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.

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1

Gamic Action, Four Moments

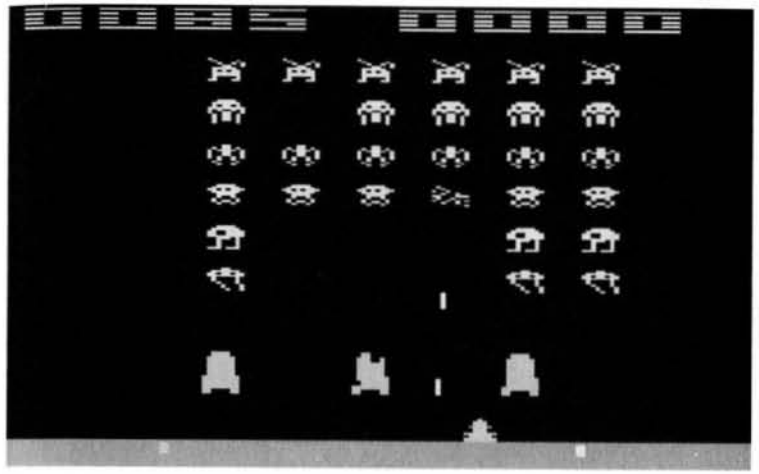
A game is an activity defined by rules in which players try to reach some sort of goal. Games can be whimsical and playful, or highly serious. They can be played alone or in complex social scenarios. This book, however, is not about games in the abstract, nor is it about games of all varieties, electronic 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

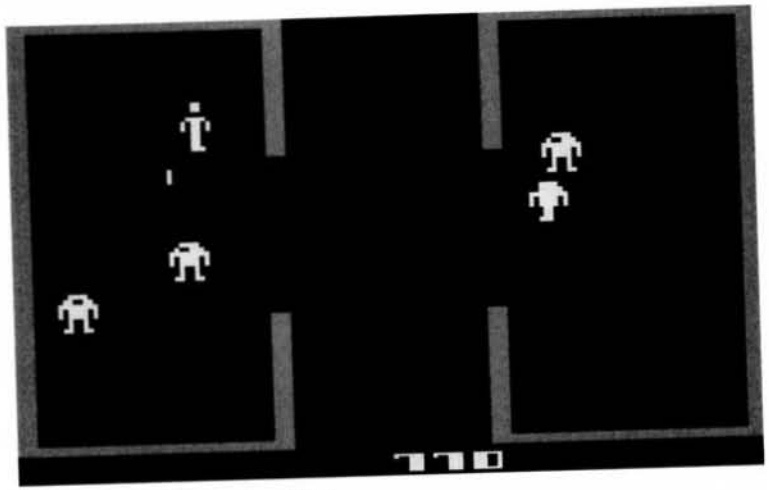


Space Invaders, Taito Corporation, 1978

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

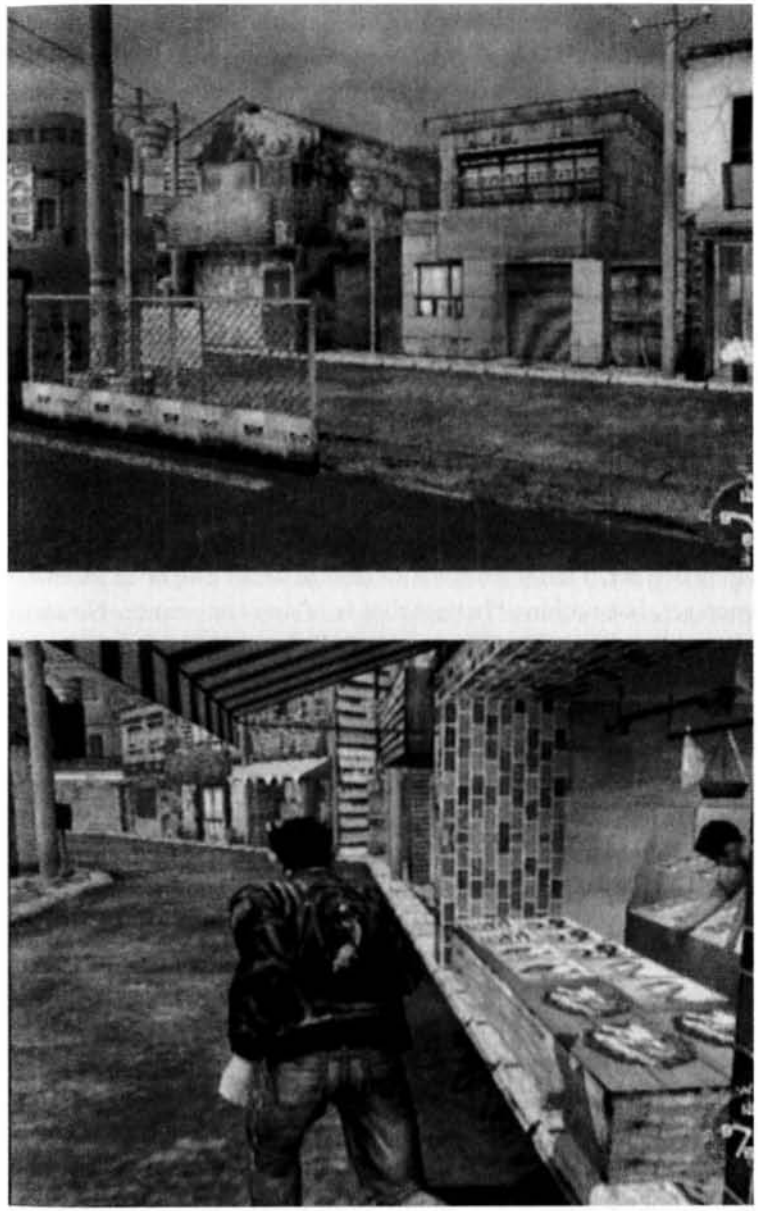
nondiegetic space. I adopt the terms "diegetic" and "nondiegetic" from literary and film theory. But in the migration from one medium to another, the meaning of the terms will no doubt change slightly.[8] The diegesis of a video game is the game's total world of narrative action. As with cinema, video 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 "offline" 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 nonplayer 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:

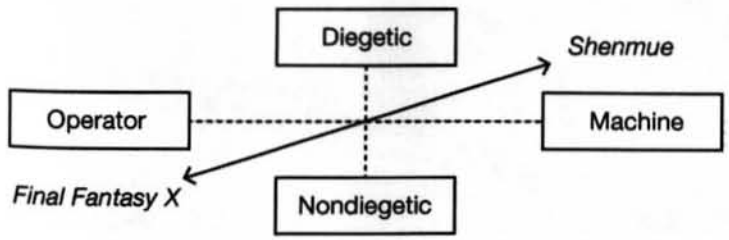
> What makes Balinese cockfighting deep is thus not money in itself, but what, the more of it that is involved the more so, money causes to happen: the migration of the Balinese status hierarchy into the body of the cockfight. . . . The cocks may be surrogates for their owners' personalities, animal 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.

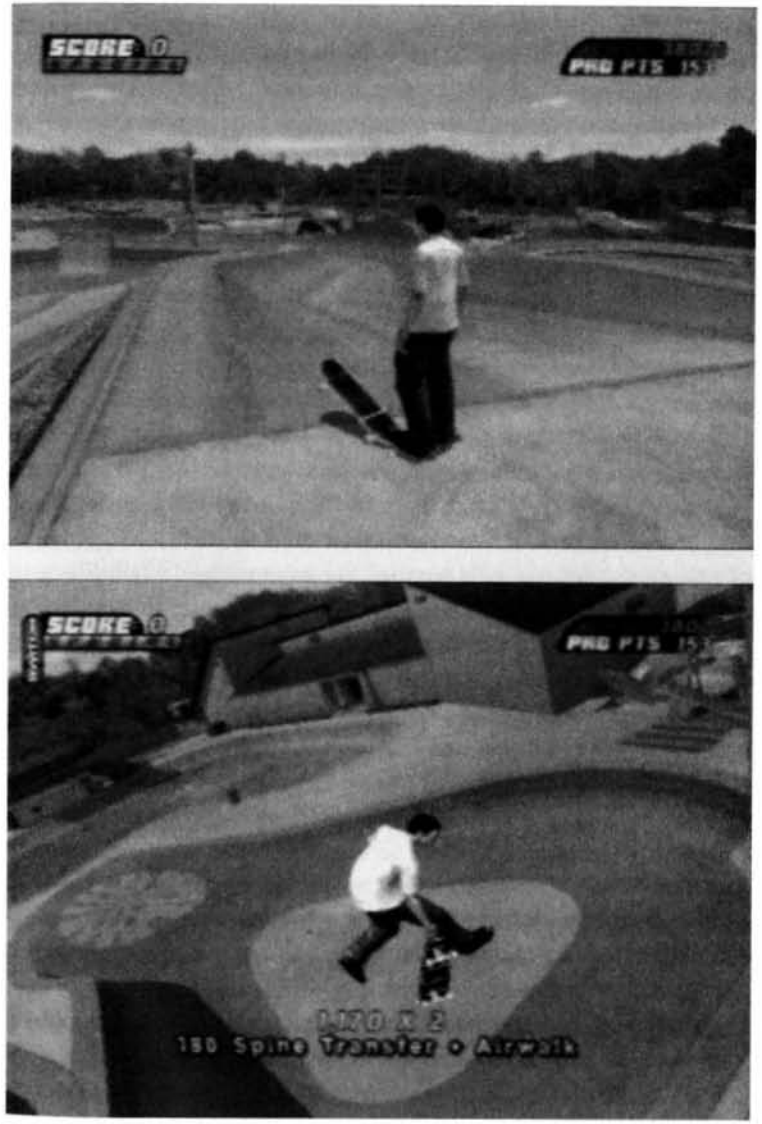
This third moment illuminates action in the way that action is most conventionally defined, as the deliberate movements of an individual. Here Huizinga's understanding of the play element in sacred performances is revealing:

