

Games: The Art of Making, Bending, and Breaking Rules

By
Andrew Yashar Ames

Abstract

Game-based art has implied and explicit rules that artists expose and exploit for aesthetic and ideological purposes. The thesis develops this theory of interactivity from Noah Wardrip-Fruin's concept of playable media, Domini Lopes' strongly interactive art, Eric Zimmerman's defined modes of interactivity, and Ian Bogost's procedural rhetoric. The thesis explores the aesthetic and ideological in games from Dadaism, Surrealism, Fluxus, and contemporary artists Rafael Fajardo, Gabriel Orozco, Mary Flanagan, Francisco Ortega-Grimaldo, Wafaa Bilal, Natalie Bookchin, Voker Morawe, Timan Reiff, and Matthew Ritchie, and in the game-based and interactive works of new media artist Andrew Y. Ames.

Contents

Introduction

Objective

Motivation

I. Theory

Encoded Environments

Modes of Interactivity

Exposing and Exploiting Rules

II. Historical Precedents

Duchamp, Dada and Chess

Surrealist

Fluxus

Contemporary Artists

III. Exhibits

WarDecks

Well, Let's Just Ba-Bomb the Mushroom Kingdom, Too.

Argument

The Box Game

Mano a Mano

Rock Paper Scissors Bomb

Last Resort

Bibliography

Introduction

Interactive art is an accepted but contested art form. At issue for the artist, the critic, and the observer is not a fundamental antagonism but a problematic definition. Interactive art does not provoke public resistance or critical opposition; it has its appeal, and adding the term interactive to the description of a work can even make a work seem “more sexy, more potent, [and] more creative.”¹ But the term does not necessarily deliver critical insight. Interactivity is not opposed in the world of art; rather, it is under-defined or perhaps misunderstood. When I encounter the term in the description of a work, I want to ask, “What makes a work of art interactive?”

Definitions of interactivity do exist, and I am not suggesting that the art form has not been defined in helpful ways or that the contours of interactive art have not been discussed. The contours of the art form have been discussed at length and with considerable insight. Randi Hopkins recognizes that interactive art calls for active engagement. She says that “it is part of the very definition of interactive art that we have to throw ourselves right into it—no armchair appreciation or passive gazing allowed.”² The “Curatorial Mission Statement” of the Cambridge non-profit space Art Interactive characterize the form as “contemporary, experimental, and participatory” and says that those who engage interactive art “play, create, and participate.”³ It is, for many, active participation or the act of engagement that defines the art form. But such a definition, though useful, seems incomplete and even superficial. The definition recognizes what people do with interactive art, but not necessarily how or why they do it. There is something

¹ Erkki Huhtamo, “Silicon Remembers Ideology, or David Rokeby's Meta-Interactive Art (from the Catalog for ‘The Giver of Names’ Exhibit at the McDonald-Stewart Art Centre)” (1998), <http://homepage.mac.com/davidrokeby/erkki.html> (accessed April 26, 2008).

² Randi Hopkins, “Collision Collective at Art Interactive and Urban Icons At the New Art Center,” The Boston Phoenix, March 25, 2005, <http://www.thebostonphoenix.com/boston/events/galleries/documents/04551270.asp> (accessed April 26, 2008).

³ Art Interactive, “Curatorial Mission Statement” (2005), <http://www.artinteractive.org/curatorial.php> (accessed April 26, 2008).

present that may or may not be consciously observed that shapes acts of engagement and makes art interactive.

What, then, makes art interactive? The answer, in part, is code. Code defines the limitations of environments and systems. The squares on a chessboard and the keys on a keyboard provide good examples of coded physical limitations. The coded environment of a Chess game is an eight by eight square board that has two alternating colors; a standard computer keyboard has one-hundred and four buttons, each bearing a unique symbol. Physical limitations are part of the code of an interactive environment. These codes may open an infinite number of possibilities for a viewer; however, with the addition of rules, the possibilities are narrowed, become finite, and lead to a specific end. Rules govern players' interactions within the encoded environment, and interactive art is rule-based.

This dimension of interactivity is most evident in games. A traditional board game, for example, has rules; the rules are stated explicitly, and those who play the game must follow the rules or break them. The rules of Chess and the rules of Checkers determine how players use the eight by eight square matrix. Likewise, video games have rules, though video-game rules are more complex. Video games are programmed games with written instructions that govern the players' actions and coded instructions that control hardware inputs and digital outputs. Strongly interactive or process-oriented works "have internally-defined procedures that allow them to respond to their audiences, recombine their elements, and transform in ways that result in many different possibilities."⁴ Playing a game or engaging any interactive work changes the possibilities and the player's immediate experience of the game. It is the interactivity itself that effects the state of play, and during the play, the observer and the work respond, recombine, and

⁴ Noah Wardrip-Fruin, "Expressive Processing: On Process-Intensive Literature and Digital Media" (Ph.D. diss., Brown University, 2006), 2.

transform. This does not occur in fixed media such as painting, but it is a defining aspect of interactive media. In interactive art, the observer and the work are constructed by rules that can be bent or broken, but cannot be absent. Whether implicit or explicit, there will always be rules that govern the acts of engagement of works of art.

Engagement, of course, is physical and sensory, for engagement activates visual, aural, or tactile contacts with the work and yields cognitive, emotive, and physiological responses. The observer senses and manipulates the art, and in turn thinks, feels, and reacts. Any sensing and manipulating, however, will be guided by codes and rules. The codes and rules can be unique to the piece, and they can, with certain limitations, be selected, modified, and manipulated by those who create, engage, and display the art. Changing the rules of the game or the rules of engagement may be complicated, or it may be as simple as changing the signage in an exhibit. The sign that warns, “DO NOT TOUCH,” and the invitation, “PLEASE TOUCH,” illustrate the point. These signs establish rules and, at the discretion of the artist or museum, can be modified. Changing a sign, changes the rules of engagement, and this changes the observer’s experience and response. The rules of engagement define the form of the interactivity. The art work’s rules guide responses; they trigger memories, emotions, and analysis, and the artist can manipulate these rules for aesthetic and persuasive purposes.

Objective

My objective is to define a mode of interactive art that exposes and exploits implicit and explicit rules of engagement. The thesis has three sections. In the first section, which describes a theoretical framework, I will draw upon the work of Noah Wardrip-Fruin and Dominic Lopes to explore the operation of rules in games and interactivity, and I will discuss how rules may be exposed and exploited to serve aesthetic and ideological ends. I will also consider the theoretical

paradigms of Eric Zimmerman and Ian Bogost. In the second section, I will discuss historical precedents for my work in Duchamp's relationship to the Dadaist movement and his interest in Chess, early Surrealist games, the games of the Fluxus movement and Yoko Ono in particular, and the contemporary game artists Rafael Fajardo, Gabriel Orozco, Mary Flanagan, and Francisco Ortega-Grimaldo, among others. In the third section, I will relate theory and history to my work as a new media artist.

Motivation

Rule-based art can be used for aesthetic ends and for social criticism, and I am motivated by both concerns. I am interested in rules at work within the art and in society, especially but not exclusively, rules that sustain violence. My motive in creating interactive art is to expose overlooked behaviors and to encourage a fresh questioning of social habits and values. Some, I fear, do not see habits and practices that perpetuate injustice, and others see but ignore them. My intent is to expose, and my work is a form of social activism. It is not, however, overt activism like marching in protest or signing a petition. It is a covert protest that does not carry a banner down a street but makes a statement from an online exhibit or gallery. I do not intend to force attention but to invite reflection through playful engagement and interactivity. My work affords viewers an opportunity to discover from a safe distance something about the dynamic and destructive operation of violence, without suffering violence, and I use playful games to expose life's larger and more dangerous ones. I want people to make these discoveries on their own through interactive experiences and ultimately to avoid and shun social violence.

I create game-based art to engage and to change viewers, to alter perspectives, though I cannot predict the effect. People tend to overlook or resist new or contrary ideas, but interactive art can subvert resistance by being playful, entertaining and ironic. When viewers engage certain

kinds of game-based art, they enter into a dialogue with the artwork and within themselves. They may want to play a game that challenges their skills, but I want to challenge their perceptions of the world. In the book, *What Video Games Have to Teach Us About Learning and Literacy*, Paul Gee explores the paradox that children and adults who may avoid formal study, eagerly learn how to play video games on their own without online or classroom instruction.⁵ They like to play games, so they learn how. Marc Prensky also explores the paradox in his work, *Digital Game-Based Learning*.⁶ I am not seeking a new form of pedagogy in interactive art; rather, I want to use the expressive aspects of interactivity, and Gee's and Prensky's explorations show the importance of games and their ability to capture attention and to communicate ideas.

