentional resources freed, players will

attend to multiple dimensions simultaneously" (Ibid.). I will now briefly define each of

the six dimensions of Calleja's player involvement model, to lay the groundwork for

the subsequent utilization of this model as an organizing rubric for my own case

analyses.

Kinesthetic Involvement

According to Calleja:

> Kinesthetic involvement relates to all modes of avatar or game piece
> control in virtual environments, ranging from learning controls to the
> fluency of internalized movement. This dimension of involvement
> requires more conscious attention when the controls make themselves
> present, either because the player hasn't fully mastered them or because a
> situation demands a complex sequence of actions that are challenging to
> the player. The freedom of action allowed and the difficulty of the
> learning curve of the controls involved have a major influence on the
> player's involvement in the game environment (2012, 43).

Since the kinesthetic dimension of the player involvement model deals directly with

the moment-to-moment demands of control over an entity within a virtual

environment, it is directly correlated with the degree of player agency in a given

segment of gameplay, particularly in terms of agency scope. Kinesthetic involvement

is a non-factor during non-interactive cutscenes, but is a major factor of player

involvement in interactive gameplay sequences, particularly those that require skilled

inputs on the part of the player in order to perform complex or difficult actions in the

virtual environment. It is also a factor during semi- and pseudo-interactive moments

such as quick timer events[6] and input-limited[7] gameplay sequences, since in these

moments controls tend to "make themselves present" either literally (such as when

specific button commands are present onscreen during quick timer events) or

figuratively (such as when players must figure out for themselves which inputs are and

are not enabled during a given sequence in which some aspect of interactivity has

been constrained).

Spatial Involvement

The player involvement model defines the spatial dimension of involvement as

follows:

> [S]patial involvement… concerns players' engagement with the spatial
> qualities of a virtual environment in terms of spatial control, navigation,
> and exploration. It accounts for the process of internalizing game spaces
> that is a powerful factor in engaging players and giving them the sense
> that they are inhabiting a place, rather than merely perceiving a
> representation of space (Calleja 2012, 43).

Like the kinesthetic dimension, the spatial dimension of involvement is directly

correlated with the degree of interactivity in a given sequence of gameplay, since it

explicitly concerns a player's interactive engagement with space, rather than the

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[6] The term "quick timer events" is used in gamer parlance to refer to timed challenges, in which the player must quickly perform a specific input action that is displayed in an onscreen prompt (most often in the form of an icon corresponding to a specific controller button, trigger, or analog stick). Agency scope is generally modified during quick timer events, as singular button presses can trigger complex or lengthy actions on the part of the player character.

[7] This is my own term, which I use to refer to sequences in which some subset of the input controls normally available to a player during gameplay are made unavailable. For instance, if a first-person shooter normally allows a player to use the left analog stick to control movement and the right analog stick to control looking direction, then a gameplay sequence in which the player cannot move freely but can still use the right stick to look would qualify as an input-limited sequence, in comparison to that game's normal mode of gameplay.

passive perception of space. Spatial involvement, according to this model, is most

heightened during moments of gameplay that require a player to exert control and

mastery over a space through processes of exploration and navigation—especially

when a space is so large that it cannot all be depicted onscreen at once, thereby

demanding that the player construct, update, and continually refer to an internal

mental 'map' of the space to make sense of it.

Shared Involvement

As a component of the player involvement model,

> Shared involvement... deals with the engagement derived from players'
> awareness of and interaction with other agents in a game environment.
> These agents can be human- or computer-controlled, and the
> interactions can be thought of in terms of cohabitation, cooperation,
> and competition. Shared involvement thus encompasses all aspects
> relating to being with other entities in a common environment, ranging
> from making collaborative battle strategies to discussing guild politics or
> simply being aware of the fact that actions are occurring in a social
> context (Calleja 2012, 43).

Unlike the kinesthetic and spatial dimensions of involvement, shared involvement is

not directly correlated with the degree of interactivity in gameplay, since it

encompasses both direct interactions with in-game agents as well as more general

forms of awareness of those agents (which can presumably be activated through

non-interactive means, such as through cinematic cutscenes). But, as the description

above indicates, shared involvement is heightened during moments in which players

interact directly with other agents, or structure their interactions based on some aspect

of their awareness of these agents, so it is important to consider the ways in which the shared dimension of involvement is affected when gameplay fluctuates between various states of relative interactivity, as it often does in setpieces.

Ludic Involvement

Within the player involvement model,

> [T]he ludic involvement dimension... expresses players' engagement with the choices made in the game and the repercussions of those choices. These choices can be directed toward a goal stipulated by the game, established by the player, or decided by a community of players. Decisions can also be made on the spur of the moment without relation to any overarching goal... [W]ell-balanced game systems emphasize the opportunity cost of any particular action taken. Without repercussions, actions lose their meaning (Calleja 2012, 44).

As defined by Calleja, ludic involvement necessarily involves players' interactive negotiation of the costs and benefits of their own self-directed choices, as defined by value structures embedded in gameplay goals both imagined and explicitly stipulated. Because this definition assumes variable gameplay structures that can be meaningfully affected by expressions of player-choice, the designed linearity of most game setpieces—with their pre-scripted events and pre-ordained outcomes—would seem to be antithetical to the very notion of ludic involvement as described above. However, since setpieces are often structured around a series of gameplay objectives that function as checkpoints, we cannot dismiss the category of ludic involvement entirely, either.

Affective Involvement

According to the player involvement model,

> The affective involvement dimension encompasses various forms of emotional engagement. Emotional engagement can range from the calming sensation of coming across an aesthetically pleasing scene to the adrenaline rush of an on-line competitive first-person-shooter round to the uncanny effect of an eerie episode in an action-horror game. This dimension... accounts for the rhetorical strategies of affect that are either purposefully designed into the game or precipitated by an individual player's interpretation of in-game events and interactions with other players (Calleja 2012, 44).

Since this definition allows for a wide variety of in-game events and interactions to elicit affective responses from players, this would seem to be one dimension of player involvement that need not necessarily suffer when constraints are placed on interactive agency within gameplay. Indeed, as defined above, affective involvement can be engendered by non-interactive events as well, if these events elicit some form of emotional response from the player. Moreover, players' emotional responses do not have to be directed toward games' intentional design elements in order to be considered expressions of affective involvement; emotional responses to subjective experiences and interpretations are equally valid within this model.

Narrative Involvement

As defined in Calleja's player involvement model,

> Narrative involvement refers to engagement with story elements that have been written into a game as well as those that emerge from players'

interaction with the game. It addresses two interrelated dimensions of narrative in games: the narrative that is scripted into the game and the narrative that is generated from the ongoing interaction with the game world, its embedded objects and inhabitants, and the events that occur there (2012, 43-44).

Narrative involvement, in this formulation, can be engendered by a game's embedded story, or can refer to a player's engagement with a narrative that emerges through his or her interactions within a game world and the unscripted events that transpire there. Though narrative involvement is similar to affective involvement in that it encompasses various forms of subjective response to in-game content, narrative involvement is a more situated, context-dependent mode that depends upon a level of familiarity with a game's embedded narrative, or at least an ongoing engagement with the emergent narrative fruits of gameplay interactions.

To summarize, the player involvement model posits that interactive involvement can be classified along six dimensions of fluctuating attentional engagement with matters of: avatar control; spatial navigation and exploration; interactions with other in-game agents; goals and game rules; embedded and emergent narrative developments; and emotional/affective responses to game content and gameplay experiences. These dimensions—kinesthetic, spatial, shared, ludic, narrative, and affective, respectively—function in complex relation to one another, as dictated by their shared dependence on a single, limited resource: player attention. In the case studies that follow in Chapter 3, the dimensions of involvement defined by the player

involvement model provide a rubric for precisely recording and describing my subjective experiences across multiple play-throughs of individual videogame setpiece sequences. Organizing my own observations according to the dimensions of the player involvement model will enable the subsequent case studies to attend closely to every facet of subjective experience related to a setpiece's interactive and aesthetic qualities. This thesis will also attempt to extend the player involvement model by proposing that setpieces expose a seventh dimension of player involvement in videogames—that of *technoattentive* involvement with a videogame's technical qualities, particularly as represented by the relative sophistication of its audiovisual content.

Approaching videogame setpieces as moments of agency play, and recording the effects of their observed strategies of agency play according to the six dimensions of the player involvement model, will enable critical close readings of a gameplay form that poses—in all its cacophonous brevity—a unique methodological challenge. At the same time, this analysis will suggest useful extensions to both the player involvement model and the agency play model, highlighting *technoattentive involvement* as a type of player involvement that has not been sufficiently examined, and *self-reflexive expression* as a use of agency play that is a hallmark of the videogame setpiece.

Chapter 3: Analysis

Having established an interdisciplinary theoretical framework that supports the examination of videogame setpieces, and having extrapolated from this foundation a precise methodological framework for recording their interactive and aesthetic qualities, I will now proceed to offer my critical analysis of a selection of videogame setpieces. In Section 3.1, I will provide a technical description of the processes of play, observation, and recording that comprised my close readings, and delineate the logic behind the selection of videogames chosen for study. Section 3.2 consolidates shared insights regarding all three cases selected for analysis, particularly with reference to their common status as sequels to established videogame series. Sections 3.3, 3.4, and 3.5 comprise the analytical core of this thesis: a trilogy of case studies of setpiece sequences appearing in recent iterations of popular action game franchises. I will consider three moments in particular—what I refer to[8] as the "Stowaway" cargo plane sequence in *Uncharted 3: Drake's Deception* (Naughty Dog/SCEA 2011), the "Hunter Killer" boat sequence in *Call of Duty: Modern Warfare 3* (Infinity Ward/Sledgehammer Games/Activision 2011), and the "Going Hunting" jet fighter sequence in *Battlefield 3* (DICE/EA 2011)—examining how these setpieces may be

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[8] I refer to the selected *Uncharted 3*, *Modern Warfare 3*, and *Battlefield 3* setpieces by using the mission/chapter titles given to the gameplay levels in which they appear: "Stowaway," "Hunter Killer," and "Going Hunting," respectively. In the case of "Stowaway" and "Going Hunting," this is a natural choice, since these setpieces comprise the entirety of their namesake levels. "Hunter Killer" is more problematic, since it is a longer level that includes both an introductory setpiece and a lengthy passage of traditional first-person shooter gameplay, in addition to the final boat-chase sequence that is the object of interest for this thesis. Unless otherwise noted, my use of the title "Hunter Killer" should be taken to refer to this final boat-chase setpiece only—not the longer gameplay level in which it appears.

understood more fully as examples of agency play enabling heightened technoattentive player involvement, which have complex expressive potential at both the narrative and self-reflexive levels.

3.1: Procedures and materials

To enable an informed approach to gameplay sequences that are in many cases as formally dense (in terms of their interactive and audiovisual design) as they are brief, I conducted a series of interactive, critical close readings of individual videogame setpieces. Since these setpieces are interactive, reading them closely entailed playing through them personally. But there are many different ways to play a videogame, and any single playthrough represents only the results of the particular play strategy used to conduct it, and thus is only indicative of whatever can be revealed by that strategy. No single playthrough can be taken as an authoritative and exhaustive record of videogame content—rather, each singular experience must be seen as a fragmentary reflection of a whole that can only be revealed through a multiplicity of experiences.

I thus adopted a comparative approach, playing through each of the selected setpieces numerous times, and adopting a different strategy for each playthrough. Some of these strategies were generally compliant, interested only in experiencing the sequence as apparently intended by its creators. During these playthroughs, I responded to onscreen commands as prompted, moved only as indicated, and tried to

avoid causing damage to my avatar whenever possible. In other playthroughs, however, I adopted a more rebellious and exploratory mode of counterplay, intended to uncover the various invisible walls, hidden game-save checkpoints, and inevitable scripted-event triggers that structured my experiences and constrained my interactions within a given setpiece.[9] Together with additional playthroughs, which blended elements of both approaches more fluidly, these strategies comprised a comparative methodology for the close reading of variable interactive media sequences such as videogame setpieces, enabling both a more exhaustive recording of game content and an expanded critical perspective on my own subjective experiences during gameplay. To verify that my observations fell within the bounds of normal gameplay experience and were not, for instance, influenced by unusual glitches or bugs, I also viewed numerous online video recordings of the same three setpiece sequences to compare other players' experiences qualitatively to my own.[10]

While playing, I maintained a style of stream-of-consciousness or 'think-aloud'

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[9] I allude here to a number of functional elements that often support the linear experience of playing through a setpiece. "Invisible walls" refers to the transparent but impenetrable boundaries designers often use to confine players within a narrow playable area during a setpiece that appears to unfold within a larger space. "Hidden game-save checkpoints" refers to the progress markers that are often embedded at key points within a setpiece, ensuring that players who fail can resume the setpiece partway through, rather than having to start over from the beginning. "Inevitable scripted-event triggers" refers to the functions that are often coded into in-game elements, allowing a preordained event to commence only after the player has arrived at a certain location or interacted with a certain object. These functional elements are most often intended to go unnoticed by players, which is why I had to adopt a resistant mode of exploratory counterplay to reveal them.

[10] These videos were accessed through YouTube, where vibrant communities of player-broadcasters tend to emerge around the most popular AAA games, with individuals sharing their prowess and expressing their fandom in the form of gameplay highlight reels, instructional walk-through videos, and Let's Play commentaries (live narrations of gameplay, often recorded alongside a player's first playthrough of a new game). Though each of the videos I viewed was uploaded by a unique user for unique personal and social reasons, together they formed a sizable body of confirmed gameplay experiences, useful for comparative cross-reference and verification.

narration, intended to capture the thinking behind my actions and record my in-the-moment responses to the content of each setpiece. I recorded myself during playthroughs with a digital audio recorder, and later partially transcribed my spoken observations to supplement written notes that I had kept between play sessions. This process amounted to a self-directed form of protocol analysis—an observational method sometimes used to elicit requirements for the design of computer-based systems from users. As described by the mathematician and computer scientist Joseph Goguen and the sociolinguist Charlotte Linde in their social sciences-informed review of "Techniques for Requirements Elicitation":

> Protocol analysis asks a subject to engage in some task and concurrently talk aloud, explaining his/her thought process. Proponents claim that this kind of language can be considered a "direct verbalization of specific cognitive processes" (Goguen and Linde 1993, 5; Ericsson and Simon 1984, 16, as cited in Goguen and Linde 1993).

Though Goguen and Linde stress that protocol analysis is an objectively flawed technique for technical design-requirements elicitation[11], I found it useful as a way of recording my own subjective reactions to setpieces, as well as the strategic thinking that informed my self-directed actions within them. In this introspective mode of protocol analysis, I was both subject and (eventual) researcher. Exhaustively recording

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[11] Goguen and Linde cite a number of shortcomings associated with the protocol analysis approach in the specific context of eliciting system design requirements from users, including: (1) The assumption that problem solving processes can be reduced to a series of methodical cognitive functions and represented as such, (2) The assumption that externally prompted think-alouds are a natural, rather than unnatural, form of discourse, and (3) Its attempt to glean insights about the design of a system from subjects who have no pre-existing mental model of the system itself, and can only be aware of their own situated needs as users within that system.

my observations and responses to setpieces as they unfolded enabled a critical close reading of a variable interactive form, turning my own serial play experiences into an instrument of distributed perception capable of sensing the contours of complex design structures across multiple fragments of subjective experience.

For the purposes of consistent technical comparison, I played each game in its original 2011 retail edition, on the same PlayStation 3 console, attached to the same audio-visual apparatus.[12] In the interest of consistency, I chose to play each game's single-player campaign mode on the medium difficulty setting (proceeding from the assumption that there would be more consistency between various titles' baseline player-skill assumptions than their upper skill thresholds, since some but not all videogames market themselves to experienced players by using extreme difficulty settings as a selling point). The importance of establishing and maintaining consistent methods of play, observation, and recording for these analyses is crucial, for without such consistency, rigorous analysis of setpieces—in all their brevity, density, variability, and aesthetic complexity—would not be possible.

