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ABSTRACT:

In this thesis, I define 'Playculture' as a primary portal through which 'everyday life' is experienced in the US and the UK. I then argue that online 'cultural structures' have begun, more and more frequently and for a variety of reasons, to take the form of games - games that are destabilised by female participants. 'Feminist' methods of various kinds, 'intervention disruption', and iterative game design are all modes and methodologies I have chosen to apply to the creation of the practical parts of the research. Examples discussed at length in these pages illustrate the tensions between everyday popular culture and interventionist working practices, highlighting a process informed by feminist scholarship of marginalised groups.

I argue that specific and identifiable historical play patterns and larger technological developments have been linked to gaming practices. If play has become an integral part of everyday life, then the history of 'banal' play – especially domestic play -- takes on new importance. Paper playhouses of the 19th Century reinforced the notion that the house was implicitly known as a gendered space, and I interrogate gender and play and girls' subversive resistance in this space. I argue that it is both possible and useful to identify three main types of subversion in operation by women players: re-skinning, un-playing, and re-writing. I use these types of subversion to design artist's computer games as practical work in *[rootings]* and *[domestic]*, and in the design of a larger collaborative work RAPUNSEL.

I conclude the thesis by utilising my selected methodologies for a final feminist intervention and subversion, through a case study of the design and creation of the practical work *[six.circles]*, which demonstrates how one might rework game goals and creating artists' games as a form of social activism. I end with a summary of the significance of this body of research as well as a summary arguement outlining the potential contributions of this study to future researchers, scholars and practitioners.

GRATITUDE:

I am deeply indebted to my supervisors: Dr. Lizbeth Goodman, Patricia Austin, and James Swinson, and the community of scholars working in and around the SMARTlab centre in London. Many thanks to my supportive colleagues at the University of Oregon and Hunter College for their encouragement during my research. Thanks are especially due to those working with the Tiltfactor lab at Hunter College, New York.

I am appreciative to the people who have shown an interest in the work, and praise those in particular who have contributed their time and energy to discussions and, in the case of RAPUNSEL, to the creation of a large-scale project whose lofty goals include changing the status quo regarding gender and technology. In this, I would also like to thank Helen Nissenbaum and our 'values at play' work that has provided inspiration for the game design checklist.

I should not forget to thank my mentors, the practitioners and scholars who have influenced my work tremendously over the years. Certainly Patricia Mellencamp and Cecelia Condit should be held at least partly responsible for affecting my work early in my career and helping to instigate my longstanding commitment to feminist practice and research.

Special thanks go to my parents and friends, all of whom have never wavered in their support of my research schemes, no matter how far-fetched or idealistic they might at first appear to be.

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PROLOGUE:

I am a feminist media practitioner/theorist who is interested in investigating the intersection of art, technology, and gender study through critical writing, artwork, and activism. An award winning media developer and artist, my creative work, primarily web-based digital artwork, has been exhibited at such venues as the Artists' Space, Central Fine Arts Gallery, and A.I.R galleries in New York; the Guggenheim Museum; SIGGRAPH; Ars Electronica; the Dutch Electronic Arts Festival; turbulence.org; and the Whitney Museum of American Art. I am also the creator of "The Adventures of Josie True," the first web-based adventure game for girls, and part of a collaboration called *RAPUNSEL*, a collaborative initiative to teach middle school girls computer programming.

I have been writing about computer culture and feminism since 199.Initially the work focussed on the role of female bodies in violent video games such as *Tomb Raider*. In this early work I took to heart the role that feminist analysis had to offer to the study of computer games. When I began studying the cultural impact of computer games, there was little hint that 'game studies' would become a field (it is now emerging as such at several institutions such as the University of California-Riverside, Parsons School of Design, and the IT University of Copenhagen). In my early writing on games, I explored the role of subjectivity, and the performance

elements and architectures embedded in popular games. I continued to write about gaming in several articles, book chapters, and in my co-edited book, *reload: rethinking women + cyberculture* (MIT Press 2002).

My overall research agenda is concerned with the idea that the design and construction of virtual worlds impart values, beliefs, and ideologies. Virtual spaces are created spaces, and thus can be seen to create and also construct knowledge and gender roles, and specifically, the design of domestic and 'naturalised' spaces in virtual worlds significantly shape a gendered subject position. Everyday digital spaces, characters, and activities may seem simple at first glance, at least for the technologically literate. Yet methods and modes of interaction acquired through practice and habit are not in themselves strong enough patterns of behaviour to stand up to the deeply ingrained modes of strategic resistance which young girls learn throughout life I argue in these pages, and demonstrate in my practical work and analysis of girl faming, that behaviours in game play are gendered, and that domestic space online is being reshaped now that girls and women are making as well as playing games. My goal in the thesis is to introduce and shine light into the darker reaches of these spaces, representations, and actions, in order to create and share a critical framework through which it will be possible to pursue social equity through game play, in the US and abroad. The thesis work continues in depth to push these issues, and ask how games can be better designed for women and girls. It is my hope to help women and girls actively rewiring digital culture through play practices and game creation.

The motivation behind exploring subversion in specific digital artefacts is driven both by my experience as a game developer and my experience as a practising feminist artist. The writing in this thesis includes critical, historical, and philosophical approaches to current digital practices, and the creative prototypes push on theoretical 'hot points', taking the

research a step further in a parallel research language. Both of these approaches are forms of research in that they attempt to define what it means to consume and produce digital culture.

I began enquiry into the thesis work with the practical work *[rootings],* a web-based art game that premiered early in the research scheme (2001). Pushing notions of questioning normative behaviour and play systems, I developed the work *[domestic]* in 2003. The research theme of empowerment through subverting typical game goals was pursued through the collaborative project *RAPUNSEL* (2003-2005) and the 2004 artwork *[six.circles].* Each of the works has been received in different ways in various exhibition contexts. Below is a brief description of the practical work (enclosed on the accompanying Playculture thesis DVD).

[rootings] was a manifestation of 'old fashioned' and outdated technological gaming tropes reworked to tell personal everyday women's stories. In the *Narrasteroids* game, for example, users 'shoot' bullet-style worlds at large 'blob'-like asteroid shapes and, through this interaction, players can experience personal narratives in the texts.