According to Michel Foucault, rules and discipline regulate individual behavior and the social body.⁷ People play by the rules of their social group, and the rules are largely social constructs, taught and learned behaviors. Sets of rules reveal something about the societies that create, observe, and transmit them, yet the rules are not always acknowledged. They may be real, but they may not be obvious or recognized. From Foucault's perspective, power works best when its mechanism's are hidden. The creation of art that explicitly employs rules (game-based art) or that exposes the rules that are at work in a social group, is a form of activism that reveals and empowers. My game-based art exposes rules at work in violent conflict.

What, then, is my rationale for using games and creating game-based art to express ideas? In part, I want to express resistance-prone ideas in resistance-diminishing games. Players will learn how to play an interesting game and, through the process, will learn more than just how to

⁵ James Paul Gee, *What Video Games Have to Teach Us about Learning and Literacy* (New York: Palgrave Macmillan, 2003).

⁶ Marc Prensky, *Digital Game-Based Learning* (New York: McGraw-Hill, 2001); see also David Gibson, Clark Aldrich, and Marc Prensky, *Games and Simulations in Online Learning: Research and Development Frameworks* (Hershey, PA; Information Science, 2007).

⁷ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, 2d ed., trans. Alan Sheridan (New York: Vintage Books, 1995), 182–3.

play the game. I want players to understand something about society. Game-based art invites and sustains reflection; the interactions require active, rather than passive engagement, and engagement fosters learning. For this reason—as artist and activist—I am drawn to the game and game-based art.

I. Theory

Game-based art is part of a continuum of static, reactive, and interactive art. In static art, an observer responds to an object; in reactive art, an object responds to an observer; in game-based art, observer and object respond to one another. Game-based art is strongly interactive, and this mode of art recognizes that there is a stated or assumed etiquette and protocol to interactivity.⁸ Interactivity entails a constrained give-and-take between the art and the observer. The user must “play the game.” This distinguishes game-based art from other forms, for engagement requires rule-based participation and operates within a coded environment; there is a framed relationship between the observer and the observed, between the inter-active art and the inter-actor, though this could be said of all art.⁹ The boundaries for game-based art are not rigid frames, of course, but rather encompass a framework of explicit and implied rules. A coded environment and a set of rules define and govern engagement with the art, and because the rules of games and the rules of art are rooted in social matrices, conventions, perceptions, and ideals, game-based art tends to be activist art. Interactivity is inherently activist, for in both realms people must get involved. In my work, I am exposing rules of engagement to reveal social issues and to provoke cultural awareness and critique.

Encoded Environments

Game-based art, one may reasonably assume, invites a measure of reflection on life’s games. Francisco Ortega-Grimaldo’s game, *Observance*, reflects the game of cat-and-mouse that immigrants and border guards “play” in trying to gain or to bar entrance to a country. Playing the

⁸ The concept of “strongly interactive” art is drawn from Dominic Lopes, “The Ontology of Interactive Art,” *Journal of Aesthetic Education* 35 (2001): 65-81.

⁹ See comments on the “observer” in Jonathan Crary, *Techniques of the Observer: On Vision and the Modernity in the Nineteenth Century* (Cambridge: MIT Press, 1992).

game provokes reflection on the realities of border politics. Molleindustria's *The McDonald's Videogame* recalls the dynamics of business and the lure of profiteering, for the object of the game, like the object of corporate life, is to make the most money at the lowest possible cost. Board games such as *The Game of Life* and *Monopoly* are transparent examples of art imitating life, the structured relationships, expectations, and obligations that order life within society. The game titles themselves suggest a connection between the games that are played and a game that is lived.

In the game of *Monopoly*, the player assumes the role of an investor who uses money to acquire deeds to properties and to accumulate wealth. The game is all about business. In the game, however, there is no real property. The players move small game pieces around a board, the money and property of the game are fake, and the role of property tycoon is imaginary, but money and property and business do exist in the social worlds of the game's players and the game's maker, and their social worlds overlap. The overlap is not simply two dimensional, since three worlds collide: the worlds of the game, the game's creators, and the game's players, who may change over time. *Monopoly* originated in the America of the Great Depression, and the social world of the 1930s established the rules of the game, but the social world of a player in 2008 generates a different perception of the game.¹⁰ Contemporary revisions of *Monopoly* (e.g., the *Star Wars* and *Here and Now* editions) are one evidence of the complex intersection of the three worlds of game play, and the intersection of game, provenance, and player continue to evolve with technological innovations, the impact of new media, and social changes.¹¹

Milton Bradley's multiple-player game, *The Game of Life*, Conway's single-player game, *Life*, and life itself have distinct rules and codes. The rules in Milton Bradley's games are printed

¹⁰ "Monopoly History," Hasbro.com, <http://www.hasbro.com/games/kid-games/monopoly/default.cfm?page=History/history> (accessed April 26, 2008).

¹¹ See also the game, *Anti-Monopoly*, by Ralph Anspach (<http://www.antimonopoly.com>).

in the lid of the box and are clearly defined and idealist: to attain a successful life, one must go to school, get married, find a job, raise kids, and retire—all from the seat of a tiny plastic automobile. Player's navigate the world of the game by spinning a wheel of fortune and by moving a tiny plastic automobile on a colorful printed roadway. Spins and moves effect the course of the player's life. They are, in fact, the player's life within the game and in an idealized world envisioned by the game's creators. That world and the game are utopian, for death is not an aspect of Milton Bradley's Game of Life. Conway's Life, on the other hand, is not utopian and has a "genetic" code that encompasses birth, survival, and death.¹² The player first creates a pattern of blocks on a checkerboard, and then Life's code plays out to the end, either in patterns laid out by players manually on the board or automatically on a computer screen. Depending on the pattern, life continues, reaches stasis, or perishes. Golly, a computer adaptation of Conway's Life, has the code but few rules to guide player interaction; the rules do not need to be known because the computer is programmed to play the game to its conclusion.¹³ Players are free to create any initial pattern of cells, but once the pattern is entered, it takes on a life of its own and grows, changes, and either survives or dies in an "unbounded universe." In Golly, the computer applies the rules in an encoded environment, but interactivity is minimal; the player moves only once, then watches.

Games reflect ideals and simulate realities, and the encoded environments of the game, its creators, and its players have rules that intersect. The intersection of these worlds is a locus of interactivity that artists and players can experience, observe, engage, and exploit, though some modes of interactivity are more promising than others.

¹² Martin Gardner, "Mathematical Games: The Fantastic Combinations of John Conway's New Solitaire Game 'Life,'" *Scientific American* 223 (1970): 120–23, <http://www.ibiblio.org/lifepatterns/october1970.html>, (accessed April 26, 2008).

¹³ "Golly," [Sourceforge.net](http://golly.sourceforge.net), <http://golly.sourceforge.net>, (accessed April 26, 2008).

Modes of Interactivity

In an article entitled, “Narrative, Interactivity, Play and Games: Four Naughty Concepts in Need of Discipline,” Eric Zimmerman discusses four modes of interactivity: cognitive, functional, explicit, and meta.¹⁴ The first mode, cognitive interactivity, involves interpretive participation: the observer reads a text, observes an object, or hears a sound, and reacts intellectually, emotionally, and psychologically. In this mode, virtually any engagement can be deemed interactive. The second mode, functional interactivity, is utilitarian and relates to the material nature of the piece: how a person experiences its design, texture, and operation, and how one navigates from one point to another within the work. The third mode, explicit interactivity, entails an immediate or direct contribution to the design, operation, and procedures of the work. Explicit interaction is overt participation: clicking hypertext links, pulling a joystick trigger, following rules, or moving objects. Most importantly, the participant makes choices in this mode of interaction, and the choices effect and can be effected by random or programmed events. The fourth mode, meta-interactivity or cultural participation, the viewer’s experience extends outside the original work to its appropriation, promotion, subversion, or deconstruction. The new media artist can create interactive works that exploit the potency of any of these modes or all of them in combination, but the aesthetic and activist potential of each varies.

“Making and appreciating art,” according to Dominic Lopes, “are always interactive activities,” and this complicates notions of interactive art.¹⁵ As an artist working in new media, I am intrigued by the complications. Lopes categorizes art as weakly or strongly interactive. Art that is weakly interactive allows users to explore the content of the artwork in various sequences

¹⁴ Eric Zimmerman, “Narrative, Interactivity, Play and Games: Four Naughty Concepts in Need of Discipline,” in *First Person: New Media as Story, Performance and Game*, ed. Pat Harrigan and Noah Wardrip-Fruin (Cambridge, MA: MIT Press, 2004), 154–64.

