

Gaming

Essays on Algorithmic Culture



ALEXANDER R. GALLOWAY

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Representation no longer exists;
there's only action.

—Gilles Deleuze
"Intellectuals and Power"

The new media are oriented towards
action, not contemplation; towards the
present, not tradition.

—Hans Magnus Enzensberger
*"Constituents of a Theory
of the Media"*

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Preface

Philosophy, Gilles Deleuze and Félix Guattari wrote late in life, is about the creation of concepts. To them a concept is always a type of vector for thought, a cognitive vehicle designed to move things from one place to another. In the five essays in this book, I try to formulate a few conceptual movements, a few conceptual algorithms, for thinking about video games. What is an algorithm if not a machine for the motion of parts? And it is the artfulness of the motion that matters most. Following Deleuze and Guattari, I wish my conceptual algorithms to be as ad hoc, as provisional, as cobbled together as theirs were. Let them be what Northrop Frye once called “an interconnected group of suggestions.”

Video games have been central to mass culture for more than twenty years, yet surprisingly few books today attempt a critical analysis of the medium. In this study, I try not to reduce video game studies to other fields, such as literary criticism or cinema studies, nor do I attempt to dissect games as mere data for sociological or anthropological research. Instead, I attempt an analysis of what Fredric Jameson calls “the poetics of social forms,” that is, the aesthetic and political impact of video games as a formal medium.

So, at the end of the day, this book is not a book about video games, just as Jameson's *Signatures of the Visible* is not a book about film in any narrow sense. The text by Jameson offers instead certain conceptual algorithms for modernity, the information age, and the various aesthetic and political realities at play within them. I hope that my book will approximate something similar.

"No more vapor theory anymore," wrote Geert Lovink. This applies to the video game generation as much as anyone else. Our generation needs to shrug off the contributions of those who view this as all so new and shocking. They came from somewhere else and are still slightly unnerved by digital technology. We were born here and love it. Short attention spans, cultural fragmentation, the speeding up of life, identifying change in every nook and cranny—these are neuroses in the imagination of the doctor, not the life of the patient. So, above all, this book is about loving video games. It's about exploring their artistry, their political possibility, their uniqueness. The first question is: Do you play video games? Then next we may explore what they do.

Gamic Action, Four Moments

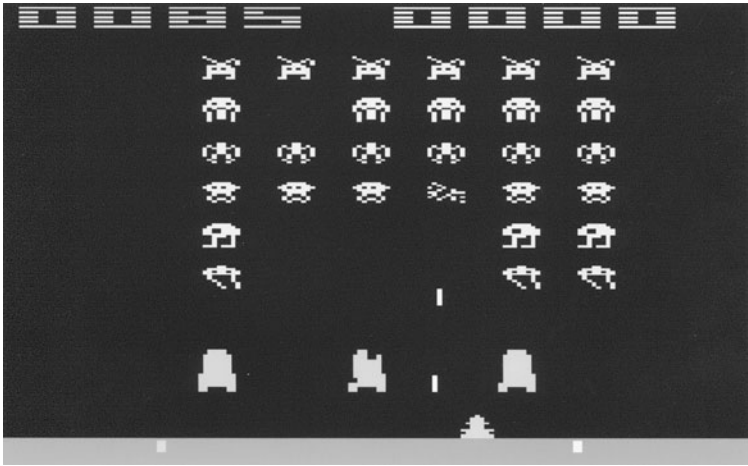
A game is an activity defined by rules in which players try to reach some sort of goal. Games can be whimsical and playful, or highly serious. They can be played alone or in complex social scenarios. This book, however, is not about games in the abstract, nor is it about games of all varieties, electronic or not. There is little here on game design, or performance, or imaginary worlds, or nonlinear narrative. I avoid any extended reflection on the concept of play. Rather, this book starts and ends with a specific mass medium, the medium of the video game from the 1970s to the beginning of the new millennium. A few detours will be necessary along the way: to the cinema, and to the computer.

A video game is a cultural object, bound by history and materiality, consisting of an electronic computational device and a game simulated in software. The electronic computational device—the machine, for short—may come in a variety of forms. It may be a personal computer, an arcade machine, a home console, a portable device, or any number of other electronic machines.¹ The machine will typically have some sort of input device, such as a keyboard or controller, and also have some sort of intelligible surface for output such as a screen

or other physical interface. Loaded into the machine's storage is the game software. Software is data; the data issue instructions to the hardware of the machine, which in turn executes those instructions on the physical level by moving bits of information from one place to another, performing logical operations on other data, triggering physical devices, and so on. The software instructs the machine to simulate the rules of the game through meaningful action. The player, or operator,² is an individual agent who communicates with the software and hardware of the machine, sending codified messages via input devices and receiving codified messages via output devices. Taking these elements in sum, I use the term "gaming" to refer to the entire apparatus of the video game. It is a massive cultural medium involving large numbers of organic machines and inorganic machines. Embedded as it is in the information systems of the millenary society, this medium will likely remain significant for some time to come.

Begin like this: If photographs are images, and films are moving images, then *video games are actions*. Let this be word one for video game theory. Without action, games remain only in the pages of an abstract rule book. Without the active participation of players and machines, video games exist only as static computer code. Video games come into being when the machine is powered up and the software is executed; they exist when enacted.

Video games are actions. Consider the formal differences between video games and other media: indeed, one *takes* a photograph, one *acts* in a film. But these actions transpire before or during the fabrication of the work, a work that ultimately assumes the form of a physical object (the print). With video games, the work itself is material action. One *plays* a game. And the software *runs*. The operator and the machine play the video game together, step by step, move by move. Here the "work" is not as solid or integral as in other media. Consider the difference between camera and joystick, or between image and action, or between watching and doing. In his work on the cinema, Gilles Deleuze used the term "action-image" to describe the expression of force or action in film. With video games, the action-image has survived but now exists not as a particular historical or formal instance of representation but as the base foundation of an entirely

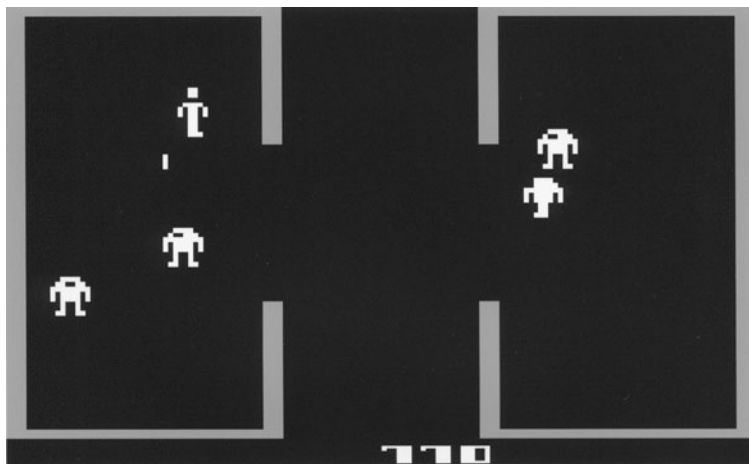


Space Invaders, Taito Corporation, 1978

new medium. “Games are both object and process,” writes Espen Aarseth, “they can’t be read as texts or listened to as music, they must be played.”³ To understand video games, then, one needs to understand how action exists in gameplay, with special attention to its many variations and intensities.

One should resist equating gamic action with a theory of “interactivity” or the “active audience” theory of media. Active audience theory claims that audiences always bring their own interpretations and receptions of the work. Instead I embrace the claim, rooted in cybernetics and information technology, that an active medium is one whose very materiality moves and restructures itself—pixels turning on and off, bits shifting in hardware registers, disks spinning up and spinning down. Because of this potential confusion, I avoid the word “interactive” and prefer instead to call the video game, like the computer, an *action-based* medium.⁴

Because of this, for the first time in a long time there comes an interesting upheaval in the area of mass culture. What used to be primarily the domain of eyes and looking is now more likely that of muscles and doing, *thumbs*, to be sure, and what used to be the act of reading is now the act of doing, or just “the act.” In other words, while the mass media of film, literature, television, and so on continue to



Berzerk, Stern Electronics, 1980

engage in various debates around representation, textuality, and subjectivity, there has emerged in recent years a whole new medium, computers and in particular video games, whose foundation is not in looking and reading but in the instigation of material change through action. And the most curious part of the upheaval is, to borrow what Critical Art Ensemble said once about hackers, that the most important cultural workers today are children.

People move their hands, bodies, eyes, and mouths when they play video games. But machines also act. They act in response to player actions as well as independently of them. Philip Agre uses the phrase “grammars of action” to describe how human activities are coded for machinic parsing using linguistic and structural metaphors.⁵ Video games create their own grammars of action; the game controller provides the primary physical vocabularies for humans to pantomime these gestural grammars. But beyond the controller, games also have their own grammars of action that emerge through gameplay. These grammars are part of the code. They help pass messages from object to object inside the machine’s software. But they also help to articulate higher-level actions, actions experienced in common game occurrences such as power-ups or network lag.

One may start by distinguishing two basic types of action in video games: machine actions and operator actions. The difference is this: machine actions are acts performed by the software and hardware of the game computer, while operator actions are acts performed by players. So, winning *Metroid Prime* is the operator's act, but losing it is the machine's. Locating a power-up in *Super Mario Bros.* is an operator act, but the power-up actually boosting the player character's health is a machine act.

Of course, the division is completely artificial—both the machine and the operator work together in a cybernetic relationship to effect the various actions of the video game in its entirety. The two types of action are ontologically the same. In fact, in much of gameplay, the two actions exist as a *unified, single phenomenon*, even if they are distinguishable for the purposes of analysis. This book will not privilege one type of action over the other (as analyses of other media often do)—in video games the action of the machine is just as important as the action of the operator.