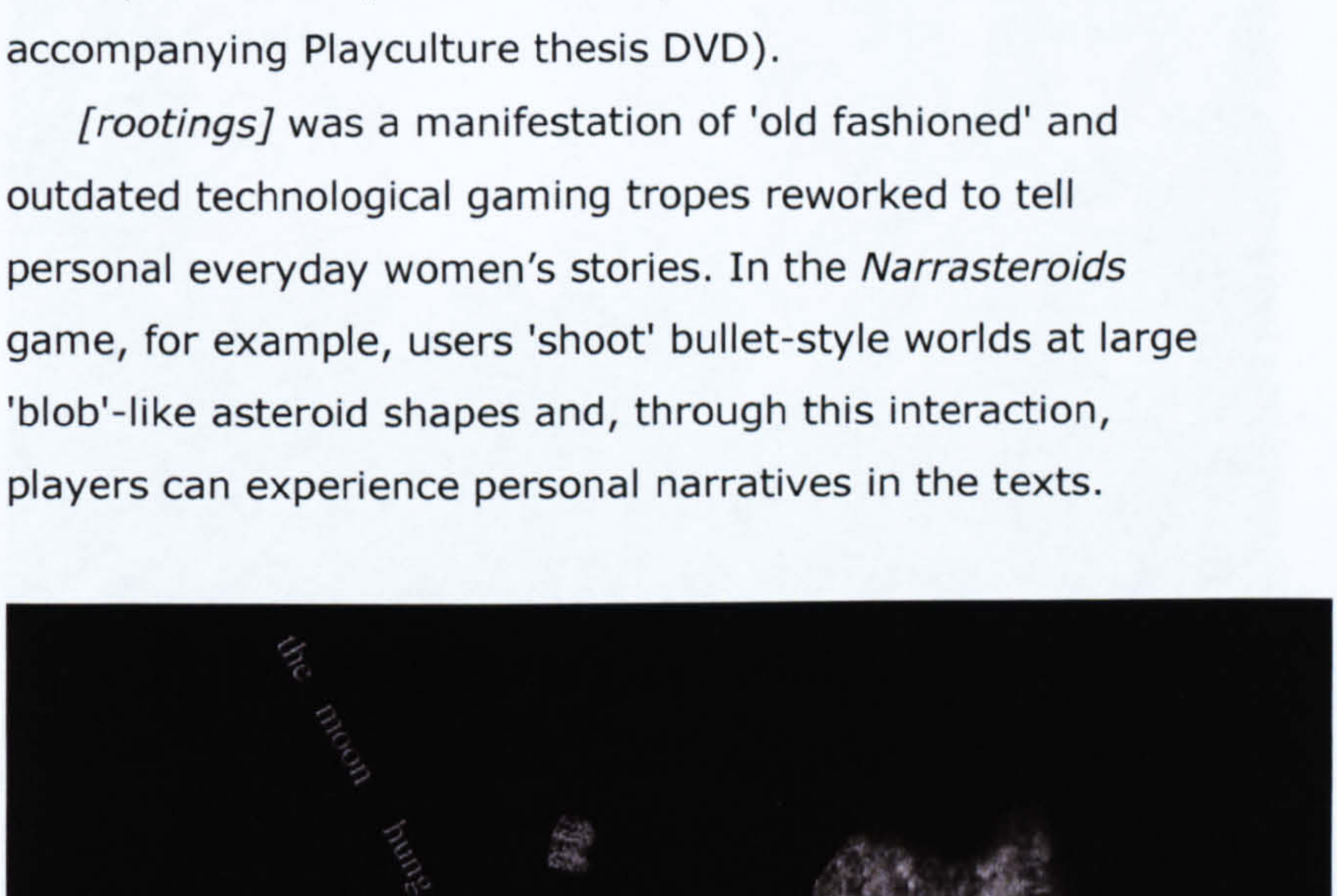


Figure 0.1: [rootings] *2001 by Mary Flanagan*

[domestic] is a computer game engine hack, or 'game mod' that uses the 3D action game Unreal to tell a story of my childhood home. In the space, the 'normative' home begins to disintegrate, literally, as text emerges and is pulled from the walls. This work premiered in Australia, where the Aboriginal council found it the most significant game modification in the "Plaything" exhibition in October 2003. Exploring this space requires a different sense of time and duration, and a different way of reading space, than commercial 3D game environments offer.

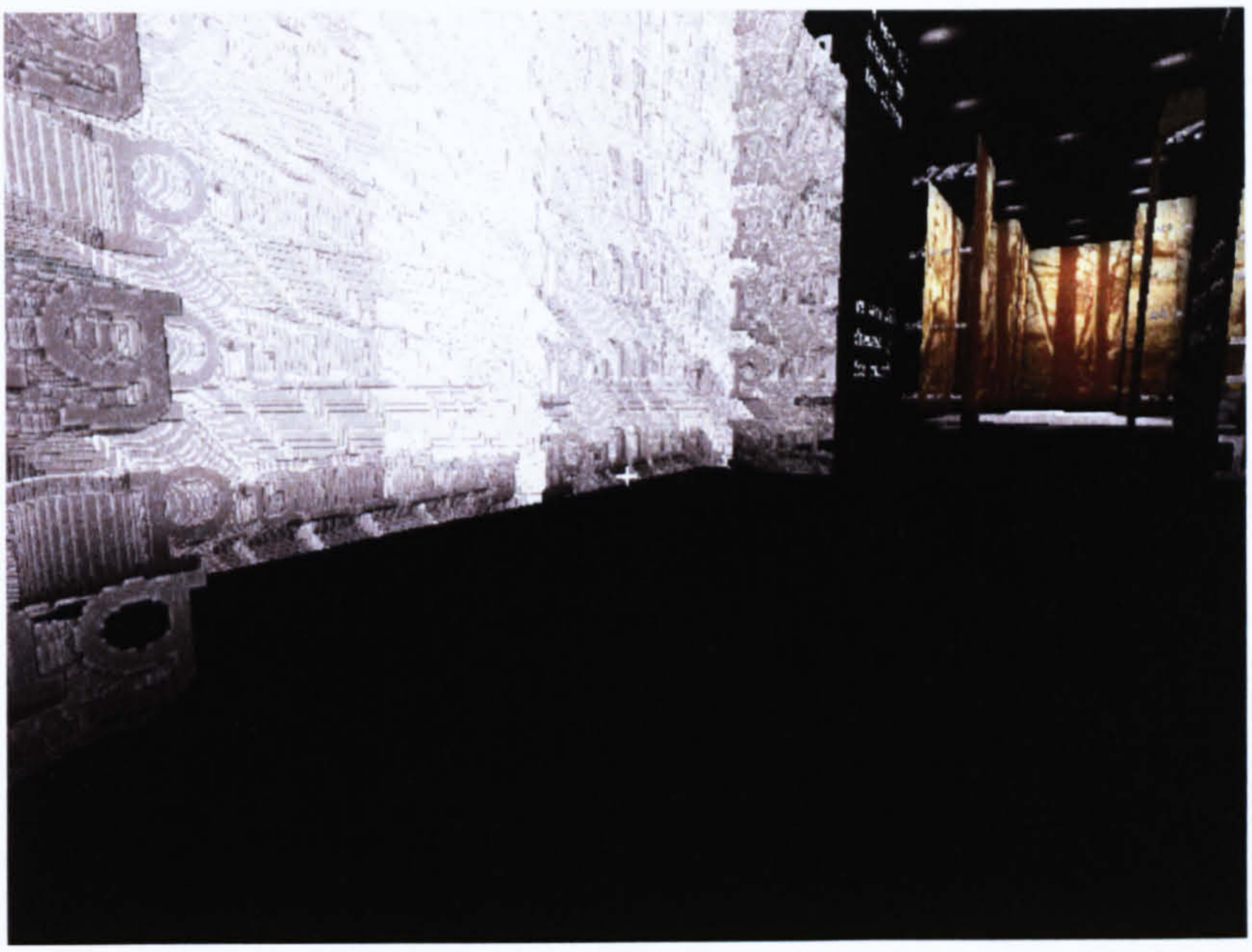


Figure 0.2: [domestic] *2003 by Mary Flanagan*

[six.circles], produced in 2004, is a cooperation- and competition-focused networked game that plays on some of the common themes which have been emerging from the research; perhaps the domestic space, the community space, is a very changed place. If so, what does this new place signify for women? Can games be developed to reflect women's interests and interaction styles?