¹⁵ Lopes, “The Ontology of Interactive Art,” 67.

or to experience only a part of the work. In strongly interactive media, users experience the work as a whole, and each exploration determines the state of the work and the experience of the user. For Lopes, the paradigm for interactivity is the game, and a game is strongly interactive because “the course of the game depends on the players’ choices.”¹⁶ Likewise, in strongly interactive art, the properties of the work are determined by the user’s actions.

Noah Wardrip-Fruin also sees similarities between interactive art and interactive games, but finds it more useful to discuss qualities of interactivity than categories.¹⁷ In describing his experiments with textual instruments, “interactive” serves as an “accurate, but overly broad” term, and “game” is too narrow. He does not distinguish interactive games and interactive art but recognizes ambiguity and continuity and applies the term “playable media” to “things that we play (and create to play) but that are arguably not games.” Instead of asking, “Is this a game?” Wardrip-Fruin asks, “How is this played?” He pursues art that invites and structures play.

In “Art Games: Interactivity and the Embodied Gaze,” Graham and Elizabeth Coulter-Smith explore traditional and performative interaction in contemporary new media art. Like Lopes and Wardrip-Fruin, the Coulter-Smiths see a shift in the viewer’s relationship to new media. They describe the traditional role of the viewer as “looking and respectfully appreciating” and refer to this “mode of interaction as ‘reading.’”¹⁸ The reading gaze in traditional fine art is “distanced” and “disembodied,” and the status of artist (as genius) and artwork (as precious) alienates and is an obstacle to interaction.¹⁹ Art that limits itself to “reading” but not “writing” is, on my continuum, static; art is static when the observer responds to the art, reactive when the

¹⁶ Ibid., 68.

¹⁷ Noah Wardrip-Fruin, “Playable Media and Textual Instruments” (2005), <http://www.brown.edu/Research/dichtung-digital/2005/1/Wardrip-Fruin/>, (accessed Dec 10, 2008).

¹⁸ Graham Coulter-Smith and Elizabeth Coulter-Smith, “Art Games: Interactivity and the Embodied Gaze,” *Technoetic Arts: A Journal of Speculative Research* 4 (2006): 169-82.

¹⁹ Ibid., 169.

art responds to the observer, and interactive when art and observer respond to one another. Interactive art is, so to speak, “written” as well as “read.”

Interactive art is what one does, not merely what one sees. Game-based art reifies experience. The participant engages the work and in turn is engaged by the work. The game is art, with all the potential of art. The Coulter-Smiths write, “The notion of a creative game that can interpenetrate everyday life leads us to the concept of serious play.”²⁰ The playfulness of the art is meaningful. It is also available. They conclude that “the creative game is potentially a powerful strategy that will enable deconstructive art to escape its current assimilation into the traditional values of the precious work of art and the apotheosis of the artist as genius.”²¹ Interactivity makes the viewer a genius, too, because the viewer activates and creates the art. Art games can also eschew the notion of “genius” altogether. The interactivity of the game-based art is paradigmatic, and the paradigm can be exploited.

Exposing and Exploiting Rules

Game-based art is ruled-based, and the rules can be exposed and exploited by the artist. To play a game, a player, of course, must follow a set of rules, and the rules always have real-world analogs. War, for example, has been waged on real battlefields throughout history, and it is played on game boards on kitchen tables. The board game is understood because its analog is known. The artist can exploit the analogy in several ways. The artist can borrow or build upon what is known (e.g., about war and warfare, military personnel and chain of command, weaponry and tactics, geography and history). Or, the artist can expand or challenge what is known (e.g.,

²⁰ Ibid., 179.

²¹ Ibid., 180.

historical defeats as well as victories, collateral damages, political and humanitarian costs). The rules can be borrowed, bent, or broken for aesthetic or activist purpose.

Game-based art is rhetorical. In the book, *Persuasive Games: The Expressive Power of Video Games*, Ian Bogost proposes that games have a procedural rhetoric that develops an argument. In a video game, the rhetoric is visual as well as verbal, and the rhetoric logically encompasses aural and tactile cues. The argument unfolds through the process of playing the game, and the very rules that define the game also shape the argument. Bogost states that “procedural rhetoric is the practice of using processes persuasively, just as verbal rhetoric is the practice of using oratory persuasively and visual rhetoric is the practice of using images persuasively.”²² Bogost uses Molleindustria’s *The McDonald’s Videogame* to illustrate the point. The video game exposes some of the business practices of the fast-food giant. The player controls four aspects of a simulated McDonald’s enterprise that need to be managed simultaneously: the third-world pasture, the slaughter house, the restaurant, and the corporate offices. In each of the four aspects, players must not only make difficult business decisions but moral choices as well. The player may use varying tactics—including bribery of government officials, bulldozing rain-forest, and use of growth hormones—to achieve the goal of making the highest profit. Unsavory tactics, however, will provoke consumer complaints and lead to health safety violations that only lobbying and public relations campaigns by the corporate offices can “fix.” By playing the game, one encounters the argument that it is impossible to make a 99¢ hamburger and turn a profit without adverse impact on society and the environment.

The rules of a game guide the players, and playing creates the argument. The rules generate the rhetoric. The rhetoric of a game need not defend or attack a position or institution,

²² Ian Bogost, *Persuasive Games: The Expressive Power of Video Games* (Cambridge, MA: The MIT Press, 2007). 28.

though it certainly can. The rhetoric can simply inform (though bias is always operative).

Observers play the game and in doing so discover something they may have missed, and learn about the rules of life by experiencing a microcosm. The microcosm reveals the macrocosm and becomes a map. As Matthew Ritchie asks, “Maybe the rules are just another way of asking what will happen next?”²³ With game-based art, as I envision it, the rules are essential to the art, and the artist can make, borrow, bend, or break the rules of the game. Which game? The game that is being created and will be played, but also the realities that are being exposed (i.e., the game of life itself). Art at its best exposes, and the rhetorical power of games and new media lend seriousness to play and imply that games are indeed art.

With the rise of the digital revolution, increasing attention has been given to video games, art, and the relationship between the two. The revolution has stimulated debate over the question, “Can a video game be art?” Manifestos and calls for better and more serious games have even rekindled interest in an eight-bit aesthetic typically associated with early video games of the 1980s as mice, keyboards, and code have supplanted card and board games.

Ernest Adams challenges game makers to create better and more innovative games in his “Dogma 2001: A Challenge to Game Designers.”²⁴ He advises designers to break the standard game mold by avoiding cliché tricks such as bullet time, power-ups, and predictable characters (e.g., elves, knights, Nazis, vampires, and mutants). Adams forbids common game types (e.g. first-person shooters, role-playing, jump-and-shoot side scrollers), as well as a reliance on hardware and other input devices. Victory and defeat, winning and losing remain important, but in his approach, there cannot be good versus evil. Many of Adams’s rules could be adopted by

²³ Thyrza Nicholas Goodeve, “Reflections on an Omnivorous Visualization System: An Interview with Matthew Ritchie,” in Matthew Ritchie: Proposition Player, ed. Lynn Herbert (Houston, TX: Hatje Cantz Publishers, 2004), 43.

²⁴ Ernest Adams, “Dogma 2001: A Challenge to Game Designers,” Gamasutra.com (February 2, 2001), http://www.designersnotebook.com/Columns/037_Dogma_2001/037_dogma_2001.htm (accessed April 27, 2008).

artists and designers, and game players would benefit. As a designer, I would follow all ten of his rules; however, as an artist, I would ignore some. First, I would not limit the type of game, for this limits modes of expression and means for commentary. By subverting violent first-person shooters, side-scrollers, and RPGs, artists are able to exploit familiar control systems and to bend rules. Making the guns shoot paint instead of bullets creates new challenges for players and would shift the goals of the game from killing to less violent and more constructive actions. For example, Cory Arcangel's *I Shot Andy Warhol*, a hacked Nintendo game originally titled *Hogans Alley*, removes characters of gun-toting bad guys and replaces them with the Pope, Flava Flav, Colonel Sanders, and Andy Warhol.²⁵ Feng Membo's *Q4U* and *AH_Q* exploit the first-person shooter genre through manipulation of the graphics. In *Q4U* and *AH_Q*, Membo becomes the main character in the computer game, *DOOM*.²⁶ Second, hardware should remain a very important factor in art games. The hardware is a crucial element that can enhance the interaction of the game. Hardware can enable players to use their whole bodies and to move within physical space to control avatars in virtual space, or it can confine them to a small intimate space of a board or table game. Art games are generally not designed for mass-consumption, so they should not be designed for the lowest common denominator as some commercial games are—unless, of course, doing so adds necessary context to the artwork. Input devices should also be well considered. Are mice and keyboards the appropriate mode of interaction for a game about collaboration? Mary Flanagan's giant Atari joystick requires two people to move each axis of the joystick and one more to push the button, the interface forces collaboration.²⁷ Mice and

²⁵ Cory Arcangel, "Cory Arcangel—Digital Media Artist," *Art & Technology Lectures* (Columbia University School of the Arts Digital Media Center, 2004), http://www.columbia.edu/itc/soa/dmc/cory_arcangel/, (accessed April 27, 2008).