The elements of my methodological design just described are by no means the only source of meaningful consistency in the subsequent case studies. There are, indeed, fundamental similarities between the three videogames themselves: *Uncharted 3*, *Modern Warfare 3*, and *Battlefield 3* are all action-shooter games; they are all set in the

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[12] This apparatus included a 46-inch LCD television connected to a midrange 2.1 channel stereo speaker system with subwoofer.

2010s; they all contain both local single-player and networked multiplayer gameplay modes; and they were all released within the same two-week span of the 2011 holiday shopping season. (All three videogames are also the third entry in an established series—a materially significant condition which I will analyze separately in Section 3.2 below.) These games were, for all intents and purposes, competing products, conceived and marketed in opposition to one another (direct opposition, in the case of the modern first-person military shooters *Battlefield 3* and *Modern Warfare 3*, and a more oblique opposition in the case of the third-person action-adventure game *Uncharted 3*). If these videogames' setpieces indeed (as I assert) function on a reflexive level as expressive rhetoric—commenting on a videogame's own position in the marketplace and in a progressive narrative of gaming history—then understanding the various ways in which these games exist in conversation with one another will enable greater insights about their setpieces' precise rhetorical form and function.

The near-simultaneous release of *Uncharted 3*, *Modern Warfare 3*, and *Battlefield 3* is an analytically useful condition for a number of reasons. First, it provides a stable frame of reference for technical comparisons, since it ensures that each of the three videogames was developed within similar technological constraints, using identical hardware platforms and historically analogous software development tools. Second, it provides a stable frame of reference for sociocultural comparisons, since each of the three videogames was positioned towards, marketed to, and originally played by the

same late-2011 gaming public (and press), with its generally shared understanding of what was then technically feasible using current-generation console platforms. Finally, the proximity of these videogames' release dates introduces a meaningful commercial context within which to situate their rhetorical approaches towards each other and the rest of the gaming market: all three games were positioned to compete at retail during the 2011 holiday season, and thus were similarly subject to the challenges of making a game stand out amongst the din of the game industry's most lucrative and crowded annual release window.

Although setpieces are an aesthetically complex and dynamically variable interactive structure, developing and applying consistent techniques of play, counterplay, observation, recording, and verification allowed me to conduct critical close readings of this challenging form. The subsequent setpiece case studies admittedly reflect only a narrow slice of the vast landscape of videogame forms, but the selected titles' multiple dimensions of similarity provide the basis for productive critical comparison within a fixed technical, economic, and social context. Together with a historically informed understanding of the empirical conditions that produce and maintain these contexts, these analytical methods are an essential part of my historical poetics approach to the videogame setpiece, which seeks to understand both the principles underlying their observable design features, and the contexts within which these principles arose.

3.2: Shared insights on setpieces and sequel culture

In the previous section, I alluded to another significant point of similarity between *Uncharted 3*, *Modern Warfare 3*, and *Battlefield 3*: namely, that each is the third entry in a popular AAA videogame series. In the sequel-driven culture of the videogame industry, this fact amounts to much more than a superficial point of comparison: as the latest iterations of proven, multimillion-selling franchises, each of these three videogames bore a similar burden of expectation, which followed them throughout every stage of their design, development, and release—functioning at times as a blessing, and at times as a curse. In this section, I will closely attend to the economic and cultural ramifications of these videogames' common status as high-profile sequels, allowing shared insights regarding all three games to further enrich the subsequent individual case studies in this chapter.

The developers of *Uncharted 3*, *Modern Warfare 3*, and *Battlefield 3* were all granted relatively large budgets by their publishers—an advantage that accrues, in today's increasingly high-risk, high-reward market for videogames, especially to sequels and other intellectual properties that arrive to market with some measure of built-in brand recognition. "The apparent reliance of publishers on sequels and licensed games is a consequence of the rising costs of development and publishers' subsequent aversion to risk taking," explains James Newman, whose research is centered around supersession and obsolescence discourses in videogames culture (2012, 64). Unlike the

new and unproven game titles of the 2011 holiday season, which would have been developed within tight budgets set by risk-averse, profit-protective publishers, *Uncharted 3*, *Battlefield 3*, and *Modern Warfare 3* were each confidently conceived, developed, and marketed to their pre-existing audiences as big-budget blockbusters.

On the other hand, developing a worthy successor to an established and successful game franchise also carries its own risks, not least of which is satisfying the expectation that the latest iteration of a franchise feel generally continuous with its predecessors in terms of gameplay, aesthetics, and narrative, while also surpassing these predecessors in overall quality and technical sophistication. Newman notes that this faith in sequels is, in some ways, unique to the gaming medium: "While [cinema scholar Carolyn] Jess-Cooke (2009) observes that film sequels are invariably unsatisfactory to audiences, [videogames scholar Barry] Atkins (2006: 138) notes that videogame sequels always promise, and in many cases deliver, more than their predecessors" (2012, 65). This faith in the progressive quality of sequels is consistent with the general ethos of perpetual innovation that pervades games culture and, as Newman makes clear, it is firmly rooted in familiar discourses of technological supersession and obsolescence. "Developers often argue that *because of technological refinements and streamlining of code,* videogame sequels are often superior to their predecessors," Newman writes (64; emphasis mine). Yet in the case of game sequels, new technology is not used to replace and render old forms obsolete, but rather to

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extend their viability. "The sequel, then, is not merely a rehash of a successful formula, but is coded as an opportunity for new gameplay and performance," Newman explains. "Perhaps we might suggest that the relationship and continuity between original and sequel and between subsequent sequels represents an extension of the operation of the familiar structure of games that typically sequences, orders and portions out gameplay into levels within a given title" (Newman 2012, 65). In the market and culture of videogames, sequels are seen not as definitive counterpoints to their predecessors, but rather as faithful continuations of them—a new set of levels for the same beloved game, to borrow Newman's metaphor.

Aside from the risk of disappointing devoted fans, sequel development comes with another, somewhat contradictory risk: arousing the ire of a gaming public and gaming press that have grown increasingly cynical, in recent years, about the preponderance of game sequels. As Newman tells it, "Videogame sequels have come to be something of a contentious topic within developer and player communities… [T]he argument typically plays out along the lines that this situation stifles innovation and creativity, giving rise to bland conformity in the marketplace" (2012, 64). While sequels such as *Uncharted 3*, *Battlefield 3*, and *Modern Warfare 3* may benefit in some ways from the proven commercial appeal of their predecessors, they must also prove their own worth and novelty to a critical, difficult-to-please segment of the population who—regarding sequels in general as a symbol of the industry's creatively corrosive

fixation on videogames' commercial appeal—necessarily regard them with suspicion. Many of these skeptics are, in fact, professional games critics—an influential constituency in the commercial ecosystem around videogames, since many players rely upon individual and aggregate game-review ratings to plan their purchases.

This combination of factors means that, in order to earn the kind of consistently high review ratings that drive strong sales, game sequels must demonstrate some level of innovation and individual merit, even while maintaining general fidelity to the proven, beloved formulae inscribed by their forebears. As will be revealed in the subsequent individual case studies, spectacular setpieces are an important tool for game creators who find themselves needing to straddle these conflicting demands, since they provide an expressive language that developers can use to momentarily exhibit feats of technological performance in the name of innovation, even while leaving familiar gameplay structures largely intact across sequels. In the next three sections, I will examine how three late-2011 console action-shooter sequels use the expressive language of the setpiece to achieve similar aims in various ways.

3.3: *Uncharted 3*: "Stowaway"

3.3.1: Description and close reading

Uncharted 3: Drake's Deception is an action-adventure game played from a third-person perspective, which combines elements of the platforming and shooter

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genres. In each of the *Uncharted* games, players guide a treasure-hunting explorer—the player character Nathan Drake—on an adventure through a series of levels set in far-flung locales. These levels are full of environmental and architectural puzzles, tricky platforming sections, and armed enemies. As the agile and hardy Drake, players can easily jump; scale buildings and cliff faces; traverse narrow ledges; swing from ropes; dive; sprint; and attack their foes with a variety of found firearms and grenades—all while piecing together an intercontinental conspiracy blending archaeological and supernatural themes.

Even before the release of *Uncharted 3*, the series had proven itself a commercial and critical success, with many players and reviewers praising the first two games for their high production values, in particular. In addition to their lifelike, motion-captured movements and voice acting, a major distinguishing feature of the *Uncharted* games was their seamless integration of a series of spectacular, well-choreographed action setpieces within almost every level of gameplay. Though *Uncharted* was by no means the first game series to boast of such interactive action sequences, the *Uncharted* games did feature an unprecedented quantity of these moments. Indeed, the *Uncharted* games' action setpieces were executed so stylishly and integrated so tightly into the rest of gameplay that, for many critics, they endowed the entire experience with a remarkably novel cinematic effect. *Forbes* contributor Erik Kain's enthusiasm is characteristic of many critics' responses to the game: in a review

titled "*Uncharted 3: Drake's Deception* is a Cinematic Triumph," Kain—citing setpiece

moments such as "escapes from burning buildings, or drug-addled chases through

strange Arabian cities"—writes that "*Uncharted* plays very much like watching an

Indiana Jones movie… Developer Naughty Dog has blurred the line between game and

film in a way that actually works" (2011, 1). To Kain and many other critics, the action

in *Uncharted 3* was so spectacular and well choreographed that playing the game felt ,

at times, like taking interactive control over a Hollywood blockbuster.

Uncharted's particularly cinematic appeal was not lost on its developers or

publishers: a humorous 2009 marketing campaign for *Uncharted 2* featured the fictional

Sony executive Kevin Butler (in his capacity as V.P. of "Big Action Moments")

advising a player on how to handle the delicate situation that arose when it emerged

that the player's spectating partner genuinely believed that the game was a Hollywood

action movie. In an important sense, by the release of the third entry in the series,

these setpieces had been established—by gamers, by the press, and by the developers

and publishers alike—as a defining feature of the *Uncharted* games.

As a result, expectations were high for 2011's third entry in the series. *Uncharted 3*

mostly delivered[13] on these expectations, offering players the chance to engage in the

series' familiar action gameplay within levels whose scale and complexity surpassed

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[13] The popular review aggregator site Metacritic, as of April 2013, lists the game as having a 92% positive score overall (a figure Metacritic's algorithm characterizes as representing "universal acclaim"). Of the site's index of 97 critic reviews, 96 are classified as positive and 1 is classified as mixed, with 0 negative reviews. User reviews are more mixed but still overwhelmingly positive, with 683 positive reviews, 37 mixed reviews, and 62 negative reviews recognized by Metacritic.

anything that had been seen in the first two games. Demonstrating the power of the new Naughty Dog 3.1 game engine[14], the story of *Uncharted 3* found the series' globe-trotting protagonist exploring a succession of man-made and natural spaces—each rendered in painstaking detail and featuring impressive environmental effects. Each of these levels contained a high density of the action sequences and smaller scripted events on which the *Uncharted* series had made its name, but the game's signature, show-stopping setpiece only appeared late in the story, about three-quarters through its single-player campaign.

Before providing a detailed close reading of this setpiece, some narrative background is in order: The seventeenth of *Uncharted 3*'s twenty-two missions, titled "Stowaway," occurs at a pivotal moment in the game's twisty adventure plotline. Over the course of several disastrous missions, Drake's quest to discover the mythical lost city of Ubar (and recover a priceless, enchanted artifact he believes to be hidden there) has begun to unravel. Shortly before "Stowaway" begins, players learn through the game's narrative that a nefarious team of rival explorers have kidnapped Drake's longtime friend and mentor Sully, hoping to coax the lost artifact's location out of him so they can use its supernatural powers for world domination. Sully is now being

[14] The term "game engine" refers to a software system designed to support the development of videogames. Game engines typically include the systems needed to create levels and challenges, adjust rules, define artificial intelligence routines, script in-game events, model objects and apply textures to them, create animations, program sounds, and model collisions and other physical interactions between objects—alongside myriad other functions, in many cases. The Naughty Dog 3.1 engine was an iterative upgrade to the engine used to develop the two previous games in the *Uncharted* series, and exhibited numerous technical advancements in comparison to previous versions of the engine.

forced to lead the villains' convoy through the Rub' al Khali desert towards the suspected location of Ubar, the lost 'Atlantis of the Sands.' With the convoy quickly closing in on its quarry, the fate of the entire world now hangs in the balance (and in the player's hands).

Just when all seems lost, however, Drake learns (during a non-interactive cutscene) that a cargo plane bound for a rendezvous with the enemy convoy is set to leave from a nearby airport later that night. In the hope that he may find and rescue his friend and ultimately beat his rivals in their race to the lost city, Drake makes a daring attempt to sneak onto the cargo plane, and successfully infiltrates it by jumping onto its landing gear during takeoff (a memorable interactive setpiece in its own right). As the "Stowaway" mission begins, we[15] see a thirty-second non-interactive cutscene of our hero seated in the plane's dimly lit undercarriage, breathing heavily and regaining composure in the wake of his latest death-defying feat (see Fig. 1). He gets up with a weary sigh and, as he automatically crawls into a nearby air duct to find

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[15] A note on style: Throughout these case studies, I use individual character names (such as "Drake") when referring to onscreen actions performed by fictional player and non-player characters, and the first-person plural pronoun "we" when referring to the experiences, decisions, and gameplay actions of an active player (in this case, myself). This is a principled choice: by using a *first-person* pronoun to refer to the active player in a setpiece, I emphasize that these are my own critical close readings, and remind readers that the observations in these passages result from my own subjective experiences as a player (not, for example, from a more objective analysis of the game's code). Using a *plural* pronoun additionally emphasizes that these observations did not result from a single playthrough, but rather were synthesized from experiences I had across multiple playthroughs (and verified against the recorded experiences of others). By utilizing this linguistic mode, I hope to convey that in my conduct of these close readings, I was not an individual subject but rather a serial, compound subject—a collective sensing agent distributed across points in time, purposefully fanning outward through the possibility space of a setpiece in search of its dusty hidden corners. It is my hope that, in addition to these functional benefits, this style will convey to readers some of the immense excitement and dynamism of experiencing a setpiece firsthand, and will encourage readers to feel that as potential players they, too, are part of the possibility space of these videogames.

a way out, the camera moves behind him and active control over Drake's movements is returned to the player.

At this point, we can choose to stay still or to crawl towards the light at the end of the air duct by pushing forward on the left analog stick (see Fig. 2). Since nothing appears to happen as long as we stand still, our choice becomes obvious, and we proceed towards the light—which, we realize as we draw closer, is streaming into the duct through holes in a floor grate just above our position. After about fifteen seconds of analog stick-directed crawling, control is suddenly wrested from us as another thirty-second cutscene is triggered, showing a burly guard becoming alert to Drake's position, flinging the floor grate open to reveal him, plucking him from his hiding spot, and tossing our hero into an open area of the plane's cargo bay with terrifying ease. As the cutscene continues, the guard lifts Drake by the neck and pins him against the plane's interior bulkhead, delivering a few whopping blows to his head and forcing him to drop his pistol. Finally, the lumbering guard presses a button to open the plane's rear cargo door and ramp mechanism and, as roaring wind and blinding daylight suddenly fill the cargo hold, the guard moves to toss the struggling, pleading Drake from the plane (see Fig. 3).