I am eager to contribute to the field a new theory of the everyday (Playculture) and a method for feminist game design. The Playculture research represents a philosophical shift in considering how games can be activated as political and social spaces.

OVERVIEW:

a brief survey of the Playculture research process and research questions.

1

I. Brief Overview of the Research Process and Questions

The material presented for examination for fulfilment of the PhD degree at the University of the Arts London is a combination of four practice works and a written critical text. The overall title for this theory-practice research scheme is "Playculture: developing a feminist game design."

A. The Nature of the Material Presented for Examination

Like other UK practice-based research projects conducted in the SmartLAB Centre and the University of the Arts London, University of Surrey, University of Dundee, Sunderland University, and other institutions abroad, the 'Playculture' research involved historical research, in-depth investigation on the specific topic, studio art practice, deriving new ideas about practice, as well as creating new practical works. Practice-based research has been a means by which UK artists have conducted research in the arts for well over a decade. Anne

Douglas, for example, compleated an innovative practice-based PhD in sculpture in 1992 at the University of Sunderland. At the same institution, Beryl Graham compleated her PhD in digital media in 1997. Beryl Graham's thesis was among the first practice-based research PhD theses to emerge from UK institutions of higher education, which focused on creating interactive digital art works.

SmartLAB researchers all work with digital media in some variation, and several are engaged in digital, or computer, art practice. Digital art is composed from hybrid media, drawing from areas such as photography, sound design and composition, film, visual art, graphic design, computer science, architecture, performance, and most recently, game design. Likewise, the ideas culled from theory, criticism, and history are as equally diverse.

The Playculture project undertook a major new body of research into the field of Game Studies achieved through the practice of game making. Few practice-based research schemes have focused on games, and even fewer (if any) have focused on the themes and concerns around making games from a feminist perspective. To bring into play practice alongside, integrated with, or as serviced by criticism and theory within the tradition of scholarly enquiry is particularly vital to digital media due to its complex history and nature. It is this approach that set the initial framework for the Playculture research project (and resulting dissertation and practical submission portfolio).

B. The Relationship Between Game Design Practice and the Process of Researching and Writing the Dissertation

The theoretical/critical writing combination represents a reflective research model in which each element works in a 50-50 (i.e., equal) relationship with one another. Both the act of writing and the creative practice were iterative processes. The written document is a process document that reflects on

and serves to contextualise the creative practice. The creative practice culminated in iterative prototypes of particular aspects of the ideas presented. During the process of the thesis research, both aspects 'fed' each other in a research dialogue.

C. Primary Goal and Key Objectives of the Project

The dissertation submission as a whole (the written and practical components of the submission combined) sets out to achieve on major primary goal: to define and exemplify my original concept of Playculture. As part of that process, the thesis provides a definition of the term, followed by an in-depth analysis of Playculture as it is 'played out' in both theory and practice.

In summary, I hereby provide a brief overview of the primary goal and key objectives of the project, an outline of the thesis and its research rationale, and a 'roadmap' or simple guide to following the thesis structure.

1. The Primary Goal

The primary goal of this major study is to create a feminist game design methodology to be used in the creation of practical work. The written thesis contains a total of nine chapters and a prologue.

2. The Major Objectives

The objectives of this research project are to develop a systematic methodology of intervention by investigating:

- The definitions of terms such as 'Playculture', activism, feminism, subversion, intervention, and disruption;
- The ways in which girls subvert historical, normative play systems such as doll play;
- The methods women use to demonstrate 'resistance' to, and within the design and user methods, of various

computer systems including games;

- The emergence and importance of common themes and methods in the making and playing of games- such as interaction styles, personal narratives, and socialised play styles;
- The ways in which some feminists artists have practiced resistance in theory and in practice, using methods drawn from Performance, Media, and Game Studies;
- The means of resistance offered more recently by the use of gaming as a mode of 'serious resistance' in 'serious play';
- Through detailed analysis of theory as applied to and arising from my own creative practice, the impact of this original research on the efficacy of subversive game strategies;
- How such approaches to subversion can be systematised and applied to a rubric which new researchers, artists and gamers can adopt for analysis of a range of new and future projects, ranging from the possibilities of non-profit games to a number of new approaches to game-based art projects.

The body of research outlined here has been undertaken and presented in these pages, in order to incorporate this new body of findings into a practically-based new scholarly work that seeks to present a new trajectory of thought, and a new theory of Playculture.

D. A Roadmap of the Thesis, Chapter by Chapter

This first chapter functions as a map of the thesis structure for the entire project.

In Chapter Two, I posit the goals of this research project: to develop a systematic methodology of intervention

in Playculture by investigating historical play, women's play in computer games, feminist resistance/activist artwork, my own work, and the formalisation of these themes. The processes of enquiry which advanced research projects require are universal among artists, humanists, scholars, engineers, and scientists. The methods, however, can differ widely.

In Chapter Three of the thesis, I define the methods used in the research. I break the methods culled into three central camps: feminist methods, intervention/disruption methods, and game research methods. Feminist' methods of various kinds (discussed and defined in the chapter), 'intervention disruption', and iterative game design are all modes and methodologies I have chosen to apply to the creation of the practice-led parts of the research.

The feminist methods detailed in Chapter Three are gathered primarily from the field of 'standpoint theory', applying what is known as 'tactical feminist intervention'. Rather than engage in a narrow or exclusive manner with one school of feminist thought or practice, I have chosen to incorporate classical feminist approaches and contemporary feminist strategies in my practice, particularly standpoint epistemology. Included in this approach are critiques of science, intervention, and cyberfeminism. Here, practice is integrated in the family of feminist method, for much feminist research has included various forms of practice as a means of research.

The 'intervention/disruption' methods are culled from tactical media, critical Marxist and post-structuralist theories of tactics, disruption innovation (a business approach), and feminist intervention tactics. Examples discussed at length in these pages illustrate the tensions between everyday popular culture and activist or interventionist working practices, highlighting a process informed by feminist scholarship of marginalised groups. Here again, practice is included as a category of intervention. The game research methods used

include interactive design, play testing, and prototyping. Practice is also included here as an integrated approach to game design and games research. These three 'camps' of approaches I fuse together to create what I call "feminist disruption: game practice and game design."

In the fourth chapter of the thesis, I explore play histories and the home, first through examining board games and next by examining paper dolls and doll play. In this chapter I argue that historic play patterns and larger technological developments in US culture have been linked to gaming practices. If play has become an integral part of everyday life, I argue that the history of 'banal' play – especially domestic play – has taken on new importance. As I outline in the chapter, paper playhouses of the 19th Century reinforced the notion that the house was implicitly known as a gendered space. Female children were trained to imitate their parent's tastes, and to shop for goods from mail order catalogues. A study of sample communities suggests that the intertwining of play, gender, and consumption was linked well over a century ago. However, girl players of earlier generations met the cultural emphasis on normative domestic behaviour with subversive resistance. Exploring play within the home through an historical analysis, this chapter weaves these themes into an analysis of contemporary gaming practices as demonstrated through examples from the popular computer game *The Sims*. Using *The Sims* game, I analyse play themes from a feminist point of view, focusing on the ways in which games are destabilised by female participants. I suggest that it is both possible and useful to identify the *types* of subversion in operation by female players. I present three types, or styles, of subversion practiced by female players: re-skinning, un-playing, and re-writing. I go on to argue that games that support what I identify and term 'subversion' could be significant sites for empowerment for marginalised groups, and a feminist approach has an important role to play in both

examining how power relationships play out, and in changing these relations through intervention.