²⁶ Christiane Paul, *Digital Art* (New York: Thames & Hudson, 2003), 201–3.

²⁷ Mary Flanagan, "[Giantjoystick]," (2006), <http://maryflanigan.com/joystick/default.htm> (accessed April 27, 2008).

keyboards do not have the same presence nor do they invite more than one user at a time. Maintaining or bending hardware rules will also change the rhetoric of the game.

Nic Kelman's "Video Game Arts Manifesto" calls for the development of games that are not merely entertainment. He pushes for emotional involvement that is not just thrills and excitement, and he insists on better visual design and writing. Like Adams, Kelman calls for unique and original visuals instead of reliance on other established styles, such as, "graffiti, anime and French comic books."²⁸

Francisco Ortega-Grimaldo advocates the Ludoztli Movement, which uses board games as art and social commentary.²⁹ Ortega-Grimaldo's urges "artists to stop making non-interactive art, and break the wall between the art object and passive viewer."³⁰ He hopes that participation in the movement, through the interaction with artful games as well as with fellow participants, that players will experience changes of heart and will develop new perceptions of their worlds. Ortega-Grimaldo concludes that it is through games that the viewer actively engages a social statement, injustice, or opinion, and plays ideas out.

The challenges, manifestos, and movements discussed above advocate similar goals for the creator/artist and viewer/player: namely, that together they create moving works of art.

²⁸ Nic Kelman, "Yes, But is it a Game?" in *Gamers: Writers Artists and Programmers on the Pleasures of Pixels*, ed. Shanna Compton, (Brooklyn: Soft Skull Press, 2004).

²⁹ Francisco Ortega-Grimaldo, "Ludoztli," (2006), <http://www.ludoztli.com/about.html> (accessed April 27, 2008).

³⁰ Ibid.

II. Historical Precedents

Play captivated artists late in the twentieth century. The game became a topic of discussion, an example in theory, and an object of art. In an article entitled, “Cold War Games and Postwar Art,” Claudia Mesch notes that “late twentieth-century artists consistently turned to the game as structure or subject for their art.”³¹ They explored theoretical and practical issues that continue to be relevant in new media art, and their game-related art provides a context for my own work.

Duchamp, Dada and Chess

A game of particular significance in late twentieth-century art is the game of Chess, which more than a few artists appropriated in their work. Larry List, who curated “The Imagery of Chess Revisited,” a recreation of “the groundbreaking 1944 exhibition organized by Marcel Duchamp and Max Ernst at the Julien Levy Gallery,”³² writes, “In a time of world conflict when many looked on helplessly, Chess represented a controllable, tabletop form of ritual warfare, devoid of chance and predicated totally on skill.”³³ The artists of the era “mined the rich associations of the game and its history.”³⁴ They explored the form and function of set designs and created works that employed Chess as a metaphor of conflict and conquest. The Modernists generally simplified the pieces to geometric forms expressing movement and function, as did the designers from the Bauhaus school. The Surrealist André Breton filled glasses with varying amounts of red or white wine to differentiate pieces and their functions. The pieces and board also inspired

³¹ Claudia Mesch, “Cold War Games and Postwar Art,” *Reconstruction* 6 (Winter 2006), par. 3, <http://reconstruction.eserver.org/061/mesch.shtml> (accessed April 27, 2008).

³² The Noguchi Museum exhibition was open October 21, 2005 through April 16, 2006 (Exhibitions & Collections, http://www.noguchi.org/imagery_chess_past.html [accessed April 27, 2008]).

³³ Larry List, “The Imagery of Chess Revisited,” in *The Imagery of Chess Revisited*, ed. Larry List (New York: George Braziller, Publishers, 2005), 16.

³⁴ *Ibid.*

paintings such as Dorothea Tanning's *End Game* in which a white, satin, high-heeled shoe violently crushes a bishop's miter.³⁵

Concerning Duchamp, List writes, "While his peers were beginning to veil the subject matter in their art, Duchamp was veiling the fact that he was making art at all, by camouflaging it as chess."³⁶ Duchamp, it is fair to say, was consumed by Chess. It was an escape that allowed him "to live in a universe where symbolic equivalents replaced objects instead of referring to them," a world that can be seen as the polar opposite of the Dadaist tradition for which he is famous.³⁷ As a Dadaist, Duchamp achieved great success by creatively breaking and bending the rules of the art world; yet he had equivalent success as a competitive Chess player, creatively following the rules of the game. Jerrold Seigel points out the irony of Duchamp's approach to the worlds of art and Chess: "one might notice first of all that unlike art—at least modern art—[Chess] is a realm where the rules never change."³⁸

Duchamp played Chess by the rules but also modified the board and pieces in interesting ways. Duchamp's *Pocket Chess* was a modification of a commercially available Chess set. He replaced the celluloid pieces with ones of his own design, adding pins to the board. The new pieces rested on the pins, which prevented them from slipping across its tiny surface. The modification, however, made the game more difficult to play and made it more of an art object than a playable game.

It is well known that Duchamp sought to abandon retinal art in favor of an art that would challenge and engage the mind of the viewer. Seigel suggests that "for Duchamp, playing chess

³⁵ *Ibid.*, 97–99.

³⁶ *Ibid.*, 30.

³⁷ Jerrold Seigel, "Loving and Working," in *The Private Worlds of Marcel Duchamp: Desire, Liberation, and the Self in Modern Culture* (Berkeley: University of California Press, 1997), 209.

³⁸ *Ibid.*, 211–12.

was one more way to paint a portrait of himself as a man and artist.”³⁹ I believe that he found the level of engagement he sought not in art that was static and simply viewed, but in the activity of playing a game of Chess.

Surrealist

André Breton once characterized the whole of Surrealism as a “persistent playing of games.”⁴⁰ But the games that the Surrealists played were not art; rather, the games were used to create art. Surrealist games were tools of automatism, a technique for spontaneously writing or drawing without aesthetic or moral censorship. When played by the rules, the games allowed a group of artists to act as one, without the dominating influence of a single ego. For example, the Exquisite Corpse (*Cadavres exquis*), a game developed in 1925, is a collaborative procedure of collecting and assembling words or images to compose one work devoid of any one individual’s control over the participants. Players added sentences to a composition by following rules, or they added images based on seeing the end of what the previous player had contributed.⁴¹ The Surrealist Inquiries were question-and-answer games published regularly in various periodicals such as *Littérature* and *La Révolution Surréaliste*. These were designed to be unexpected and to reveal unsuspected and perhaps fundamental information about the respondents. The questioner might ask, “Suicide: is it a solution?” If respondents considered the question a moral one, they would often fall under editorial abuse.⁴² These types of surrealist games pushed inquiry almost to levels of inquisition, at times making them uncomfortable experiences.⁴³ Although the rules worked, and the artworks produced are unique, the artists were not able to control or predict what the

³⁹ *Ibid.*, 211.

⁴⁰ Quoted in *A Book of Surrealist Games*, comp. Alastair Brotchie and ed. Mel Gooding (Boston, MA: Shambhala Redstone, 1995), 137.

⁴¹ *Ibid.*, 25.

⁴² *Ibid.*, 154.

⁴³ *Ibid.* 84-83.

final piece would say, or how it would be interpreted by players beyond an exploration into the sub-conscience. The games were designed to shed light on the inner, unacknowledged working of the human mind. The rules facilitated a letting go, a releasing of control; they let interpretation and chance uncover hidden truths.

Fluxus

According to Mesch, “Fluxus always cultivated the qualities of play, which [George] Maciunas understood as being connected to the mass-culture phenomena of amusement and entertainment within art.”⁴⁴ Fluxus games such as Chess on a Backgammon table were, of course, unplayable, but this did not make the works failures. They were artistic expressions and succeeded in making players and observers think about the nature of rules. To play Chess on a Backgammon table is to play neither Chess nor Backgammon, for the rules must be modified in a hybrid of the two games. Fluxus games were not gags; they were commentaries on the rules of making, buying, selling, and canonizing art. Through entertainment and “lack of seriousness,” they were able to grab the public’s attention, with the hope that Fluxus works “might bring the public to the realization of social and political injustice.”⁴⁵

Yoko Ono’s *Play it by Trust* consisted of a series of installations based on the concept of an all white Chess set. The installations vary in form. In East Hampton, New York, at Longhouse, Ono installed a 16.5 foot square marble and concrete Chess set. There have been a number of small white table and chair sets produced, and an iteration of ten all white sets laid out at a conference table. Ono’s Chess modifications represent prime examples of a game—specifically a war game—adapted and utilized as a call for peace. In *Play it by Trust*, players

⁴⁴ Mesch, “Cold War Games and Postwar Art,” par. 26.