Just as the guard flings Drake towards the end of the ramp and begins walking over to deliver the killing blow, control is returned to the player, and a short, familiar hand-to-hand combat sequence ensues. By this point in the game, we have

encountered enemies of this type numerous times, so we know we must follow a series of onscreen quick timer event prompts to win the fight, executing the indicated button presses in time to strike our towering foe during brief, scripted moments of vulnerability (see Fig. 4). Each time we succeed in pressing the indicated button in time, Drake lands a blow, wearing our opponent down little by little. Each time we fail to execute the requested command, the enemy strikes Drake, reducing his health. If we fail repeatedly and allow Drake to be knocked out during this combat sequence (which is a distinct possibility, since every blow from the guard depletes Drake's health meter appreciably), we will be returned to the beginning of the fight sequence in order to try again, as many times as necessary. But if we follow the quick timer event commands carefully, Drake will eventually manage to momentarily stun the guard, allowing us to start moving back up the ramp to the relative safety of the plane's cargo bay.

Upon re-entering the cargo bay area, a very short cutscene with an embedded quick timer event ensues: as the guard begins walking back up the ramp towards our location, Drake notices a large cargo pallet with a parachute attached, and, watching as he grabs hold of its ripcord, we are prompted to tap the Ⓐ button repeatedly to deploy it (see Fig. 5). We can choose to ignore this command, but if we fail to deploy the parachute before the guard reaches Drake, we will be forced to repeat the sequence. If we comply, a slightly longer cutscene is triggered: the parachute unfurls

just in time, pulling the attached cargo pallet backwards, down the ramp, and off the plane—and sweeping the unlucky guard off the plane with it. (Through no input of our own, Drake commemorates this moment with a characteristic one-liner: "Thanks for flying with us!") However, this moment of triumph is short-lived, as we realize that the cargo pallet Drake just liberated is still connected by a cable to several other large items in the cargo hold, which, due to the resistance of the open parachute, are now being pulled out of the plane along with it (see Fig. 6). As the weight of this chain of objects begins to drag the plane's tail downward, it causes an avalanche of smaller objects to tumble towards the rear of the cargo hold. Just then, the camera swings around and we momentarily resume active control over Drake. Using the left analog stick, we can attempt to climb towards the nose of the plane, moving left and right to weave through the mass of objects sliding towards Drake and threatening to sweep him off the plane (see Fig. 7). But such efforts are a momentary distraction, and will inevitably prove futile, as the gaps between objects soon disappear and Drake is unavoidably pushed backwards by a solid mass of sliding containers.

Now another short cutscene is triggered, with the camera moving seamlessly to follow close behind Drake as he tumbles out of the plane, grasping for a hand-hold somewhere along the chain of two loaded flatbed trucks now dangling completely free of the open cargo hold (see Fig. 8). At the very last moment, Drake automatically grasps a loose strap of the yellow canvas lattice covering the second truck. As the

camera swings back around to a playable position behind Drake, but just before active control is returned to us, a massive pallet of cargo falls from the plane and smashes into the truck, missing Drake (and the virtual camera's lens) by mere inches (see Fig. 9). Now, resuming partial control over Drake, we use the left analog stick to begin climbing steadily up the length of the second dangling truck, back towards the plane itself. During this climb, we may rotate the camera angle freely with the right analog stick to take in the chaotic scene before us, or the desert landscape below. We may also use the left analog stick to climb upwards or shuffle side-to-side, but these are the only controls available to us at this moment—we may not, for instance, jump or attack. After climbing a few feet, we realize that a handful of guards now standing in the plane's cargo hold are shooting in Drake's direction—but their shots are not on target, and even if we stay completely still for minutes, Drake simply cannot be killed at this point in the sequence. Continuing upward, we watch as one of these guards tumbles from the plane and grasps a point in the canvas lattice just ahead of Drake's own position. Upon moving closer to this helpless foe, we are prompted to press ⊕; after we comply, Drake automatically disarms the guard and flings him backwards, sending him tumbling to his death (see Fig. 10). There is no way to avoid the guard by moving around him, or to otherwise advance without disarming and killing him; as we will see in a moment, it is indeed necessary that Drake acquire a gun at this point in order to enable the next phase of gameplay in the sequence.

As we continue pushing upward on the left analog stick to lead Drake through the final ascent along the dangling trucks and back into the cargo bay, the trucks' movements are choreographed in sensitive relation to Drake's position: though twisting in the wind seemingly at random, they inevitably fall into alignment just in time to enable us to jump from truck to truck, then from truck to plane. Finally regaining our footing in the cargo bay, we are instantly thrown into a firefight with the two guards that have been shooting at Drake since we first started ascending the trucks, except now their bullets are able to strike him and reduce his health, potentially killing him.

Now, for the first time since the "Stowaway" mission started, we regain full control over Drake and, making our way through this airborne shooting gallery, we are once more able to run, jump, roll, dive, duck behind cover, engage and disarm enemies, and aim and fire at will, in the normal mode of *Uncharted* gameplay (see Fig. 11). Deeper inside the fuselage we see several more armed guards, all of whom are shooting at Drake even as the plane (somewhat inexplicably) begins to burst into flames. If we allow Drake to be killed at any point in this intense firefight, we will be returned to the point where Drake re-enters the cargo bay after having climbed back up the dangling trucks, and forced to try again.

As we continue moving and shooting towards the nose of the plane, the flames quickly intensify and the remaining cargo in the hold begins to slide left and right as

the plane rolls wildly. Still moving forward, we approach a relatively open area with a collection of armed guards, but a line of flames running across the floor seemingly blocks us from proceeding any further (see Fig. 12). This line of flames is actually a scripted event trigger; as soon as we attempt to cross it, a massive hole inevitably blows open in the right side of the fuselage, creating a powerful zone of depressurization that sucks the remaining guards, a few pallets of cargo, and even an unsecured jeep out into the void. As Drake, we are allowed to stagger around for a moment while moving the left analog stick freely, but as the hole grows ever bigger, we again lose control over Drake. A short cutscene commences: the camera seamlessly zooms in on our protagonist, showing his desperate efforts to hold on to the floor of the plane as it is being ripped apart all around him (see Fig. 13). As the nose end of the fuselage finally tears completely free from the tail, the camera closely follows the screaming Drake as he, too, is sucked into the void.

For a moment, there is an almost peaceful silence. The formerly swelling orchestra goes mute, and for a few seconds, we hear only the hissing of the wind as we watch Drake's body tumble through a clear blue sky over an endless expanse of sandy desert (see Fig. 14). Then the camera swings around to reveal the burning husk of the cargo plane as it plummets towards the ground, and we hear the roar of its failing engines as we accompany Drake through a series of non-interactive near-misses with objects in the flaming cloud of debris still falling in its wake (see Fig.

15). Eventually, the virtual camera focuses on a single pallet of cargo in the distance, and we watch passively as Drake paddles through the air, frantically closing the distance between himself and the tumbling object. A few seconds later, we watch as Drake collides with the cargo pallet and grabs hold of its canvas netting. Another quick timer event appears, powerfully reminiscent of the prompt seen during our earlier fight with the burly guard on the loading ramp: we are told, once more, to tap the Ⓐ button repeatedly to pull a dangling ripcord and deploy the parachute attached to the parcel (see Fig. 16). After we tap the Ⓐ button as directed, the parachute unfurls and the camera pulls back for a moment to show our hero settling in for a controlled descent. At this point, we resume nominal control over Drake, potentially using the left analog stick to climb up, down, left, or right along the cargo netting, as desired. But the real action is over by this point, and, as we arrive back upon *terra firma* with Drake's immediate survival now secure, the title of the game's next chapter fades onto the screen, officially announcing the conclusion of the "Stowaway" setpiece.

3.3.2: Analysis

The "Stowaway" chapter of *Uncharted 3* is, by all accounts, an exceedingly exciting and memorable sequence of gameplay, even for a game in a series that has become known for such exciting and memorable moments. This sequence was used prominently in the multimedia marketing campaign for *Uncharted 3*, and the game's cover art even features Nathan Drake posed in front of the flaming wreck of the

cargo plane in the immediate aftermath of this iconic[16] setpiece. One might naturally ask how and why this setpiece was so effective, but what does "effective," in the context of a setpiece, truly mean? In order to begin to answer this underlying question, we must first identify the effects that a setpiece achieves, whether intentionally or not.

Like most videogame setpieces, "Stowaway" is a challenging object for critical analysis because it is a compound of various interactive structures and aesthetic forms. It is an amalgam of non-interactive cutscenes, semi-interactive quick timer events, pseudo-interactive movement and climbing sections, and fully interactive shooting sequences, all set within a dynamic space whose boundaries and physics change with every passing moment in the action. By applying the six dimensions of the player involvement model to this sequence, I will attempt to trace the precise dynamics that variously enable, constrain, and direct player attention and agency within it, seeking ultimately to uncover the expressive intent(s) behind this complex instance of agency play.

In the "Stowaway" setpiece, kinesthetic involvement fluctuates from moment to moment, at times disappearing altogether during non-interactive cutscenes. Within sequences such as the initial air duct crawl and the climb across the dangling trucks— during which players are allowed, at most, unidirectional input on the left analog

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[16] The "Stowaway" setpiece has indeed become so enduring and iconic that it was actually remodeled as a playable stage in the 2012 Playstation-themed mascot brawling videogame *Playstation All-Stars Battle Royale*.

stick—kinesthetic involvement is sharply reduced. During quick timer events—such as the loading ramp fight with the burly guard, and both parachute deployment sequences—kinesthetic demands are foregrounded in the form of onscreen input prompts, but these simple button presses are hardly challenging to a player who has internalized the locations of the various PlayStation controller buttons. Except in the special circumstance of a true novice player, overall kinesthetic involvement therefore remains low. During the brief shooting sequence, kinesthetic involvement is momentarily increased back to the normal level expected from *Uncharted* gameplay, but given the ease of gameplay in this sequence (due to the prevalence of cover and ammunition and the low skill level of the enemies in the plane), this hardly amounts to a heightened level of involvement along the kinesthetic dimension. Thus, in sum, the "Stowaway" sequence represents a period of reduced kinesthetic involvement within the overall experience of *Uncharted 3*.

Spatial player involvement is generally low in "Stowaway." Given the constrained, linear[17] structure of the cargo plane that serves as the setting for this setpiece, exploratory forms of spatial involvement are almost non-existent in this case, and during those few moments in which players *are* allowed multidimensional control over

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[17] The word "linear" here should not be taken to mean "one-dimensional," in the strictest visual sense. The graphics in this sequence are still three-dimensional, as is the space these graphics are being used to represent. "Linear" instead refers to the relative degree of freedom afforded to players moving within this space, which in this case is quite low. Unlike more expansive spaces within which players are free to meander and explore, a "linear" space supports only a narrowly prescribed path of movement and a preordained order of experience. Likening the effect to that of riding on a mechanical fairground attraction, players sometimes colloquially refer to such gameplay sequences as "on-rails" experiences.

Drake's spatial movements within the plane, the intended vector of progress is always evident. Given the clear visual dichotomy between safe and unsafe areas of the plane, it is practically impossible to get lost within this space. However, this is not to say that spatial involvement is not a factor in this setpiece at all; indeed, the constant reshaping of the space (including its linear extension through a chain of climbable, dangling trucks and the later redefinition of its safe boundaries as the plane's fuselage rips apart) certainly heightens players' engagement, at certain points, with the evolving spatial qualities of a dynamic virtual environment. But given that these engaging fluctuations of space are consistently correlated with the constraint, rather than the expansion, of interactive affordances for player movement (such as during the rigidly linear truck-climbing sequence), it remains clear that the "Stowaway" setpiece is a moment of reduced spatial involvement, compared to the overall gameplay experience of *Uncharted 3*.

Shared player involvement is similarly low during this setpiece, though still a factor. From the very outset of the cargo plane sequence, players are aware that their actions are occurring in a particular social context, which is indicated in the sequence's title: "Stowaway." As a covert infiltrator on an enemy conveyance, Drake is necessarily outnumbered and outgunned, and must therefore operate in the stealthy manner appropriate to a social context defined by a condition of pervasive surveillance—an example of awareness-based shared involvement. But, generally speaking, *Uncharted 3*

does not encourage us to dwell on complex interpersonal social dynamics during "Stowaway"; the enemies we encounter are uniformly cast as either unthinking brutes (as in the case of the guard who initially discovers Drake) or interchangeable, expendable pawns (as in the case of every other agent we encounter in this setpiece). As a combat-oriented sequence in which other agents are known to be present within the same virtual environment as the player, "Stowaway" is clearly a moment of gameplay in which elements of shared involvement are engaged. However, especially when contrasted against the commendably deep characterizations and expressions of complex social context that occur elsewhere in the game (and indeed are a hallmark of the *Uncharted* series), "Stowaway" stands as a moment of reduced shared involvement, in which the survival of our lone hero trumps all other social factors and precludes any real awareness of the subjectivities of the other agents present on the doomed cargo plane.

Ludic involvement is also reduced during this setpiece. In "Stowaway," there are segments of gameplay in which player actions are so constrained as to preclude any sense that the player can make meaningful choices that have repercussive effects. For instance, as players guide a crawling Drake through the initial air duct segment, or lead him to climb across the chain of dangling trucks later in the setpiece, their only choice is to move (in a single, allowed direction) or not move. As there are no repercussions for not moving (other than the player's own boredom as a result of the static scenario

they are participating in), this is not a meaningful choice. Even in segments of gameplay (such as the loading ramp fight and armed combat sequences) in which player choices do carry potentially deadly consequences for Drake and other in-game agents, these consequences do not amount to meaningful ludic repercussions. Players can choose not to kill all the enemies on the plane, of course, but the story will not advance until they do, so this choice is at worst an illusion, and at best a mere postponement of the inevitable (if we take for granted that players indeed wish to advance in the game, and not merely exist in a looping setpiece forever). Similarly, players may find that various choices in combat result in differently shaded experiences, and can choose to adopt particular strategies in the interest of fulfilling a variety of self-imposed goals (such as defeating every enemy with a headshot, or completing the sequence in a certain amount of time, or minimizing Drake's health loss), but these choices have no bearing on the inevitable outcome of the setpiece. Since the linear scripted design of "Stowaway" prevents player choices from reshaping the experience of gameplay except in superficial and temporary ways, this setpiece stands as a moment of reduced ludic involvement compared to other segments of *Uncharted 3* that support more variable experiences.

Though player involvement along the aforementioned dimensions is generally low in the "Stowaway" setpiece, there are some dimensions along which involvement is increased. It is impossible to make authoritative generalizations about varied

individual subjects' emotional responses to media content, but from my own responses to various events within the "Stowaway" setpiece, as well as a survey of other players' recorded responses to this sequence, it is obvious that the cargo plane sequence is generally encountered as a moment of heightened affective involvement within *Uncharted 3*. The primary strategy used to drive affective involvement during this sequence is the element of surprise. Drake's initial discovery by the burly guard is a particularly jarring moment, whose effect is heightened through a mannered use of thriller-style jump cuts and orchestral stabs. Similarly disconcerting moments include Drake's fall from the loading ramp and last-minute save on the dangling trucks; the unexpected, close-range explosion deep in the plane's interior; and Drake's apparently unsurvivable tumble through the open skies, followed by his unexpected salvation in the form of an airdrop parachute. "Stowaway" presents a carefully designed succession of increasingly visceral thrills that effectively elicit more and more heightened emotional responses from most players. It is therefore an obvious moment of increased affective involvement within the broader context of *Uncharted 3*.

Narrative involvement is also generally increased in "Stowaway," which occurs at a pivotal point in the narrative of *Uncharted 3*. Even before Drake is discovered aboard the cargo plane, players know the stakes are high: the current mission is Drake's last, best chance to rescue his mentor and friend, and save the world from an evil force of unknowable power. Once Drake is exposed, the narrative tension is ratcheted up to

nearly unbearable levels, as our protagonist narrowly escapes from an increasingly unlikely series of near-death experiences. Considering the climactic narrative context within which "Stowaway" is presented, as well as the narratively gripping developments that occur during the course of the setpiece itself, it is safe to say that for most players, this sequence is a moment of intense engagement with *Uncharted 3*'s story elements, and is thus a moment of heightened narrative involvement within the game.