> 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]

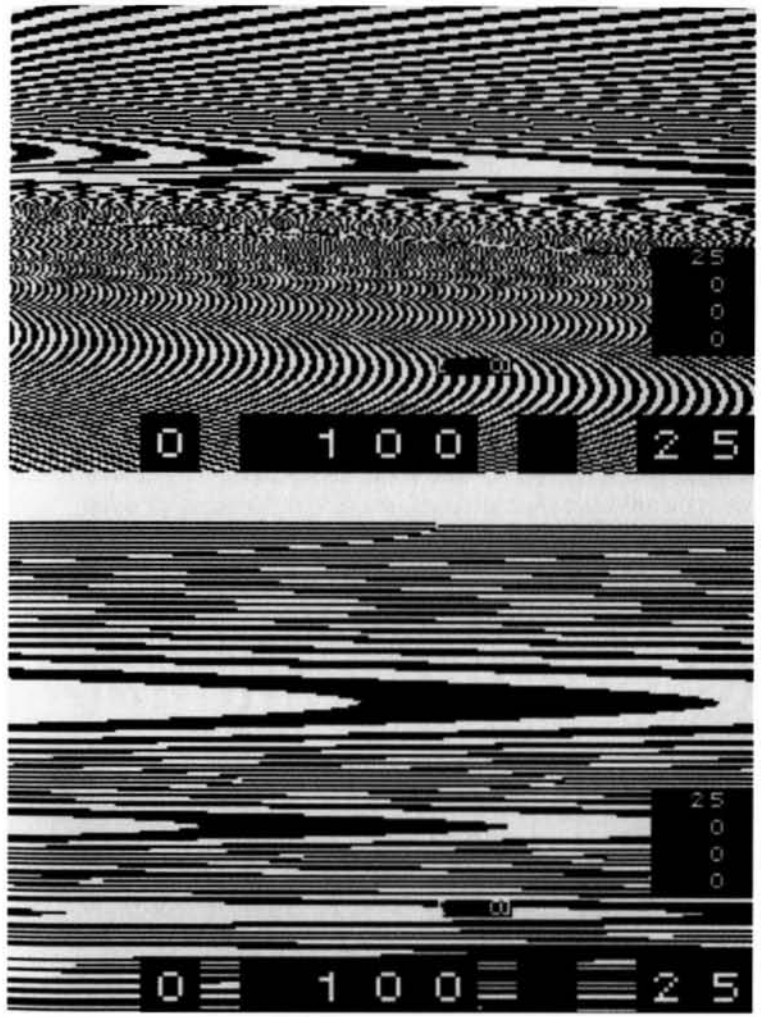
So although it is one of his most prized pieces of terminology, Derrida doesn't as much say what play is as use the concept of play to explain the nature of something else, namely, the structure of language. The word is lucky enough to be placed alongside other of Derrida's privileged concepts; it is 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.

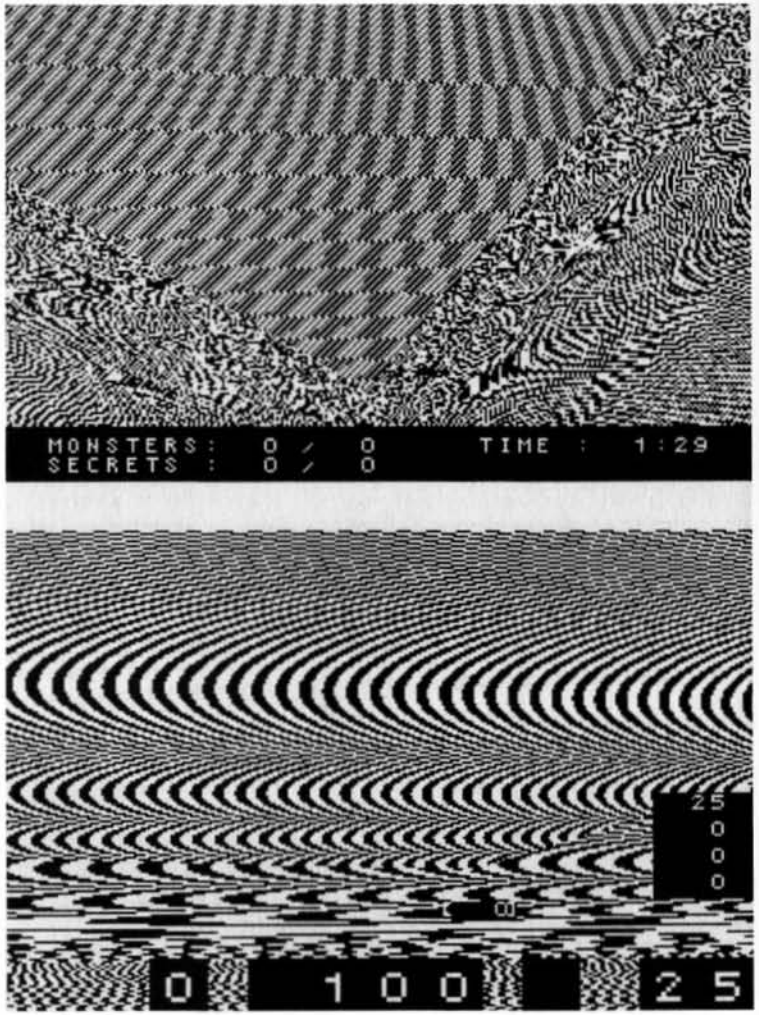
Now we are prepared to consider the fourth type of gamic action, that of *nondiegetic machine acts*. These are actions performed by the machine and integral to the entire experience of the game but not contained within a narrow conception of the world of gameplay. This is the most interesting category. 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 "enchanting," "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.

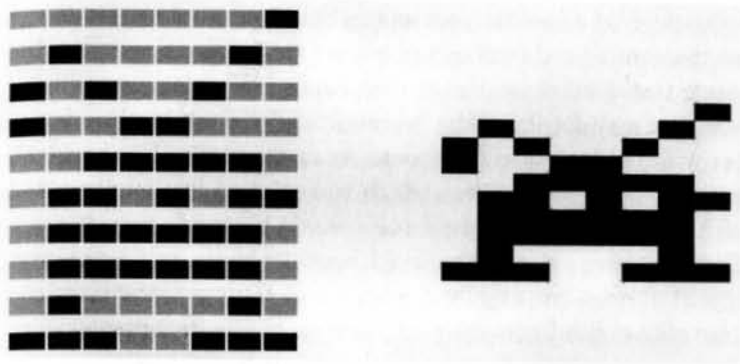
The second type of nondiegetic machine act comprises any number of actions offered by the machine that enrich the operator's gameplay rather than degrade it. These should be called *enabling acts*. They are the absolute essence of smooth runtime in gameplay. With an enabling act, the game machine grants 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 "xyzzy" command in *Adventure*, which teleports the player character to and from home base, is technically a nondiegetic 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 xyzzy 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, unrepeating 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:

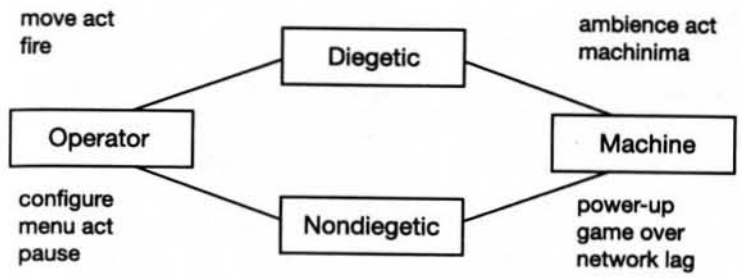
> MAX'S WIFE (voice-over): You are in a computer game, Max.
>
> MAX (voice-over): The truth was a burning green crack through my brain. Weapon statistics hanging in the air, glimpsed out of the corner of my eye. Endless repetition of the act of shooting, time slowing down to show off my moves. The paranoid 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 overlayed 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, informatic 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 semiotic 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

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

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.