The fifth chapter of the thesis analyses the history of feminist game creation in the arts as a context for the analysis of contemporary computer game practices by women authors. This research offers a substantial advance in theories about game design through its positioning of games as political, aesthetic, and artistic media. Few if any researchers have advanced the knowledge of gaming from a historical and social network perspective; many focus on computer games' early beginnings through the first game, *SpaceWars* (1961) at MIT, and Atari's first arcade game, *Pong* (1972), which this research avoids for several reasons. First, typical histories of computer games do not examine play outside of computers. Second, these histories generally do not involve women in either the making or the playing capacity. Third, few if any histories ground contemporary gaming in art history; and fourth, few of these histories tie computer games into other social phenomenon. By researching contemporary and historic play models through a feminist lens, I have not only generated a historic context for contemporary female play practices, I have also created a context for the production of new artefacts which rework gaming conventions to allow for different, more diverse creation of meaning in games.

In this major chapter, I examine the work of women digital artists working at the margins of popular computer culture and those who use intervention as a thematic approach in their work. I trace the three forms of subversion as documented in chapter four, and subsequently argue that digital culture must be activated through feminist theory and involvement which foregrounds interventionist practices. Participants in game systems also become players outside of the system; participants work to intrude upon these environments and alter them, often in whimsical or 'dark' (i.e. serious and perhaps ironic or deliberately subversive) ways.

The study of artists' games and my own artistic and activist practices is merged in this fifth chapter as I discuss the practical project *[rootings]* and show how artistic disruption is a thread running through the innovative computer game artwork created by artists Natalie Bookchin and Lucia Grossberger-Morales. The role of artistic disruption is explored through the example of the computer game artworks created by Natalie Bookchin. I then delve into the first of my four practical works: *[rootings]* (2001). In discussing *[rootings]*, I show how the methods outlined in chapter three were used in practice. For example, I map out how the prototype cycle in the development of *[rootings]* functioned, and was able to incorporate various methods of play. I make the case that women's art games fuse personal and political interests with conceptual and formalistic play—a critically informed and innovative phenomenon that uses intervention and disruption as a thematic approach to the work. This chapter in particular contributes to one of the first considerations of women's interventionist activities using computer games as a medium of artistic expression.

In the sixth chapter, I first define, then examine what are called 'serious games': games that attempt to directly address a social issue or a serious or personal topic. I then consider the ways in which feminist concerns can be incorporated into the design of serious games in an effective manner. I support this arguement by demonstrating, first, the work of Anne-Marie Schleiner, a games artist who engages in interventionist projects within online multi-user environments such as *America's Army* and *Counter-Strike*. I examine the design choices that led to intervention. I then discuss the application of feminist design principles in the practical work *[domestic]* (2003), and discuss how this project used the principles of subversion, un-playing, and re-writing by incorporating experimental narrative and game content and the alternate game goal focusing on open play. I then discuss

the ongoing game design project, *RAPUNSEL*, aimed at teaching girls how to programme. I argue that games created specifically for women and girls can be most effectively created through the application of feminist interventionist strategies in the design process. In discussing *RAPUNSEL* the game goal design and interaction are shown to embody some of the 'methodology of subversion' to appeal to both girls' play styles.

In the seventh chapter, the idea of transferring this method outside the realm of 'women's games' or 'games for girls' is tested. I outline my development of the 'Game Design Checklist', and provide a detailed description of the list and the ways in which it represents a prototypical 'feminist' game design heuristic. The checklist incorporates the feminist principle of situated knowledge to help designers become sensitive to the ways in which project goals infer social goals, and the ways in which projects can be socially or politically charged. I show in the end of the chapter how the Checklist was derived and use the example of the *RAPUNSEL* project to respond to each of the items on the list. This checklist helps the designer, the technologist, the artist, and the theorist broach an important question: Can games be' activist' (either in intention or effect)? I argue that subversion in games, and women artists' games are indeed being used to actively reshape everyday digital culture. Further, I argue that this new kind of feminist practice can be, at least in part, systemised into a set of game design heuristics. The heuristics in chapter seven provide an effective model for designing to encourage the subversion of popular media through game making. Through proposing this game design checklist and by creating artworks with this methodology, it is hoped that other practitioners and researchers will be able to push at the 'norms' embedded in current technology practices to create a more diverse group of technology users and makers.

In Chapter Eight, the idea of transferring this method

outside the realm of 'women's games' or 'games for girls' is tested. I utilised the approaches put forwards in a final game project. I demonstrate, through a case study of the design and creation of the practice led *[six.circles]* game (2004), how the Checklist can be used in action. Point by point I go through the Checklist and detail, issue by issue, the ways in which the process was utilised in a real world game designed for a wide audience. Rather than a game created primarily for women, *[six.circles]* is rather a game that is based on feminist principles as detailed in the checklist. The chapter closes by examining the ways in which both artists games and more 'commercially styled' games rework game goals and create artists' games as a form of social activism. I end the chapter with a summary of the significance of this body of research as well as a summary of the overall research.

The final chapter, Chapter Nine, concludes with a short summary of the arguements, the practice work, and the research significance, looking at how the thesis arguement plays out. Chapter nine notes the contributions of this study to future researchers, scholars and practitioners. It also reflects upon the relationship between the practical material and the written thesis work.

E. Final Overview

In this thesis, I present the arguement that a feminist approach to gaming may be loosely identified by its commitment to the following:

- An ethical and aesthetic approach to game environments;
- Collective and cooperative negotiation rather than competitive models of interaction;
- Interaction that is both reflective and active and demonstrates an awareness of individuals and their social, environmental, historical, or cultural context;

- Interaction and environmental settings that empower both the player *and* the designer;
- Game environments and activities that engage with social change.

In the pages to follow, these points are raised and systematically examined in detail, with examples and counter-examples from the fields of Game Studies, Media Studies and Gender Studies, concluding with my own original theory as presented both in writing and in practical (game-based) projects.

INTRODUCING THE RESEARCH AND THE LITERATURE:

defining the context and terms.

2

The study of everyday life would be a completely absurd undertaking, unable even to grasp anything of its object, if this study was not explicitly for the purpose of transforming everyday life [Debord 1961 (1981), p. 68].

I. The context for Playculture

The research themes for 'Playculture' grew out of an avid interest in computer games and networked culture, and also, a serious concern for the challenging assumptions embodied within such popular cultural constructions, especially in regard to normative behaviour and empowerment. Let me first define the term 'Playculture', which was specifically created from this research endeavour. Playculture is a contested arena of ordinary, day-to-day computer-based activities that have passed as invisible and unimportant, even left out of, historical

accounts of everyday life. It is, however, particularly important, given the proliferation of computers in both the work and home domains of the general public (in the 'developed world', at least), to note the migration of 'play' from the dollhouse to the virtual house, and the concurrent shift of the performance of public life from the 'stage' of the traditional town square or church, to the new performance space of the internet portal.