⁴⁵ *Ibid.*, par. 19.

ultimately lose track of their pieces as their forces move forward. The pieces become lost as “enemies” meet, and, unable to differentiate sides by color, players either must remember where their pieces are, remember the direction their pieces face, or realize that they are all the same. The experience of becoming lost ultimately shows that both sides are equal, forcing players either to follow the standard rules for Chess or to create a new way to play. Here a game that traditionally represents a war is used to show that there are alternatives to fighting, and that when people recognize their similarities, they can find new ways to play, work together, and coexist in peace.

Contemporary Artists

Wafaa Bilal is an Iraqi born American artist whose work met with much controversy in March 2008. Bilal’s *Virtual Jihadi* is a game modification once removed. To explain what I mean by “once removed,” I must trace the lineage of the original game and its first modification. In 2002, Petrilla Entertainment had released the game, *Quest for Al-Qa’eda: The Hunt for Bin Laden*. In 2003 Petrilla released *Quest for Saddam*, a first-person shooter in which the player hunts down and kills Saddam Hussein. The *Quest for Saddam* game was marketed online and even promoted on Fox News, CNN, MSNBC and Tech TV.⁴⁶ In 2006, CNN reported that SITE (Search for International Terrorist Entities), “a jihadist mouthpiece organization,” had created *Quest for Bush: The Night of Bush Capturing*, which was based on *Quest for Al-Qa’eda*, and they used the code from *Quest for Saddam*. In this game, however, players battled against armies of characters that look like George W. Bush.⁴⁷ *Quest for Bush* was a modification of *Quest for Saddam*. *Virtual Jihadi* is a modification of *Quest for Bush*, in which Bilal uses the same game code but

⁴⁶ “*Quest for Saddam*,” GameSpy PC, <http://pc.gamespy.com/pc/quest-for-saddam>, (accessed April 27, 2008).

⁴⁷ “Web Video Game Aim: ‘Kill’ Bush Characters,” CNN.com, September 18, 2006, <http://edition.cnn.com/2006/WORLD/meast/09/18/bush.game> (accessed April 27, 2008).

changes the skin of the protagonist to look like himself (much like Feng Membo does in Q4U). Bilal's modification of the game is intended to illustrate the plight of Iraqis today. The game begins with the protagonist allied with American forces; as the game progresses, their allegiance shifts to Al-Qa'eda. The shift is not made for ideological reasons, but as a means of survival. To quote Bilal's statement about the work, "In these difficult times, when we are at war with another nation, it is our duty as artists and citizens to improvise strategies of engagement for dialogue."⁴⁸ One may agree with what Bilal is saying about the need for dialogue and with what he is saying with his art, and yet recognize that his work is controversial and will continue to face challenges. One challenge is censorship. The work is shocking, yet those who may need to understand the message of the work may protest the work and refuse to engage it. Some may condemn the work without knowing the work or its context.

Natalie Bookchin's *The Intruder* is an internet adaptation of a short love story by Jorge Luis Borges.⁴⁹ The story is brutal and tragic, and Bookchin makes it into a game, albeit a serious game. Over a course of ten distinct levels, Bookchin uses differing 70's and early 80's video-game interfaces as metaphors for "shooting, wounding and surveying (a woman's body)," and she makes the metaphors "grossly apparent."⁵⁰ As players work through each level, they are rewarded with pieces of the Borges narrative instead of points. To confuse and implicate a player, Bookchin will shift the player's position throughout the game. A player will shift to opposing sides, will assume the roll of a male and then a female character. Players also learn that in some levels, they must lose to proceed. This makes the player an accomplice in the tragic

⁴⁸ Waffaa Bilal, "Waffaa Bilal's Response to President Jackson Regarding the Closure of His Exhibit," *Virtual Jihadi*, <http://wafaabilal.com/statement.html> (accessed April 27, 2008).

⁴⁹ Natalie Bookchin, "The Intruder," *Frontiers: A Journal of Women Studies* 26 (2005): 43-47, <http://www.netarts.org/mcmogatk/2003/works/harger/intruder.html> (accessed April 28).

⁵⁰ *Ibid.*

murder of a woman. If players choose to proceed, then the woman dies; if they do not, they are not able to see the full story.

Rafael Fajardo, a contemporary artist and founder of the collaborative SWEAT, has worked on socially conscious video games related to U.S./Mexico border and immigration issues.⁵¹ The collaborative's first game, *Crosser*, was completed in 2000 and is modeled after the arcade game, *Frogger*, a game about frogs crossing a busy street. In *Crosser*, the player helps Juan cross the U.S./Mexico border. Fajardo adjusted the controls of the game to make the game more difficult than *Frogger*. For example, using the controls to take one step forward might mean taking two steps backward, illustrating the challenges that immigrants experience when trying to cross the border. Mobility is limited by re-calibrated game controllers, and players encounter obstacles such as a polluted Rio Grand River and border guards who patrol on foot, in SUVs, and in helicopters.

Mary Flanagan's 2006 [*Giantjoystick*] is a ten-foot tall game controller that is modeled after the classic 1977 Atari model 2600 joystick.⁵² Flanagan wanted to create a collaborative interface, and she did this by increasing the controller's dimensions. To use the joystick to play one of the classic Atari games, players have to work together. The joystick is so large that two people must move the stick back and forth and a third must push the fire button. It is simply impossible to play the game by oneself. Although the joystick is used to play traditional Atari games, Flanagan states that "it is not a software art piece but a collaborative social sculpture."⁵³ The work is nostalgic, prompting players to recall playing Atari games with friends and family members, and it encourages players to come together with others to enjoy the game.

⁵¹ SWEAT, http://www.sudor.net/games/crosser_lamigra/index.html (accessed April 28, 2008).

⁵² Mary Flanagan, "[*Giantjoystick*]," (2006), <http://maryflanigan.com/joystick/default.htm> (accessed April 27, 2008).

⁵³ *Ibid.*

Francisco Ortega-Grimaldo, a SWEAT collaborator and founder of the Ludoztli (“making games”) movement, created the board games, Crossing the Bridge and Observance. Both deal with U.S./ Mexico border issues. Crossing the Bridge is a game of chance and is similar to Monopoly and The Game of Life. The game is designed to illustrate “the symbiotic relationship of the El Paso-Juarez border by resembling the cliché of the illegal exchange of goods between both cities.”⁵⁴ Players attempt to smuggle illegal cargo (i.e., food, drugs, illegal aliens) across the border. Before entering the United States, however, all cars are searched by the Border Patrol, and, if caught, the player/driver can lose the cargo, passport, or car. If a player successfully evades the Border Patrol, the player is awarded money, which can be used to buy appliances or cars to be smuggled into Mexico. To win, a player must get all of the appliances needed to furnish a first-class home.

Ortega-Grimaldo’s Observance is also chance-based, but the game is modeled after the war game, Battleship.⁵⁵ Unlike Battleship, however, the goal is not to destroy an opponent’s ships. One player acts as the Border Patrol and tries to spot and prevent immigrants from entering the United States from Mexico; the other player acts as a group of immigrants seeking asylum in a church or seeking a green card, which has been hidden somewhere on the board. Players assume the roles of hunter and hunted.

Gabriel Orozco has created modifications of Ping Pong, Billiards, and Chess. For Oval Billiard Table (1996), Orozco has modified Billiards to be played by “the laws of the universe.” He has reshaped the traditionally rectangular billiard table into an oval and has suspended one of the three billiard balls on the end of a pendulum. In doing so he has made the game highly

⁵⁴ Francisco Ortega-Grimaldo, "Observance," *Games as Cultural Practice: Post Colonial Imaginations* (2007), <http://www.ludoztli.com/games/observance.html>, (accessed April 26, 2008).