2

Origins of the First-Person Shooter

The beginning of a medium is that historical moment when something ceases to represent itself. "The theater brings onto the rectangle of the stage, one after the other, a whole series of places that are foreign to one another," wrote Foucault in one of his infrequent forays into aesthetics. "Thus it is that the cinema is a very odd rectangular room, at the end of which, on a two-dimensional screen, one sees the projection of a three-dimensional space."[1] The movie theater is a complex intersection of seemingly incommensurate media environments: a three-dimensional space is used for viewing a two-dimensional plane that in turn represents the illusion of another three-dimensional space. Likewise today the cinema is butting up against another seemingly incommensurate medium, the video game. They are no less different as two dimensions are from three. Yet it is a cliché today to claim that movies are becoming more and more like video games. What exactly does such a claim mean? Today video games and film are influencing and incorporating each other in novel ways. Through a historical transformation that he calls the "automation of sight," Lev Manovich writes how the camera has adopted a more and

more machinic gaze with the passage into the digital.[2] One witnesses this transformation firsthand in the clinical, disembodied tracking shots in *Panic Room*, or in the digital effects of *The Matrix*, itself often criticized for looking too much like a video game.

But ignoring for a moment all the pizzazz of digital effects in moviemaking, there exists a much simpler visual technique that one may use to examine how cinema and gaming are constituted as similar and dissimilar media formats: the use of the first-person subjective camera angle. I would like to explore this shift through the following proposition: In film, the subjective perspective is marginalized and used primarily to effect a sense of alienation, detachment, fear, or violence, while in games the subjective perspective is quite common and used to achieve an intuitive sense of motion and action in gameplay. This claim will most certainly rankle some readers, so I should first clarify a few things before continuing.

The Subjective Shot

Generally speaking, film technique involves the staging of action by characters and the recording of that action by elements of the film apparatus. Paul Willemen, in his essay "The Fourth Look," has described the various visual axes that exist in a typical filmic scenario: the camera's look, the audience's look, the intradiegetic look between characters, and the fourth look, "the look at the viewer" by an onscreen character.[3] In the classical Hollywood style, the first and second looks are often subordinated to the third. The fourth look is generally avoided, since it forces the viewer to confront his or her own voyeuristic position.[4] However, occasionally the strict separation of these four looks is not so carefully observed. Occasionally, two of the looks—the look of the camera and the look of a single character—merge together, so that the camera lens and the eyes of a character become one. This results in a rather extreme first-person point-of-view shot, where the camera pans and tracks as if it were mounted on the neck of a character. When the camera fuses with a character's body, the viewer sees *exactly* what the character sees, as if the camera "eye" were the same as the character "I." The camera merges with the character both visually and subjectively. In a sense, this type of

first-person shot is the spatial opposite of Willemen's fourth look. They are like two vectors, one pointing outward and one pointing inward. They constitute a grand axis that extends outward from the viewer's eyes, pierces the screen, enters the diegesis of the film, and backs out again. It is this grand axis that creates so much difficulty in cinema. The difficulty is so great that both types of shot are largely avoided, and when they are used, they signify a problematic form of vision (which I will describe later).

It is important to stress the difference between the subjective shot (when the camera shows what the actual eyes of a character would see) and the more general point-of-view (POV) shot. POV shots show approximately what a character would see. They show the perspective more or less from the character's vantage point. Yet subjective shots mean to show the exact physiological or emotional qualities of what a character would see. In other words, the POV shot tends to hover abstractly in space at roughly the same diegetic location of a character. But the subjective shot very precisely positions itself inside the skull of that character. It is a question less of type than of degree.

The POV shot is most commonly illustrated by considering the shot/reverse-shot sequence in which a character is first shown looking at something, and then the camera swings in reverse to a POV shot to see what he or she was looking at. Correct eyeline matching is employed to create the illusion of a coherent visual space. The POV shot is nothing more than an approximation of a character's vision. It is not an exact re-creation of that vision, for it does not resemble human vision in any physiological or subjective sense. If it did, it would not be stationary but would flit and jostle around; it would be interrupted by blinking eyelids, blurrings, spots, tears, and so on. In conventional filmmaking, the POV shot always ignores the physiology of vision. What happens instead is a sort of surrogate point of view, a shot that has the same vector as the character's line of sight but in reality is more like a camera on a tripod rather than the character's true vision. The POV shot is an abstract shot, an iconographic substitute for the character's vision. It pretends to be from the character's *point* of view, from a perspective, not verily through his or her own eyes, with all the blinks, blurs, and jiggles—not to mention raw subjectivity—that that would entail.

Another usage is the "masked POV" shot, often used to represent binocular vision (or vision through a telescope, camera, or keyhole). This shot is easy to notice: the edge of the frame is obfuscated with a curved, black masking. The masking acts as visual proof that the audience is seeing exactly what the character is seeing through his or her own eyes. These shots are generally very short takes. They serve simply to offer some piece of visual evidence to the viewer. But their relationship to the subjective shot is flimsy at best, for the cinema's binocular shot doesn't accurately capture what it looks like to peer through binoculars—in human vision, the two lens images tend to overlap and fuse into a single circle. Moreover, because real human vision does not come in a tidy, rectangular aspect ratio, one never actually notices the blackness at the edge of the image. The sideways figure-eight masking is simply the best that cinema can muster to approximate what binocular vision looks like. Cinema's binocular shot, then, is a type of icon for binocular vision, not an honest-to-goodness substitute for it.

The collection of visible evidence is often crucial in films, and the POV shot is commonly used to present to the audience evidence necessary to the film's narrative. The binocular shot is almost always used to convey some sort of visual fact to the viewer. Letters, telegrams, and notes are similar, as in *Casablanca* when Ilsa's good-bye note is pasted flat on the screen for the audience to read and then yanked back into diegetic space by a dusting of heavy raindrops. These shots are a holdover from the intertitles of the silent era. They walk the line between being a POV shot and being a subjective shot. Films like Antonioni's *Blow-Up*, Hitchcock's *Rear Window*, or Greenaway's *The Draughtsman's Contract* all rely on the collection and analysis of visible evidence. Further, one might also consider films focusing on audio evidence, such as De Palma's *Blow Out* or Coppola's *The Conversation*, or the subjective evidence of memory, as in Kurosawa's *Rashomon*, or even the evidentiary gaze of video games like *Ico*. As Grace Kelly says at the narrative crossroads of *Rear Window*, "Tell me everything you saw... and what you think it means."

But certain critical observations, like this one written in passing by Fredric Jameson, complicate the discussion so far on the POV shot:

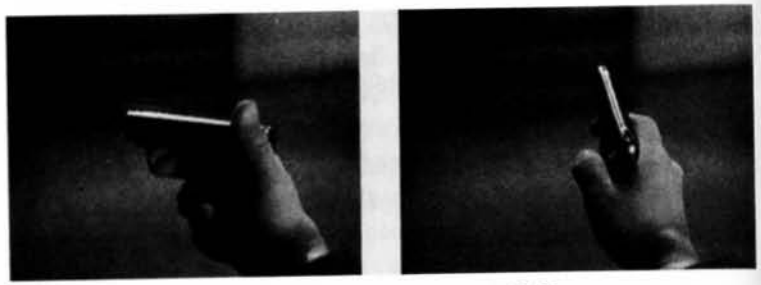
> "Point of view" in the strictest sense of seeing through a character's eyes—as in Delmar Daves's *Dark Passage* [1947] or Robert Montgomery's *The Lady in the Lake* [1946]—has been a very marginal narrative procedure indeed.[5]

Or as David Bordwell and his coauthors put it, very few films are dominated by a single character's perspective, much less a character's subjective perspective:

> If we take point-of-view to be an *optical* subjectivity, no classical film, not even the vaunted but misdescribed *Lady in the Lake* (1947), completely confines itself to what a character sees. If we regard a character's point-of-view as comprising what the character knows, we still find very few classical films that restrict themselves to this degree.... The classical film typically contains a few subjective point-of-view shots (usually of printed matter read by a character), but these are firmly anchored in an "objective" frame of reference.[6]

Let us consider in greater detail the type of POV shot that does pretend to emanate from the eyes of a particular character: the subjective shot. Like POV shots, subjective shots happen when two of the looks, the look of the camera and the look of a single character, merge together as one. Yet subjective shots are more extreme in their physiological mimicking of actual vision, for, as stated, they pretend to peer outward from the eyes of an actual character rather than simply to approximate a similar line of sight. Thus subjective shots are much more volatile. They pitch and lurch. They get blinded by light or go blurry. And within the diegesis, they elicit Willemen's "fourth look" often, as other characters address the camera directly (in an attempt to maintain the illusion that the camera is actually another character). As Jameson writes, subjective shots are marginal, and I can see two reasons why he would think so: they are materially marginalized in that they happen relatively infrequently within the apparatus of filmmaking, and they are aesthetically marginalized in that they represent only specific moods and situations.