But, you may ask, where is the fun in a game played by an “operator” and a “machine”? Video games can be intensely fun. They immerse and enthrall. Time-wise, video games garner significant investment by players. This happens in gaming to an extent not seen in other mass media. Many games are rated at sixty or eighty hours of total gameplay; some, like *Sims Online* or *World of Warcraft*, far exceed that. But a video game is not simply a fun toy. It is also an algorithmic machine and like all machines functions through specific, codified rules of operation. The player—the “operator”—is the one who must engage with this machine. In our day and age, this is the site of fun. It is also the work site. I adopt the terms “operator” and “machine” not to diminish the value of fun, meaningful play but to stress that in the sphere of electronic media, games are fundamentally cybernetic software systems involving both organic and nonorganic actors.

As the great German media theorist Friedrich Kittler wrote, code is the only language that does what it says. Code is not only a syntactic and semantic language; it is also a machinic language. At runtime, code moves. Code effects physical change in a very literal sense. Logic gates open and close. Electrons flow. Display devices illuminate. Input

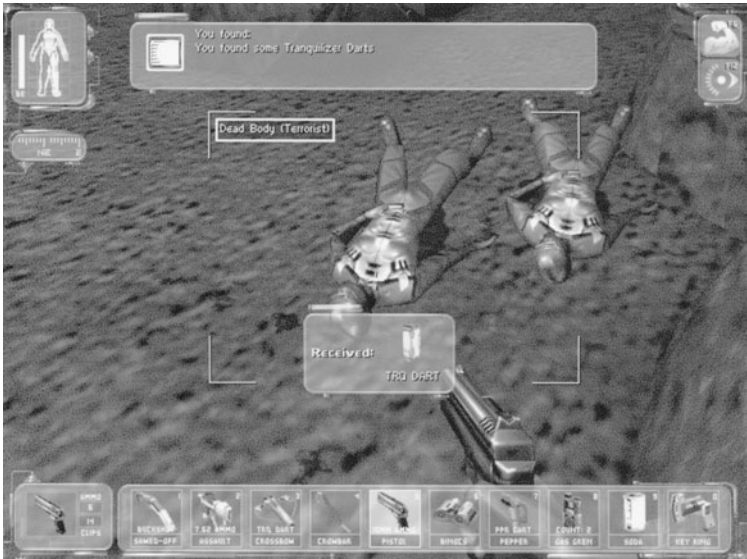


Warcraft III, Blizzard Entertainment, 2002

devices and storage devices transubstantiate between the physical and the mathematical. Video games are games, yes, but more importantly they are software systems; this must always remain in the forefront of one's analysis. In blunt terms, the video game *Dope Wars* has more in common with the finance software *Quicken* than it does with traditional games like chess, roulette, or billiards. Thus it is from the perspective of informatic software, of *algorithmic cultural objects*, that this book unfolds.

Gamic action is customarily described as occurring within a separate, semiautonomous space that is removed from normal life. The French sociologist and anthropologist Roger Caillois writes that games are “make-believe,” that they are “accompanied by a special awareness of a second reality or of a free unreality, as against real life.”⁶ The Dutch cultural historian Johan Huizinga agrees, writing that play transpires “quite consciously outside ‘ordinary’ life.”⁷

Thus in addition to the previous split between machine and operator, a second analytical distinction is possible: in video games there are actions that occur in diegetic space and actions that occur in



Deus Ex, Ion Storm, 2000

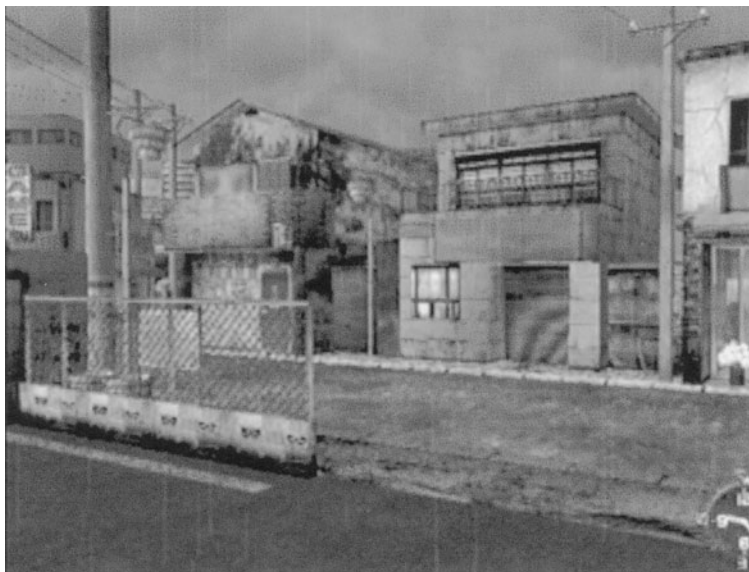
nondiegetic space. I adopt the terms “diegetic” and “nondiegetic” from literary and film theory. But in the migration from one medium to another, the meaning of the terms will no doubt change slightly.⁸ The diegesis of a video game is the game’s total world of narrative action. As with cinema, video game diegesis includes both onscreen and offscreen elements. It includes characters and events that are shown, but also those that are merely made reference to or are presumed to exist within the game situation. While some games may not have elaborate narratives, there always exists some sort of elementary play scenario or play situation—Caillois’s “second reality”—which functions as the diegesis of the game. In *PONG* it is a table, a ball, and two paddles; in *World of Warcraft* it is two large continents with a sea in between. By contrast, nondiegetic play elements are those elements of the gaming apparatus that are external to the world of narrative action. In film theory, “nondiegetic” refers to a whole series of formal techniques that are part of the apparatus of the film while still outside the narrative world of the film, such as a film’s score or titles. With “nondiegetic” I wish to evoke this same terrain for video games: gamic elements that are inside the total gamic apparatus yet

outside the portion of the apparatus that constitutes a pretend world of character and story. To be sure, nondiegetic elements are often centrally connected to the act of gameplay, so being nondiegetic does not necessarily mean being nongamic. Sometimes nondiegetic elements are firmly embedded in the game world. Sometimes they are entirely removed. The heads-up display (HUD) in *Deus Ex* is nondiegetic, while the various rooms and environments in the game are diegetic. Or in *Berzerk*, pressing Start is a nondiegetic act, whereas shooting robots is a diegetic act. Likewise, activating the Pause button in *Max Payne* is a nondiegetic act, but activating the slow-motion effect during a gunfight is a diegetic act. As will become evident, the nondiegetic is much more common in gaming than in film or literature, and likewise it will be much more central to my study. In fact, I find that the need to employ the concept of the diegetic at all stems not from a desire to reduce games to narrative texts, but quite the opposite: since the nondiegetic is so important in video games, it is impossible not to employ the concept, even in a negative issuance. And indeed, in some instances it will be difficult to demarcate the difference between diegetic and nondiegetic acts in a video game, for the process of good game continuity is to fuse these acts together as seamlessly as possible.

The superimposition of these two orthogonal axes—machine and operator, diegetic and nondiegetic—is a deliberate attempt to embrace a broad theory of gamic action.⁹ I wish to make room here for the entire medium of the video game. In this model, pressing Pause is as significant as shooting a weapon. Cheats are as significant as strategies. Other approaches might miss this. The four quadrants of these two axes will provide the structure for the rest of the chapter. Thus I offer here four moments of gamic action. Each will uncover a different perspective on the formal qualities of the video game.

Pure Process

The first quadrant is about the machinic phylum and the vitality of pure matter. Consider Yu Suzuki's *Shenmue*. One plays *Shenmue* by participating in its *process*. Remove everything and there is still action, a gently stirring rhythm of life. There is a privileging of the quotidian,



Shenmue, Sega AM2, 2000

the simple. As in the films of Yasujiro Ozu, the experience of time is important. There is a repetition of movement and dialogue (“On that day the snow changed to rain,” the characters repeat). One step leads slowly and deliberately to the next. There is a slow, purposeful accumulation of experiences.

When games like *Shenmue* are left alone, they often settle into a moment of equilibrium. Not a tape loop, or a skipped groove, but a state of rest. The game is slowly walking in place, shifting from side to side and back again to the center. It is running, playing itself, perhaps. The game is in an ambient state, an *ambience act*. Not all games have this action, but when they do, they can exist in an ambience act indefinitely. No significant stimulus from the game environment will disturb the player character. *Grand Theft Auto III* defaults to the ambience act. Almost all moments of gameplay in *Final Fantasy X* can momentarily revert to an ambience act if the gamer simply stops playing and walks away. *Shenmue*, despite its clock, reverts to the ambience act. Things continue to change when caught in an ambience act, but nothing changes that is of any importance. No stopwatch runs down. No scores are lost. If the passage of time means anything at all, then the game is not in an ambient state. It rains. The sun goes down, then it comes up. Trees stir. These acts are a type of perpetual happening, a living tableau. Ambience acts are distinguishable from a game pause through the existence of micromovements—just like the small, visible movements described by Deleuze as the “affect-image.” They signal that the game is still under way, but that no gameplay is actually happening at the moment. The game is still present, but play is absent. Micromovements often come in the form of pseudorandom repetitions of rote gamic action, or ordered collections of repetitions that cycle with different periodicities to add complexity to the ambience act. The machine is still *on* in an ambience act, but the operator is away. Gameplay recommences as soon as the operator returns with controller input. The ambience act is the machine’s act. The user is on hold, but the machine keeps on working. In this sense, an ambience act is the inverse of pressing Pause. While the *machine* pauses in a pause act and the operator is free to take a break, it is the *operator* who is paused in an ambience act, leaving the machine to hover in a state of pure process.

The ambience act is an action executed by the machine and thus emanates outward to the operator (assuming that he or she has stuck around to witness it). In this sense, it follows the logic of the traditionally expressive or representational forms of art such as painting or film. The world of the game exists as a purely aesthetic object in the ambience act. It can be looked at; it is detached from the world, a self-contained expression. But there is always a kind of “charged expectation” in the ambience act.¹⁰ It is about possibility, a subtle solicitation for the operator to return.