In this thesis, I draw from the definition offered by Clifford Geertz. In *The Interpretation of Culture* (1983), Geertz defines culture as "an ordered system of meanings and symbols, in terms of which social interaction takes place" (p. 144). Online systems and computer games, by repeatedly constructing particular systems of meaning and symbolism and by facilitating social interaction, can be described as cultures both in and of themselves, as well as products that reflect the physical, psychological, ethical, and social realities of the cultures which construct them. Here I describe 'Playculture' as a pervasive condition instead of a place, cultivated by the peculiar mix of work and play that technology has facilitated. This mixture is strongly influenced by the presence of computer games.

The main goal of this major study of Playculture is to create a feminist game design methodology. As I will demonstrate, computer games are part of a larger cultural phenomenon. Computers themselves have permeated almost every level of contemporary social life, and they influence mass media such as music and film. Information technology has provided international career opportunities that rely on computer science, engineering, and other scientific disciplines as well as creative ones, and as a collection of disciplines, has helped the technology sector exceed 'Moore's Law' (a principle detailing the rapid pace of computer hardware obsolescence every eighteen months). As 'proof' of the importance of 'digital culture' in North America, the computer gaming industry

draws a higher profit than does the Hollywood film industry's box office sales: computer games in 2001 represented a ten and one half billion dollar industry for the United States, growing fifteen percent per year from 1997–2000 (IDSA 2001).[1] From online shopping to single player experiences like *The Sims* games to online, multi-person activities such as *eBay* auctions or the game *Ultima Online*, participants in everyday digital culture spend a great deal of dollars and hours online. Americans spend more time playing computer games than watching television, and this clearly signifies that computer games are at the forefront of defining culture in leisure time from within the home (Quittner 2001). In fact, the popularity of computer games suggests a cultural revolution. Computer artefacts, over cinema, television, literature, and sport, are at the forefront of defining culture in the West and perhaps in Asia and Africa as well (Poole 2000).

A. The Gender Problem in Digital Culture

The popularity of online networks, peer-to-peer exchange, and gaming suggests a cultural revolution (Sandler 1993, pp. 89-91). This thesis looks at the impact of the gaming industry as it takes its place of prominence at the forefront of this cultural cycle. Men and boys are the primary target of video game marketing campaigns, with much of the marketing and design of computer games still being directed at white males (Oldham 1998). As gaming drives the development of new technology, and new technologies already possess strong associations with masculinity, the cycle of technological innovation and entertainment help to keep the definition of high tech areas as primarily male domains. Computer games and online computer networks appear to reproduce techno-culture as a male space and games as a male-centric place within it.

The computer is a portal to digital culture, however, not

just a tool. That portal is essential to women and girls, who are at an unequal position in terms of technological experience and ranking in technological fields. Women and girls consistently report a lack of confidence in their computer skills (Orenstein 1995, DOERI 1997, McLester 1998, Furger 1998, Carter & Jenkins 1999, Wilson & Shrock 2001, Honey et al 2002). Margolis and Fisher document how women are avoiding computer studies and careers. In their landmark study of gender within computer science, a field essential to the creation of new technologies, the authors note that the male dominance in information technology can be linked to the social, cultural, and educational influences and patterns formed in childhood (Margolis & Fisher 2001). Facts from the training grounds of computer experts also support this claim. The number of female assistant professors of computer science in the United States has dropped significantly since 1997; women in the assistant professor line are now barely fifteen percent of the overall makeup of computer science faculty in the country, with smaller numbers in higher academic ranks. Eighteen percent of United States undergraduates in computer science are women (Taulbee 2002). Although women constitute roughly half of the United States population, they are significantly underrepresented in computer science degree programmes and professions (Pearl et al 1990). Nearly seventy-five percent of future jobs will require computer use, and yet fewer than thirty-three percent of participants in computer courses and related activities are girls; by 2010, the largest industries and fastest growing job opportunities will be computer related, specifically, in computer science and engineering fields (USBLS 2002). The US National Science Foundation reported that the overall science, engineering and technology workforce is only nineteen percent female (CAWMSET 2000). These figures support the idea that 'masculinist' computer artefacts have taken pride of place in contemporary culture, whereas

'feminist' technology tools, including artistic games, are relatively new to the scene. New technologies are created primarily by men, and generally, for men.

The products of computer culture are important to study, for computers in wealthy countries such as the United States and the United Kingdom are used on a daily basis in work and in play, in offices and in the home. The ten billion dollar game industry, however, still has as its target audience "teenage boys gripped with visions of dragons, space ships and voluptuous virtual babes" (Slagle 2004). In 2002, United Kingdom sales of video games and consoles reached an all time high of over two billion pounds, an eight percent increase on the previous year. British-developed games generated more than one billion pounds outside the United Kingdom, and the United Kingdom's leisure software industry employs over twenty thousand people (Krotoski 2004). Computer games are most often played in the home (frequently using gaming consoles such as XBox or Playstation systems) and some games go as far as to depict domestic space and enlist players in constructing domestic space as a game goal.

Yet within the culture of computer games, gender relations emerge as complex and contradictory. Women do play games, yet this play emerges as substantially unlike the play of male counterparts. Current trends note that traditional, younger male players are moving out of the PC game market and onto consoles, while female players and those new to gaming (such as older age groups) are migrating to the PC and mobile technologies for play (Gibbs 2005). An entirely new group of adult female gamers emerged to play the online social game *The Sims Online*, for example, while they worked at desk jobs or as domestic labourers. Games which depict everyday activities such as taking care of pets, negotiating social situations, or maintaining domestic space have become extremely popular with female players. More than 100,000 people worldwide play the game *EverQuest* together at peak

times, and more than two and one half million copies of the game and its expansion packs have been sold since 1999 (Miller 2004). Some games, such as *The Sims* and the online web game called *Neopets*, are most popular with women and girls and are thus of particular interest when examining female engagement in using the computer to engage in play, leisure, and social interaction. *The Sims* game became the best-selling PC game of all time in 2004 and continues to grow from the 2004 figure of seven million copies sold. Over fifty percent of new *Sims* players and approximately forty percent of all players are female (BW 2002). Sixty percent of the seventy million players of the online game *Neopets*, for example, are women and girls (*Neopets* 2003). According to the Entertainment Software Association, about forty-two percent of all gamers are women; males over the age of eighteen, however, represent the largest age group of gamers at thirty-eight percent (Greenspan 2003). While more than forty-six million Americans visited online game sites in May 2004, only nine percent were boys ages twelve to seventeen.

There are contradictions in the data, but women constitute either the largest or second largest group of online gamers; the largest group has been cited as women ages thirty-five to forty-nine (Kiplinger 2004, Oser 2004). Oser notes that women players, however, are still almost an invisible constituency to advertisers and makers of games. While the statistics show us that women are increasingly playing games, they are not constructing these software environments. Very few women are making games; less than ten percent of all game developers are women (Slagle 2004, par. 5).

B. A Feminist Perspective

These figures point to an emergency situation in a 'technologically-infused' culture and need to be addressed from the perspective of feminist research. The concern of

many feminist researchers over the last thirty years has been on marginalised and silenced groups, and in this regard, a feminist approach has been as much a practical and tactical movement as it has been an intellectual one. In academic circles, women's studies emerged as a discipline that focuses on women's lived experience in the workforce, healthcare, and in domestic life. Spivak (1987), for example, is a noteworthy scholar in the feminist movement who proposed building upon existing research methodologies to render visible the unheard voices of the oppressed.