⁵⁵ Francisco Ortega-Grimaldo, "Crossing the Bridge," *Games as Cultural Practice: Post Colonial Imaginations* (2007), <http://www.ludoztli.com/games/bridge.html> (accessed April 26, 2008).

unpredictable; the swinging ball might hit one of the balls in its path or an unsuspecting player. In this modification, players have to create new rules to play. For his 1996 *Horses Running Endlessly*, Orozco redesigned the landscape of Chess and removed all pieces but knights. He has increased the number of knights to four sets of sixteen and has increased the number of squares on the chessboard from 32 to 256. In the new landscape, the knights wander aimlessly. The modification fragments the world of the game. Orozco states, “You have this fragmentation and then you act. You have to move things, and then you commit yourself with the movement. And then, reality is coming back to you. Reality means the other player. And it’s coming back to you with a move that you probably expect. But it could be a surprise.”⁵⁶ In a PBS interview, Orozco talked about games as “expressions of how we believe the universe works in different cultures . . . Every game has a connection to how we conceive nature and landscape. How we order and structure reality.”⁵⁷

Volker Morawe and Tilman Reiff of Fur Art Entertainment Interfaces sought to bridge the on-screen world of games and the real world of their work in *PainStation* (2001).⁵⁸ The game is a duel recast as a game of Pong and is played on an arcade console. Players stand across from each other, one hand on a controller and the other on a “pain execution unit” (PEU). Points are not won or lost during play; however, a player who fails to return a ball successfully is penalized by a burn, shock, or lash on the hand from the PEU. The player who first lifts a hand from the PEU loses the duel. Although players are playing Pong, the game is not Pong but a test of endurance, testing ability to withstand pain. The most interesting thing about the piece is what it reveals

⁵⁶ Gabriel Orozco, “Loss and Desire,” in *Art:21: Art in the Twenty-First Century*, ed. Margaret L. Kaplan, (Harry N. Abrams, 2003), 93.

⁵⁷ “Gabriel Orozco,” *Art:21*, PBS, <http://www.pbs.org/art21/artists/orozco/> (accessed April 28, 2008).

⁵⁸ Volker Morawe and Tilman Reiff, “Painstation,” (2001), <http://www.painstation.de/> (accessed April 28, 2008).

about human nature. Players become absorbed in the game, playing to avoid as well as to inflict pain, laughing at their own pain and enjoying the pain of the opponent.

Matthew Ritchie illustrates the nature of the universe in a game entitled, Proposition Player.⁵⁹ The game is played in two different ways. The first is generative and is only played by the artist. The artist plays Poker with a modified deck of cards, and the hands that are dealt guide the composition of paintings, which are then created by the artist. Each card has been modified to include a name and symbol representing a force or dimension at work in the cosmos (e.g., strong force, weak force, light, gravity, time, etc.). Some of the paintings that resulted from the game are *M Theory* (2000), based on four aces and a joker; *Giant Time* (2003), based on four aces; *The Eighth Sea* (2002), based on a straight; and *After Lives* (2002), based on two pair. There are fourteen in the series. In the generative version, the artist plays a card game, and the card game prompts the painting. The second version of the game is an installation, and the game is not played by the artist but by patrons. The game is modeled after the casino game, Craps. Patrons roll oversized dice, and each roll is converted into information that is used to create a digital painting that is then projected on the wall. As players continue to roll the dice, they are taken through five levels of play and a narrative relating the evolution of the universe. The installation explores the idea of risk and poses the question, “Is it possible to always win?” The slogan of the game is “You may already be a winner!”⁶⁰ Ritchie converts the traditional approach of confronting ideas about the universe with awe to confronting the ideas with an act of play. He says, “The technology of the playing card is such a beautiful thing. It’s been around for a long,

⁵⁹ “Matthew Ritchie,” Art:21, PBS, <http://www.pbs.org/art21/artists/ritchie/#> (accessed April 28, 2008).

⁶⁰ “Matthew Ritchie,” Art:21, PBS, <http://www.pbs.org/art21/artists/ritchie/#> (accessed April 28, 2008).

long time. No one mistakes it for some kind of art-related activity—it's a playing card. You know you can throw it away."⁶¹

⁶¹ Ibid.

III. Exhibits

The body of work discussed below includes examples of the three modes of interactivity that I have described: static, reactive and interactive. All explore aspects of war and conflict. In each the coded or rule-based interactivity is meant to enhance the meaning of the work, not simply to make it “more sexy.” The narrative of each piece unfolds in the actions of the participants. Players glimpse aspects of war and conflict by means of a card game, board games, physical acts, and reflection.

warDecks

Game modification / 52 decks of plastic coated 2 ½” x 3 ½” playing cards / 2006

WarDecks is a game modification in the tradition of Fluxus. To create the piece, I re-sorted fifty-two decks of playing cards so that each deck contained only one type of card (e.g., a deck with fifty-two queens of hearts). I handed out decks to fellow artists, academics and friends and asked them play War, a card game for two or more players. The rules are simple and widely known: the cards in the deck are shuffled and dealt to the players; each player has the same number of cards; to play a hand, players simultaneously reveal a card, and the highest card captures the hand. The object of the game is to capture all cards in the deck. I did not change the rules of the game, but I did modify the code.

No one, of course, can ever win a hand because every card in the deck is the same. But the modification makes a point: no one can win the game of war. Those who played the game reported that the modification took all of the fun out of the game. The experience also makes a point: the game of war is not fun. At best, the game and its real-world counterpart are tedious and pointless. The work succeeds in some ways, but fails in others. Players enjoy discovering that all

of the cards in the deck are identical, and they are amused by the realization that no one can win a hand or the game. But interest quickly fades into frustration, irritation, and abandonment. The game is interactive, but does not sustain interest, and players do not necessarily associate the game of War with the realities of war.

Well, Let's Just Ba-Bomb the Mushroom Kingdom, Too.

Ink on paper / eighteen 9" x 13" water-based woodblock prints / 2007

Well, Let's Just Ba-Bomb the Mushroom Kingdom, Too, combines traditional Japanese woodblock printing techniques and contemporary video-game imagery in a visual comment on the unfortunate nature of sanctioned and terrorist bombing. I produced eighteen prints designed for display in a rectangular pattern on a wall. Each print contains a stylized, cartoon-like image of a bomb that appears in the Super Mario Brothers video game. Added to each print is the name of one real-world city that suffered a bombing (e.g., Oklahoma and Hiroshima). The title of the piece, like the image of the bomb, alludes to the video game. In the game, the Mario Brothers attempt to rescue a princess from the cute and peaceful Mushroom Kingdom, which they would never consider bombing because a princess lives there. The title of my piece is sarcastic, for it would not be prudent to resort to bombing. The piece is a response to the realization that all bombs—whether dropped from a plane or hidden in car—shatter bodies and destroy property and that the horrors of the tactic cannot be masked and should not be glorified by marketing slogans such as “shock and awe.”⁶² The current practice of marketing war (and, hence, marketing bombing) offends. It shocks the sensibilities and lends itself to a response in the Surrealist and Dadaist tradition: “épatez les bourgeoisie.”

⁶² Paul Rutherford, *Weapons of Mass Persuasion: Marketing the War Against Iraq* (Toronto: University of Toronto Press, 2004), 52–54.

There is no attempt in the piece to identify specific nations or conflicts, to organize them geographically or chronologically, or to distinguish military or terrorist bombings. These differences are important in some respects, but I want the viewer to see that all bombings are alike—they destroy; and there is always collateral damage. A bomb is a bomb is a bomb. This is emphasized by the repetition and sameness of each print. The cities differ, but the bomb is the same. Like Super Mario Brothers, bombing is a game, albeit a deadly game, and one that should not be played. Ironically, in the Mario Brothers game only the bad guys drop ba-bombs. The protagonists, Mario and Luigi, avoid them. The allusion to the game will be missed by many, and this is a weakness of the piece, but I have kept the video-game reference because there is something to learn from the peaceful victory that can be achieved in the video game, and those familiar with game will appreciate the connection. Players can win the game without ever dropping a bomb or firing a shot.

Argument

Table game / One wood, plastic and steel 40" x 40" x 45" table, three wood and plastic 29" stools, 54 wood, steel and plastic game pieces / 2007-2008

Argument is a table game that allows three players either to collaborate or to compete—the players decide. The players sit at a round table that has 144 circles inlaid on the top. They take turns moving their own game pieces from circle to circle. The pieces stack, and a player who creates a stack of three pieces, removes and collects the pieces. In competitive play, the person who removes all of his or her pieces and collects the most pieces by the end of the game, wins. In collaborative play, everyone can win, but only if all pieces are removed from the table.

Setup and play are easy; winning is not. Each player receives six of each type of piece and lays the pieces out between three rows. The symbol on top of each piece shows its movement. Each of the three pieces moves like a familiar Chess piece: a knight, a rook, and a bishop. In addition, each type will only stack on a specific type of piece, and the relationships are similar to Rock, Paper, Scissors: rock over scissors; scissors over paper; paper over rock. Players do not have to remember the relationships because a hole in the bottom of each piece matches the top of the specific type of piece on which it stacks.