Contrasted against the standard mode of gameplay that characterizes *Uncharted 3*'s single-player campaign, the "Stowaway" sequence represents a moment in which player involvement along the kinesthetic, spatial, shared, and ludic dimensions is generally reduced, and player involvement along the affective and narrative dimensions is generally increased. These effects are achieved through related processes of agency play. In particular, two forms of agency dynamics can be observed in this setpiece, affecting agency scope and agency relationship, respectively. Agency scope is dynamically constrained at various points throughout the sequence— at times player actions have immediate and palpable effects (such as when Drake kills guards during the gun combat sections), but there are also times when the player can cease inputting commands completely with little adverse effect (such as when hanging on the dangling trucks). The agency relationship between user and system is also dynamically modified in this sequence—at times (such as during the gun combat

section) the usual interplay between user and system agents is in effect, with the system providing variable challenges to direct the creative play of an active user, but for much of the setpiece a different relationship is in effect. In "Stowaway," the game system often dictates simple commands to the user, and the user has no choice but to comply mechanically with these commands in the interest of advancing through the experience (while the system, in turn, triggers scripted events and choreographed environmental effects in predetermined response to players' predictable advances).

As we will see in the subsequent case studies, these effects and principles are by no means unique to the "Stowaway" setpiece, but rather appear to be common aspects of the setpiece form. Rather than proceeding immediately to general observations about the nature of the setpiece form, however, it will be useful for the purposes of comparison to first apply the methods used above to a pair of additional case studies, before synthesizing the setpiece-specific insights of each of these analyses into a more general historical poetics of videogame setpieces in the concluding chapter.

3.4: *Modern Warfare 3:* **"Hunter Killer"**

3.4.1: Description and close reading

Call of Duty: Modern Warfare 3 is the eighth game in the multiplatform *Call of Duty* series of military-themed first-person shooters. It carries the designation "3" in its title because it is the third entry in the series' recent *Modern Warfare* sub-label, which

includes predecessors *Call of Duty 4: Modern Warfare* (2007) and *Call of Duty: Modern Warfare 2* (2009). The single-player campaign of *Modern Warfare 3* follows the formula set down by *Call of Duty 4: Modern Warfare* in telling a near-future story of apocalyptic global nuclear intrigue from the interwoven perspectives of a handful of protagonists, each of whom generally represents a different country or branch of service. This multiplicity of viewpoints is a characteristic feature of the *Modern Warfare* series' campaign mode: players switch protagonist identities between almost every mission, and at times, will even experience a battle from multiple perspectives, for instance alternating between the viewpoints of an infantryman on the ground and an aerial gunship operator circling high above the same battlefield. But perhaps the most characteristic feature of the *Modern Warfare* games' single-player campaigns is their action setpieces—blockbuster-worthy sequences that punctuate the games' mostly linear combat levels and place the player at the center of nearly unbelievable moments of destruction and feats of military derring-do.

Though several videogames had previously experimented with scripted, constrained, or otherwise pseudo-interactive sequences of gameplay, 2007's *Modern Warfare* in many ways inaugurated the videogame setpiece in its bombastic present-day form, with an emphasis on immersive spectacle that combined the gleeful aesthetic excess of Hollywood effects cinema with the unique interactive potential of videogames. *Modern Warfare* eventually sold over thirteen million copies worldwide,

making it the best-selling game of 2007. Its sequel, *Modern Warfare 2*, hewed closely to the overall formula of its predecessor while incorporating an even higher density and variety of spectacular action setpieces, and was an even greater commercial success, selling a historic twenty-two million copies worldwide. In addition to the developer Infinity Ward's main *Modern Warfare* titles, between-year releases developed by sister studio Treyarch—using the same game engines and the same spectacular visual rhetoric—posted similar sales figures.

As the latest entry in this unprecedentedly popular series, expectations surrounding 2011's *Modern Warfare 3* were high. With a larger-than-ever development budget and a massive development team split across two studios (newcomers Sledgehammer Games having been brought in to assist veteran series developers Infinity Ward on the project), many expected *Modern Warfare 3* to be the biggest and best *Call of Duty* game yet. As it turned out, the critical response to *Modern Warfare 3* was generally positive[18], with many reviewers praising the game's well-paced single-player campaign and balanced multiplayer gameplay. For many gamers and critics, a central concern in assessing the game's quality was determining whether its setpieces effectively raised the bar that had been set by earlier *Call of Duty* games (and by predecessors in the *Modern Warfare* sub-series, in particular). Players would not have

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[18] The popular review aggregator site Metacritic, as of May 2013, lists the PlayStation 3 edition of *Modern Warfare 3* as having an 88% positive score overall (a figure Metacritic's algorithm characterizes as representing a "generally favorable" response). Of the site's index of 39 critic reviews, 38 are classified as positive and 1 is classified as mixed, with 0 negative reviews. The Xbox 360 edition has an identical positive rating of 88%, with 79 indexed critic reviews classified as positive, 2 classified as mixed, and 0 negative reviews.

to wait long to find out the answer to this question; the very first levels of *Modern Warfare 3*, as it turned out, were devoted to depicting a Russian invasion and occupation of New York City in spectacular, setpiece-studded form.

"Hunter Killer" is the second of *Modern Warfare 3*'s seventeen levels, and the first to feature a completely novel setpiece sequence. (The first mission, "Black Tuesday," ended with a memorably wild helicopter gunship ride through Lower Manhattan, but considering that each of the previous *Modern Warfare* games also contained a near-identical helicopter gun emplacement sequence, this first setpiece had the feel of a winking tribute, not a novel attraction.) In the "Hunter Killer" mission, players control Staff Sergeant Derek "Frost" Westbrook of the U.S. Army's elite Delta Force special operations unit. Frost and his team have been assigned to infiltrate a Russian submarine docked in the New York Harbor and hack into its missile launch system, using the invaders' own cruise missiles to destroy the rest of their sizable occupying fleet.

The mission begins with a brief underwater sabotage and infiltration scene, then quickly moves into a lengthy sequence of traditional *Modern Warfare* gameplay as the Delta Force team sweeps through the Russian submarine, clearing rooms and engaging enemies that pop out of hidden corners along the vessel's many darkened, shooting-gallery-style hallways. After reaching the missile control room and overriding its security systems, the Delta Force soldiers input the attack coordinates and hurriedly

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evacuate the submarine through a ladder leading to its top deck. As we guide Frost back up into the open air of the New York Harbor, a destination beacon appears, guiding us to a location a few feet away where one of two inflatable Zodiac watercraft awaits to enable our getaway (see Fig. 17). Despite the general sense of urgency around the scene (and despite the fact that our colleague "Sandman" is inevitably already in the watercraft by the time we arrive at the top of the ladder), I discovered that we are actually free to take our time here—there is no penalty for dawdling, and the sequence will not proceed to its next phase until we choose to enter the boat.

The moment we do descend to the awaiting Zodiac, a scripted event is triggered and the missile bay hatches of the submarine open before our eyes, spewing a succession of cruise missiles high into the sky above the East River. At this point the other Zodiac boat pulls out ahead of us, and a new objective beacon is superimposed onto it, bearing the command to "Follow" (see Fig. 18). Assisting with our execution of this command, an additional prompt appears near the top of the screen, instructing us to "Pull R1 to accelerate." Now we must follow close behind the indicated vessel, or risk failing our objective—in which case the sequence will reset to the moment of our entry in the Zodiac so that we may try again. Failing to keep up will result almost immediately in a mission failure, as will straying from the course set out by the leading vessel; though the virtual environment of the New York Harbor seems expansive, it is actually hemmed in by a series of invisible walls. The area that is

safely playable is in fact a narrow, winding track set within a larger space that remains visible throughout, but is inaccessible to players.

As we follow the other boat through the warship-infested harbor as directed, missiles and artillery rounds whiz by overhead, and fighter jets and helicopter gunships skirmish spectacularly for aerial supremacy, occasionally exploding just above us (see Fig. 19). This ballet of destruction is choreographed through the use of location-based scripted event triggers. An invisible trigger placed near each Russian warship assures that it will be rocked by a cruise missile before we pass by it, ensuring not only that we cannot be harmed by these explosions, but also that we will enjoy a close and unobstructed view of each of them. Witnessing these missile strikes from such a close vantage point also complicates our traversal of the densely populated harbor itself: waterborne shockwaves toss our small boat to and fro, kicking up splashes of water that momentarily obscure our view, and formerly wide corridors between warships narrow as massive vessels suddenly keel over under sustained bombardment (see Fig. 20).

After continuing to follow our comrades' Zodiac along its twisted course for the better part of a minute, we pass another scripted event trigger and red hit markers suddenly appear onscreen, indicating that we are taking damage from port side aft. Moments later (and only after we have reached a relatively open area of the harbor near a capsizing aircraft carrier), the attacking enemies reveal themselves, pulling up

alongside our small vessel and firing at us from the deck of a medium-sized attack boat. The action suddenly enters slow motion, and one of our comrades instructs us to "Shoot the mines" to destroy the boat (see Fig. 21). Firing a few rounds into the aft side of the attacking vessel indeed causes it to explode in viscerally satisfying fashion.

As the action returns to normal speed, we are guided under the elevated hull of the sinking aircraft carrier before entering a final straightaway that takes us past a few more exploding warships and under the flaming wreckage of a destroyed riverside structure. A ramp at the end of this structure sends us soaring through the air in stylish action-hero fashion, and while aloft we catch our first glimpse of the large transport helicopter that awaits to extract us from the scene, a few hundred meters ahead. As we approach the aircraft, control is wrested from us just in time to correct our bearing, assuring that we skid perfectly onto its open ramp (see Fig. 22). A five-second cutscene shows the inflatable boat being pulled aboard to safety, after which our own vantage point spins around to show us the view from the open rear of the helicopter. As the aircraft ascends away from the harbor, we regain control over the right analog stick, which allows us to pivot our first-person camera if we wish to train our vision on certain features of on the charred Manhattan skyline as it moves past (see Fig. 23). Fighter jets and other helicopters continue to streak through the sky as the relieved, congratulatory words of our comrades stream in through the intercom, and the screen gradually fades to black, formally signaling the end of the

"Hunter Killer" harbor escape setpiece.

3.4.2: Analysis

Modern Warfare 3's "Hunter Killer" setpiece is a brief but intensely memorable sequence of gameplay that, arriving early in the game's storyline, effectively sets the tone for the globe-spanning action romp to follow. Upon the game's release in late 2011, players and critics alike lauded the "Hunter Killer" chase for its white-knuckle thrills and obvious technical sophistication, and the sequence's arresting imagery of a war-torn Manhattan was used in many of the game's promotional materials. Though previous *Call of Duty* games had featured vehicle-based setpieces full of tightly choreographed, spectacular action, the "Hunter Killer" sequence raised the bar with an assaultive symphony of destruction unlike anything the series had previously offered. As already noted, player agency is constrained in various ways at various points during this sequence, but how, precisely, is it constrained, and to what end? By recording the subjective effects of this sequence within the six dimensions of the player involvement model, we can seek to uncover the principles underlying its evident play between various states of situated user and system agency.

In the "Hunter Killer" setpiece, players are granted control over the speed and bearing of Frost's Zodiac watercraft, utilizing the **R1** trigger and left analog stick, respectively. The input directions for throttle control are displayed explicitly at the

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outset of the escape sequence, making the controls momentarily present in the conscious attention of the player. However, the game does not instruct players on the use of the left analog stick to control bearing, presumably since this is consistent with the default control conventions that structure normal *Modern Warfare* gameplay. Generally, kinesthetic involvement in this sequence is low, although a player may have to devote some conscious attention to figuring out the throttle controls if they miss the initial onscreen instruction (which is a real possibility, since this prompt coincides with the scripted missile-launch event and happens to appear simultaneously with the "Follow" beacon and a number of "Objective Completed" and "Checkpoint Reached" updates that fill the top-left corner of the screen). Once moving, there is little need to release the throttle control, and following the lead Zodiac is easily accomplished with minor corrections of the left analog stick. Compared to the more complicated controls of normal *Modern Warfare* gameplay—which include functions for left analog stick movement, right analog stick looking, and a variety of button-based commands for aiming, reloading, crouching, sprinting, jumping, switching between weapons, and launching melee attacks—kinesthetic involvement is reduced during the "Hunter Killer" harbor escape setpiece.

As mentioned above, although the "Hunter Killer" setpiece unfolds within what appears to be an open expanse of the New York Harbor, the actual playable space is a narrow track defined by the wake of the leading Zodiac vessel. Though players must

be sure to stay within the boundaries of this invisible track (or else be forced to start over at the beginning of the sequence), this navigational constraint hardly poses a significant challenge, especially since the other boat and its superimposed beacon are always visible and players simply have to point themselves in the indicated direction to stay on course. The stipulation that players must stay within the bounds dictated by the leading vessel vastly simplifies a potentially complicated space, removing both the opportunity for meaningful exploration and the need to maintain and reference an internalized representation of the space to aid with the demands of spatial control. *Modern Warfare 3*'s core first-person shooter-style gameplay levels are also known for being highly linear in construction, but even within these generally linear spaces, players often have to navigate from objective to objective using their own knowledge of the level, and must analyze combat spaces to locate useful points of cover from which to launch attacks on enemy units—both processes that mandate a certain level of spatial involvement from the player. Though spatial involvement is a factor within this sequence, compared to the normal mode of *Modern Warfare* gameplay, spatial involvement in the "Hunter Killer" setpiece is sharply reduced.

Shared involvement tends to be high even in the single-player campaign modes of the *Modern Warfare* games, whose representations often center around broad themes of battlefield camaraderie, particularly the fierce loyalty that coheres individual fighting units through even the most trying scenarios. This is no different in the

"Hunter Killer" setpiece, which depicts the elite Delta Force unit accomplishing a series of difficult goals through well-practiced teamwork, all while constantly communicating situational information and updated mission objectives to one another. Even in the chaos of the boat escape setpiece, communication between Frost and his comrades is constant. The existence of other agents in the scene is also keenly felt, including the presence of the second Zodiac boat that we, as Frost, must follow, as well as the Russian enemy soldiers who appear on tailing gunships over the course of the setpiece. In addition, the broader social context of a Russian invasion of the United States' most populated city helps give the scene a particular resonance. That said, the normal first-person shooter gameplay of *Modern Warfare 3* is defined by a constant, intimate state of interplay between the player, his or her A.I. squadmates, and the enemy A.I. agents with whom they are locked in combat, and compared to this kind of shared, cooperative and competitive involvement, the task of following a friendly boat through the New York Harbor and managing a single, scripted enemy encounter would seem to demand relatively little in the way of shared involvement from the player. All things considered, the "Hunter Killer" setpiece represents a moment of slightly reduced shared involvement when contrasted against the standard gameplay mode of *Modern Warfare 3*.

There are almost no points in the "Hunter Killer" setpiece in which players are allowed to express choices that have meaningful repercussions within gameplay, and

as a result, ludic involvement is low during this sequence. At first, players can choose to spend extra time on the top deck of the submarine, taking in the sights of the occupied harbor before proceeding down to the awaiting Zodiac boat, but there are no repercussions to this decision. Once in the boat, we as players have only two choices: follow the other Zodiac boat closely, or else resist and be forced to repeat the sequence until we do choose to comply with our orders. The only other moment of choice that appears in the "Hunter Killer" setpiece comes when the attacking Russian vessel arrives alongside Frost's Zodiac midway through the experience; although Sandman instructs us to shoot the mines on the enemy ship, we can ignore his instructions and fire upon the individual soldiers, instead. If we take too long, we will of course be killed and forced to restart the sequence, but it is possible, with good aim, to complete this scripted encounter without blowing up the enemy boat, if we so desire. However, this choice has no meaningful repercussions, as the rest of the setpiece plays out the same regardless of our choice to shoot or not shoot the mines on the enemy boat. As a result of the near-total lack of meaningful choice within this sequence, the "Hunter Killer" setpiece stands as a moment of sharply reduced ludic involvement in *Modern Warfare 3*.