Feminist approaches to media are important to the study of digital culture precisely because of the historic and contemporary imbalances among gender and technology, and to some extent between gender and media. One of the most significant critiques of film and the visual representation of gender, for example, emerged from the feminist work of Laura Mulvey (1975, 1989), in her analysis of the visual representation of woman in cinema. Important critiques of patriarchy (Irigaray 1985a, 1985b), technology, science, and scientific processes from Fox Keller (1985), Haraway (1991), and G. Rose (1993) equipped scholars to do further feminist research in technological arenas. The theories generated by feminists critiquing visual culture have been used in developing critical discourses on cinema, architecture, the visual arts, and overall popular culture.

However, the field of Game Studies has not been so quick to open itself to feminist critique. In fact, as computer gaming grows into a major industry, and as computer game studies emerges as a fully-fledged field of academic study, the feminist viewpoint within the domain has appeared to vanish into the shadows. Part of my overall research for this thesis has therefore engaged with the project of searching for signs of feminist intervention in the overall body of Game Studies scholarship. Feminist approaches based in other media forms (such as Film Studies), or framed by and within the field of

Psychoanalytic Studies, appear inadequate to analyse best the complicated web of online culture (Herz 1997, Schleiner 2001). For scholars who examine gender relations in terms of power, digital culture can be particularly frustrating; aspects critiqued by scholars include violence in games, online harassment, the representation of the human/machine 'cyborg' woman, and the ways in which digital products. (Haraway 1991, Spender 1996, Sutton 1996, Plant 1997, Flanagan 2000a, 2000b, 2000c, 2000d, 2002). All of these are troublesome issues. 'Woman' in 'cyberculture', from the representation of women in games, to the creation of technologies which help run, for example, women's activist websites, is primarily created and represented by men, leaving women less and less interested in cyberculture's artefacts. Female pleasure machines and hag-like monsters are images that flourish in current games. There may be more female protagonists in popular action computer games, for example, than in cinema, but these protagonists are prone to rigid styles of representation based on stereotypical male fantasies.[2]

The representation and experience of 'woman' in cyberculture is connected to structures which epistemologically shape those experiences, by these, I mean the types of representation in digital cultural artefacts (from texts, such as cyberpunk fiction, to net games, to high technology films such as *The Matrix*), the point of view and styles of game play/interaction roles that are offered to players or participants in various media forms, and the structure of the relationship of the user to the media experience. In fact, Jenkins, among others, notes that video game spaces are gendered spaces (Jenkins 1998). These ultimately create cognitive and epistemological environments that position the user/participant/interactor of those experiences in meaningfully problematic ways. To science fiction writer Bruce Sterling, we have created "technologies

that stick to the skin" which cannot become anything other than integral to everyday life (Sterling 1987).

While the particulars of the feminist approach used in the thesis are described in chapter two, the importance and potential contestation of the categories of 'woman' and 'female' must be noted here. As researchers have found in queer studies, ethnic studies, or class studies, researching 'women's preferences' is an admittedly very wide umbrella. Even the term 'Feminism' runs the risk of generalisation or essentialism, and could also participate in the denial of difference that must be part of any group. In fact, feminist scholar Judith Butler has noted that "The feminist 'we' is always and only a phantasmatic construction, one that has its purposes, but which denies the internal complexity and indeterminacy of the term and constitutes itself only through the exclusion of some part of the constituency that it simultaneously seeks to represent" (1990, p. 142). The challenge, then, is to find ways to address a female audience *through* these complexities, using the intricacies of feminist thought to offer many possibilities in games for a wider range of players. Designers have yet to grapple with the full range of inequities that can be seen to span the range of 'female' categories. They must work through indeterminacies and possibilities for the probable social benefits that could result. Possible over-categorisation or reductionism from such a classification, i.e., who is involved under the rubric of 'feminist games', is worth the possible risk if such research provides for alternate subject positions, the possibility of agency, the encouragement of authorship, the promotion of equity, and redefinition of cultural constructs currently embedded in digital culture. It is the strength of standpoint epistemology that opens up feminism as an approach for many to use against power and oppression (Haraway 1988, Hill Collins 1990, Harding 1991, Harstock 1998).

II. Need for the Research

The computer is often mistakenly considered a mere tool, or a benign instrument such as an appliance. It is more than that, however. It is the portal to contemporary culture and everyday life, and it shapes how we think, socialise, and understand the world. With well over half of United States households containing computers and Internet connections, the daily lives of many citizens and consumers are bound to a computer[3]. Each day, computer users check their email, search for a movie trailer or the news, and perhaps balance a budget or download digital camera images. Many homes feature multiple computers, and some even offer old laptops as email stations in kitchens or hallways. The operating systems and search engines used with these systems offer new conceptual frameworks for desire and understanding individuality and agency in domestic worlds. Yet for the majority of computer users, the hidden mechanics of systems are a satisfactory, even expected, aspect of computing.

Activities within computer environments have real economic impact. Economist Edward Castronova notes that financial exchange surrounding and within online games creates concrete economies, and he has demonstrated that these economic models actually have influence on a worldwide scale. In fact, online game economies have been shown to affect small nations' GNPs. (Castronova 2001). Exchanges in online game environments consist of selling characters or objects to use in games in online systems, or purchasing costly virtual real estate such as private islands in online communities such as *Second Life* (Linden Labs 2004). On one screen, a typical computer user negotiates Internet games, email love letters, spreadsheets, meeting schedules, and production tools associated with various tasks or jobs. Such an environment, where economies in games become realities and

work and play are occurring simultaneously, creates a condition in which the distinction between work and play cannot remain intact. Noted Internet scholar Julian Dibbell supports this idea in his research into online gaming sweatshops, where 'workers' play games to sell the characters as a profession. Dibbell asks, "What defines productivity when work becomes a game and games become work?" (Dibbell 2003, par. 7).

In this thesis, I specifically explore the ways in which everyday computing tools and games in Playculture are destabilised by female participants, particularly in the geographical context of the United States. Playculture, I will argue, is not only characterised by the blending of work and play, but in addition, by two key characteristics introduced by computer users themselves: first, the way in which participants engage in acts of subversion; and second, the way in which interactors perform in such sites rather than their actual location, space, or representation.

I utilise a feminist approach (detailed a bit further on) to look at ways in which female participants historically have worked against social systems by engaging in play practices, thereby helping to formulate such a Playculture. These practices take place in the space of the everyday and there are important historical precedents for this behaviour. For example, girls 'hacked' domestic norms through doll-play in the 19th Century. Women artists subverted the art world itself in the 20th Century in both the forms of the artwork and the delivery of such works. Female participants in online groups such as friendship networks or online work environments also practise the subversion of such systems by creating artificial identities and playful scenarios. Women digital artists working at the margins of popular computer culture frequently use play as intervention in their work.

I responded to these themes by creating four practice-based projects, and, by using a feminist methodological

approach along the way, I worked iteratively on various key points of subversion and play. I ended the thesis work by postulating a feminist game design model, and articulate a checklist for the development of feminist games. I have proposed the use of this methodology as a tool for others to practice feminist intervention in digital culture.