Likewise there is another category related to the ambience act that should be described in slightly inverted terms. These are the various interludes, segues, and other machinima that constitute the purely cinematic segments of a game. James Newman uses the term “off-line” to describe these moments of player passivity, as opposed to the “on-line” moments of actual gameplay.¹¹ Most video games incorporate time-based, linear animation at some point, be they the quick animations shown between levels in *Pac-Man*, or the high-budget sequences shot on film in *Enter the Matrix*. There is a certain amount of repurposing and remediation going on here, brought on by a nostalgia for previous media and a fear of the pure uniqueness of video gaming. (As McLuhan wrote in the opening pages of *Understanding Media*, the content of any new medium is always another medium.) In these segments, the operator is momentarily irrelevant—in the ambience act the operator was missed; here the operator is forgotten. But instead of being in a perpetual state of no action, the cinematic elements in a game are highly instrumental and deliberate, often carrying the burden of character development or moving the plot along in ways unattainable in normal gameplay. Cinematic interludes transpire within the world of the game and extend the space or narrative of the game in some way. They are outside gameplay, but they are not outside the narrative of gameplay. Formally speaking, cinematic interludes are a type of grotesque fetishization of the game itself as machine. The machine is put at the service of cinema. Scenes are staged and produced from the machine either as rendered video or as procedural, in-game action. Hollywood-style editing and postproduction audio may also be added. So, ironically, what one might consider to be the most purely machinic or “digital” moments in a video game,

the discarding of operator and gameplay to create machinima from the raw machine, are at the end of the day the most nongamic. The necessity of the operator-machine relationship becomes all too apparent. These cinematic interludes are a window into the machine itself, oblivious and self-contained.

The actions outlined here are the first step toward a classification system of action in video games. Because they transpire within the imaginary world of the game and are actions instigated by the machine, I will call the first category *diegetic machine acts*. The material aspects of the game environment reside here, as do actions of non-player characters. This moment is the moment of pure process. The machine is up and running—no more, no less.

A Subjective Algorithm

But, of course, video games are not as impersonal and machinic as all this. The operator is as important to the cybernetic phenomenon of video games as the machine itself. So now let us look at an entirely different moment of gamic action. As will become apparent in chapter 4, this second moment is the allegorical stand-in for political intervention, for hacking, and for critique.

The second moment of gamic action refers to a process with spontaneous origins but deliberate ends. This is gamic action as a subjective algorithm. That is to say, in this second moment, video game action is a type of inductive, diachronic patterning of movements executed by individual actors or operators.¹² We are now ready to explore the second quadrant of gamic action: *nondiegetic operator acts*.

These are actions of configuration. They are always executed by the operator and received by the machine. They happen on the exterior of the *world* of the game but are still part of the game software and completely integral to the play of the game. An example: the simplest nondiegetic operator act is pushing Pause. Pausing a game is an action by the operator that sets the entire game into a state of suspended animation. The pause act comes from outside the machine, suspending the game inside a temporary bubble of inactivity. The game freezes in its entirety. It is not simply on hold, as with the ambience act, nor has the machine software crashed. Thus a pause act is undamaging to

gameplay and is always reversible, yet the machine itself can never predict when a pause act will happen. It is nondiegetic precisely because nothing in the world of the game can explain or motivate it when it occurs. Pause acts are, in reality, the inverse of what machine actions (as opposed to operator actions) *are*, simply because they negate action, if only temporarily.

Another example of the nondiegetic operator act is the use of cheats or game hacks. Many games have cheats built into them. Often these are deliberately designed into the game for debugging or testing purposes and only later leaked to the public or accidentally discovered by enterprising gamers. Like a pause, the cheat act is executed from outside the world of the game by the operator. It affects the play of the game in some way. This action can be performed with hardware, as with the Game Genie or other physical add-ons, but is more often performed via the software of the actual game, using a special terminal console or simply pressing predetermined button sequences. Shortcuts and tricks can also appear as the result of additional scripts or software, as with the use of macros in *Everquest* or add-ons in *World of Warcraft*, or they can be outright cheats, as in the ability to see through walls in *Counter-Strike*. Cheats are mostly discouraged by the gaming community, for they essentially destroy traditional gameplay by deviating from the established rule set of the game. But macros and add-ons are often tolerated, even encouraged. Likewise the use of a hardware emulator to play a video game can introduce new nondiegetic operator acts (a pause act, for example) even if they did not exist in the original game.

Moving beyond these initial observations on the nondiegetic operator act, one can describe two basic variants. The first is confined to the area of setup. Setup actions exist in all games. They are the interstitial acts of preference setting, game configuration, meta-analysis of gameplay, loading or saving, selecting one player or two, and so on. The pause and cheat acts are both part of this category. It includes all preplay, postplay, and interplay activity.

Yet there exists a second variant of the nondiegetic operator act that is highly important and around which many of the most significant games have been designed. These are gamic actions in which the act of configuration itself *is the very site of gameplay*. These are games oriented

around understanding and executing specific algorithms. All resource management simulations, as well as most real-time strategy (RTS) and turn-based games, are designed in this manner. In an RTS game like *Warcraft III*, actions of configuration can take on great importance inside gameplay, not simply before it, as with setup actions. In *Final Fantasy X* the process of configuring various weapons and armor, interacting with the sphere grid, or choosing how the combat will unfold are all executed using interfaces and menus that are not within the diegetic world of the game. These activities may be intimately connected to the narrative of the game, yet they exist in an informatic layer once removed from the pretend play scenario of representational character and story. These actions of configuration are often the very essence of the operator's experience of gameplay—simple proof that gaming may, even for limited moments, eschew the diegetic completely. (As I said in the beginning, the status of the diegetic will be put to the test here; this is one reason why.) Many simulators and turn-based strategy games like *Civilization III* are adept also at using nondiegetic operator acts for large portions of the gameplay.

But why should video games require the operator to become intimate with complex, multipart algorithms and enact them during gameplay? It makes sense to pause for a moment and preview the concept of interpretation that I take up more fully in chapter 4. For this I turn to Clifford Geertz and his gloss on the concept of “deep play.” In the essay “Deep Play: Notes on the Balinese Cockfight,” Geertz offers a fantastically evocative phrase: “culture, this acted document.”¹³ There are three interlocked ideas here: There is culture, but culture is a *document*, a text that follows the various logics of a semiotic system, and finally it is an *acted* document. This places culture on quite a different footing than other nonacted semiotic systems. (Certainly with literature or cinema there are important connections to the action of the author, or with the structure of discourse and its acted utterances, or with the action of reading, but *as texts* they are not action-based media in the same sense that culture is and, I suggest here, video games are. Geertz's observation, then, is not to say that culture is a text but to say that *action is a text*. In subsequent years this has resonated greatly in cultural studies, particularly in theories of performance.) In “Deep Play,” Geertz describes play as a cultural



Final Fantasy X, Squaresoft, 2001

phenomenon that has meaning. Because play is a cultural act and because action is textual, play is subject to interpretation just like any other text. The concept of “depth” refers to the way in which the more equally matched a cockfight becomes, the more unpredictable and volatile the outcome might be. The closer one is to an adversary, the more likely that entire reputations will be built or destroyed upon the outcome of the fight. So, in identifying deep play, Geertz demonstrates how something entirely outside play can be incorporated into it and expressed through it:

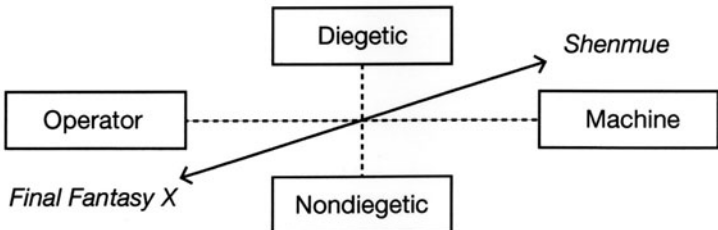
What makes Balinese cockfighting deep is thus not money in itself, but what, the more of it that is involved the more so, money causes to happen: the migration of the Balinese status hierarchy into the body of the cockfight. . . . The cocks may be surrogates for their owners’ personalities, animal mirrors of psychic form, but the cockfight is—or more exactly, deliberately is made to be—a simulation of the social matrix, the involved system of cross-cutting, overlapping, highly corporate groups—villages, kingroups, irrigation societies, temple congregations, “castes”—in which its devotees live. And as prestige, the necessity to affirm it, defend it, celebrate it, justify it, and just plain bask in it (but not, given the strongly ascriptive character of Balinese stratification, to seek it), is perhaps the central driving force in the society, so also—ambulant penises, blood sacrifices, and monetary exchanges aside—is it of the cockfight. This apparent amusement and seeming sport is, to take another phrase from Erving Goffman, “a status bloodbath.”¹⁴

Play is a symbolic action for larger issues in culture. It is the expression of structure. “The cockfight is a means of expression,” he writes.¹⁵ It is an aesthetic, enacted vehicle for “a powerful rendering of life.”¹⁶

I want to suggest that a very similar thing is happening in *Final Fantasy X* or *The Sims*. Acts of configuration in video games express processes in culture that are large, unknown, dangerous, and painful, but they do not express them directly. “The playful nip denotes the bite,” wrote Gregory Bateson, “but it does not denote what would be denoted by the bite.”¹⁷ Acts of configuration are a rendering of life: the transformation into an information economy in the United States since the birth of video games as a mass medium in the 1970s has precipitated massive upheavals in the lives of individuals submitted

to a process of retraining and redeployment into a new economy mediated by machines and other informatic artifacts. This transformation has been the subject of much reflection, in the work of everyone from Fredric Jameson to Manuel Castells. The new “general equivalent” of information has changed the way culture is created and experienced. The same quantitative modulations and numerical valuations required by the new information worker are thus observed in a dazzling array of new cultural phenomena, from the cut-up sampling culture of hip-hop to the calculus curves of computer-aided architectural design. In short, to live today is to know how to use menus. Acts of configuration in video games are but a footnote to this general transformation. So the second classification of gamic actions I have proposed, nondiegetic operator acts, follows the same logic revealed in Geertz’s analysis of the Balinese cockfight, or indeed Marx’s understanding of social labor: just as the commodity form carries within it a map for understanding all the larger contradictions of life under capitalism, and just as the cockfight is a site for enacting various dramas of social relations, so these nondiegetic operator acts in video games are an allegory for the algorithmic structure of today’s informatic culture. Video games render social realities into playable form. I will return to this theme in chapter 4.