Affective involvement is generally increased during the "Hunter Killer" setpiece. With its pulse-quickening representations of close-quarters destruction and powerful imagery of a war-torn, occupied New York City, "Hunter Killer" seems to merit a

strong emotional response from players, especially those for whom these images may serve as a reminder of the trauma of the terrorist attacks of September 11, 2001. Furthermore, the events that precede the "Hunter Killer" harbor escape setpiece establish the extremely high stakes of the current operation, as players are informed that only two diametrically opposed outcomes are possible: either the Russians fire their missiles first, potentially obliterating much of the eastern seaboard, or the Americans succeed in turning the Russians' missiles against them, destroying their fleet and thereby repelling the enemy invasion once and for all. Therefore, the scripted event that marks the beginning of the "Hunter Killer" boat setpiece—the launching of the Russian submarines' cruise missiles, at the Americans' command—serves as a powerful moment of catharsis after several minutes of steadily increasing tension. This combination of factors drives a level of emotional response that clearly marks the "Hunter Killer" setpiece as a moment of increased affective involvement, even in the context of a game that is characteristically full of such moments.

Although the "Hunter Killer" setpiece arrives at an early point in *Modern Warfare 3*'s narrative arc, it is nevertheless heavily laden with narratively situated meaning, and stands as a moment of increased narrative player involvement. As players guide a small inflatable boat between the towering wrecks of once-threatening Russian warships, watching as the invaders are brought to their knees by their very own weapons, the thematic victory of American creativity and moxie over the hidebound

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mores of a post-Soviet military dictatorship is writ large onscreen. As mentioned above, the "Hunter Killer" setpiece arrives as a moment of exhilarating catharsis in *Modern Warfare 3*'s early-phase narrative, as tensions surrounding the possible annihilation of multiple American cities are suddenly dissipated as a result of the daring American raid's self-evident success. Moreover, there is an element of character-driven narrative involvement at play in this setpiece as well, since at this point in the game players are still just getting to know the members of Delta Force, who will prove to be central figures at other points in the game's story. Although it appears during the building phase of *Modern Warfare 3*'s story and not at its climax, the "Hunter Killer" sequence, for these reasons, qualifies as a moment of generally increased narrative involvement within the game.

Like *Uncharted 3*'s "Stowaway" sequence, when *Modern Warfare 3*'s "Hunter Killer" setpiece is contrasted against the game's standard mode of single-player campaign gameplay, it stands out as a moment in which player involvement along the kinesthetic, spatial, shared, and ludic dimensions is generally reduced, and player involvement along the affective and narrative dimensions is generally increased. Again, these effects are achieved through related processes of agency play, particularly agency dynamics of scope and relationship. Agency scope is dynamically constrained at various points throughout the sequence: at times player actions have immediate and palpable effects (such as when Frost shoots the mines on a pursuing vessel's deck to

blow it up), but there are also times when the player has little meaningful agency in the scenario beyond small-scale input adjustments (such as when the only available action is to closely follow the preset path laid down by the system-controlled lead Zodiac boat, by pushing left or right on the left analog stick). The agency relationship between user and system is also dynamically modified in this sequence—rather than the system providing challenges for a user to interpret and develop gameplay strategies to address, in "Hunter Killer" the system dictates simple commands to the user, with which the user must mechanically comply; similarly, the system loses its agency to freely orchestrate environmental visual effects, instead having to wait for the player to cross a series of invisible event triggers before certain changes can take effect.

Having now completed two close readings of individual videogame setpieces, clear patterns are starting to emerge in terms of agency play strategies and associated player involvement effects. According to the previous two case studies, in setpieces, agency scope and agency relationships are modified through agency dynamics, resulting in decreased player involvement along some dimensions (particularly the kinesthetic, spatial, shared, and ludic axes), but markedly increased involvement along others (particularly the affective and narrative axes). Before synthesizing these patterns into a generalized poetics of setpieces, however, I will address a third and final case in hopes that this additional data will both generate new observations, and further enrich

the observations outlined above.

3.5: *Battlefield 3*: "Going Hunting"

3.5.1: Description and close reading

Battlefield 3 is the eleventh full-length release in the Swedish developer DICE's long-running, multiplatform *Battlefield* series of first-person shooters. Like all *Battlefield* games, *Battlefield 3* features robust multiplayer game modes, centered around open maps that support large matches featuring squads of infantry units fighting alongside player-controlled air, land, and sea vehicles. However, though officially designated as the sequel to 2005's *Battlefield 2*, *Battlefield 3* more closely resembles its immediate predecessors *Battlefield: Bad Company* (2008) and *Battlefield: Bad Company 2* (2010), in that it boasts of a lavishly produced and fully voice-acted single-player campaign in addition to the expected multiplayer game modes. Like the *Bad Company* games, *Battlefield 3* was positioned to compete in the crowded modern military first-person shooter genre, and given the close proximity of its release to *Modern Warfare 3*'s, fan community buzz and pre-release coverage in the gaming press contributed to a narrative that characterized *Battlefield 3* as a potential *Call of Duty*-killer, playing off the longstanding industry rivalry between the mega-publishers Electronic Arts (publisher of the *Battlefield* games) and Activision (publisher of the *Call of Duty* games). After the games' release, many publications opted to compare *Battlefield 3* and *Modern Warfare 3* in a dual-review format, further promoting the narrative of DICE's game as a brash

upstart challenging Infinity Ward/Sledgehammer's record-setting goliath of a franchise.

Battlefield 3 was launched alongside a hundred-million-dollar advertising campaign. Announcing this outlay in the spring of 2011 at a New York ad industry conference, Electronic Arts CEO John Riccitiello made it clear that in promoting *Battlefield 3*, EA planned to train its sights squarely on Activision's chart-topping *Call of Duty* franchise. As the unofficial *Battlefield Blog* reported, "Riccitiello specifically called out *Modern Warfare 3*, and noted: 'This game is designed to take down that game'" (Nielsen 2011, 1). *Battlefield 3*'s advertisements in many cases amounted to a feature-by-feature comparison with the rival title *Modern Warfare 3*, most often emphasizing the general graphical superiority of its brand-new Frostbite 2.0 game engine; the massive size of its multiplayer levels and the ever-present ability for players to enter and pilot a variety of vehicles at will during competitive matches (a form of player agency not offered by the *Call of Duty* games); and, perhaps most of all, the sheer scale and bombast of the *Call of Duty*-style action setpieces found in its single-player campaign mode. *Battlefield 3*'s creators seemed to understand that, in order to 'take down' *Modern Warfare 3*, the *Battlefield* franchise would have to start competing directly with *Call of Duty*'s vaunted setpiece production values.

Especially in light of EA's confident pre-release pronouncements, critical expectations surrounding *Battlefield 3*'s release were high. The game proved to be both

a critical[19] and commercial hit, becoming both the best-selling *Battlefield* game ever and one of EA's all-time most successful releases. While *Battlefield 3*'s core multiplayer gameplay modes remained the focus of most reviewers' (and players') attention, many also noted the game's single-player narrative campaign and its cavalcade of memorable setpiece moments as a peripheral attraction. Incidental as they may have been to most players' enjoyment of the game, these setpiece sequences nevertheless played a central role in the marketing of *Battlefield 3*, serving as exemplars of its high-octane gameplay and graphical polish.

"Going Hunting" is the fourth of *Battlefield 3*'s twelve missions, and was featured extensively in its multimedia promotional campaign, despite bearing little resemblance to the style of gameplay traditionally associated with the *Battlefield* series. In "Going Hunting"—a nearly twenty-minute long setpiece that effectively blurs the line between interruptive spectacle and full-fledged attraction—players take control of Lt. Jennifer Hawkins, an F/A-18F Super Hornet Weapons System Officer, as she and her pilot take off from the aircraft carrier U.S.S. George H.W. Bush to execute a bombing run over Tehran's Mehrabad Airport.

The mission begins in the bowels of the aircraft carrier, as we—as Lt. Hawkins—meet up with our pilot and proceed through a series of hallways and

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[19] The review aggregator Metacritic, as of May 2013, lists the Xbox 360 edition of *Battlefield 3* as having an 84% positive score overall (a figure Metacritic's algorithm characterizes as representing a "generally favorable" response). Of the 57 critic reviews indexed, 53 are classified as positive and 4 are classified as mixed, with 0 negative reviews. The Playstation 3 edition has a slightly higher 85% positive score overall, with 35 indexed critic reviews classified as positive, 3 classified as mixed, and 0 negative reviews.

stairways towards the flight deck, listening as he fills us in on the details of the day's

mission, which will have us trying to kill a high-value target named Faruk al Bashir

who is known to be located at the city's airport (see Fig. 24). As we walk behind the

pilot, Hawkins' pace and course are set automatically and left out of our control,

although we can use the right analog stick to pivot our looking position and observe

the scene around us. And what a scene it is: as we emerge from the interior of the

ship into the open air, the first thing we see is a churning, inky, wind- and rain-swept

Persian Gulf, whose waves lash the side of the carrier and cause a fine mist to cover

the virtual camera lens (see Fig. 25). Proceeding to the flight deck, we are momentarily

blinded by an orange-red setting sun, peeking out through purple storm clouds and

reflecting off every rain-slicked surface in sight (see Fig. 26). The flight deck itself is a

flurry of activity. As we walk (or, more accurately: are walked) towards our fighter jet,

our pilot pauses to don his helmet and we follow his lead, and from our embodied

first-person perspective, the yelling of the flight deck officers, the driving rain, and the

roaring engines of the nearby aircraft all become distant and muted (see Fig. 27). We

watch from Hawkins' perspective as she automatically climbs the ladder into the

cockpit, and takes her position in the Weapons System Officer seat aft.

Without any direct player input, Hawkins immediately switches on the bay of

multi-function displays located in front of her seat. The pilot asks her to "Close the

lid, will you" and a prompt appears onscreen, instructing us to "Press Ⓐ to close

canopy" (see Fig. 28). (There is no time limit within which we must comply with this command, but the scene will not continue until we do.) Next, our pilot proceeds with pre-flight checks, and as he tests the functioning of the plane's various flaps and stabilizers, verbal and onscreen prompts first instruct us to "Check left side flaps and stabs," by rotating our vantage point with the right analog stick, then to "Check right side flaps and stabs" by moving the stick in the opposite direction to complete the task (see Fig. 29). (Again, we can take our time with these steps, but the next part of the sequence will not play until we complete them as instructed—as is the case with all of the pre-flight tasks in this part of the sequence.)

Next, we are told to "Press Ⓐ to enable helmet HMD," and with a press of the indicated button, a holographic targeting display appears on our visor. We are subsequently prompted to press Ⓐ twice more to cycle through our available weapons, and additional instructional displays appear, informing us that the l and r buttons can be used to launch flare countermeasures and fire weapons, respectively. Finally, we are prompted to "Press Ⓐ for takeoff," and with a single press of this button, we watch as Hawkins delivers an all-clear thumbs-up signal to the ground crew and our jet (known as Shark 4-6) powers up its thrusters and is catapulted into the sky alongside a companion F/A-18F (designated Shark 4-2).

As the two jets perform an arcing loop around the U.S. fleet stationed in the Persian Gulf, we are free to use the right analog stick to take in the view (see Fig. 30).

No other input is demanded of us at this time. After a minute, a passage of intercom dialogue is triggered and the two jets set a course for Mehrabad Airport. Beginning to ascend through the cloud layer, we are unexpectedly waylaid by a pair of Iranian fighter jets who begin to strafe both American planes with cannon rounds. This signals the beginning of a several-minutes-long dogfighting sequence, in which we will be called upon to repeatedly launch countermeasures to break enemy missile-locks, while continuously using our head-mounted display and targeting systems to fire upon multiple waves of Iranian fighter jets. We have no control over our plane's bearing during this segment of gameplay, but can (and must) use the right analog stick throughout, rotating our virtual head with almost 360° of freedom to identify and lock on to each enemy jet as it appears (see Fig. 31). Though it is clear that it takes, at most, two strikes from the enemy jets to bring down our wingmen, our own jet's defense systems are apparently much more forgiving: failing to effectively defend our own craft and efficiently attack the enemies results only in increasingly insistent verbal commands from our pilot, but never in a mission failure. Eventually, once all remaining enemy jets have been cleared, a save checkpoint is automatically triggered (ensuring we will not have to replay this portion of gameplay if we fail in a subsequent segment). But, just when it seems that the battle has been won, a surprise attack by a final pair of Iranian jets destroys our companion jet, Shark 4-2, and we must again engage these enemies before finally linking up with the strike formation

headed towards our original destination, Mehrabad Airport (see Fig. 32).

Now, as the dogfighting sequence ends and the bombardment gameplay sequence begins, our view switches to the video monitor feed of a top-down targeting camera scanning the landscape below (see Fig. 33). Once the airport comes into view, we are called upon to "Press ← to switch to HARM missiles," and "Press [L1] to zoom" in order to identify, target, and destroy a series of three surface-to-air missile sites arrayed around the airfield (see Fig. 34). (In the normal difficulty mode, if we fail to destroy the designated targets within a certain amount of time, other members of the strike team will eventually destroy them for us, with no penalty.) Next, an onscreen prompt instructs us to "Press → to select F-18 JDAM bomb guidance," then "Press R3 to toggle infrared." Once our TV display switches into infrared mode, we must locate and hold our targeting crosshairs over each of the white-hot enemy jets parked below for several seconds, until our allied A-10 bombers' guided bombs ultimately find their targets (see Fig. 35). Immediately thereafter, a few lines of dialogue are triggered, introducing a more difficult sequence in which we must locate a pair of enemy jets taxiing down the runway and help the A-10 bombers destroy them before they can take off—failure to do so will (somewhat uniquely in the context of this setpiece) result in a checkpoint-reset. After this, a convoy of trucks emerges from the airport terminal and begins to cross the runway to rendezvous with an approaching helicopter, and after confirming via scripted dialogue that the high-value target is

among this group, we are cleared to "paint the area" for a spectacularly indiscriminate final bombing run by the allied A-10s (see Fig. 36).

Having accomplished our final mission goal, we are automatically switched back to Hawkins' first-person perspective for a moment, before the screen fades to black. When the picture fades back in a few seconds later, it is nighttime and the scene is painted in the green hues of electronic night vision imagery (see Fig. 37). We watch and listen as our pilot and the controller below communicate at length in complicated jargon, arranging for our imminent landing, and finally, as our wheels set down on the carrier flight deck and we are jerked to an abrupt stop by the tension cable, the screen fades to black for good, signaling the end of the "Going Hunting" mission. After a memorable adventure in the skies, we are now back where we began.

3.5.2: Analysis

"Going Hunting" is interesting for many reasons, not least of which is its unusual length. As we will see, it is constructed along traditional principles of interactive setpiece design, but it is not a brief, interruptive spectacle in the mode of *Modern Warfare 3*'s "Hunter Killer" setpiece. Rather, it is—like *Uncharted 3*'s "Stowaway" sequence—a complete game level unto itself, but even compared to that autonomous setpiece, it is a significantly longer experience. To satisfactorily analyze a lengthy, technically complex setpiece such as "Going Hunting," we must examine the ways in which it variously constricts and expands player agency over the course of its

multiple gameplay phases, and, using the player involvement model, we must attempt to trace the experiential effects of these instances of agency play.