As both Jameson and Bordwell suggest, Robert Montgomery's noir experiment *Lady in the Lake* is the most fully formed early example of the subjective shot.[7] In this film, the camera becomes one with the main character, Marlowe. Nearly every shot in the film is shot as if it



Lady in the Lake, directed by Robert Montgomery, 1947

were from the eyes of Marlowe. Thus the typical Hollywood conventions of shot/reverse shot, continuity editing, and so forth are shed to facilitate a new experimental convention, the merging of two "looks." The film attempts to move in real time—not true, we learn upon discovery of carefully hidden ellipses and cuts—but nevertheless, as Marlowe sees events in the world, the viewer sees them too. Images become evidence. (Indeed, the film eventually turns on a visual trick in which the viewer, as Marlowe, sees the cops approaching from a fire escape behind the crooked cop—a fact that the crooked cop is not willing to believe, since he is not privy to the special merging of looks afforded the viewer.)

Unfortunately the visual experiment of *Lady in the Lake* made identification problematic. Critics at the time called the subjective shot "gimmicky" and "flawed." Pascal Bonitzer called it "more tiring than fascinating."[8] (The early 1950s television cop show *The Plainclothesman* used the same conceit with slightly more success.) Each time Marlowe's body is also shown onscreen—in a mirror, when smoking, when crawling, being kissed, and so on—the illusion of the subjective shot is broken, and the viewer is reminded of the camera lens's failure to merge fully with Marlowe's own optics. The audience is thus trapped inside a sort of failed formal experiment, and the suturing together of the filmic apparatus begins to fray.

J. P. Telotte describes the detached, dreamlike quality of the film in which the viewer's avatar (Marlowe) both acts and sees itself acting:

> As the film opens, Marlowe is the sole object in the image field, as he comments upon the role of the detective. With our incarnation in his presence, through that pervasive subjective camera, he also becomes that which is, after a fashion, "lost" for most of the narrative and thus the object of our own searching throughout the film, although most obviously when that absence is underscored by the many acknowledgements of Marlowe's presence, such as the mirror reflections or the guns aimed at his off-screen perspective. That enigmatic detachment, of course, as we both act and see ourselves in action, again typifies the dream experience.[9]

The same sense of detachment, claustrophobia, and nonidentification pervades the first hour of *Dark Passage* in which the main character, played by Humphrey Bogart, moves and talks in the first person, not unlike the technique used in *Lady in the Lake*. But the subjective perspective is only a ploy in this film, as the taxi scene demonstrates with Bogart's face deliberately bathed in shadow. The first section of the film is a cinematic conceit for not showing Bogart's presurgery face, and in that sense it is better motivated by the narrative than was Montgomery's film. But the subjective shots end after the plastic surgery, and the film returns to the shot conventions of classical Hollywood. It seems that only a scalpel can rid this film of the subjective camera angle.

While *Lady in the Lake* and *Dark Passage* are fascinating examples, they are not indicative of the vast majority of subjective shots used in the cinema. Edward Branigan is authoritative in this area. He contrasts the POV shot with the subjective shot (which he terms the "perception" shot), claiming that one is characterized by relative clarity, while the other is characterized by difficulty:

> In the case of character *sight*, what is important is not so much that a character sees something, but that he experiences difficulty *in seeing*. What is revealed is not the external object of a glance nor an internal state of the character, but a condition of sight itself. This feature of character vision is exploited in the perception [i.e., subjective] structure which differs from the POV structure in one important respect: In POV there is no indication of a character's mental condition—the character is only "present"—whereas in the perception [i.e., subjective] shot a signifier of mental condition has been *added* to an optical POV.[10]

Thus, to facilitate a deeper analysis of the subjective shot, there are two general observations worth mentioning. First, while POV shots are ubiquitous, subjective shots are much less common in narrative

filmmaking. *Lady in the Lake* and *Dark Passage* notwithstanding, most narrative films don't include a single subjective shot, and in the films that do, there are generally only a handful of subjective shots used to achieve very specific results. Second, when a subjective shot is used, it generally signifies some type of negative vision. This is the "difficulty" that Branigan mentioned. It is sometimes an evil vision, or an inhuman one, or simply a moment of alienation or detachment within a character. Few other shot styles are as closely associated with such a specifically defined mood. Yes, there are exceptions to these rules: for example, there is nothing inhuman or evil about Peter O'Toole's director's-eye shot of a bitten apple near the beginning of *The Stunt Man*, but the image is too quick to render much cinematic affect; likewise the use of the first person for a Steadicam shot at the start of *Wild Things* does little more than forecast the twists and turns of the film as a whole. Yet I hope to point out in what follows the largely alienating qualities of the vast majority of subjective shots in use in mainstream narrative film.

Mental Affect

One of the most common uses of the subjective shot is to show the optical perspective of a drugged, drowsy, drunk, or otherwise intoxicated character.[11] Samuel Fuller used this type of subjective shot in the opening sequence of *The Naked Kiss*. Here Kelly (Constance Towers) repeatedly strikes her inebriated male opponent. The combat is filmed from the opponent's subjective viewpoint looking back at her, and he is beaten down in a drunken stupor. The use of the subjective camera in this sequence is quite violent and unsettling, meant to convey not only the character's drunkenness but also the attacker's vitriol. The courtroom scene in *Sullivan's Travels* uses the subjective perspective in a similar fashion. In this scene, John Sullivan (Joel McCrea) has suffered a head injury and is delirious. The camera is shot in the first-person perspective, using filters to blur and obfuscate the shot. The technique is designed to mimic the character's traumatized subjective sensations. The camera's visual confusion approximates his own physiological trauma. In *Black Narcissus*, to cite another example, at the moment when Sister Ruth succumbs to her earthly passions, the camera cuts to a subjective shot that glows bright red. Then the camera

Notorious, directed by Alfred Hitchcock, 1946

careens to the floor, and the screen eclipses to a wash of royal blue after she faints. Her physiological state, intoxicated with passion, is conveyed to the viewer using the subjective shot. In still another example, from Hitchcock's *Notorious*, after Alicia is gradually subdued by a forced diet of narcotics, the sequence switches to a subjective camera, warping and blurring to depict her visual delirium. A similar shot is used in Alicia's drunk-driving scene; only then liquor and windblown hair obscure her vision instead of poison. In *Spellbound*, Hitchcock does the same: J. B.'s subjective shot through a glass of milk (which is spiked with bromide) exists purely to cantilever the character's physiognomy from psychotic trance to drug-induced slumber.

Detachment or Distancing

In the contemporary cinema, the film *Being John Malkovich* contains a wealth of subjective cinematography. Here the subjective shot does not repurpose the optical traits of intoxication but instead represents the feeling of disembodiment that would accompany leaving one's

own body and entering the head of another person. (The film mimics a similar technique from the final vignette in *Everything You Always Wanted to Know About Sex* but Were Afraid to Ask* where a romantic liaison is observed through the eyes of a surrogate host.) The subjective shot effects the distortions of identity that would follow from such a radical physiological transformation. In the film, subjective shots are denoted by a binocular-like black oval mask that obfuscates the corners of the frame. Additionally the frequent use of a wide-angle lens adds a sense of vertigo to the shot. Since the narrative of the film revolves around the art of puppetry, the subjective shot is no doubt used here as a type of formal allegory for the inability to control one's actions, for being at the mercy of someone else. Just as in the uncomfortable lack of identification with the bodily movements of Marlowe's character in *Lady in the Lake*, the viewer of *Being John Malkovich* is thrown into an uneasy rapport with the diegesis of the film, which, one assumes, is precisely the point. If the subjective shot inhibited audience identification in the earlier film, it is leveraged here exactly because of its ability to alienate the viewer. The film demonstrates, essentially, that being in the first-person perspective is the same as being a puppet: the viewer is impotent and helpless, subject to the physical and psychological whims of the puppeteer. The short flashback of Elijah (the chimp), also shot using the subjective camera, underscores this point. Like a puppet, the infantile, feeble-minded chimp has little agency in this sequence, and thus the subjective shot fits him well. Being Malkovich is like being Elijah, or so the film's visual grammar would have one believe.