With these first two moments of gamic action in mind, one can begin to see the first steps toward a classification system. The first moment of gamic action revealed diegetic machine acts, while the second moment revealed nondiegetic operator acts. I can now put together the first two axes in the classification scheme, pairing diegetic opposite nondiegetic and machine opposite operator.



The first two moments of gamic action therefore explore one of the diagonal relationships in this diagram. (Some of the other relationships in the diagram will be examined shortly.) The first diagonal relationship is between (1) the action experience of being at the mercy of abstract informatic rules (the atmosphere of the ambience act in *Shenmue*) and (2) the action experience of structuring subjective play, of working with rules and configurations (configuring and executing plans in *Final Fantasy X*). One motion emanates outward from the machine, while the other proceeds inward into the machine. One deals with the process of informatics, and the other deals with the informatics of process. Like *Shenmue*, the artfulness of games like *Myst* or *Ico* is their ability to arrest the desires of the operator in a sort of poetry of the algorithm. The experience of ambience, of nonplay, is always beckoning in *Ico*. Yet in nonplay, the operator is in fact moving his or her experience closer to the actual rhythms of the machine. In this way, the desires of the operator are put into a state of submission at the hands of the desires of the machine. This same masochistic fascination is evident in *Myst*. One doesn't play *Myst* so much as one submits to it. Its intricate puzzles and lush renderings achieve



Ico, Sony Computer Entertainment, 2001

equivalent results in this sense. But with *Warcraft III* or *Civilization III* or any number of simulation games and RTSs, the contrapositive action experience occurs: instead of penetrating into the logic of the machine, the operator hovers above the game, one step removed from its diegesis, tweaking knobs and adjusting menus. Instead of being submissive, one speaks of these as “God games.” Instead of experiencing the algorithm as algorithm, one *enacts* the algorithm. In both cases, the operator has a distinct relationship to informatics, but it is a question of the composition of that relationship. *Shenmue* is an experience of informatics from within, whereas *Final Fantasy X* is an experience of informatics from above. Of course, the axes of my diagram still hold: *Shenmue* is primarily a game played by a machine, while *Final Fantasy X* is primarily a game played by an operator; and likewise *Shenmue* situates gameplay primarily in diegetic space, while *Final Fantasy X* situates gameplay primarily in nondiegetic space.

The Dromenon

I have waited thus far to engage directly with the twin concepts of “play” and “game,” perhaps at my peril, in order to convey the bounded utility of the two terms. As stated at the outset, a game is an activity defined by rules in which players try to reach some sort of goal. As for play, the concept is one of the least theorized, despite being so central to human activity.¹⁸ Huizinga’s work in the 1930s, culminating in his book *Homo Ludens*, and Caillois’s 1958 book *Man, Play, and Games* both analyze play as a social and cultural phenomenon.

Play is a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is “different” from “ordinary life.”¹⁹

This definition, from Huizinga, is the distillation of his observations on the nature of play: that it is free, that it is not part of ordinary life, that it is secluded in time and place, that it creates order (in the form of rules), and that it promotes the formation of communities of players. Caillois, revealing an unlikely intellectual debt to the earlier book (Caillois was a leftist and friends with the likes of Georges

Bataille; Huizinga was a cultural historian in the old school), agrees almost point for point with Huizinga on the definition of play: "It appears to be an activity that is (1) free, (2) separate, (3) uncertain, (4) unproductive, (5) regulated, and (6) fictive."²⁰

Huizinga makes overtures for play being a part of human life in its many details. He argues for a direct connection to be made between play and culture, that play is not simply something that exists within culture, but on the contrary that culture arises in and through play. "We have to conclude," he writes, "that civilization is, in its earliest phases, played. It does not come *from* play like a babe detaching itself from the womb: it arises *in* and *as* play, and never leaves it"; or earlier in the text, "Culture arises in the form of play. . . . It is played from the very beginning."²¹ But at the same time, Huizinga pays little attention to the material details of this or that individual moment of play. Instead he takes the concept of play as primary, stripping from it anything inessential. His rationale is that one must never start from the assumption that play is defined through something that is *not* play,²² and hence play for Huizinga becomes unassigned and detached, articulated in its essential form but rarely in actual form as game or medium. In the end, it is the very irreducibility of play for Huizinga—the natural purity of it—that makes play less useful for an analysis of the specificity of video games as a medium. His book is so far removed from the medium that it can merely gesture a way forward, not provide a core approach.

While Huizinga and Caillois generally agree on the question of play, what distinguishes them is this: Caillois moves beyond the formal definition of play, which he claims is "opposed to reality," and moves further to describe the "unique, irreducible characteristics" of games in their "multitude and infinite variety."²³ This more materialist approach is where Caillois is most at home. He proceeds to map out four basic types of games (competitive, chance, mimicry, and panic or "vertigo" games), each of which may fluctuate along a continuum from whimsical improvisation to being rule bound. And unlike Huizinga, Caillois is not hesitant to mention actual games, as well as play activities, and group them together according to various traits. So in Caillois we have an attention to football and roulette, to kite flying and traveling carnivals.

But what Huizinga and Caillois have in common, and what confines their usefulness to the present single moment of gamic action, is that they both focus specifically on the individual's experience during play. As sociologists, they naturally privilege the human realm over the technological realm; play is an "occupation" or "activity" of humans (and also of some animals). As theorists of play, they naturally regard nonplay as beside the question. This is fine for understanding "play" or "game" in general, but it only partially suffices for understanding video games as a specific historical medium with definite tangible qualities. I have already described how in the *ambience act*, gameplay is essentially suspended, but does this mean that the *ambience act* is not part of what it means to play a video game? Or I have also described the use of hacks and cheats as *nondiegetic operator acts*, which both Huizinga and Caillois would argue by definition threaten play (cheaters are "spoil-sports," claims Huizinga), but does this mean that hacks and cheats are not part of what it means to play a video game? If the object of one's analysis is a medium in its entirety, must only those aspects of the medium that resemble play or a game be considered? Such an approach elevates an understanding of "play" or "game" pure and simple but, in doing so, ignores the vast detail of the medium in general. To arrive at a definition of video games, then, one must take Huizinga and Caillois's concept of play and view it as it is actually embedded inside algorithmic game machines.²⁴ This different approach, owing more to media studies than to cultural anthropology, tries to work backward from the material at hand, approaching the medium in its entirety rather than as an instantiation of a specific element of human activity. Only then may one start to sift through the various traces and artifacts of video gaming in order to arrive at a suitable framework for interpreting it. This is why I do not begin this book with Huizinga and Caillois, as any number of approaches would, but instead situate them here in this third moment, in the intersection of the playing agent and the diegetic space of gameplay.

This third moment illuminates action in the way that action is most conventionally defined, as the deliberate movements of an individual. Here Huizinga's understanding of the play element in sacred performances is revealing:

The rite is a *dromenon*, which means “something acted,” an act, action. That which is enacted, or the stuff of action, is a *drama*, which again means act, action represented on a stage. Such action may occur as a performance or a contest. The rite, or “ritual act” represents a cosmic happening, an event in the natural process. The word “represents,” however, does not cover the exact meaning of the act, at least not in its looser, modern connotation; for here “representation” is really *identification*, the mystic repetition or *re-presentation* of the event. The rite produces the effect which is then not so much *shown figuratively* as *actually reproduced* in the action. The function of the rite, therefore, is far from being merely imitative; it causes the worshippers to participate in the sacred happening itself.²⁵

Representation is a question of figuratively reshowing an action, Huizinga suggests, while play is an effect reproduced *in* the action. The *dromenon*, the ritual act, is thus helpful for understanding the third moment of gamic action: the *diegetic operator act*. This is the moment of direct operator action inside the imaginary world of gameplay, and it is the part of my schema that overlaps most with Huizinga and Caillois.

Diegetic operator acts are diegetic because they take place within the world of gameplay; they are operator acts because they are perpetrated by the game player rather than the game software or any outside force. Diegetic operator acts appear as either *move acts* or *expressive acts* (two categories that are more variations on a theme than mutually exclusive). Simply put, move acts change the physical position or orientation of the game environment. This may mean a translation of the player character’s position in the game world, or it may mean the movement of the player character’s gaze such that new areas of the game world are made visible. Move acts are commonly effected by using a joystick or analog stick, or any type of movement controller. In many video games, move acts appear in the form of player character motion: running, jumping, driving, strafing, crouching, and so on; but also in games like *Tetris* where the player does not have a strict player character avatar, move acts still come in the form of spatial translation, rotation, stacking, and interfacing of game tokens.

But parallel to this in operator gameplay is a kind of gamic act that, simply, concerns player *expression*. Even a single mouse click counts



Tony Hawk's Pro Skater 4, Neversoft, 2002

here. These are actions such as select, pick, get, rotate, unlock, open, talk, examine, use, fire, attack, cast, apply, type, emote. Expressive acts can be rather one-dimensional in certain game genres (the expressive act of firing in *Quake* or *Unreal*, for example), or highly complex, as in the case of object selection and combination in strategy or adventure games.

Some games merge these various expressive acts. In *Metroid Prime*, firing one's weapon is used interchangeably both to attack and to open doors. In fact, experientially these acts are equivalent: they both exert an expressive desire outward from the player character to objects in the world that are deemed actionable. That one expressive act opens a door and another kills a nonplayer character is insignificant from the perspective of gamic action. What is important is the coupling of acting agent (the player character) and actionable object.