Compared to the normal modes of first-person shooter and vehicle-driving gameplay that define the *Battlefield* series—in which players are granted full access to movement in three dimensions as well as the ability to aim, fire, reload, and switch between weapons—the range of controls available to the player in "Going Hunting" is sharply reduced. However, that is not to say that kinesthetic player involvement is a non-factor. Indeed, the controls in this sequence constantly make themselves present in the form of onscreen prompts, and discussion of control functions is even integrated diegetically in the form of dialogue and events that occur during the initial pre-flight check stage. The constant, insistent foregrounding of control mechanisms in this setpiece seems to be a mannered aesthetic decision, since despite the relatively low demands for player knowledge of controls (limited to mastery of one analog stick, two shoulder buttons, and one face button), the controls make themselves more present in this sequence than at almost any other point in *Battlefield 3*'s campaign mode. Thematically, this seems intended to convey some of the subjective experience of being a fighter jet weapons system officer, which is a role that requires knowledgeable mastery and interactive fluency with a complicated system of interfaces and inputs. By encouraging a certain amount of preoccupation with the PlayStation 3 controller interface and its inputs during gameplay, "Going Hunting"

allows us to share in some aspect of this experience. As a result, even though active control over our movements in the virtual environment is sharply limited in this setpiece, due to the constant, intentional foregrounding of control-oriented themes in the sequence, "Going Hunting" represents, on balance, a moment of slightly increased kinesthetic player involvement in *Battlefield 3*.

As a weapons system officer, Lt. Hawkins' role is not to pilot the jet or navigate its course, but to target enemies using a variety of offensive technologies. As a result, the player's level of engagement with issues of spatial exploration and navigation is low in this sequence. Having no control over the speed or bearing of our movements (as is the case not only in the air but also before entering the jet, while occupying the body of Lt. Hawkins herself), there is no need for the player to engage in active processes of spatial navigation or exploration, and no need for reliance on an internalized representation of gameplay space. While it is true that we must orient ourselves in space to effectively target enemy jets during the dogfighting sequence and enemy ground units during the bombardment sequence, this task is as simple as locating a guiding beacon, and using the right analog stick to reposition that beacon within the visual frame—it thus requires mastery of the virtual *interface*, moreso than mastery of virtual *space*. In sum, because "Going Hunting" finds the player literally being taken for a ride through a series of virtual environments, spatial involvement during this sequence is reduced, when compared against the rest of *Battlefield 3*'s

single-player gameplay.

The *Battlefield* series has long been known for its emphasis on squad-based combat and the social dynamics that cohere small fighting units in the field of war, and in the case of its depiction of jet fighter combat in the "Going Hunting" setpiece, this emphasis on the cooperative aspects of warfighting remains in place. Though Lt. Hawkins herself remains mute throughout the level (which is not unusual for a *Battlefield* campaign protagonist), conversational communication is a major theme of the sequence. Indeed, it begins with a scene of Hawkins and her pilot 'talking shop' in a mode that should be familiar to anyone who has ever conversed informally about professional topics with a coworker. As the action transitions to the flight deck, the cockpit, and eventually the air, it is accompanied by a constant stream of chatter— between our pilot and Hawkins; between the ground crew and our pilot; between our pilot and the pilot of Shark 4-2; between the base commanders and the members of the airport strike team; and between our pilot and the air traffic controller of the U.S.S. Bush. There is hardly a moment of silence throughout the setpiece, which seems intended to enhance the subjective experience of flying aboard a fighter jet, granting the player a vicarious sense not only of the professional demands of the job, but also of the culture of military aviation (with its playful, alternately familiar and impenetrable jargon). Moreover, the death of our wingmate, Shark 4-2, midway through the sequence, is poignantly framed as a personal loss, perhaps intended to

grant the moral license needed to motivate players through the detached violence of the setpiece's second-half bombing runs. In sum, despite its lack of interactive squad-based combat dynamics, "Going Hunting" represents a moment of generally increased shared player involvement, due to its consistent thematic emphasis on social themes of cooperation that reinforce the active presence of other agents in the scene.

Since "Going Hunting" is a highly linear setpiece experience, there are few opportunities for the expression of meaningful player choice within gameplay. Players are given orders that must be carried out faithfully and quickly—else they will be carried out automatically by A.I. wingmates, or, failing that, the player will be forced to restart the sequence from a save checkpoint in order to try again. There are moments when players can choose to resist the suggestions of their pilot and commanders without consequence—for instance choosing to attack the enemy fighter jets with missiles while being advised to use the cannon instead, or seeking out and destroying ground targets on the airfield in an order other than the one suggested— but this lack of consequences prevents these moments of choice from attaining the status of true ludic player involvement, according to the definition set forth in the player involvement model. As a result, "Going Hunting" represents a moment of reduced ludic player involvement in *Battlefield 3*.

In many ways, "Going Hunting" offers players a strong and sustained affective experience by design. For a player who has dreamt of being a fighter pilot, the appeal

of being able to share in a simulated F/A-18F 'ride along' is powerful, made more so by the fact that the representation of this experience starts well before takeoff, and includes not only the process of pre-flight checks, but also each step of our walk to the flight deck and into the cockpit itself. This setpiece seems designed to convey much of the subjective experience of being aboard a fighter jet, which includes the visceral thrills of taking off from an aircraft carrier, maneuvering through midair dogfights, and landing on a short runway in the dead of night, but also includes more mundane experiences such as workplace banter and mandatory pre-flight inspections. Though players learn little about Lt. Hawkins herself over the course of the sequence, relationships are established through pointedly written dialogue; when our wingmates flying aboard Shark 4-2 are killed before our eyes by an enemy sneak attack, a sense of loss is felt, even if we as players have never encountered these characters face-to-face. "Going Hunting" is a virtual roller-coaster ride designed to elicit vicarious affective responses from players, and since it generally succeeds at conveying both the visceral thrill of flight and the emotional connections between flight crews and wingmates, it stands as a moment of increased affective player involvement in *Battlefield 3*.

Like all of *Battlefield 3*'s missions, "Going Hunting" is presented as a flashback. It is introduced by a cutscene that takes place within the game's frame narrative—a tale of betrayal and intrigue that finds the game's lead protagonist, Staff Sgt. Henry Blackburn, recounting a series of wartime events to a pair of CIA officers while being

kept handcuffed in an interrogation room. However, compared to the other missions, "Going Hunting" almost seems to exist outside of *Battlefield 3*'s narrative structure. Although presented as one of Blackburn's flashbacks, the protagonist of this setpiece sequence is Lt. Jennifer Hawkins, a person with whom Blackburn admittedly has no acquaintance whatsoever. When the sequence is introduced, we already know (through direct experience with previous missions' events) that the bombing run it depicts ultimately failed to result in the death of the high-value target al Bashir, which robs the sequence of much of its narrative importance and nearly all of its suspense. "Going Hunting" thus conveys no meaningful or new narrative information, which means that player involvement in the game's narrative during this sequence is necessarily low. Considered within the context of the narratively dense military thriller plotline that sustains the rest of *Battlefield 3*'s campaign mode gameplay, "Going Hunting" is a moment of sharply reduced narrative player involvement.

While some of the observations outlined above are consistent with those that emerged from the two previous case studies, in some ways *Battlefield 3*'s "Going Hunting" sequence is also markedly different from *Uncharted 3*'s "Stowaway" setpiece and *Modern Warfare 3*'s "Hunter Killer" setpiece. Like the previous two cases, "Going Hunting" is a site of agency play—particularly in the form of agency dynamics, directed towards the tuning of agency scope and agency relationship at runtime. The scope of influence of user-directed inputs is constantly and dynamically changing

during "Going Hunting"—at times, the player can initiate a major sequence of actions (such as the closing of the cockpit canopy, the flashing of an all-clear thumbs-up to the ground crew, and the launching of a fighter jet from the flight deck of an aircraft carrier) with a single button press, whereas elsewhere the same button press merely switches between weapons systems, with no externally visible effects. The agency relationship between user and system also shifts dynamically during the "Going Hunting" setpiece—in some sequences, the user serves as little more than a passenger on a guided tour choreographed by the system alone, whereas in other sequences the player takes on a more active role, carrying out dogfighting and bombardment operations in ways that meaningfully affect the subjective experience of a playthrough.

In this sense, "Going Hunting" is much like "Stowaway" and "Hunter Killer"— all three sequences of gameplay are instances in which agency scope and agency relationship are dynamically tuned to achieve a range of experiential effects relating to player involvement. However, the effects "Going Hunting" achieves are somewhat different from the other two examples: rather than increasing affective and narrative involvement at the necessary expense of every other dimension (as the previous examples similarly do), "Going Hunting" emphasizes kinesthetic, shared, and affective involvement while de-emphasizing spatial, ludic, and narrative involvement. This evident diversity of effect (observed even within a narrow generic slice of AAA videogames) indicates that setpieces, rather than being a mere representational

gimmick keyed to a limited series of predictable effects, might actually be a flexible

expressive form in their own right. The concluding chapter of this thesis expands

upon this last observation, proposing that setpieces enable videogames to comment

self-reflexively on their own qualities by redirecting a player's attention towards a

dimension of involvement suggested by the preceding analyses but not currently

included within the player involvement model—that of *technoattentive* player

involvement.

Chapter 4: Conclusions, Reflections, and Future Work

As the preceding analyses have shown, the spectacular setpieces that dot many of today's most popular videogames are formally complex sequences in which movement between various states of narratively situated agency is accomplished through a potent combination of non-interactive cutscenes; semi-interactive quick timer events; pseudo-interactive sections of constrained movement, looking, and/or aiming; and fully interactive gameplay sequences. Harrell (2009) refers to this quality of movement between states of expanded and constrained player agency as *agency play*, and indicates that computational techniques enabling such movements can be used to convey meaning, for instance in relation to the narrative themes that underlie an interactive text. Simply put, the agency play model allows for the active "tuning" of player agency along multiple dimensions (user input direction, agency dynamics, agency scope, and agency relationship) to achieve various effects—effects which, for the purposes of this analysis, were initially defined in relation to the components of a six-dimensional player involvement model (Harrell and Zhu 2009, 1; Calleja 2012).

According to my analyses, the alternating constriction and expansion of player agency in *Uncharted 3*'s "Stowaway" setpiece, *Modern Warfare 3*'s "Hunter Killer" setpiece, and *Battlefield 3*'s "Going Hunting" setpiece similarly result in generally reduced player involvement along certain dimensions, but heightened player involvement along other dimensions. In all three cases, affective player involvement

was increased during setpiece sequences, when compared against the baseline experience of a videogame's normal mode of gameplay. This finding is consistent with Harrell's characterization of agency play as an expressive tool useful for conveying narrative meaning in interactive texts, since most would expect a narrative that effectively conveys its meaning to engender a heightened affective response to events unfolding within that narrative.

But, while perhaps satisfying on its surface, this analysis also raises a vexing question: If setpieces are indeed intended to de-emphasize many of the most outwardly appreciable qualities of games (such as free and fluid player movement, expansive and immersive spaces, complex social interaction, and compellingly variable goal-oriented gameplay) in the interest of more subjective and thereby invisible effects (such as heightened emotional responses to in-game events and personal investment in narrative content), then why are setpieces featured so prominently in advertising for big-budget, mass-market games seeking to demonstrate their objective appeal to the broadest possible audience? I propose a simple answer: setpieces function as spectacles of technical novelty, and within the perpetual innovation culture of videogames, that makes them desirable in their own right.

Like most modern setpieces, "Stowaway," "Hunter Killer," and "Going Hunting" are all visual marvels. The limits placed on player agency within these sequences, discussed in the preceding analyses, are hardly incidental to a setpiece's conjuring of

virtuosic technical displays; indeed, it is these very limits that both enable such graphical panache (by freeing up the computational resources necessary to support it), and consistently direct player attention towards its appreciation (by using linear gameplay structures to frame player experiences within a series of assuredly spectacular views).

I submit that the attentional resources (conscious or not) that players devote to the perception and appreciation of videogame graphics amounts to a unique dimension of player involvement, which I call *technoattentive involvement*[20]. I define technoattentive involvement as encompassing various forms of active but non-instrumental visual engagement with elements of a videogame's graphics. This includes a player's aesthetic appreciation of objects and figures represented onscreen (such as a particularly lifelike character or an impressive structure within a game world), as well as a player's appreciation of methods and techniques that are part of a game's overall representative scheme (such as motion blur, focal depth, object physics, or the visual sensation of kinesthesia in a first-person game).

Unlike more instrumental forms of visual engagement (in which looking processes are directly tied to gameplay objectives, for instance when scanning for

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[20] Thanks and credit to D. Fox Harrell for his suggestion of the term "technoattentive involvement," which is used here to refer to sensory involvement within computational graphical spectacles in videogames, but could potentially refer to other, multimodal forms of engagement with a variety of media forms, as well. Although "technoattentive involvement" is presented here as an addendum to the videogame player involvement model, the experiential effect to which it refers can be invoked by a variety of media, both interactive and non-interactive. As I see it, whenever the audience of a media work is being made consciously aware of the (relative) capabilities of the technologies underlying its representations, they are experiencing technoattentive involvement with that work—whether the work is a 21st-century videogame or a 19th-century cinematic projection.

enemies in a crowd or studying a game board while planning one's next move), technoattentive involvement refers to the appreciation of videogame graphics *for their own sake.* Predictably, within the perpetual innovation culture of videogames, technoattentive involvement often attaches most keenly to graphical content that is convincingly construed as being indicative of a technical advance towards a new visual state of the art. It is important to note that technoattentive involvement is not constant; like all other forms of player involvement, it can be enhanced or attenuated through the use of particular design strategies that attract or deflect attention along this dimension, and it must similarly compete with all other forms of involvement over its claims to a player's limited pool of attentional resources. I hereby propose technoattentive involvement as a dimension of player involvement in videogames holding equal importance alongside previously acknowledged dimensions of subjective gameplay experience.

Furthermore, I submit that the fundamental principle informing the design of most contemporary AAA setpieces is the redirection of attentional resources towards heightened technoattentive involvement, most often through the placement of constraints upon interactive player agency. The transitions that introduce setpieces within normal gameplay structures (and often demarcate the various phases of longer setpieces) represent moments of agency dynamics in videogames. In these moments, agency scope is often wildly modified (with a single button press at times triggering

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tiny interventions, and at other times triggering long action sequences) and the agency relationship between user and system is often inverted (with the system exerting a heightened level of control over a user's interactive experience, or with the user's movements triggering environmental effects normally beyond his or her direct control). These agency dynamics often enable heightened forms of player involvement along some dimensions while limiting player involvement along others, but in the context of the AAA videogame setpiece, they evidently always serve to encourage heightened forms of technoattentive involvement among players and viewers.

In summary, the poetics of the videogame setpiece is an exhibitionist poetics of interactive attractions, which seeks (like other techniques of media exhibitionism) to encourage a hypermediated appreciation of the explicitly technological qualities of texts, apparatuses, interfaces, and media. For reasons both cultural and commercial, AAA videogames increasingly rely on setpieces as a venue for the conscious performance of technical virtuosity. Setpieces marshal audiences' technoattentive involvement to advance a rhetoric of novelty, essential for survival and success within a culture of perpetual innovation that continually produces desire for the games of the future at the necessary expense of the games of the past. Thus, setpieces represent a form of agency play whose primary expressive potential is not situated within a narrative, but is rather *self-reflexive* in nature, commenting directly on a game's

status within the competitive marketplace and its current and future position within discursively produced categories of the past, present, and future of gaming.