Other films have also used the subjective shot to portray a feeling of detachment or distancing. *Thomas in Love*—like *Lady in the Lake*, shot entirely with subjective camera—effects a sense of detachment, both literally in the portrayal of the main character's agoraphobia and also aesthetically with the rampant use of video monitor imagery. In *The Graduate*, when Ben Braddock (Dustin Hoffman) is paraded before his parents' friends in full scuba gear, the first-person subjective perspective is used to represent his feelings of impotence and alienation. The film's audio track is distinctly affected at this moment, and the mise-en-scène gives way to muted underwater colorings. This is not a typical way of seeing but instead an oppressive, decentering

one. Likewise in *Risky Business* the subjective shot is used to emasculate the main character. It is used to show him at his point of least power, that is, when he is subject to the patronage of his parents. Some films carry this notion further. The opening shot of *The Insider* is a subjective shot masked by a gauze blindfold, designed to put the viewer in a state of uncertainty, even dread. When the son is hit by a car in *All about My Mother*, a subjective shot is used. Likewise Stanley Donen in *Charade* uses a subjective shot in the morgue scene near the film's beginning, placing the camera in the rather unnatural subjective viewpoint of a cadaver looking upward. The steel sarcophagus walls frame the shot on three sides, and this, coupled with a backward tracking movement, imparts a distinct sense of claustrophobia and helplessness to the viewer. Hitchcock has also used this mode effectively. In *Topaz*, when Juanita descends the stairway to confront the soldiers invading her residence, Hitchcock cuts to a quick, unsteady shot through her eyes to indicate that she is about to die. Then comes the most important shot of the film, a high overhead shot—a perspective perfected by Hitchcock, and one that no real human eye could ever attain—of her murdered body, the purple fabric of her dress flowing outward like a pool of blood. The two shots counterpoint each other: nothing but the alienating subjective shot on the stairs can prepare the viewer for the woeful murder shot. At that moment, Juanita's first-person vision is a dead vision. It invites dread and detachment into the scene.

What was detachment and alienation in *Topaz* was often flat-out terror in other Hitchcock films. In *The 39 Steps*, Hitchcock uses the subjective shot to transmit a sense of fear and foreboding when the news of Annabella's murder is first described aloud in the train compartment. In *Vertigo*, the famous filmic representation of acrophobia (a track-zoom shot looking straight down) is also a subjective shot. It is used to portray the intense fear and disorientation felt by someone suffering from vertigo. *The Blair Witch Project* does something similar, yet the fear of heights is replaced in this film by the fear of being lost. The film's interesting invention of a sort of "camcorder subjectivity," while not a subjective shot per se, nevertheless parallels the techniques of the subjective shot to heighten the sense of disorientation and fear.

Charade, directed by Stanley Donen, 1963

Criminals and Monsters

Thus far, I have considered how the subjective shot is used to represent the first-person perspective of relatively average characters. They might be intoxicated, frightened, or otherwise out of joint, yet these characters are still human beings. However, these examples are not indicative of the majority of subjective shots in the cinema. The largest number of subjective shots represent the vision of aliens, criminals, monsters, or characters deemed otherwise inhuman by the film's narrative. Thus it should come as no surprise that the horror genre uses this convention relatively often. From early science-fiction monster films like *It Came from Outer Space*, to pioneering horror films like *Psycho* or *Halloween*, to the more recent film *The Eye*, the first-person subjective shot is used to show what Carol Clover calls "predatory" or "assaultive" vision, that is, a sadistic way of seeing characterized by aggressive action, forward movement, and onscreen violence. "*Predatory gazing* through the agency of the first-person camera," writes Clover, "is part of the stock-in-trade of horror."[12] *The Silence of the Lambs* is a good example of this type of predatory vision. The serial killer Buffalo Bill (aka Jame Gumb) dons night-vision goggles in the finale, and his subsequent subjective shots are used to present to the viewer the optics of raw criminality. The films *Jaws* and *Alien* both

The Silence of the Lambs, directed by Jonathan Demme, 1991

use the subjective shot exclusively as the visual avatar for the killer monsters. In those films, the first-person perspective is a stalking, predatory vision, a killing vision. This way of seeing is also used often in slasher movies such as *Friday the 13th* (or, again, *Halloween*) to show the actual optical perspective of the killer. Brian De Palma, in *Casualties of War*, uses this perspective for a single scene in which an unknown assailant stalks another soldier and attempts to murder him with a grenade. De Palma used this technique again later in *Mission:*

Impossible, where the frequent use of first-person subjective shots during the first twenty minutes of the film is a sort of monstrous formal trauma that necessitates the systematic killing off of all of the film's leading characters, save one, before the film has even gotten under way. De Palma has used this technique before, too, as in the opening segment of *Blow Out*, where a knife-wielding murderer offers the viewer his own first-person perspective as a psychopath. As in *Lady in the Lake*, De Palma uses a mirror to show the audience a reflection of the first-person character looking at himself. In both films it is a peculiar moment. Since this way of seeing is so alienating in narrative filmmaking, viewers are not altogether comfortable looking in the first person, much less witnessing themselves in a mirror looking in the first person.

The intersection of the POV shot and the subjective shot is illustrated nicely by Hitchcock's *Rear Window*. As others have pointed out, the film overflows with POV shots, and indeed the entire narrative thrust of the film, along with its poetic import, revolves around the various layers of watching, being watched, seeing, and identifying.[13] So while POV shots are crucial in the film, subjective shots are also used in certain instances, as in the soft-focus filmic portrait of Kelly upon her entrance. The shot is neither predatory nor monstrous, but it does have a confusing, dreamlike quality, attesting to Jeffries's psychological state at the time. When the subjective shot does turn monstrous, in the climactic scene near the end of the film, it is used to illustrate the temporary blindness of the killer after each flashbulb burst. Blindness is depicted by using a bright red circle that overtakes the frame. This is literally the optical perspective of the salesman, a killer whose way of seeing at that moment is no less bloodthirsty than the shark camera in *Jaws* or the night-vision camera in *The Silence of the Lambs*. A simple POV shot would not go red, for it does not pretend to mimic actual vision. This shot *must* be a subjective shot, for the viewer is designed to see, in a physiological sense, exactly what the killer sees. There is nothing sinister about a POV shot (dozens of POV shots come and go during the film with little fanfare), but subjective shots signify something dark and murderous, and so when Hitchcock elects to use a subjective shot, he comes up with a formally affected image, emanating from the eyes of a murderer.

In this sense, it is easy to see how the subjective shot is a close cousin of the snuff film, connected as they are through the coupling of predatory vision and the impotence of the gaze. *Peeping Tom* probably illustrates this best, imbricating the necessarily impotent physical positioning of the viewer with the onscreen events through the use of the subjective shot. *The Eyes of Laura Mars* or the newer *Strange Days* do something similar. During one of *Strange Days*'s first-person frolics, Lenny (Ralph Fiennes) reveals himself in a mirror while maintaining the first-person perspective (with a cheat away allowed for Bigelow's camera to stay hidden). Faith (Juliette Lewis) asks, "You wanna watch? Or are you gonna do?" The question casts doubt on the ability of the subjective gaze to do anything. It casts doubt on the viewer as well as the audience, for both parties know that the subjective shots in the film are doomed to fail at *doing* and are instead resigned to an impotent form of camcorder playback sans joystick, which of course is the best the cinema can muster.

Computers

As discussed thus far, subjective shots are often paired with intoxicated humans and bloodthirsty monsters. But perhaps the most successful use of the subjective shot is when it is used to represent computerized, cybernetic, or machinic vision (or when, as in the case of "smart bomb" video targeting footage, it *is* machinic vision). In *The Terminator*, to underscore the computerized artificiality of his cyborg's visual cortex, James Cameron includes four shots where the Terminator's eyes and the camera lens merge. The first, after a violent shoot-out in the "TechNoir" nightclub, is seen as a degraded orange-on-black image. The Terminator's visual field is overlaid with target crosshairs and lines of computer data. The shot is short, uncoupling the camera's eye and the Terminator's "I" after only a few seconds. At three other moments in the film (the attack on the police precinct, the barking dog at Reese and Connor's motel hideout, and the penultimate tanker trunk scene), Cameron uses the same visual style to designate a merging of looks. Computer readouts, diagrams, graphics, flashing cursors, and scrolling texts are all used to give the Terminator's image a computer-like patina. (The patina overlay pops up in other films too, as in the case of the computer HAL in *2001*, whose digital vision is

deeply affected via the use of a wide-angle lens, or as in *Lost Highway*, where the dozen or so subjective shots that do exist are presented to the viewer via the lens of a security camera, thereby adopting the grainy, low-res image quality of amateur video. The video patina acts as a buffer to mediate the shock of the subjective shot.)