Not everything in a game is available to the expressive act. There are actionable objects and nonactionable objects. Additionally, objects can change their actionable status. For example, an Alien Slave in *Half-Life* is actionable when alive but nonactionable when killed, or a gold mine in *Warcraft III* is actionable when producing but not when collapsed. Actionable objects may come in the form of buttons, blocks, keys, obstacles, doors, words, nonplayer characters, and so on. So in a text-based game like *Adventure*, actionable objects come in the form of specific object names that must be examined or used, whereas in *Metroid Prime* actionable objects are often revealed to the operator via the scan visor, or in *Deus Ex* actionable objects are highlighted by the HUD. Nonactionable objects are inert scenery. No amount of effort will garner results from nonactionable objects. The actionability of objects is determined when the game's levels are designed. Certain objects are created as inert masses, while others are connected to specific functions in the game that produce action responses. (During level design, some machine acts are also specified, such as spawn points, lights, shaders, and hazards.) Available expressive-act objects tend to have different levels of significance for different genres of games. Adventure games like *The Longest Journey* require keen attention to the action status of objects in the visual field. But in RTS games or first-person shooters, discovering the actionability of new

objects is not a primary goal of gameplay; instead these genres hinge on interaction with known action objects, typically some combination of ammo, health packs, and monsters.

This discussion of diegetic operator acts, and the one before it on nondiegetic, may be documented through a sort of archaeological exploration of game controller design. Game controllers instantiate these two types of acts as buttons, sticks, triggers, and other input devices. So while there is an imaginative form of the expressive act within the diegesis of the game, there is also a physical form of the same act. In a PC-based game like *Half-Life*, the operator acts are literally inscribed on various regions of the keyboard and mouse. The mouse ball movement is devoted to move acts, but the mouse buttons are for expressive acts. Likewise, certain clusters of keyboard keys (A, W, S, D, Space, and Ctrl) are for move acts, while others (R, E, F) are for expressive acts. But this physical inscription is also variable. While certain controller buttons, such as the PlayStation's Start and Select buttons, are used almost exclusively for nondiegetic operator acts, controller buttons often do double duty, serving in one capacity during certain gamic logics and in another capacity during others. For example, the Atari 2600 joystick, a relatively simple controller with button and directional stick, must facilitate all in-game operator acts.

The Play of the Structure

In "Structure, Sign and Play in the Discourse of the Human Sciences," Jacques Derrida focuses on the concept of play. He writes about how things "come into play," and refers to "the *play* of the structure," or the "play of signification," or even simply "the play of the world."²⁶ Or in *Dissemination*, he writes of the "play of a syntax," or the "play" of "a chain of significations."²⁷ So at a basic level, play is simply how things transpire linguistically for Derrida, how, in a general sense, they happen to happen. But the concept is more sophisticated than it might seem, for it gets at the very nature of language. After citing Claude Lévi-Strauss on the practical impossibility of arriving at a total understanding of language, that one can never accurately duplicate the

speech of a people without exhaustively recounting every word said in the past, words in circulation today, as well as all words to come, Derrida seizes on this type of useless pursuit of totality to further explain his sense of the word “play”:

Totalization, therefore, is sometimes defined as *useless*, and sometimes as *impossible*. This is no doubt due to the fact that there are two ways of conceiving the limit of totalization. And I assert once more that these two determinations coexist in a non-expressed way in Lévi-Strauss’s discourse. Totalization can be judged impossible in the classical style: one then refers to the empirical endeavor of either a subject or a finite discourse hopelessly panting after an infinite richness that it can never master. There is too much and more than one can say.

Then Derrida shifts to play.

But nontotalization can also be determined in another way: no longer from the standpoint of a concept of finitude as relegation to the empirical, but from the standpoint of the concept of *play* [*jeu*]. If totalization no longer has any meaning, it is not because the infiniteness of a field cannot be covered by a finite glance or a finite discourse, but because the nature of the field—that is, language and a finite language—excludes totalization: this field is in effect that of a *game* [*jeu*], that is to say, of a field of infinite substitutions in the closing of a finite group. This field only allows these infinite substitutions because it is finite, that is to say, because instead of being an incommensurable field, as in the classical hypothesis, instead of being too large, there is something missing from it: a center which arrests and grounds the play of substitutions. One could say—rigorously using that word whose scandalous signification is always obliterated in French—that this movement of play, permitted by the lack, the absence of center or origin, is the movement of *supplementarity*.²⁸

The field of language is therefore not quantitatively but *qualitatively* inadequate. It is a question not of enlarging the field but of refashioning it internally. This process of remaking is what Derrida calls the movement of play.²⁹ Using the logic of supplementarity, play reconstitutes the field, not to create a new wholeness but to enforce a sort of permanent state of nonwholeness, or “nontotalization.” Play is a sort of permanent agitation of the field, a generative motion filling in the structure itself, compensating for it, but also supplementing and

sustaining it. "Transformative play," write Katie Salen and Eric Zimmerman, "is a special case of play that occurs when the free movement of play alters the more rigid structure in which it takes place."³⁰ Derrida describes this generative agitation as follows:

Play is the disruption of presence. . . . Turned towards the lost or impossible presence of the absent origin, [Lévi-Strauss's] structuralist thematic of broken immediacy is therefore the saddened, *negative*, nostalgic, guilty, Rousseauistic side of the thinking of play whose other side would be the Nietzschean *affirmation*, the joyous affirmation of the world in play and of the innocence in becoming, the affirmation of a world of signs without fault, without truth, and without origin which is offered to an active interpretation. *This affirmation then determines the non-center otherwise than as loss of the center.* And it plays without security. For there is a *sure* play: that which is limited to the *substitution* of *given and existing*, *present*, pieces. In absolute chance, affirmation also surrenders itself to *genetic* indetermination, to the *seminal* adventure of the trace.³¹

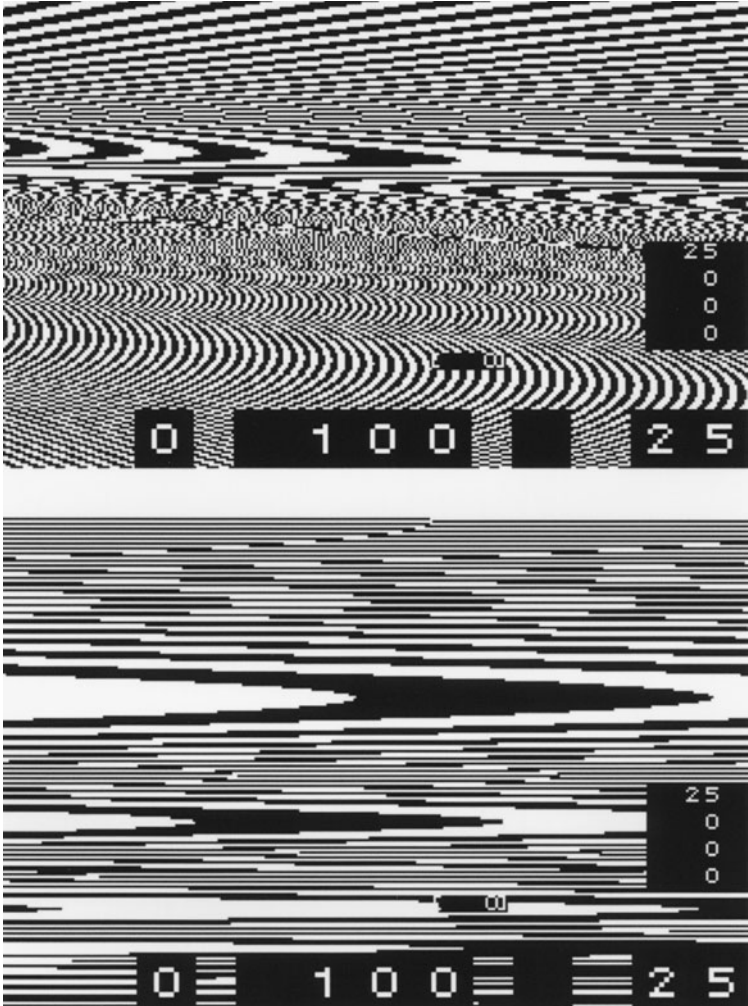
So although it is one of his most prized pieces of terminology, Derrida doesn't as much say what play is as use the concept of play to explain the nature of something else, namely, the structure of language. The word is lucky enough to be placed alongside other of Derrida's privileged concepts; it is paired in this section with the supplement and the trace. And in *Dissemination*, the concept of play is described in such broad strokes and in such close proximity to writing itself that one might easily swap one term for the other. After describing the relationship between playfulness and seriousness in Plato, Derrida observes, "As soon as it comes into being and into language, play *erases itself as such*. Just as writing must erase itself as such before truth, etc. The point is that there is no *as such* where writing or play are concerned."³² Play is, in this way, crucial to both language and signification, even if play erases itself in the act of bringing the latter concepts into existence.

So it comes full circle. With Huizinga, play was held aloft as a thoroughly axiomatic concept, irreducible to anything more phenomenologically primitive. But with Geertz, the pure concept is put to the rigors of a close reading, as any other textual form might be. And now with Derrida one is back to the concept of play as pure positivity. If

Geertz's goal is the interpretation of play, then Derrida's goal is the play of interpretation. Play brings out for Derrida a certain sense of generative agitation or ambiguity, a way of joyfully moving forward without being restricted by the retrograde structures of loss or absence. And like Maurice Blondel's coupling of truth with action, Derrida sought to replace so-called textual truth with the generative tensions of active reading.