I hope that understanding the form and function of videogame setpieces in this manner will advance both the creative work of videogame makers, and the intellectual work of videogame critics and scholars in the fields of videogame and media studies. Moreover, I hope that this thesis can serve as evidence of the real cultural value of computer-graphical spectacles in general, and their worthiness as objects for serious study. Regardless of their critical status, we live in an age of computationally enabled commercial media spectacles. CGI-laden Hollywood spectacles continue to break global box office records summer after summer, while setpiece-laden videogame spectacles have established themselves as the most lucrative creative form in all of mass media. However, many critics across media forms still approach the very notion of the computer-graphical spectacle with trepidation, as though such displays serve little cultural function besides conjuring momentary diversions for the amusement of the thoughtless masses and the enrichment of corporate media interests. I disagree, and I believe that the popularity of media forms that exhibit computer-graphical spectacles (such as setpiece-laden AAA videogames) should be taken as a sign that these forms serve a deep-seated need in contemporary culture. Computer-graphical spectacles are perhaps vital in that they offer a reflective, artistically defined space within which contemporary subjects can directly contemplate what might be the most

powerful force shaping our culture today: *the march of technological progress itself.*

In an age in which successive technological developments vastly expand our own sense of connectedness and agency every few years, we joke about being unable to fathom life before smartphones, or being unable to predict how we will access and interact with the web in just a few months' time. Once, when we wanted to invoke a certain era of culture, reference to a specific decade would suffice; today, it feels like the pre-YouTube and post-YouTube halves of the previous decade may as well have been a quarter-century apart, considering the cultural gulf between them. New technologies connect us, but they also isolate us within moments in history, and as the wheel of technological progress continues to turn faster and faster, our collective cultural footing seems, in many ways, less stable than ever. For all of the wonderful abilities new technologies have granted us, they have also robbed us of the ability to project what our lives will be like even a half-decade in the future; as a culture, it sometimes feels as though we are now perpetually sprinting through a darkened tunnel, with little idea of what horrors or delights may be lurking just ahead.

Computer graphics visually literalize the metaphor of new computing technologies engendering new experiences of reality. Moreover, because audiences believe that graphics technologies are always advancing and giving rise to more and more sophisticated forms of imagery, successive displays of computer-graphical virtuosity effectively render as a periodic visual spectacle the familiar yet abstract

notion of the technological state of the art as an ever-raising bar. Given the thrilling and terrifying potency of the 'technological state of the art' as a cultural force in the contemporary imagination, and given mankind's longstanding predilection towards visual spectacle, we should not be surprised or dismayed by the popularity of forms that combine these interests and impulses. Rather, I hope that future scholars and critics will attempt, as I have attempted here, to understand these forms and their popularity with the sensitivity and respect due to any culturally valuable mode of art.

Rather than dismissing computer-graphical spectacles such as AAA videogame setpieces as mere eye candy, we should closely examine how their aesthetics reflect and respond to the cultures that produce them, and what functions they serve in the imaginations of the publics that flock to them. It is my hope that historically sensitive approaches to the aesthetics of computer-graphical spectacles, such as this historical poetics of the videogame setpiece, will serve as evidence that in a culture yoked to the progress of computing technology, moments of technical exhibition in media often function as vital sites of cultural introspection.

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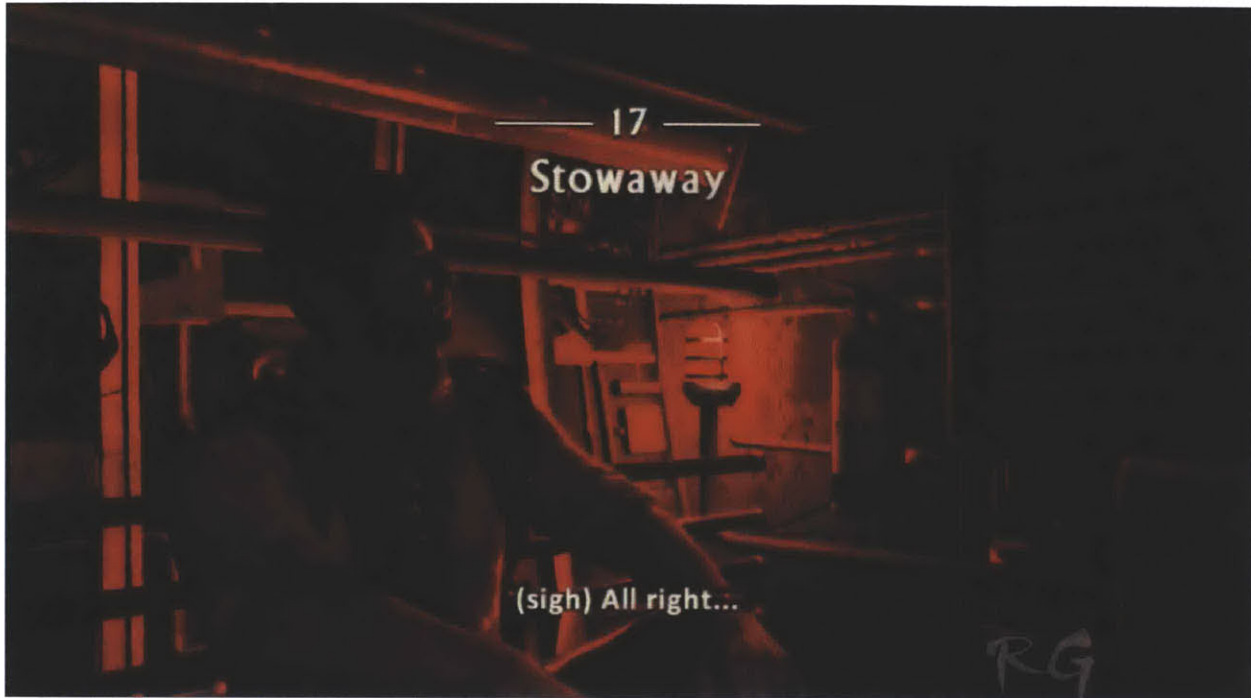
Appendix: Screenshots

Fig. 1 *...we see a thirty-second non-interactive cutscene of our hero seated in the plane's dimly lit undercarriage, breathing heavily and regaining composure in the wake of his latest death-defying feat...*

Fig. 2 *...we can choose to stay still or to crawl towards the light at the end of the air duct by pushing forward on the left analog stick...*
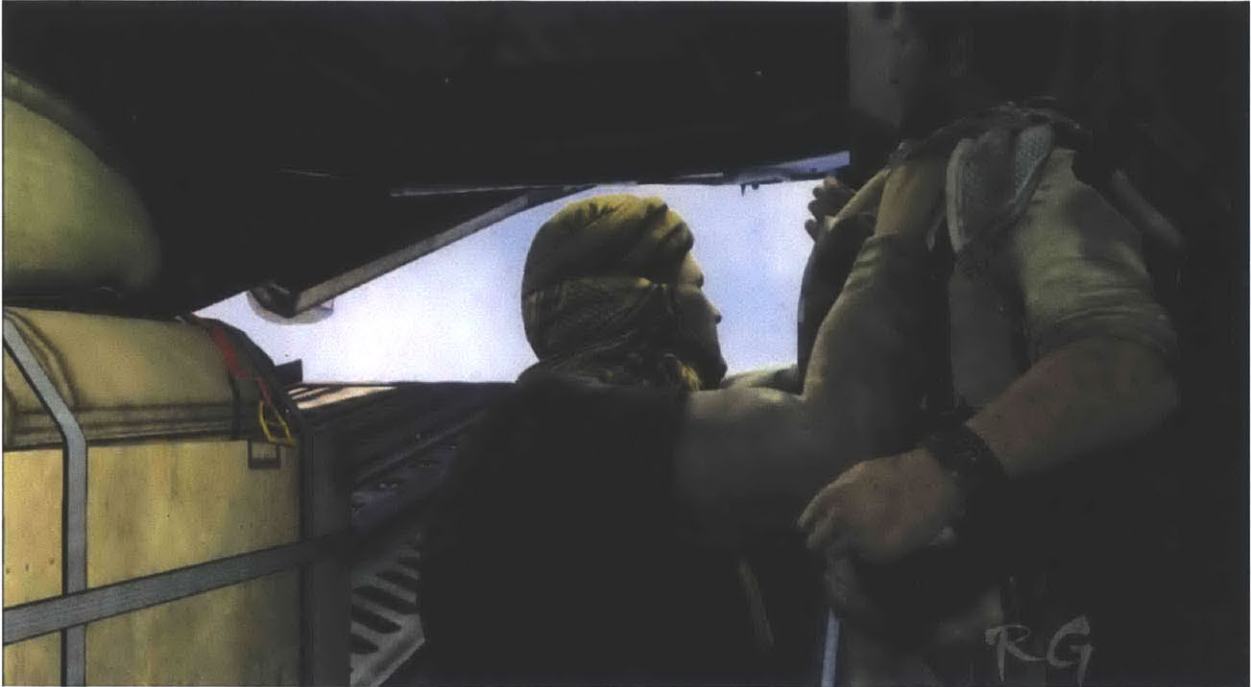
Fig. 3   *...as roaring wind and blinding daylight suddenly fill the cargo hold, the guard moves to toss the struggling, pleading Drake from the plane...*

Fig. 4   *...we must follow a series of onscreen quick timer event prompts to win the fight, executing the indicated button presses in time to strike our towering foe...*

Fig. 5 *...Drake notices a large cargo pallet with a parachute attached, and... we are prompted to tap the ⓐ button repeatedly to deploy it...*

Fig. 6 *...the cargo pallet... is still connected by a cable to several other large items in the cargo hold, which... are now being pulled out of the plane along with it...*
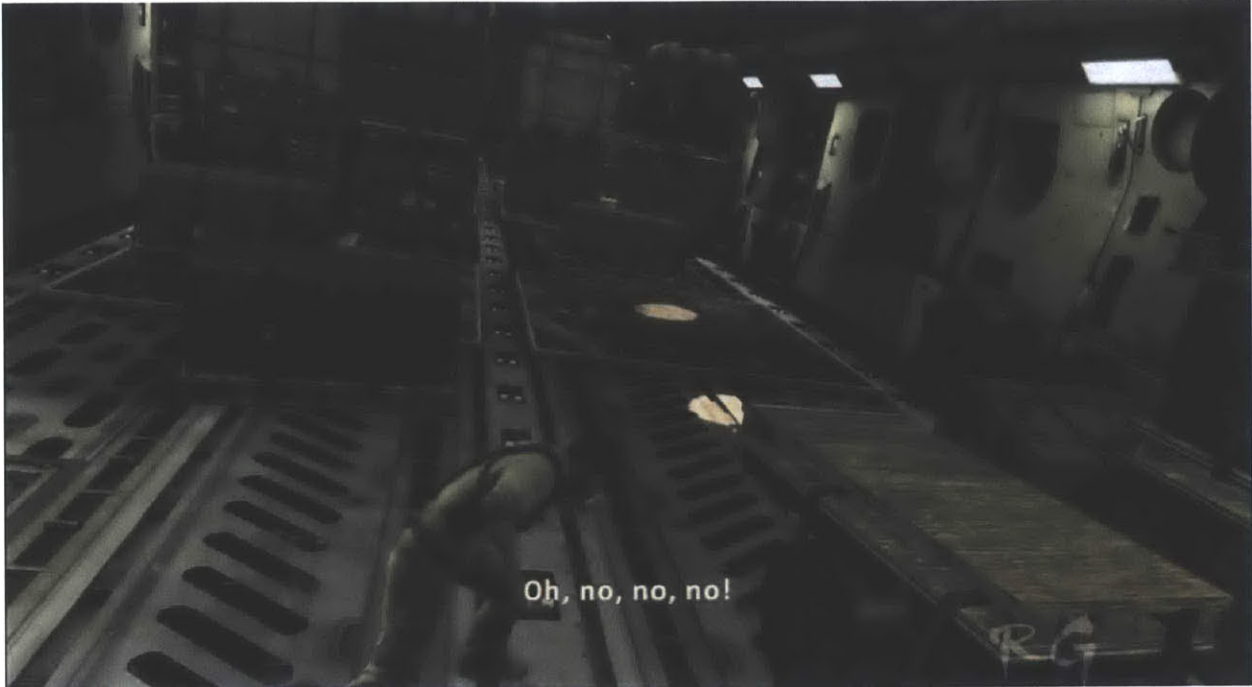
Fig. 7 *...we can attempt to climb towards the nose of the plane, moving left and right to weave through the mass of objects sliding towards Drake...*

Fig. 8 *...he tumbles out of the plane, grasping for a hand-hold somewhere along the chain of two loaded flatbed trucks now dangling completely free of the open cargo hold...*
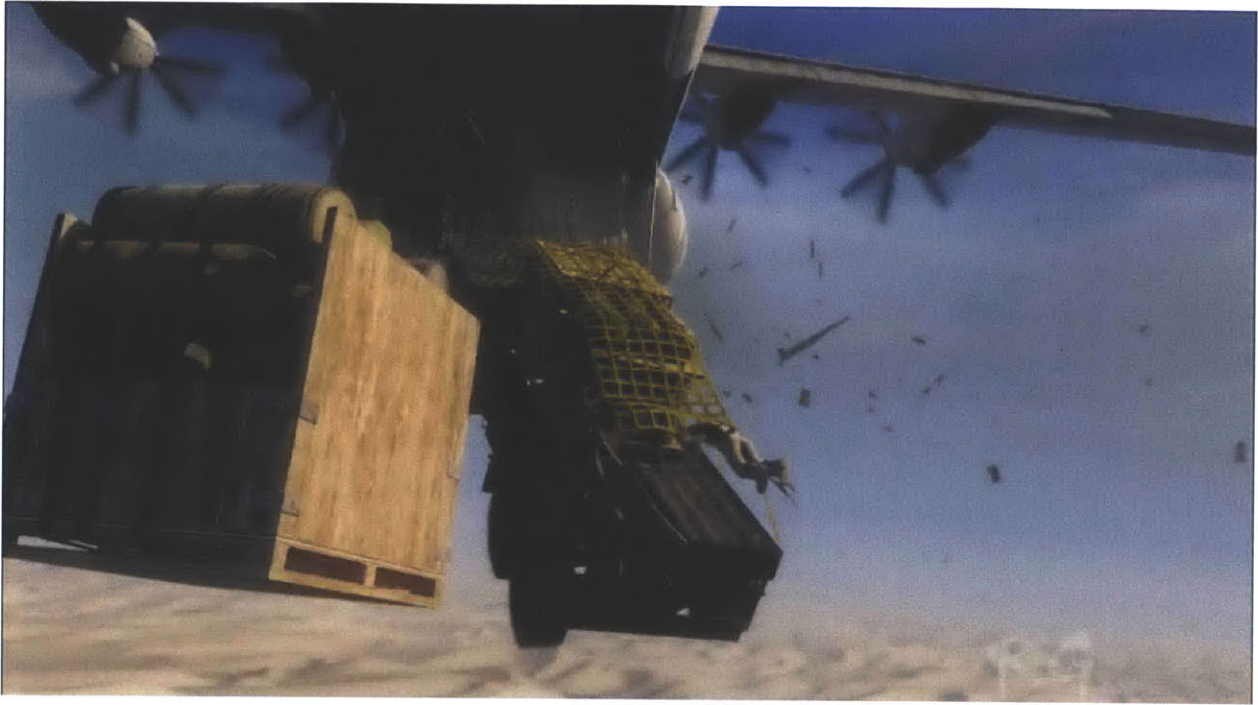
Fig. 9 *...a massive pallet of cargo falls from the plane and smashes into the truck, missing Drake by mere inches...*

Fig. 10 *...moving closer to this helpless foe, we are prompted to press ◎; after we comply, Drake automatically disarms the guard and flings him backwards, sending him tumbling to his death...*

Fig. 11 *...we regain full control over Drake and, making our way through this airborne shooting gallery, we are once more able to run, jump, roll, dive, duck behind cover, engage and disarm enemies, and aim and fire at will, in the normal mode of* Uncharted *gameplay...*

Fig. 12 *...a line of flames running across the floor seemingly blocks us from proceeding any further... [t]his line of flames is actually a scripted event trigger...*