The physical structure of the game was intended to foster collaborative play. Players sit at a round table as equals. The table is small enough to encourage intimate conversation, but too large to reach across easily, so players must help one another move pieces that are out of reach. Even if players choose competitive play, they must collaborate with one another in moving pieces. Watching people play the game has shown that players often choose to compete, and the competition reveals something about human behavior: when players collaborate, they are talking to one another; when they compete, they talk much less or not at all. These behaviors seem to increase as players become more familiar with the game. When playing collaboratively, the game is more like a puzzle than a board game, for players must have open communication to plan a strategy to clear the board. People enjoy playing the game, and because it requires three players, it does bring people together. Players decide how to play, and the decision changes how they interact with the game and with one another.

The Box Game

Box # 8, 12, 11, 11, 8, 7, 2, 6, 2, 2, 1 / Zebra-wood, padauk, and walnut kerfs 11" x 8" x 7" /
2007

Box # 6, 11, 5, 7, 12, 2, 4, 3, 6 / Bloodwood, maple and walnut kerfs 5" x 7" x 12" / 2007

The Box Game is very much in the tradition of Surrealist automatism, for it is a game that is used to select materials, establish dimensions, and determine the number of kerfs in the construction of wooden boxes. First, two dice are rolled to determine a type of wood to use. Twelve types of wood were numbered I through XII. The number on the dice corresponds to a type of wood. If the roll includes the number one, then wood type I is used, as well as the type of wood that corresponds to the sum of the dice. For example, if a one and a four are rolled, wood types I and V are used. If doubles are rolled the player may use two types of wood, the first being the sum of the first roll and the sum of the second roll. Second, players roll two dice to determine the type of wood to insert into the kerfs. Third, players roll two dice three times to determine the height, width and depth of the box. Fourth, players roll one dice four times to determine how many kerfs are used on each edge of the box. Fifth, players must make a lid from the remaining woods to fit the width and depth of the box. The box is then titled using the numbers rolled. Chance acts as a guide, and the rules, I discovered, are surprisingly freeing, allowing the maker to focus on the process not the design.

With this method I created two boxes, box # 8, 12, 11, 11, 8, 7, 2, 6, 2, 2, 1 and box # 6, 11, 5, 7, 12, 2, 4, 3, 6. I put a unique set of holes in the lids of each box, encoding how and who could open them. With box # 8, 12, 11, 11, 8, 7, 2, 6, 2, 2, 1 five holes were laid out so that the fingers of a typical adult's right hand could slip into the lid allowing it to be lifted off. With box # 6, 11, 5, 7, 12, 2, 4, 3, 6, four holes were added, two on either side of the lid, allowing a child's index fingers and thumbs to slip inside the box to lift off the lid. The holes are intended to capture a viewer's curiosity, and when the boxes are displayed, viewers were observed reaching out and removing the lids of the boxes. Viewers do experience a measure of inner conflict: the

boxes raise curiosity, but viewers cannot see what is in a box before slipping fingers and thumbs inside. Their fingers act like a key; if their fingers do not fit, the contents of the box remain a mystery.

Mano a Mano

Installation / Regulation-sized 38" x 26" x 40" arm-wrestling table, 2" x 3" x 66" speaker boxes, walnut, steel, leather and custom electronics, 10' x 10' canvas mat / 2007-2008

Mano a Mano is a regulation-size arm-wrestling table built on massive legs. However, it is not a regular arm-wrestling table. The rusty steel top, worn leather elbow rests, and sweat-stained pin pads, and walnut enclosure conceal electronics that sense and process the wrestling match.

Players discover that the table reacts to the back-and-forth movement of their interlocked grip.

The table detects hand and arm location as players exert force and press for victory, and the table responds by playing pre-recorded sounds.

Arm wrestling stirs images of muscles and gambling: power and greed on a man-to-man scale; one-on-one competition across and around a back-room table. The design of the table evokes but also extends the image. The massive, square design recalls the imposing shape of a fortress with corner towers. Players become soldiers who look one another in the eye and, while they compete, hear the voice of an unseen person: a drill sergeant barking orders. The voice, however, is female. She calls out passersby, outlines rules, starts the contest, chides those who cheat, and berates underachievers. The table borrows an image from the battlefield and a voice from boot camp.

Mano a Mano is a metaphor. Soldiers engage in hand-to-hand combat and hear a master sergeant's instructions. The sergeant berates, and the language is sexist and abusive; it is a

language that creates warriors. They are not praised or encouraged; they are insulted, and this goads them. The voice deforms their humanity and devalues what they defend. They are little girls, not valiant men, yet wars are said to be fought for those back home. War dehumanizes, and the voice of war dehumanizes soldiers. They are incited to fight by verbal abuse. Ironically, the abuse does not come from the opponent but from the sergeant, and those who play the game seem to derive a measure of satisfaction from it. The work emphasizes the liminal and crosses boundaries: game and war; wood and steel; worn table and new technology; male stereotype and female voice; victory and pain.

Rock Paper Scissors Bomb

Sculpture / 15”x 42”x 38” walnut pedestal, American rock, Japanese paper, German scissors, and an inert hand grenade / 2008

Rock Paper Scissors Bomb is an iconic representation and modification of the hand game Rock Paper Scissors, (also known as rochambeau or jan-ken-pon) in the tradition of the Dadaist readymades. I have changed the code of the game from hand signals to the actual objects, and changed the rules by including a bomb, specifically an inert hand grenade. Although it is nothing new to add a fourth item to the game—for example, one set of rules includes dynamite which can beat rock and paper but is defeated by scissors because they are able cut the dynamite's fuse—the bomb trumps everything. I only include one of each item, shifting the game of chance to a game of speed. The game becomes a race for players to reach the strongest item first. Although this piece is designed to be static, it has an implied interactivity allowing viewers to contemplate how they might play.

No one can play this game, but one can imagine racing for the bomb. In this modification the bomb unseats the balance of power and puts the viewer in a cold war mentality: "if I reach the bomb first I know I will win." This implicates the viewer and the desire for power, and raises the question of motive: Is it a fear of losing or a need to win that evokes a race for the bomb?

Last Resort

Game modification / 10" x 10" x 1" walnut and sand chessboard, walnut and brass pieces / 2008

Last Resort is a modified game of Chess in which two opposing sides wage war to protect civilians and territory. The Bleached side consists of eight pawns, two rooks, two knights, two bishops, and a nuke; the Oiled side has eight pawns. Neither side has a king or a queen. The game itself has six civilians. The chessboard has alternating walnut islands and black sandpits. The game of Chess traditionally represents war between kingdoms, and the kingdoms have equal power, observe the same rules of engagement, and pursue the same end: to overpower the opposing king. The distribution of power in real war, however, has always been asymmetrical. War today is rarely an attempt to unseat a king, and contemporary wars are not fought by military forces of equal strength; the differences between sides may be enormous. Traditional rules of engagement are not necessarily observed. The conflict may not even involve one nation against another nation, and the distinction between military and civilian participants is blurred. Last Resort modernizes the game of Chess by mimicking these aspects of real war. Each side has its own code. The Bleached side, which represents strictly regimented soldiers, wages war to protect the citizens of a foreign territory; the objective is to liberate a people believed to be oppressed. The Oiled set of pieces represents autonomous soldiers who fight to protect their freedoms and to recruit citizens to support their causes. Players on both sides seek to protect life

and freedom, but they do so for very different reasons. One fights to free a foreign people in another land; the other fights to be a free people in their own land.

The asymmetry of war is encoded in the pieces and their movements. The Oiled player has eight pawns that move, at the discretion of the player, like a rook, knight, or bishop, though no more than three squares at a time. The Bleached player has eight pawns, two rooks, two knights, and two bishops that move like conventional chess pieces, plus one nuke that moves one square in any direction. The game also has six civilian pieces that either player may move diagonally one square at a time. Players take turns moving one of their own pieces or one of the civilian pieces. Players can move pieces to empty squares or squares occupied by opponent or civilian pieces. Moving to an occupied square removes the occupant from the board. Oiled pawns and the nuke may be detonated or moved. To detonate an Oiled pawn, it and all adjacent pieces are removed from the board. Detonating the nuke removes the nuke and all pieces within three squares of the nuke. During a turn, a player can either move or detonate a piece but cannot do both. The first player to move four civilians to the row closest to their side of the board wins. If three or more civilians are removed from the board, the player who removed the fewest civilians wins.

I've created a situation where the citizens are the most valuable piece of the game, the key to winning is not strictly through annihilating your opponent, but through the people effected most by the conflict, those caught in the middle. In the game players can choose to play justly and protect the citizens. Or manipulate civilian loses to gain support through deception. Further, its an attempt to humanize the act of a suicide/ martyr bombing an act done out of desperation in hopes to sway the odds of an uneven playing field.