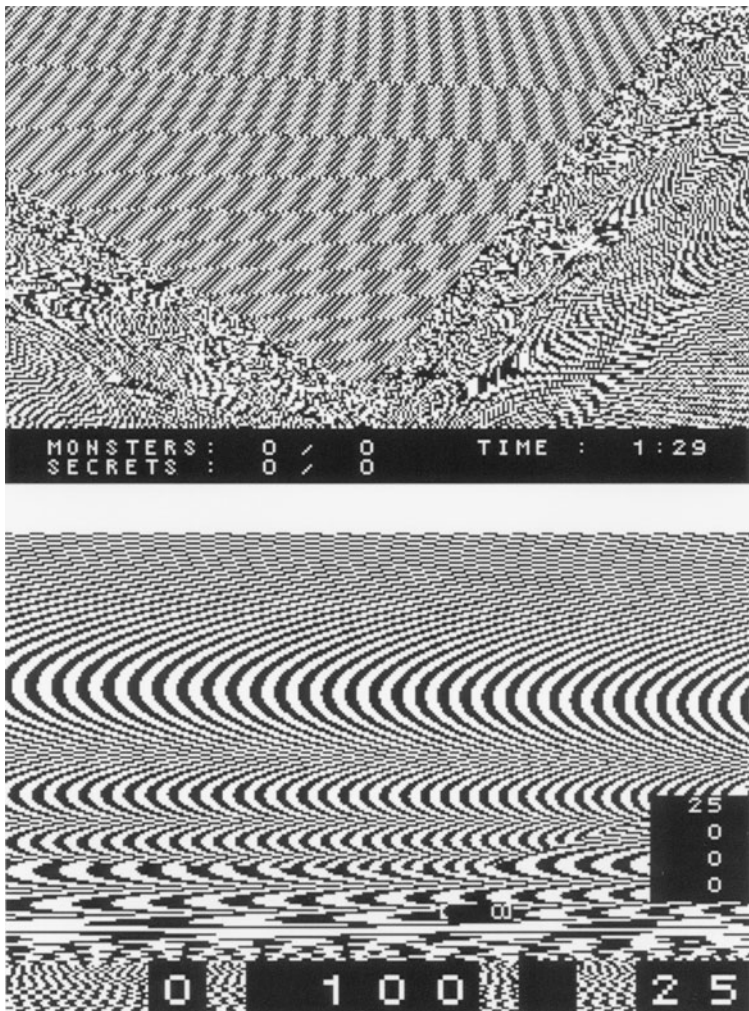
Now we are prepared to consider the fourth type of gamic action, that of *nondiegetic machine acts*. These are actions performed by the machine and integral to the entire experience of the game but not contained within a narrow conception of the world of gameplay. This is the most interesting category. Included here are internal forces like power-ups, goals, high-score stats, dynamic difficulty adjustment (DDA), the HUD, and health packs, but also external forces exerted (knowingly or unknowingly) by the machine such as software crashes, low polygon counts, temporary freezes, server downtime, and network lag. I say "narrow conception" because many nondiegetic machine acts such as power-ups or health packs are in fact incorporated directly into the narrative of necessities in the game such that the line between what is diegetic and what is nondiegetic becomes quite indistinct.

The most emblematic nondiegetic machine act is "game over," the moment of gamic death. While somewhat determined by the performance of the operator, or lack thereof, death acts are levied fundamentally by the game itself, in response to the input and over the contestation of the operator. A death act is the moment when the controller stops accepting the user's gameplay and essentially turns off (at least temporarily until the game can segue to a menu act or straight back to gameplay). This moment usually coincides with the death of the operator's player character inside the game environment (or otherwise with the violation of specific rules, as when missions are called off in *Splinter Cell*). The games created by Jodi are perfect experiments in nondiegetic machine acts in general and death acts in particular. The code of the machine itself is celebrated, with all its illegibility, disruptiveness, irrationality, and impersonalness. Jodi are what Huizinga calls spoilsports, meaning that their games intentionally deviate from the enchanting order created by the game:



Jodi, *Ctrl-Space*, 1998–99. Reproduced with permission of Jodi.

Inside the play-ground an absolute and peculiar order reigns. Here we come across another, very positive feature of play: it creates order, *is* order. Into an imperfect world and into the confusion of life it brings a temporary, a limited perfection. Play demands order absolute and supreme. The least deviation from it “spoils the game,” robs it of its character and makes it worthless. . . . Play casts a spell over us; it is “enchancing,” “captivating.”³³



Jodi, Ctrl-Space. Reproduced with permission of Jodi.

I cite this passage to highlight the dramatic disagreement between Huizinga's position and that of Derrida (or Jodi, if one was foolish enough to request they take a position on things). With Huizinga is the notion that play must in some sense create order, but with Derrida is the notion that play is precisely the deviation from order, or

further the perpetual inability to achieve order, and hence never wanting it in the first place. Admittedly, the “game over” of a game is not *affirmative*, to use Derrida’s Nietzschean terminology, but it is certainly noncentering, putting the gamer into a temporary state of disability and submission.

The death act is, properly placed, part of the first type of nondiegetic machine acts that I will call the *disabling act*. These actions are any type of gamic aggression or gamic deficiency that arrives from outside the world of the game and infringes negatively on the game in some way. They can be fatal or temporary, necessary or unnecessary. So, as mentioned, all the following phenomena are included: crashes, low polygon counts, bugs, slowdowns, temporary freezes, and network lag. No action is more irritating to the gamer. Following Huizinga, these actions have the ability to destroy the game from without, to disable its logic. But at the same time, they are often the most constitutive category of game acts, for they have the ability to define the outer boundaries of aesthetics in gaming, the degree zero for an entire medium.

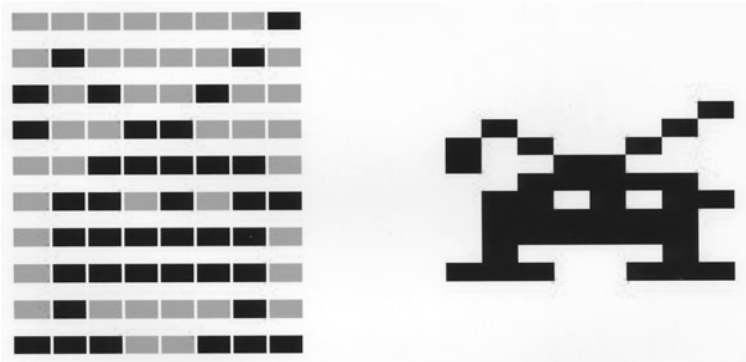
The second type of nondiegetic machine act comprises any number of actions offered by the machine that enrich the operator’s gameplay rather than degrade it. These should be called *enabling acts*. They are the absolute essence of smooth runtime in gameplay. With an enabling act, the game machine grants something to the operator: a piece of information, an increase in speed, temporary invulnerability, an extra life, increased health, a teleportation portal, points, cash, or some other bonus. Thus receipt or use of the aforementioned items—power-ups, goals, the HUD (excluding any input elements), and health packs—all constitute enabling acts. The functionality of objects, or their *actionality*, must be taken into account when considering the status of enabling acts. Inert objects are not included here. This category is the most clear contrapositive to the diegetic operator acts discussed earlier.

It is perhaps important to stress that, while many of these enabling acts are the center of most games, they exist in an uneasy relationship to the diegetic world of the game. In fact, many enabling objects in games are integrated seamlessly into the world of the game using some sort of trick or disguise—what Eddo Stern calls “metaphorically

patched artifacts”³⁴—as with the voice recorders that are used as save stations in *The Thing* or the HEV suit charging stations that supplement health in *Half-Life* (or even erased from the object world of the game, as with the act of leaning against a wall to regain health in *The Getaway*). Thus the “xyzy” command in *Adventure*, which teleports the player character to and from home base, is technically a non-diegetic machine act, but its nondiegetic status is covered over by the narrative of the game, which insists that the command is a magic spell, and thus, although it is nondiegetic, the command cooperates with the diegesis rather than threatening it. The same xyzy logic is at work with the taxis in *Vice City* that, after the player character dies, transport him back to the previous mission. This wormhole through space and time reveals the tension often present in games whereby diegetic objects are used as a mask to obfuscate nondiegetic (but necessary) play functions.

Beyond the disabling and enabling acts, there is an additional category of nondiegetic machine acts worth mentioning. These are any number of *machinic embodiments* that emanate outward from a game to exert their own logic on the gamic form. For example, the graphic design of the aliens in the Atari 2600 version of *Space Invaders* is a direct embodiment of how a byte of data, equivalent to eight zero-or-one bits, may be represented as a strip of eight pixels turned on or off. The alien invaders are nothing more than a series of byte strips stacked together.³⁵ This is math made visible.

The shape and size of Mario in the NES version of *Super Mario Bros.* is determined not simply by artistic intention or narrative logic but by the design specifications of the 8-bit 6502 microchip driving the game software. Only a certain number of colors can be written to the NES screen at one time, and thus the design of Mario follows the logic of the machine by using only specific colors and specific palettes. But this is not a simple determinism on the macro scale of what exists on the micro scale. There are also other influences from the logic of informatics that affect the nature of certain gamic actions. One example is multithreading and object-oriented programming that creates the conditions of possibility for certain formal outcomes in the game. When one plays *State of Emergency*, the swarm effect of



Space Invaders alien as stack of ten bytes

rioting is a formal action enacted by the game on the experience of gameplay and incorporated into the game's narrative. Yet the formal quality of swarming as such is still nondiegetic to the extent that it finds its genesis primarily in the current logic of informatics (emergence, social networks, artificial life, and so on) rather than in any necessary element in the narrative, itself enlisted to "explain" and incorporate this nondiegetic force into the story line (a riot) after the fact.