During the repairs scene in the cyborg's hotel hideout, the source of the Terminator's visual patina is revealed: he has robotic eyes, complete with lens, aperture, and recording mechanism. The Terminator's visual apparatus, then, is quite similar to the film's apparatus in which it is contained. Merging the two looks makes sense when it is machine on machine. It goes with the grain. Hence, when the Terminator is finally killed and his glowing red eye fades and dies, the film must also end, having finally lost its ability to merge the camera lens with the character eye.

Full of clear allusions to its cyborg sci-fi predecessor, *Robocop* perfects the art of mixing filmic looks begun in *The Terminator*. Willemen's fourth look is employed early in the film through the use of newscast footage and commercials. Robocop is a machine, but since his bodily core is human (resuscitated from Alex Murphy, the cop), the merging of film body and character body must be delicately navigated. Murphy must first be obliterated as a body—that is, *dehumanized*—before the viewer is allowed to see through his eyes. Obliteration comes in the form of firepower. His hand is blown off; he is pelted with dozens of rounds; and then he is shot through the head at point-blank range and left for dead. As he is taken to the hospital, the camera eye and Murphy's ego perspective merge for the first time. His eye is shown in close-up. But he dies, and the image dies too; the film goes dark for several seconds.

As the image wakes up, the movie camera *is* Robocop. Video is used rather than film, and the image is filtered to mimic Robocop's computerized vision: the vertical hold of the image is lost temporarily, static degrades the image, and text flickers across the screen. As a technician orders, "Bring in the LED!" the viewer witnesses a computerized grid superimposed over the frame. The same technician later kisses Robocop's visor, leaving a blurry red mark on the screen. (The visor kiss is more plausible here than the same kiss scene in *Lady in the Lake* simply because Robocop's visual apparatus already contains a

Robocop, directed by Paul Verhoeven, 1987

glass screen, the visor, whereas Marlowe's visual apparatus does not.) These are all instances of the subjective shot, and they all signify computer vision.

As the narrative of the film dwells on his rise in popularity as a law-enforcement machine, Robocop's subjective vision becomes more and more important to the film. In the hostage scene at City Hall, the conventional cinematography is interrupted by Robocop's "Thermograph" vision, a type of computer vision used to see through walls. Robocop's normal robotic vision is mediated further as heat-sensitive shapes are mixed with the already degraded video image.

John McTiernan's *Predator* uses a similar "thermographic" effect to designate the merging of the camera lens with the Predator's optics. At key moments in *Predator*, the viewer sees a colorized, heat-sensitive image that is meant to be the Predator's actual vision. In this sense, the formal rules of the subjective shot in *Predator* are quite similar to *Jaws* and *Alien*; only in McTiernan's film the monster's predatory vision is augmented by a computer.

What might appear here as a savvy demystification of the filmic apparatus in *Predator* or *Robocop* is in fact a reinscription of a sense of optical exactitude for the subjective positions of the two title characters. The viewer is not unsatisfied by seeing the visible, computer-

enhanced traces of Robocop's vision because these traces—the low-resolution video image, degraded with static and computer effects—reinforce the very fantasy of cyborg vision. Being cybernetic, then, provides a necessary alibi for the affect of the first-person perspective. After all, Robocop's vision (like the Terminator's) *is* robotic, while Marlowe's was nothing of the sort. *Lady in the Lake* fails not because it doesn't get it right but because it doesn't get it wrong enough. It tried to merge the camera body with a real, human body, a dubious proposition in the cinema, whereas in films like *Robocop* or *The Terminator* the camera merges with an *artificial* body, one that is more similar to the machinic apparatus of film itself, and likewise of digital media. An affinity based in prosthetics, mechanics, and visuality bonds the camera together with the figure of the cyborg eye. These films mark one aspect of the aesthetic transition from cinema to digital media and hence to video gaming.

As these many examples illustrate, the first-person subjective perspective is used in film primarily to effect a sense of alienation, otherness, detachment, or fear. Further, more often than not, this type of shot is used to show the vision of criminals, monsters, or killer machines. This analysis shows that the merging of camera and character in the subjective shot is more successful if the character in question is marked as computerized in some way. The first-person subjective perspective must be instigated by a character who is already mediated through some type of informatic artifice. Necessary for this effect are all the traces of computer image processing: scan lines, data printouts, target crosshairs, the low resolution of video, feedback, and so on. In other words, a deviation from the classical model of representation is necessary via the use of technological manipulation of the image—a technological patina.

Action as Image

So far I have considered a specific and somewhat rare type of shot used in narrative filmmaking, the subjective shot. But let me make this discussion slightly more specific, first by making reference to a different medium altogether, the video game, and second by adding

Spellbound, directed by Alfred Hitchcock, 1945

another piece of visual iconography to the frame, a weapon. Video games are wildly diverse in their formal grammar, but in the specific gaming genre known as the first-person shooter (FPS), a gaming genre invented in the 1970s and perfected by Id Software in the early 1990s with games like *Wolfenstein 3D* and *Doom*, there are several formal conventions that appear over and over. First, FPS games are played in the subjective, or first-person, perspective and therefore are the visual progeny of subjective camera techniques in the cinema. But perhaps equally essential to the FPS genre is the player's *weapon*, which generally appears in the right foreground of the frame. While a more detailed analysis would certainly include other elements such as the heads-up display, for simplicity's sake let me claim that these two elements alone—a subjective camera perspective, coupled with a weapon in the foreground—constitute the kernel of the image in the FPS genre. (Let me also underscore that the analysis of gamic visuality in this section is relevant only to first-person, and to a certain extent third-person, shooter games. An entirely different theory of visuality would need to be developed for RTS games, turn-based

Half-Life, Valve Software, 1998

RPGs, and other genres, something I attempt, however tangentially, and admittedly [but deliberately] without much reference to the visual cortex at all, in chapter 4.)

Perhaps not surprisingly, even the precise visual idiom of the FPS video game appears decades before in the cinema. In 1925, for example, Buster Keaton used a prototypical FPS shot in the film *Go West*. As in *Jaws*, the perspective comes from the point of view of a predatory animal. In Keaton's case, the animal is a stampeding bull, and the bull's horns are the weapon that appears hovering in the foreground of the shot. While the shot is technically in a third-person (bovine) perspective—the camera is mounted on the head of the bull, not where its eyes would be—the generic conventions are all there: an affective ego perspective, with a weapon in the foreground. Other examples appear here and there in the early history of cinema.

So while video games are responsible for mainstreaming the FPS shot, it is clear that the shot itself was invented in the cinema. Twenty years after the Keaton film, Hitchcock presented a fully articulated FPS shot in the finale of his film *Spellbound*. Following a complex set of movements, the shot begins in FPS perspective as a gun is trained

Go West, directed by Buster Keaton, 1925

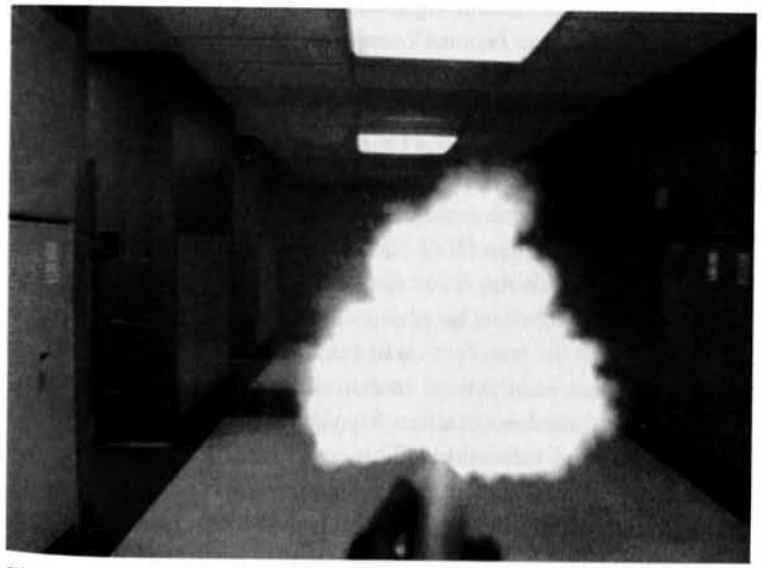
on Constance Petersen (Ingrid Bergman). Then the gun is turned back onto the camera, and in a brutal reworking of Willemen's "fourth look," as well as an allusion to the famous final shot of *The Great Train Robbery*, the subjective character fires back at the subjective camera. It is suicide for the character and for the image (the masochism suggested by Clover). Hitchcock punctuates the bullet's explosion with a full-screen flash of red color in this otherwise black-and-white movie. Earlier, during the film's famous dream sequence, an enigmatic deck of cards serves as a prop in a second, much shorter, subjective shot. And in a brief flashback, when Anthony Edwardes (Gregory Peck) recalls how he killed his brother as a youth, another FPS shot is used to show the fatal accident. All three uses of the subjective shooter perspective serve to heighten specific emotions in the viewer: confusion during the dream sequence, trauma during the death sequence, and shock during the finale. The shots form a trio of grief: first affective, then expressive, and finally reflexive. In this sense, the FPS perspective is the visual pivot for all of Hitchcock's suspense in the film. And he would flirt with the FPS again in a later film, using an FPS shot in the duel at the end of *Topaz* (an alternate ending

Topaz, directed by Alfred Hitchcock, 1969

that, due to preview audience dislike, was banished and replaced with milder fare in the theatrical release).