III. Research Approach

The methods demonstrated in the thesis research are drawn from three overall approaches: feminism (historical, comparative, theoretical, practice), game design (drawing on work from conceptual artists as well as game designers), and intervention-disruption (with an emphasis on social change). I have developed a feminist methodology for game design intervention based on these iterations. A tenet central to the feminist analysis driving the research is that one can accomplish radical intervention utilizing elements of such a dominant pop culture force through practice-based research. Aligned with Michel de Certeau's theory of 'tactics' (1988), feminist media makers' use of 'interventions', (Cottingham 1996, Schor 1996, Reckitt & Phelan 2001), Butler's notion of 'subversion', (1990) and Christensen's theory of 'disruption' (2003) as theoretical approaches, this thesis works toward the ultimate creation of feminist game design drawing from what I term the 'methodology of subversion' created as a result of the investigation. See chapter two for more information on the methods.

The thesis contributes to several fields of enquiry. First, the work contributes to cultural studies, especially the cultural studies of new media and the study of science and technology, providing an examination of female play practices both online and off. Second, the research contributes leading work to the emerging field of gaming studies and game design, offering

the first feminist game design methodology in the field. The work also contributes to the feminist study of technology as initiated by scholars such as Fox Keller (1985) and Haraway (1991). Finally, the practice and reflective components contribute to both the study and creation of digital art and digital game design. Ben Highmore suggests that while scholars in cultural studies, sociology, anthropology, literature, psychology, and even architecture study the everyday, in its most progressive form, the potential of everyday studies is "essentially anti-disciplinary" (2002, p. 4). In Playculture the disciplines are indeed traversed, and used to support thinking about the various subversions in game play. The thesis is intended to provide a map for imagining and practising the future in a feminist light across the disciplines.

IV. Scope

Computer gaming itself is too large a field to critically study in one thesis project. Further, not all aspects of computer games are relevant to this particular collection of knowledge. In the thesis, examples from games and artists' projects are utilised to examine how these are activated, specifically, by female interventionists. I employ *The Sims*, *Grand Theft Auto*, and *Neopets* for their potentially surprising popularity with women and girls and for the particular controversial ways these games are played and subverted. Those using games as a form of protest media (Frasca 2004a, 2004b, 2004c), awareness raising media (Graham 2001), and alternate storytelling media (Flanagan 2002) are practising subversion. The thesis draws upon my own artistic works: *[rootings]*, *[domestic]*, and *[six.circles]* along with the collaborative game for girls entitled RAPUNSEL, to work through design issues in subversive practice. The thesis focuses on those examples, which illustrated the tension between everyday popular culture and activist or

interventionist work, a process informed by feminist scholarship on marginalised groups. Among the theorists called to this task are Butler and her work on subversion and identity, the work of Foucault on his query into power and subversion, Phalen's notion of feminist subversion and performance, and Negri and his recasting of subversion in light of postmodernism.

Can games truly be activist in their creation and design? The thesis presents the arguement that subversion in games, particularly women artists' games, is actively reshaping everyday digital culture. Further, I argue that this new kind of feminist practice can be, at least in part, systemised into a set of game design heuristics. These heuristics, detailed in the next to last thesis chapter, provide a model for designing to encourage the subversion of popular gaming tropes through new styles of game making. The feminist angle of the research selection is not meant to produce a feminist-only theory, but rather, one that is informed by the investigation of power relations and marginalisation to affect larger cultural norms outside of academic circles. The scope of the research is broad in the sense that it is exploring several different types of games, but unique and specific in its contribution towards creating a feminist game design heuristic for creating computer gaming interventions.

V. Areas beyond the research

It should be helpful to clarify which areas lie outside the scope of this endeavour. Many topics are touched upon when making the arguement that the feminist disruption of gaming is not only possible but also a powerful means of political and social intervention. Sources from a range of carefully selected disciplines have been analysed and 'foraged' in the process of building a composite, new methodology for this research

project. I hope that the method may be of use to future scholars and practitioners.

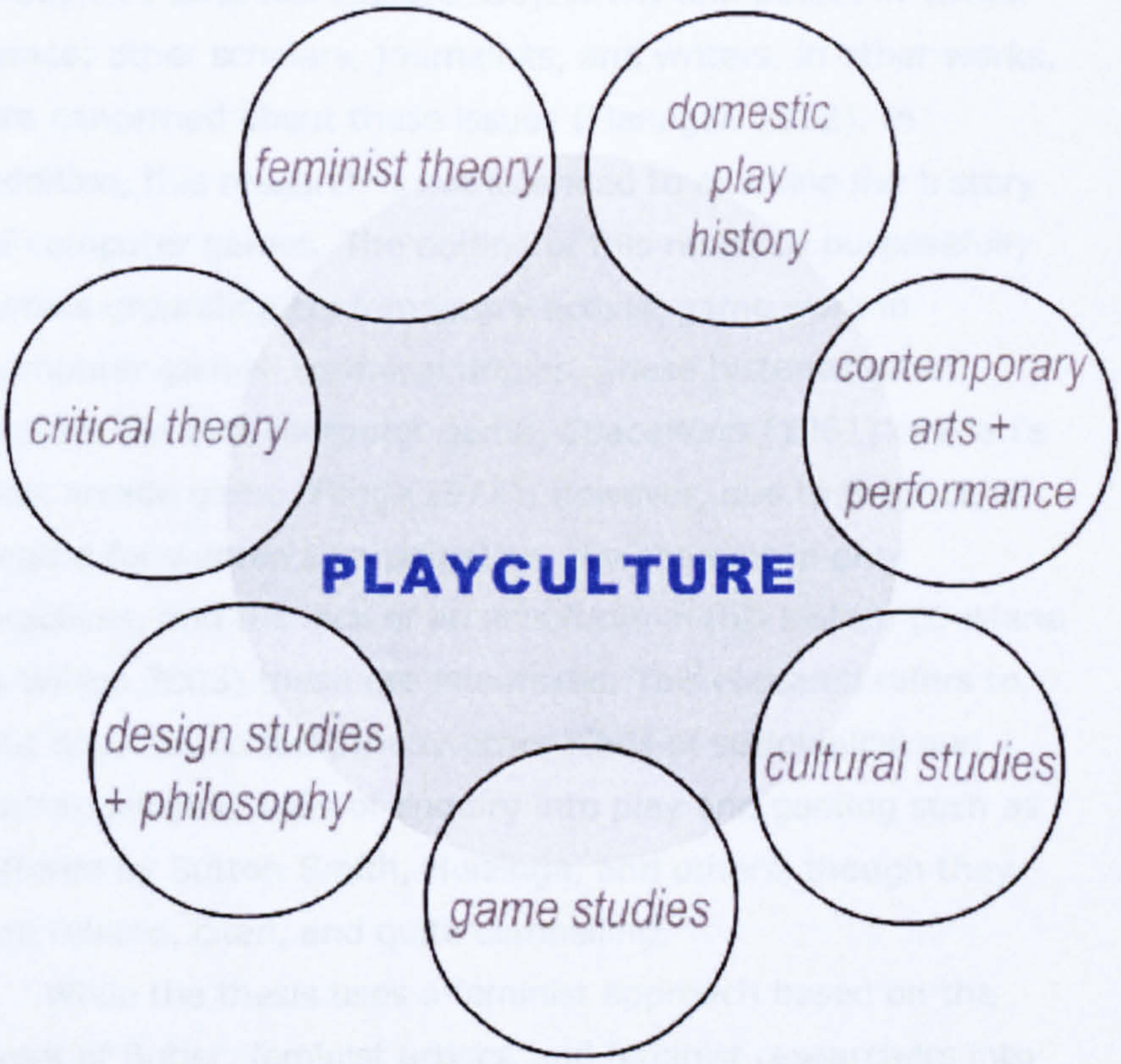


Figure 2.1. The Playculture Research Sphere Demonstrating the Literatures Involved