Other transformations in material culture may also reappear in games as nondiegetic emanations. Consider the difference between arcade games and home computer or console games. Arcade games are generally installed in public spaces and require payment to play. Computer and console games, on the other hand, exist primarily in the home and are typically free to play once purchased. This material difference has tended to structure the narrative flow of games in two very different ways. Arcade games are often designed around the concept of lives, while console games are designed around health. For example, in arcade *Pac-Man*, a single quarter gives the player a fixed number of lives, whereas in *SOCOM* the player must maintain health above zero or else die. Arcade games are characterized by a more quantized set of penalties and limitations on play: one quarter equals a certain number of lives. Console and computer games, by contrast, offer a more fluid continuum of gameplay based on replenishment and

exhaustion of a qualitative resource. Save stations extend this logic on the console and computer platforms, resulting in a more continuous, unrepeatable sense of gameplay. And at the same moment in history, one may document the invention of the pause act as a standard feature of video games (the pause act is essentially absent from the arcade). *Super Mario Bros.*, which was released first for the arcade and then, famously, for the home console Nintendo Entertainment System, exists on the threshold between these two nondiegetic machine embodiments. On the one hand, the game retains the concept of lives familiar to the arcade format, but on the other hand, the game uses a variety of power-ups that strengthen the relative vitality of any single life. A single Mario life may be augmented and crippled several times before being killed outright, thereby exhibiting a primitive version of what would later be known as health. *Super Mario Bros.* was not the first game to do this, but it remains emblematic of this transformation in the early to mid-1980s. Games like *Gauntlet* accomplished the reverse: the game remained popular as an arcade game, yet it used an innovative technique whereby quarters bought health rather than lives.

It is in this sense that Derrida's conception of play becomes quite important, for nondiegetic machine acts can be defined as those elements that create a generative *agitation* or ambiguity—what Genette calls *metalepsis*—between the inside of the game and the outside of the game, between what constitutes the essential core of the game and what causes that illusion (literally, “in-play”) to be undone. The lives-health distinction (or the graphic design of 8-bit sprites) did not impinge on the various narratives of arcade and early home games—they are well motivated in gameplay, but in many cases nondiegetic machine acts are consummate unplay, particularly when dealing with crashes and lags celebrated in the Jodi variant. Still, this does not exempt them from being absolutely intertwined with the notion of play. *Metal Gear Solid* celebrates this inside-outside agitation with the boss Psycho Mantis. The villain's supposed powers of mind control are so powerful that they break out of the game console entirely, at times pretending to interrupt the normal functioning of the television display. Mantis also uses his psychic powers to refer to other games that the player has played, a trick enabled by surreptitiously

scanning files on the console's memory card. Then, in the most grievous violation of diegetic illusion, the player is required physically to move the game controller from port one to port two on the console in order to defeat Mantis. This brief moment of unplay does not destroy the game but in fact elevates it to a higher form of play. Even if the player does not believe that Mantis is a true psychic, the use of nondiegetic machine acts—requiring, in response, a nondiegetic operator act to continue playing—remains effective precisely because it follows the loop of supplementarity described in Derrida. The narrative follows faithfully enough to explain breaking the diegesis, and after the short diversion the player is safely returned to normal gameplay. Several other narrative games such as *Max Payne* contain similar “Mantis moments” where the game deliberately breaks the fourth wall. In a strange, drug-induced state, the Payne character breaks out of the diegetic space of the game to view himself as a sort of marionette within the world of gameplay:

MAX'S WIFE (voice-over): You are in a computer game, Max.

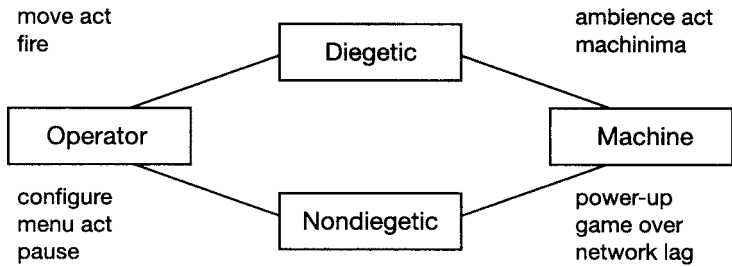
MAX (voice-over): The truth was a burning green crack through my brain. Weapon statistics hanging in the air, glimpsed out of the corner of my eye. Endless repetition of the act of shooting, time slowing down to show off my moves. The paranoid feel of someone controlling my every step. *I was in a computer game*. Funny as hell, it was the most horrible thing I could think of.³⁶

This generative agitation may be explored further by looking at the interface of the first-person shooter. There are two layers at play here that would seem to contradict and disable each other. The first is the full volume of the world, extending in three dimensions, varied, spatial, and textured. The second is the HUD, which exists in a flat plane and is overlaid on top of the first world. This second layer benefits from none of the richness, dynamic motion, or narrative illusion of the first layer (a few notable counterexamples like *Metroid Prime* notwithstanding). The HUD has instead a sort of static, informative permanence, offering information or giving various updates to the operator. In Derrida's vocabulary, the HUD exists as a supplement to the rendered world. It completes it, but only through a process of exteriority that is unable again to penetrate its core. The HUD is *uncomfortable in its two-dimensionality*, but forever there it will stay, in

a relationship of incommensurability with the world of the game, and a metaphor for the very nature of play itself. The play of the nondiegetic machine act is therefore a play within the various semi-otic layers of the video game. It is form playing with other form.

One should always speak of waning agitations or waxing agitations. In the diegetic machine act, the intensities of gameplay slow to near equilibrium, but at that same moment the game world is full of action and energy. The diegetic operator act is also defined through intensities, or *vectors* of agitation: the time-based unfolding of a game is never smooth or consistent but is instead marked by a wide variance in the agitation of movement, whereby one moment may be quite placid and unagitated, but another moment may be saturated with motion and violence. Often these differences in intensities are incorporated directly into gameplay—the shadows versus the light in *Manhunt*, for example, or the intensities of safe spaces versus hostile spaces in *Halo*. Nondiegetic operator acts, defined as they were in terms of configuration, are also about probabilistic customization and local calibrations of options and numbers (the depletion and augmentation of statistical parameters like hunger and energy in *The Sims*). And, as discussed, nondiegetic machine acts are about the various intensities of agitation between the various layers of the game itself, whether it be the agitation between two- and three-dimensionality, or between connectivity and disconnectivity, or between gameplay and the lack thereof. Games are always about getting from here to there. They require local differentials of space and action, not an abstract navigation through a set of anchored points of reference.

Taking all four moments together, one may revisit the earlier diagram. This is an incomplete diagram in many ways. To be thorough, one should supplement it with a consideration of the relationship between two or more operators in a multiplayer game, for the very concept of diegetic space becomes quite complicated with the addition of multiple players. Likewise the machine should most likely be rendered internally complex so that the game world could be considered in distinction to the game engine driving it. Nevertheless, the active experience of gaming is here displayed via four different moments of gamic action.



The interpretive framework presented in this chapter aims to be as inclusive as possible. I have deliberately avoided the assumption—incorrect, in my view—that video games are merely games that people play on computers. Such a position leads to a rather one-dimensional view of what video games are. I have also tried to avoid privileging either play or narrative, another tendency that is common in other approaches. There are many significant aspects of gaming that happen completely outside play proper (e.g., the setup act) or are not part of a traditional narrative (e.g., machinic embodiments). Thus I suggest that video games are complex, active media that may involve both humans and computers and may transpire both inside diegetic space and outside diegetic space.

In sum, because of my starting assumption—that video games are not just images or stories or play or games but *actions*—I have outlined a four-part system for understanding action in video games: gaming is a pure process made knowable in the machinic resonance of diegetic machine acts; gaming is a subjective algorithm, a code intervention exerted from both within gameplay and without gameplay in the form of the nondiegetic operator act; gaming is a ritualistic dromenon of players transported to the imaginary place of gameplay, and acted out in the form of diegetic operator acts; and gaming is the play of the structure, a generative agitation between inside and outside effected through the nondiegetic machine act. A theoretical analogue for the first moment would be the vitality of pure matter, the machinic phylum. For the second, it would be political intervention, hacking, critique, outside thought. The third would be desire, utopia, and the social. And a theoretical analogue for the fourth moment would be

Gamic Action

<i>Type of gamic action</i>	<i>Categories</i>	<i>Shape of action</i>	<i>Quality of action</i>	<i>Emblematic games</i>
Diegetic machine act	Ambience act, machinima	Process	Informatic, atmospheric	<i>Ico</i> , <i>Myst</i> , <i>Shenmue</i>
Nondiegetic operator act	Acts of con- figuration, setup act	Algorithm	Simulation, material	<i>Warcraft III</i> , <i>Flight Simulator</i> , <i>Final Fantasy X</i>
Diegetic operator act	Movement act, expressive act	Play	Rule-based, singular	<i>Tekken</i> , <i>Metroid Prime</i> , <i>Half-Life</i>
Nondiegetic machine act	Disabling act, enabling act, machinic embodiments	Code	Swarms, patterning, relationality	<i>Dance Dance Revolution</i> , <i>SOD</i> , <i>State of Emergency</i>

écriture, the supplement, the new. These are four moments, four suggestions. They should in no way be thought of as fixed “rules” for video games, but instead are tendencies seen to arise through the examination of the particular games listed here at this time. These are not ideal types; they are, rather, provisional observations that spring from an analysis of the material specificities of the medium.

Notes

1. Gamic Action, Four Moments

1. I use the term “video game” with some inaccuracy. To be precise, a video game refers to a game played on a console using a video monitor. In such a specific definition, the term would exclude arcade games, games played on personal computers, those played on mobile devices, and so on. It is for simplicity’s sake that I use “video game” in its colloquial sense as an umbrella term for all sorts of interactive electronic games.

2. Some suggest, and I partially agree, that “player” is a better overall term than “operator.” My goal in avoiding the term “player” is not to eliminate the importance of play, as will be evident later, but instead, by using “operator,” to underscore the machinic, almost industrial, and certainly cybernetic aspect of much of human-computer interaction, of which gaming is a key part. Additionally, “operator” tames, if only slightly, the anthropomorphic myth of the distinctly and uniquely human gamer, and that can only be a good thing in my mind. Operators are, in a majority of instances, organic human players, but they may also be any type of intelligent play agent such as a bot or script. Hence the greater neutrality of the term “operator” appears fitting. Readers who are resistant should mentally cut and paste “player” for “operator” in the present chapter; the switch is entirely tolerable.