The real-time, over-the-shoulder tracking shots of Gus Van Sant's *Elephant* evoke third-person shooter games like *Max Payne*, a close cousin of the FPS. Then the film shifts into a proper FPS perspective at a few crucial moments to depict actual gun violence. Additionally, the film uses a boxy 1:33 frame shape, rather than the wide aspect ratio often used in feature films, to reference the boxy shape of television monitors and the console game systems that rely on them. That the 1999 Columbine massacre was blamed on such games remains present but unexamined in this taut, pensive film. Van Sant is clearly cognizant of the visual idiom of gaming, as illustrated in the campfire monologue on a fictional, *Civilization*-like game in his earlier film *Gerry*, a filmic landscape that reappears as a game called "GerryCount" played on a laptop in *Elephant*. "In *Elephant*, one of the killers is briefly playing a video game," explains Van Sant. "We couldn't get rights to *Doom* so we designed one ourselves that resembles *Gerry*, with two guys walking in a desert."[14] Additionally Van Sant used a first-person subjective shot during the penultimate sequence of his *Psycho* remake. While there is no expressed allusion to gaming, the quick shot illustrates the paralysis of the first person in film as Norman Bates reels inside of mental disorientation and confinement in the hands of the law and his mother's psychic grip. The shot is not in Hitchcock's

Elephant, directed by Gus Van Sant, 2003



Elephant

original, suggesting that our general regime of vision has changed subtly in the decades since the earlier film—decades coinciding exactly with the invention and development of video gaming as a medium.

A few dozen other FPS shots appear here and there in other films. My unscientific survey recorded the following instances: midway through *Goodfellas*, a gun is trained on Ray Liotta's character in a subjective shot as he lies in bed; an FPS shot appears at the forty-eight-minute mark of *High Plains Drifter*; *Aguirre: The Wrath of God* and *Damn the Defiant!* both have FPS shots, using a cannon as the foreground weapon; *Treasure Island* (1950) contains an FPS rifle shot; *What's Up, Doc?* contains an FPS pistol shot; *Magnum Force* contains a series of FPS pistol shots; the night-vision sequence at the end of *The Silence of the Lambs* also shifts into the idiom of the first-person shooter for a brief second as the killer draws a bead on his would-be victim.

Gamic Vision

We have seen how filmmaking predates and predicts certain visual styles that would later become central for first-person shooter video games. Yet game design is also influencing filmmaking in certain fundamental ways, as well as deviating from it. Neo's training scenes in *The Matrix* mimic the training levels that commonly appear at the opening of many games. These training levels can be incorporated into the narrative of the game *(Metroid Prime)* or disconnected from the narrative of the game *(Half-Life)*. They simply allow the gamer to become familiar with the controller and learn basic game rules. Neo must do the same before he plunges headlong into the Matrix for real. But beyond the transfection of gamic conventions into film *narrative*, there also exist several instances, in this movie and others, where specific formal innovations from games have migrated into the formal grammar of filmmaking. This could be called a *gamic cinema*.

The subjective shot is not just about seeing, as Steven Shaviro explains, but rather primarily about motion through space. He writes on the subjective shots in *Strange Days*:

> Events unfold in real time, in a single take, from a single point of view. These sequences are tactile, or haptic, more than they are visual. The subjective camera doesn't just look at a scene. It moves actively through space. It gets jostled, it stops and starts, it pans and tilts, it lurches forward and back. It follows the rhythms of the whole body, not just that of the eyes. This is a presubjective, affective and not cognitive, regime of vision.[15]

What video games teach cinema is that the camera can be subjective with regard to a specific character, as I have already discussed, but further *that the camera can be subjective with regard to computerized space*. If computers have a gaze of their own, it is this. Is "bullet time" in *The Matrix* a subjective shot? Certainly not, using the traditional definition of the subjective shot by Bordwell et al. But if one considers the "gaze" of the three-dimensional rendering technology itself as it captures and plots physical spaces in Euclidean geometry, which is nothing but an avatar for the first-person perspective of the viewer or gamer, then the answer is certainly yes. To this extent, I agree with Vivian Sobchack when she writes that "electronic presence has neither a point of view nor a visual situation, such as we experience, respectively, with the photograph and the cinema."[16] Or as Manovich claims: computerized visuality, while still a way of seeing, is no longer about *light* but is instead about space. The traditional cinematic POV has fallen away, and an electronic one has taken its place. In other words, shooter games (and the digital apparatus behind them) have expanded the definitional bounds of the subjective shot. The reason is that, with FPS games, the first-person subjective perspective is so omnipresent and so central to the grammar of the entire game that it essentially becomes coterminous with it. This is what Shaviro means by the term "affective regime of vision." FPS games use almost nothing else, and this regime of vision is seeping back into filmmaking as movies become more and more digital.

This point can be summarized in an initial claim: *gamic vision requires fully rendered, actionable space*. Traditional filmmaking almost never requires the construction of full spaces. Set designers and carpenters build only the portion of the set that will appear within the frame. Because a director has complete control over what does appear within the frame, this task is easy to accomplish. The camera positions are known in advance. Once the film is complete, no new camera positions will ever be included. (Even a film shot on location

will use a specific subset of the spatial environment. Only in special cases, as in the 360-degree pan shot at the start of *Cobra Verde* or in the twirling sets in films like *Lola Montes*, is a full landscape ever captured on film. But even then the spatial environment is *recorded*, not rendered, and can never be repenetrated, zoomed, moved, or re-initialized as is doable in a three-dimensional model.) The fascinating "100 cameras" video technique used by Lars von Trier in *Dancer in the Dark*, whereby dozens of small cameras are embedded in the shooting location to record, in parallel, an entire scene from all angles simultaneously, is an ingenious approximation of digital rendering; yet despite its unique polyvisuality, the technique remains essentially a throwback to older cinematic conventions of distinct shots sewn together via montage. By contrast, game design explicitly requires the construction of a complete space in advance that is then exhaustively explorable without montage. In a shooter, because the game designer cannot restrict the movement of the gamer, the complete play space must be rendered three-dimensionally in advance. The camera position in many games is not restricted. The player is the one who controls the camera position, by looking, by moving, by scrolling, and so on. Jay Bolter and Richard Grusin put the matter quite clearly when they contrast a film like *Lady in the Lake* with the game Myst:

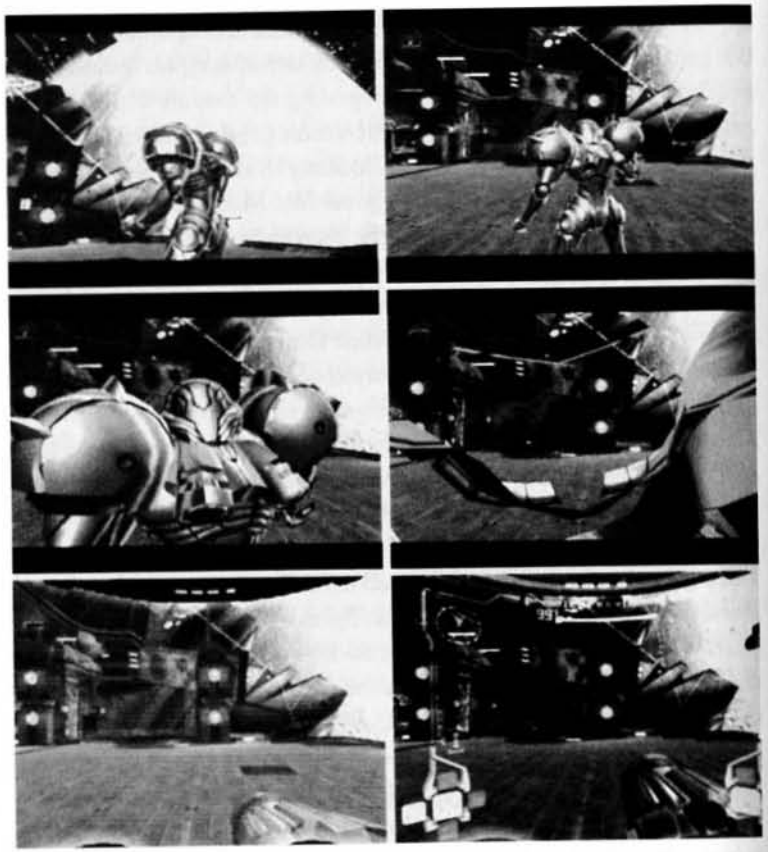
> Myst is an interactive detective film in which the player is cast in the role of detective. It is also a film "shot" entirely in the first person, in itself a remediation of the Hollywood style, where first-person point of view is used only sparingly—except in special cases, such as *Strange Days* recently and some film noir in the 1940s. . . . Like many of the other role-playing games, Myst is in effect claiming that it can succeed where film noir failed: that it can constitute the player as an active participant in the visual scene.[17]

So fifty years later, the failed experiment of *Lady in the Lake* has finally found some success, only it required the transmigration from one medium to another entirely.