Fig. 13 ...*the camera seamlessly zooms in on our protagonist, showing his desperate efforts to hold on to the floor of the plane as it is being ripped apart all around him...*

Fig. 14 ...*for a few seconds, we hear only the hissing of the wind as we watch Drake's body tumble through a clear blue sky over an endless expanse of sandy desert...*

Fig. 15 *...the camera swings around to reveal the burning husk of the cargo plane as it plummets towards the ground, and... we accompany Drake through a series of non-interactive near-misses with objects in the flaming cloud of debris still falling in its wake...*
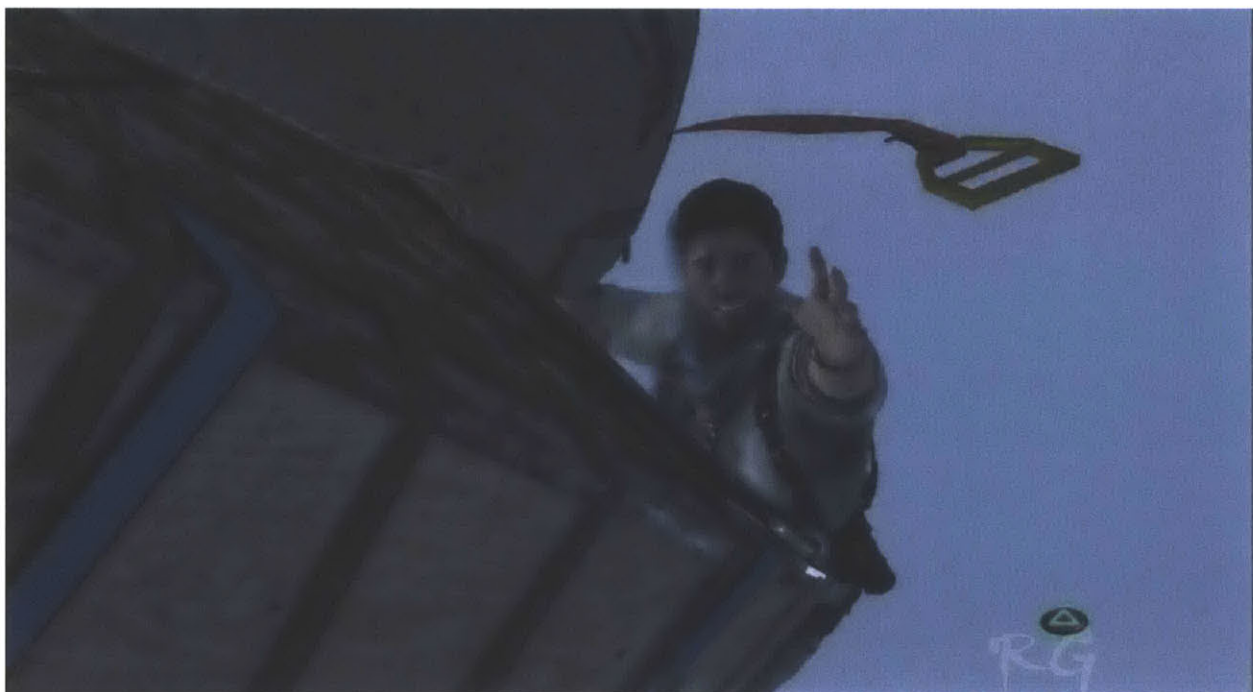

Fig. 16 *...we are told, once more, to tap the ⊕ button repeatedly to pull a dangling ripcord and deploy the parachute attached to the parcel...*

Fig. 17 *As we guide Frost back up into the open air of the New York Harbor, a destination beacon appears, guiding us to a location a few feet away where one of two inflatable Zodiac watercraft awaits to enable our getaway...*

Fig. 18 *... the other Zodiac boat pulls out ahead of us, and a new objective beacon is superimposed onto it, bearing the command to "Follow."*

Fig. 19 ...missiles and artillery rounds whiz by overhead, and fighter jets and helicopter gunships skirmish spectacularly for aerial supremacy...

Fig. 20 ...waterborne shockwaves toss our small vessel to and fro, kicking up splashes of water that momentarily obscure our view...

Fig. 21 *The action suddenly enters slow motion, and one of our comrades instructs us to "Shoot the mines" to destroy the boat...*

Fig. 22 *As we approach the aircraft, control is wrested from us just in time to correct our bearing, assuring that we skid perfectly onto its open ramp...*

Overlord: Roger Metal 0-1, missile strikes confirmed on multiple Russian hard targets in your AO. All primary threats neutralized. Good work, team, that's one for the books.

Fig. 23 *As the aircraft ascends away from the harbor, we regain control over the right analog stick, which allows us to pivot our first-person camera if we wish to train our vision on certain features of on the charred Manhattan skyline as it moves past...*
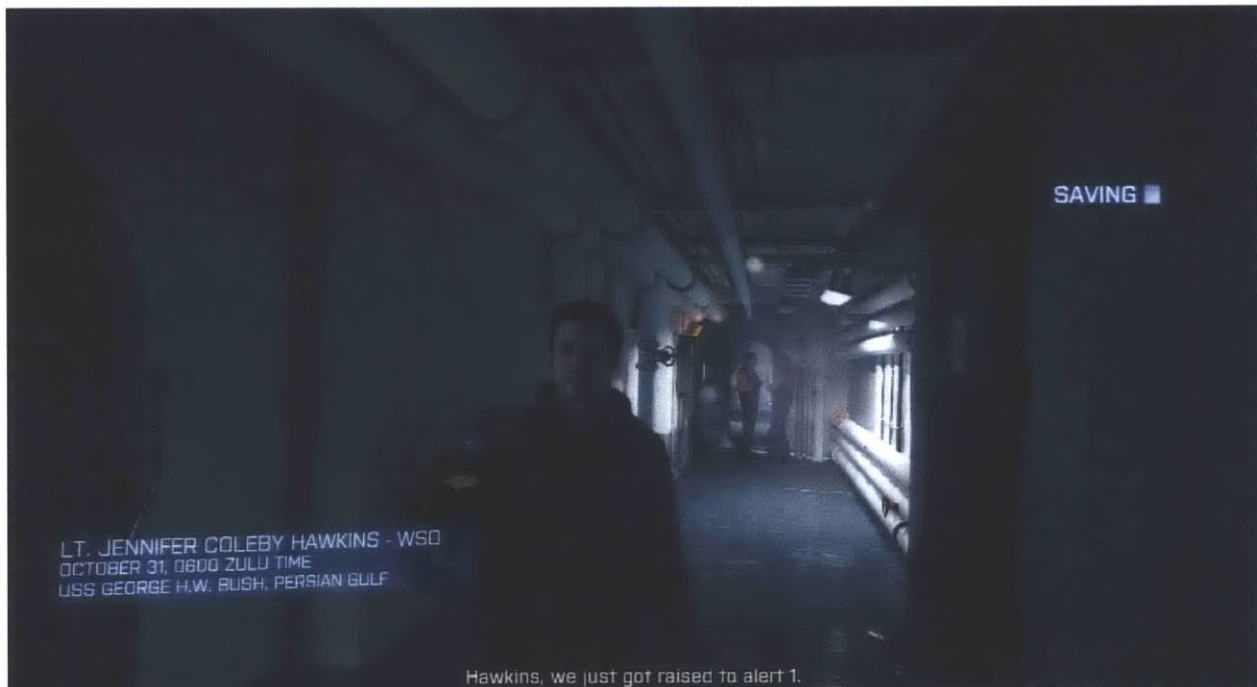

SAVING ▮

LT. JENNIFER COLEBY HAWKINS - WSO
OCTOBER 31, 0600 ZULU TIME
USS GEORGE H.W. BUSH, PERSIAN GULF

Hawkins, we just got raised to alert 1.

Fig. 24 *The mission begins in the bowels of the aircraft carrier...*

Fig. 25 *...a churning, inky, wind- and rain-swept Persian Gulf, whose waves lash the side of the carrier and cause a fine mist to cover the virtual camera lens...*

Fig. 26 *...we are momentarily blinded by an orange-red setting sun, peeking out through purple storm clouds and reflecting off every rain-slicked surface in sight...*

Fig. 27 *...our pilot pauses to don his helmet and we follow his lead, and from our embodied first-person perspective, the yelling of the flight deck officers, the driving rain, and the roaring engines of the nearby aircraft all become distant and muted...*

Fig. 28 *The pilot asks her to "Close the lid, will you" and a prompt appears onscreen, instructing us to "Press Ⓐ to close canopy."*

Fig. 29 *...onscreen prompts first instruct us to "Check left side flaps and stabs," by rotating our vantage point with the right analog stick, then to "Check right side flaps and stabs" by moving the stick in the opposite direction to complete the task.*

Fig. 30 *As the two jets perform an arcing loop around the U.S. fleet stationed in the Persian Gulf, we are free to use the right analog stick to take in the view...*

Fig. 31 *We have no control over our plane's bearing during this segment of gameplay, but can (and must) use the right analog stick throughout, rotating our virtual head with almost 360° of freedom to identify and lock on to each enemy jet as it appears...*

Fig. 32 *...a surprise attack by a final pair of Iranian jets destroys our companion jet, Shark 4-2...*

Fig. 33 *...our view switches to the video monitor feed of a top-down targeting camera scanning the landscape below...*

Fig. 34 *Once the airport comes into view, we are called upon to "Press ← to switch to HARM missiles," and "Press L1 to zoom" in order to identify, target, and destroy a series of three surface-to-air missile sites arrayed around the airfield...*
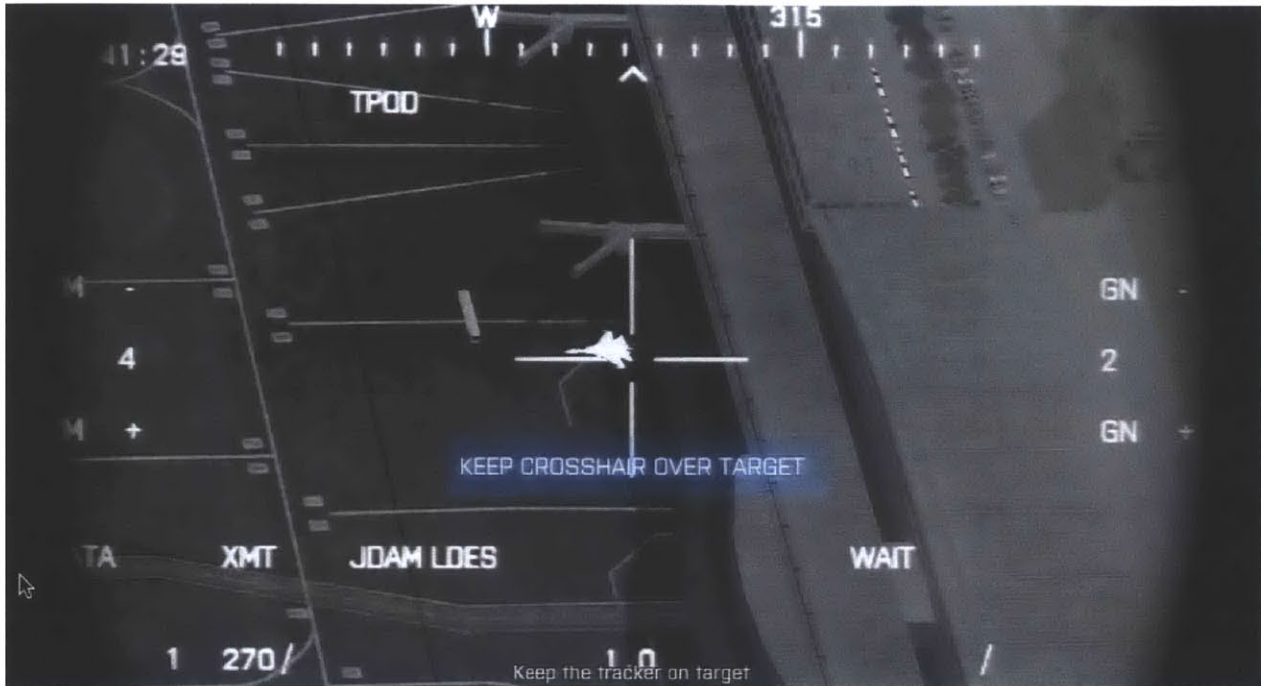
Fig. 35 *Once our TV display switches into infrared mode, we must locate and hold our targeting crosshairs over each of the white-hot enemy jets parked below for several seconds, until our allied A-10 bombers' guided bombs ultimately find their targets...*

Fig. 36 *...we are cleared to "paint the area" for a spectacularly indiscriminate final bombing run by the allied A-10s.*
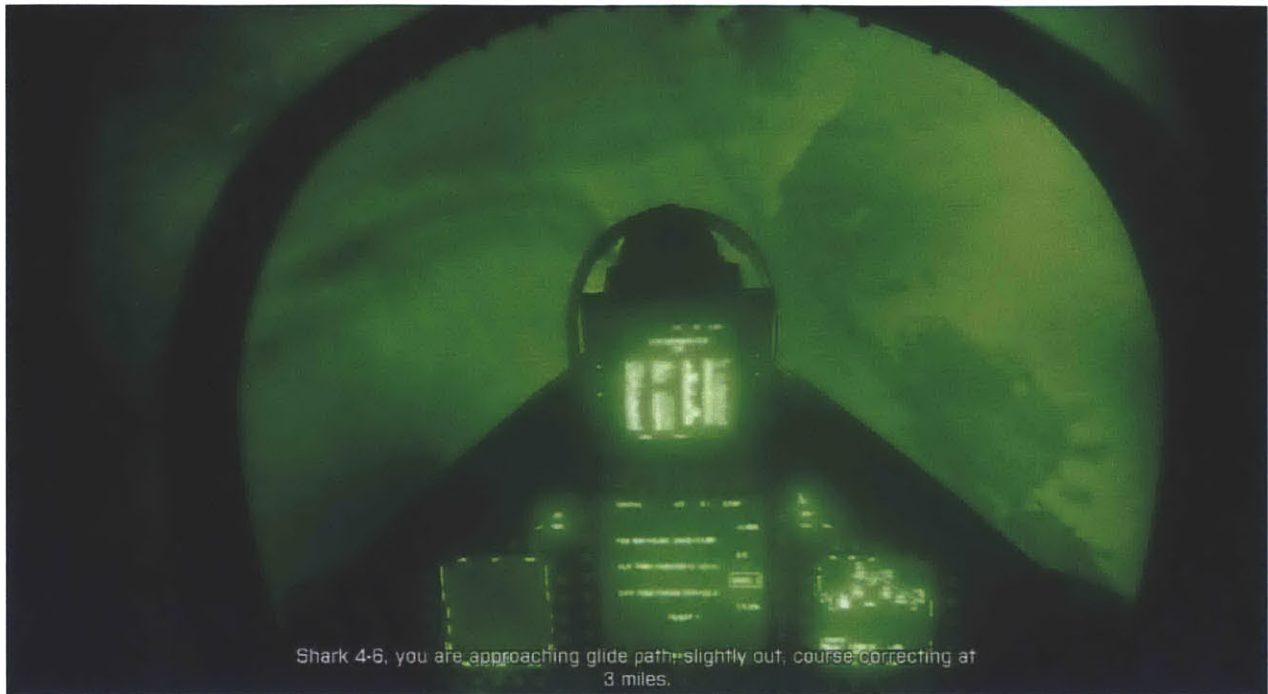
Fig. 37 *When the picture fades back in a few seconds later, it is nighttime and the scene is painted in the green hues of electronic night vision imagery...*

Image credits:

Battlefield 3 "Playthrough PART 3: Going Hunting [PS3]" TRUE-HD QUALITY. YouTube user RajmanGamingHD. 24 Oct. 2011. Accessed 05 May 2013. http://www.youtube.com/watch?v=HiRuc7LcCdA.

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