3. Espen Aarseth, “Computer Game Studies, Year One,” *Game Studies* 1, no. 1 (July 2001). Aarseth uses the term “ergodic” to describe action in

media. See Aarseth, *Cybertext: Perspectives on Ergodic Literature* (Baltimore: Johns Hopkins University Press, 1997).

4. I have never been happy with the word “interactivity.” “I find the concept to be too broad to be truly useful,” Lev Manovich writes. Because it is too broad, the concept is not included as a central principle of new media by Manovich. Most so-called old media are also interactive, he goes on to claim: “All classical, and even moreso modern, art is ‘interactive’ in a number of ways. Ellipses in literary narration, missing details of objects in visual art, and other representational ‘shortcuts’ require the user to fill in missing information.” See Manovich, *The Language of New Media* (Cambridge: MIT Press, 2001), 55–56. This echoes what Umberto Eco calls the lazy machine: “Every text, after all, is a lazy machine asking the reader to do some of its work.” See Eco, *Six Walks in the Fictional Woods* (Cambridge: Harvard University Press, 1995), 3. It is my contention, though, that traditional “texts” are not machines at all, at least not in the way that a computer is a machine. Thus I make a distinction between those art forms that require the physical action of both the user and the work for the work to exist, and those that do not. In the end, of course, such distinctions are largely strategic, aiming to elevate a new medium by laying claim to some space of aesthetic specificity, a pursuit repeated over and over in the various avant-gardes and artistic zig-zags of the modern era.

5. See Philip Agre, “Surveillance and Capture,” in *The New Media Reader*, ed. Noah Wardrip-Fruin and Nick Montfort (Cambridge: MIT Press, 2003).

6. Roger Caillois, *Man, Play and Games*, trans. Meyer Barash (New York: Schocken Books, 1979), 10.

7. Johan Huizinga, *Homo Ludens: A Study of the Play-Element in Culture* (Boston: Beacon, 1950), 13.

8. Gérard Genette uses “extradiegetic” (instead of “nondiegetic”) to designate the narrating instance itself, as opposed to the actual narration: “Any event a narrative recounts is at a diegetic level immediately higher than the level at which the narrating act producing this narrative is placed. M. de Renoncourt’s writing of his fictive *Mémoires* is a (literary) act carried out at a first level, which we will call *extradiegetic*; the events told in those *Mémoires* (including Des Grieux’s narrating act) are inside this first narrative, so we will describe them as *diegetic*, or *intradiegetic*.” See Genette, *Narrative Discourse: An Essay in Method* (Ithaca, N.Y.: Cornell University Press, 1980), 228.

The question of narrative is somewhat controversial in game studies: the narratologists claim that video games are simply interactive narratives, while the ludologists claim that games must be defined separately from the concept of narrative. At the end of the day, I side with the ludologists, but I find that the diegetic-nondiegetic split, despite being rooted in a theory of narrative, is

still useful for understanding the different types of gamic action. For a good analysis of how narrative fits into gameplay, see Katie Salen and Eric Zimmerman, chapter 26 of *Rules of Play* (Cambridge: MIT Press, 2004), 377–419.

9. My distinction here is similar to the one made by Nick Montfort in his analysis of interactive fiction. His “commands” are my diegetic operator acts; “directives” are nondiegetic operator acts; “replies” are diegetic machine acts; and “reports” are nondiegetic machine acts. See Montfort, *Twisty Little Passages: An Approach to Interactive Fiction* (Cambridge: MIT Press, 2003), 25–28.

10. This phrase was suggested by Katie Salen.

11. James Newman, “The Myth of the Ergodic Videogame: Some Thoughts on Player-Character Relationships in Videogames,” *Game Studies* 2, no. 1 (July 2002).

12. The purest form of this is probably found in Maurice Blondel, *Action* (1893): *Essay on a Critique of Life and a Science of Practice* (Notre Dame: University of Notre Dame Press, 1984). James Somerville’s *Total Commitment: Blondel’s “L’Action”* (Washington, D.C.: Corpus, 1968) is a useful secondary source on Blondel’s text. Blondel’s interest is the irreducibility of action. Today the word “interactive” is often invoked to describe the coupling of user and machine, but Blondel’s concept of action is more singular, more oriented around the individual life, or what he called the whole of man. “Yes or no, does human life make sense, and does man have a destiny?”—this query begins what is perhaps the most extensive and uncompromising consideration of action in the history of philosophy. “It is into action that we shall have to transport the center of philosophy” is his premise, “because there is also to be found the center of life” (3, 13). And so I take Blondel as inspiration, but not for the motivations of action, and not the consequences of action, nor the moral foundations of this or that action. Those related debates in the analytic philosophy tradition try to derail a study of pure action by reducing it to other topics, as if a study of causes and effects could shed any light on the actual phenomenon of doing. Blondel’s book aims to answer, not unlike Descartes, a foundational question for human destiny. “In my acts,” he wrote, “in the world, inside of me, outside of me, I know not where or what, *there is something*” (52). Indeed, the same theme has reoccurred often in philosophy, from Epicurus’s “swerve” of atoms as they fall through space to Deleuze and Guattari’s “refrain” abetting the forces of chaos.

13. Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973), 10.

14. *Ibid.*, 436. The seeming irrationality of “deep play” in cockfighting goes against the source of the expression, which is found in Jeremy Bentham: “Take away from a man the fourth part of his fortune, and you take away the fourth part of his happiness, and so on. . . . It is to this head that the evils

of deep play ought to be referred. Though the chances, so far as relates to money, are equal, in regard to pleasure, they are always unfavourable. I have a thousand pounds. The stake is five hundred. If I lose, my fortune is diminished one-half; if I gain, it is increased only by a third. Suppose the stake to be a thousand pounds. If I gain, my happiness is not doubled with my fortune; if I lose, my happiness is destroyed; I am reduced to indigence." See Bentham, *Theory of Legislation* (London: Trubner, 1871), 106.

15. Geertz, *The Interpretation of Cultures*, 444.

16. *Ibid.*, 446.

17. Gregory Bateson, "A Theory of Play and Fantasy," in *Steps to an Ecology of Mind* (Chicago: University of Chicago Press, 1972), 180.

18. Indeed, for Schiller the play-drive is synonymous with man's moral freedom and his aesthetic experience. See, in particular, letters 14 and 15 of Friedrich Schiller, *On the Aesthetic Education of Man* (Oxford: Oxford University Press, 1967).

19. Huizinga, *Homo Ludens*, 28. A slightly more detailed summary of the concept appears earlier in the book: "Summing up the formal characteristics of play we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means" (13).

20. Caillois, *Man, Play and Games*, 43. A more verbose definition appears on pages 9–10.

21. Huizinga, *Homo Ludens*, 173, 46.

22. "All these [objectionable] hypotheses have one thing in common: they all start from the assumption that play must serve something which is not play." Huizinga, *Homo Ludens*, 2.

23. Caillois, *Man, Play and Games*, 10, 11.

24. Vilém Flusser, in a nod to Huizinga's own simple periodization from *Homo sapiens* to *Homo faber* to *Homo ludens*, underscores the eventual transformation of play into algorithmic terms by using the word "program": "The new human being is not a man of action anymore but a player: *homo ludens* as opposed to *homo faber*. Life is no longer a drama for him but a performance. It is no longer a question of action but of sensation. The new human being does not wish to do or to have but to experience. He wishes to experience, to know and, above all, to enjoy. As he is no longer concerned with things, he has no problems. Instead, he has programs." Flusser, *The Shape of Things* (London: Reaktion, 1999), 89.

25. Huizinga, *Homo Ludens*, 14–15.

26. Jacques Derrida, *Writing and Difference* (Chicago: University of Chicago Press, 1978), 280, 278, 281, 292. The French *jeu* is translated as either “play” or “game,” or, as one might say today, “gaming.”

27. Jacques Derrida, *Dissemination* (Chicago: University of Chicago Press, 1981), 194, 95.

28. Derrida, *Writing and Difference*, 289 (translation modified by the author).

29. “If one takes the line of thought that runs from Heraclitus via Nietzsche to Deleuze and Derrida,” McKenzie Wark writes, “one might rather say that play is a free movement that can engender more rigid structures. It is not the game that is the precondition of play, in other words, but play that is the condition of possibility of the game. Brian Massumi argues this most cogently in his book *Parables of the Virtual*.” See Wark, “Designer Playtime,” *Rhizome Digest*, January 5, 2004.

30. Salen and Zimmerman, *Rules of Play*, 305.

31. Derrida, *Writing and Difference*, 292 (translation modified by the author).

32. Derrida, *Dissemination*, 156–57.

33. Huizinga, *Homo Ludens*, 10.

34. Eddo Stern, “A Touch of Medieval: Narrative, Magic and Computer Technology in Massively Multiplayer Computer Role-Playing Games,” http://www.eddostern.com/texts/Stern_TOME.html (accessed April 25, 2005).

35. This same machinic logic of image making is evoked in John Simon’s 1997 Internet artwork *Every Icon*. The work draws every image that is combinatorially possible within a 32×32 pixel square by sequentially turning on and off pixels. In essence, the work is binary mathematics turned into image.

36. Remedy, “Part III, Prologue,” *Max Payne* (New York: Rockstar Games, 2001) (italics mine).

2. Origins of the First-Person Shooter

1. Michel Foucault, “Of Other Spaces,” *Diacritics* 16, no. 1 (Spring 1986): 25.

2. See Lev Manovich, “The Automation of Sight: From Photography to Computer Vision,” in *Electronic Culture* (New York: Aperture, 1996), 229–39.

3. See Paul Willemen, *Looks and Frictions* (Indianapolis: Indiana University Press, 1994).

4. For more on this type of look, see Marc Vernet, “The Look at the Camera,” *Cinema Journal* 28, no. 2 (Winter 1989): 48–63.

5. Fredric Jameson, *Signatures of the Visible* (New York: Routledge, 1992), 112.