A corollary of my previous claim about actionable space is that gaming *makes montage more and more superfluous*. The montage technique, perfected by the cinema, has diminished greatly in the aesthetic shift into the medium of gaming. The cinematic interludes that

appear as cut scenes in many games do indeed incorporate montage, but gameplay itself is mostly edit free. Counterexamples include cutting between various visual modes: opening the map in *World of Warcraft*; the use of a sniper rifle or night-vision goggles; cutting between different camera positions, as with looking in the rearview mirror in driving games like *True Crime*. A game like *Manhunt* uses montage, but only when it explicitly copies the conventions of video. So while there may exist montage between different modes of the game, there is little montage inside the distinct modes of gameplay. In this sense, the preponderance of continuous-shot filmmaking today (*Timecode*, *Russian Ark*) is essentially a sublimation of the absence of montage in digital poetics (i.e., not the increased availability of long-format recording techniques, as the technological determinists would lead one to believe). Game designers never had to stop and change reels (as Hitchcock had to in *Rope*), yet they still marginalized montage from the beginning, removing it from the core formal grammar of video games. Ingenious tricks are used instead, as in a game like *Metroid Prime*, where the transition from third person to first person is accomplished not with an edit but with a swooping fly-through shot where the camera, in third person, curves around to the rear of the player character and then tracks forward, swiftly passing through the back of the cranium to fuse instantly the first-person optics of the character with the first-person optics of the player. Tricks like this help attain a level of fluidity not seen in previous visual media like film or television. Abandoning montage creates the conditions of possibility for the first-person perspective in games. The lack of montage is necessary for the first-person way of seeing, even if the game itself is a side-scroller, or a top-view shooter, or otherwise *not* rendered in the first person. Where film montage is fractured and discontinuous, gameplay is fluid and continuous. Hence the gamic way of seeing is similar to human vision in ways that film, and television and video, for that matter, never were.

Following from the first two claims, one can observe that in gamic vision *time and space are mutable within the diegesis in ways unavailable before*. Games have the luxury of being able to exist outside real, optical time. Games pause, speed up, slow down, and restart often. But more than that, they can also transpire in moments of suspended



Metroid Prime, Retro Studios, 2002

time, as in turn-based role-playing games (RPGs) where the player plays (sets up actions, inspects statistics, rearranges character formations) solely during the *interstices* between other actions. Film has never had this luxury. Films are time based and must transpire through time in order to be played, to be experienced. Thus "bullet time" in *The Matrix* is one of those rare moments of cinematic illusion where the digital aesthetics of gaming actually penetrate and influence the aesthetic of the film. During bullet time, the time of the action is slowed or stopped, while the time of the film continues to proceed. As the film continues moving at speed, the action onscreen is artificially retarded into what Jameson calls "the great leaps and somersaults of

these henceforth supernatural bodies across space itself."[18] This is something that, traditionally, only video games (or any medium using computer-driven, three-dimensional models) have been able to do, not classical cinema. Thus it might make sense to think of bullet time as a brief moment of gamic cinema, a brief moment where the aesthetic of gaming moves in and takes over the film, only to disappear seconds later. Of course, the poetic irony of bullet time is that technologically it relies on an older medium, still photography, rather than a newer one; an amateur could reproduce the special effect using an arc of a few dozen still cameras, a film camera on each end of the arc, and a cutting suite. The use of a series of still-photographic cameras is merely the technological trick that produces the synchronic illusion of a three-dimensionally rendered physical space.

As in *The Matrix* series, the "virtual" is often used as a sort of narrative camouflage applied to films to explain why time and space have suddenly become so mutable. This is illustrated by the rash of films in recent years dwelling on the difference between the so-called real world and an imaginary world existing in parallel to it (*Fight Club*, *The Sixth Sense*, *The Others*, and so on). Quite often the plots turn on the inability to distinguish one from the other. Particularly striking examples include *Strange Days* and Tarsem Singh's singular effort *The Cell*. The techniques of digital cinema made it possible to realize more fully the aesthetic vision of virtuality, in ways that were more difficult in the past. With the preponderance of digital cinema techniques in Singh (and we can only assume in Bigelow as well), gamelike moments exist throughout both films. As discussed, the subjective shots in *Strange Days* are directly connected to FPS games. But *The Cell* goes the route of *The Matrix* instead, as illustrated in the "Pantheon dive" where Catherine falls downward through space and is arrested midair in a slow-motion, waterlike gesture. This approximates part of the visual technique in "bullet time," and it is a technique that has been repeated many times over in everything from car commercials to music videos.

A final claim is that the new influence of gaming *elevates the status of artificiality as an aesthetic*. Cronenberg's *eXistenZ*, which couldn't be more different from *The Matrix*, is remarkable for its ability to eschew computer graphics and digital processing, yet still capture some of

gaming's specific qualities. Unlike *The Matrix*, where the inclusion of gaming is accomplished via visual effects, Cronenberg's film alludes to gaming in its mise-en-scène, particularly in the film's staging of action and dialogue. The conceit of the film is that all the action transpires inside a game, which the viewer is led to believe is also titled "eXistenZ." But then one learns that this might also be a game-within-a-game with the real world somewhere yet outside of it, the discernment of which is not clear, leaving the film characters in some final spiral of psychosis. Yes, the narrative of the film is about gaming, but it is the stilted dialogue and deliberately affected filmmaking in *eXistenZ* that is gamelike. Turn-based games such as RPGs have a different way of pacing and presenting dialogue. The rhythm of language is unique in this type of game. Language is transactional. It is repeated in simple branching, or hypertextual, structures. Language is often more utilitarian than narrative oriented. Game interludes often exist to give clues to the players for what they must do next. Often these written or spoken clues are then excerpted and repeated as briefs or strategy notes for the gamers to consult as they play the level. In games, language is used to relay facts or to summarize scores and statistics. The language in *eXistenZ* follows a game logic for dialogue rather than a film logic. The stilted dialogue that permeates many of the scenes references the way that textual and spoken dialogue is delivered in games. The film often repeats canned dialogue, both within the diegesis of the "eXistenZ" game when incidental characters fall into holding patterns and must be addressed by name and prompted for their queues in the game to continue talking, but also outside the game (which might be a game too; one does not know), as when several characters repeat the phrase "eXistenZ by Antenna . . . eXistenZ by Antenna" in the same machinelike monotone. "These *eXistenZ* characters are parodies of computer generated characters," writes Eddo Stern. They follow "autistic conversational algorithms."[19]

To end, let me restate that the subjective optical perspective is one of the least common ways of seeing in narrative film. The subjective camera is largely marginalized in filmmaking and used primarily to effect a sense of alienated, disoriented, or predatory vision. Yet with

the advent of video games, a new set of possibilities were opened up for the subjective shot. In games the first-person perspective is not marginalized but instead is commonly used to achieve an intuitive sense of affective motion. It is but one of the many ways in which video games represent action. In other words, video games are the first mass media to effectively employ the first-person subjective perspective, whereas film uses it only for special occasions. Certainly some of the same violence of the filmic first person lingers, and hence many FPS games—*Quake*, *America's Army*, *Half-Life*, and on and on—involve large amounts of killing. But at the same time, many shooters, like *Metal Gear Solid* or *Thief*, require the player to *avoid* violence as much as confront it. Plus, game violence is just as common in non-first-person games. So I argue that it is the affective, active, mobile quality of the first-person perspective that is key for gaming, not its violence. Unlike film before it, in gaming there is no simple connection to be made between the first-person perspective and violent vision. What was predatory vision in the cinema is now simply "active" vision. As far as identification is concerned, film failed with the subjective shot, but where film failed, games succeed (due primarily to the fact that games have controllers and require player action). Where film uses the subjective shot to represent a problem with identification, games use the subjective shot to *create* identification. While film has thus far used the subjective shot as a corrective to break through and destroy certain stabilizing elements in the film apparatus, games use the subjective shot to facilitate an active subject position that enables and facilitates the gamic apparatus.

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