Bibliography

- Adams, Ernest. "Dogma 2001: A Challenge to Game Designers," Gamasutra.com (February 2, 2001), http://www.designersnotebook.com/Columns/037_Dogma_2001/037_dogma_2001.htm (accessed April 27, 2008).
- Anspach, Ralph. Anti-Monopoly. <http://www.antimonopoly.com> (accessed April 29, 2008)
- Arcangel, Cory. "Cory Arcangel—Digital Media Artist." Art & Technology Lectures, Columbia University School of the Arts Digital Media Center, 2004.
- Art Interactive. "Curatorial Mission Statement." (2005), <http://www.artinteractive.org/curatorial.php> (accessed April 26, 2008).
- Bilal, Waffaa. "Waffaa Bilal's Response to President Jackson Regarding the Closure of His Exhibit." Virtual Jihadi, <http://wafaabilal.com/statement.html> (accessed April 27, 2008).
- Bogost, Ian. *Persuasive Games: The Expressive Power of Video Games*. Cambridge, MA: The MIT Press, 2007.
- Bookchin, Natalie. "The Intruder." *Frontiers: A Journal of Women Studies* 26 (2005): 43-47, <http://www.netarts.org/mcmogatk/2003/works/harger/intruder.html> (accessed April 28).
- Brotchie, Alastair. *A Book of Surrealist Games*. Edited by Mel Gooding. Boston, MA: Shambhala Redstone, 1995.
- Cable News Network. "Web Video Game Aim: 'Kill' Bush Characters." CNN.com, September 18, 2006, <http://edition.cnn.com/2006/WORLD/meast/09/18/bush.game> (accessed April 27, 2008).
- Cory Arcangel. "Cory Arcangel—Digital Media Artist." Art & Technology Lectures. Columbia University School of the Arts Digital Media Center, 2004, http://www.columbia.edu/itc/soa/dmc/cory_arcangel/, (accessed April 27, 2008).
- Coulter-Smith, Graham, and Elizabeth Coulter-Smith. "Art Games: Interactivity and the Embodied Gaze." *Technoetic Arts: A Journal of Speculative Research* 4 (2006): 169-82.
- Crary, Jonathan. *Techniques of the Observer: On Vision and the Modernity in the Nineteenth Century*. Cambridge: MIT Press, 1992.
- Fajardo, Rafael. SWEAT. http://www.sudor.net/games/crosser_lamigra/index.html (accessed April 28, 2008).
- Flanagan, Mary. "[Giantjoystick]." (2006), <http://maryflanagan.com/joystick/default.htm> (accessed April 27, 2008).
- Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. 2d ed. Translated by Alan

- Sheridan. New York: Vintage Books, 1995.
- Gardner, Martin. "Mathematical Games: The Fantastic Combinations of John Conway's New Solitaire Game 'Life.'" *Scientific American* 223 (1970): 120–23, <http://www.ibiblio.org/lifepatterns/october1970.html>, (accessed April 26, 2008).
- Gee, James Paul. *What Video Games Have to Teach Us about Learning and Literacy*. New York: Palgrave Macmillan, 2003.
- Gibson, David, Clark Aldrich, and Marc Prensky. *Games and Simulations in Online Learning: Research and Development Frameworks*. Hershey, PA; Information Science, 2007.
- "Golly," *Sourceforge.net*, <http://golly.sourceforge.net>, (accessed April 26, 2008).
- Goodeve, Nicholas Thyrza. "Reflections on an Omnivorous Visualization System: An Interview with Matthew Ritchie." In *Matthew Ritchie: Proposition Player*. Edited by Lynn Herbert. Houston, TX: Hatje Cantz Publishers, 2004.
- Harvey, Auriea, and Michaël Samyn. "Realtime Art Manifesto." *Gaming Realities: The Challenge of Digital Culture*, Mediaterra Festival of Art and Technology. Athens, 2006. <http://tale-of-tales.com/tales/RAM.html> (accessed April, 27 2008).
- Hasbro. "Monopoly History." *Hasbro.com*, <http://www.hasbro.com/games/kid-games/monopoly/default.cfm?page=History/history> (accessed April 26, 2008).
- Herbert, Lynn, ed. *Matthew Ritchie: Proposition Player*. Houston: Hatje Cantz Publishers, 2004.
- Hopkins, Randi. "Collision Collective at Art Interactive and Urban Icons At the New Art Center." *The Boston Phoenix*, March 25, 2005, <http://www.thebostonphoenix.com/boston/events/galleries/documents/04551270.asp> (accessed April 26, 2008).
- Huhtamo, Erkki. "Silicon Remembers Ideology, or David Rokeby's Meta-Interactive Art (from the Catalog for 'The Giver of Names' Exhibit at the McDonald-Stewart Art Centre)." (1998), <http://homepage.mac.com/davidrokeby/erkki.html> (accessed April 26, 2008).
- Kelman, Nic. "Yes, But is it a Game?" In *Gamers: Writers Artists and Programmers on the Pleasures of Pixels*. Edited by Shanna Compton. Brooklyn: Soft Skull Press, 2004.
- Lantz, Frank. "Forward." In *Rules of Play: Game Design Fundamentals, X*. Cambridge: MIT Press, 2004.
- List, Larry. "The Imagery of Chess Revisited." In *The Imagery of Chess Revisited*. Edited by Larry List. New York: George Braziller, Publishers, 2005.
- Lopes, Dominic. "The Ontology of Interactive Art." *Journal of Aesthetic Education* 35 (2001): 65-81.

- Flanagan, Mary. “[Giantjoystick],” (2006), <http://maryflanagan.com/joystick/default.htm> (accessed April 27, 2008).
- “Matthew Ritchie,” Art:21, PBS, <http://www.pbs.org/art21/artists/ritchie/#> (accessed April 28, 2008).
- Mesch, Claudia. “Cold War Games and Postwar Art.” *Reconstruction* 6 (Winter 2006), <http://reconstruction.eserver.org/061/mesch.shtml> (accessed April 27, 2008).
- Munroe, Alexandra, and Jon Hendricks. *Yes Yoko Ono*. New York: Harry N. Abrams, 2000.
- Morawe, Volker, and Tilman Reiff, “Painstation.” (2001), <http://www.painstation.de/> (accessed April 28, 2008).
- Orozco, Gabriel. “Loss and Desire.” In *Art:21: Art in the Twenty-First Century*. Edited by Margaret L. Kaplan. Harry N. Abrams, 2003.
- “Orozco, Gabriel.” Art:21, PBS, <http://www.pbs.org/art21/artists/orozco/> (accessed April 28, 2008).
- Ortega-Grimaldo, Francisco. “Crossing the Bridge.” *Games as Cultural Practice: Post Colonial Imaginations* (2007), <http://www.ludoztli.com/games/bridge.html> (accessed April 26, 2008).
- _____. “Observance.” *Games as Cultural Practice: Post Colonial Imaginations* (2007), <http://www.ludoztli.com/games/observance.html>, (accessed April 26, 2008).
- _____, Francisco. “Ludoztli.” (2006), <http://www.ludoztli.com/about.html> (accessed April 27, 2008).
- Paul, Christiane. *Digital Art*. New York: Thames & Hudson, 2003.
- Prensky, Marc. *Digital Game-Based Learning*. New York: McGraw-Hill, 2001.
- “Quest for Saddam.” GameSpy PC, <http://pc.gamespy.com/pc/quest-for-saddam> (accessed April 27, 2008).
- Rutherford, Paul. *Weapons of Mass Persuasion: Marketing the War Against Iraq*. Toronto: University of Toronto Press, 2004), 52–54.
- Seigel, Jerrold. “Loving and Working.” In *The Private Worlds of Marcel Duchamp: Desire, Liberation, and the Self in Modern Culture*. Berkeley: University of California Press, 1997.
- The Noguchi Museum. Exhibitions & Collections, http://www.noguchi.org/imagery_chess_past.html [accessed April 27, 2008]).
- Wardrip-Fruin, Noah. “Expressive Processing: On Process-Intensive Literature and Digital Media.” Ph.D. diss., Brown University, 2006.

_____. "Playable Media and Textual Instruments." (2005),
<http://www.brown.edu/Research/dichtung-digital/2005/1/Wardrip-Fruin/>, (accessed Dec 10, 2008).

Zimmerman, Eric. "Narrative, Interactivity, Play and Games: Four Naughty Concepts in Need of Discipline." In *First Person: New Media as Story, Performance and Game*. Edited by Pat Harrigan and Noah Wardrip-Fruin. Cambridge, MA: MIT Press, 2004.