The thesis is not intended to be a sociological analysis or a cultural study of online systems or online identity (see the work of Stone 1996, Turkle 1997). It is partially involved in Game Studies, yet Game Studies to-date has had few feminist approaches, and only one study on 'methodologies of the oppressed' (Frasca 2004). The fascinating world of online economies (Castronova 2001), the kinds of performance which gaming technology can facilitate (Goodman 1993, Flanagan 2000b) were researched but ultimately left out of the research trajectory and focus. The arguements here do not present a full account of play histories (Huizinga 1970, Sutton-Smith 1997, Bateson 2000). The thesis does not explain interaction in games (Juul 2001), semiotics in games (Poole 2000,

Aarseth et al 2003) or provide an analysis about the loaded questions regarding violence in games (Jenkins 1998). This study also does not explore subjectivity and bodies in virtual space; other scholars, journalists, and writers, in other works, are concerned about these issues (Flanagan 2002). In addition, this research is not intended to examine the history of computer games. The outline of this research purposefully avoids grounding contemporary activist game work in computer games' technical origins. These histories often feature the first computer game, *SpaceWars* (1961) or Atari's first arcade game, *Pong* (1972); however, due to the lack of regard for women's participation, the changes in play practices, and the lack of an arts focus in this history (DeMaria & Wilson 2003) these are minimised. This research refers to, but does not further, many other kinds of sociological and anthropological lines of enquiry into play and gaming such as offered by Sutton-Smith, Huizinga, and others, though they are related, cited, and quite compelling.

While the thesis uses a feminist approach based on the work of Butler, feminist artists, and feminist researchers into epistemology and science, it does not study other artefacts of the feminist arena such as domesticity, women's work, and economic standing or women's roles in professions and space (Spiegel 1992). Of particular importance in the background research was documentation on women's general use of technology, from weaving (Bray 1997) to the study of the innovator of Ada Byron King (Plant 1997), switchboard operators (Lupton 1993), the first programmers (Hayles 1999), cyborgs and other technologically informed bodies (Balsamo 1996, Stone 1996, Hayles 1999) and as current users of technology (Turkle 1997); these are all promising areas for future study. Scholars from cultural studies, anthropology, geography, social sciences, and history have studied real-world material such as the suburb and the

gendering of American domestic space, but this material has only a tangential relationship to the research trajectory.

Many questions arise at the intellectual intersection of computer gaming and gender that cannot be addressed given the focus of this work but should be noted. For example, questions of a sociological nature: how important is the gender of the game developers? Where do linguistic and cultural nuances fit into the gender/space aspect of the research? What happens when computer games are integrated into real world scenarios? While these and other questions are important, they fall outside the scope of this research project and may be areas to pursue in further research.

While the research draws from many disciplines, because of its emphasis on interaction and disruption for feminist purposes, it does not explore the activist use of other media such as film and video (such as the feminist avant-garde video movement of the 1970s (Mellencamp 1990, Cottingham 1996); see the work of Valie Export, Paper Tiger TV, Joan Jonas, Joan Braderman, Cecelia Condit; and the performance work of Karen Findlay, Peggy Phalen, Guerrila Girls, Fiona Templeton, the Feminist Art Workers, Martine Aballea, Annie Sprinkle, Holly Hughes, and Karen Finley (Carr 1993). The thesis does not provide an overview of many game design processes (Bjork & Holopainen 2004) (few studies of design methodologies embrace an overtly gender-focused point of view). Feminist methodological tools are used, but some of the works in feminist theory are less present unless these relate to subversive or interventionist acts.[4]

VI. Terms

In this second part of the chapter, I define the terms of the thesis exploration through the diverse set of literature detailed earlier in Figure 2.1.

A. Subversion, Intervention, and Disruption

'Subversion' is, according to the Oxford English Dictionary, "the turning (of a thing) upside down or uprooting it from its position; overturning, upsetting; overthrow of a law, rule, system, condition..." (OED 1989b, p. 88). A subversion is an action, plan, or activity intended to undermine an institution, event, or object. Subversion has been identified by several theorists and practitioners as a powerful site for marginalised groups to have a voice (subRosa 2002). Both feminist criticism and practice play important roles in defining subversion in the context of technological experiences, as feminist scholars such as Irigaray (1985a, 1985b), Haraway (1991), and Sutton (1996) examine how power relationships play out and how change is orchestrated. Subversion is based on working within or against a system with rules. When discussing subversion, it is necessary to know what system or phenomenon in particular one is working against, be it political, social, legal, cultural. In this thesis, female subversion through and within game play is the specific focus.

While artists have long subverted media forms: Duchamp turning urinals into 'readymade' sculpture and shocking the art world (Judovitz 1989), photographer Claude Cahun performing over-the-top gender stereotypes (Dean 1996), or surrealists fashioning experimental films which inverted trends in cinematic narrative and visual conventions (Fer 1993), the practices discussed here further these inversions through the act of playing games. A hallmark of games is that they are structured by their own rule sets: even play itself could be said to involve a kind of subversion. To scholars of play such as Brian Sutton-Smith (1997), the dark side of play is associated, at least in part, with transgressive and subversive actions.

In this thesis I extend the term subversion from the definitions provided by Raymond Williams (1958, 1975a, 1975b) and Antonio Gramsci, (1959, 1971, 1991) [5], Michel Foucault (1972, 1977a, 1977b, 1978, 1988a, 1988b)[6], Judith Butler (1990)[7], and others (Hebdige 1979, Williamson 1986, Morris 1988)[8]. The core ideas regarding subversion evolved from Antonio Negri's work on subversion (1989). These ideas are ideologically close to the themes of disruption and intervention from feminist art practices. Much of Negri's writing emerged during his long prison sentence for his political acts, and the thesis takes Gramsci's ideas as a starting point but furthers them, particularly the notion of subversion, by looking at how contemporary culture operates. Negri's is a dual view; he writes of both the difficulty of 'breaking out' against power, and of the inherent encapsulation and control by those in power of subversive acts. When working against pervasive systems of power, he notes, however, that subversive practices still *have* the power to trigger social change when used on the right scale and with the right tools. In fact, Negri notes that subversion is *necessary* within a multitude of organisations in myriad types of forms (1989, Negri & Hardt 2001), and not merely for the functioning of such organisations but for individual and collective well being. While the term subversion infers the destruction of some thing or some system, Negri and others demonstrate that subversion can also be a creative act.

'Interventions' are specific types of subversions which rely upon direct action and engage with political or social issues. According to the Oxford English Dictionary, 'intervention' is the "'stepping in', or interfering in any affair, so as to affect its course or issue" (OED 1989a, p. 3). Rather than reducing these actions to limiting categories, it is more fitting to situate the actions of artists among a loose set of principles which guide interventions. The introduction of art objects and performance into public spaces, for example, is a way that

artists appropriate the cognitive space of the everyday. Artists practising intervention work towards social or political ends, and often seek to open up dialogue by transgressing the boundaries between art and everyday life. Most 20th Century art movements fostered some kind of interventionist activity, and such artistic intervention has been traditionally aligned with the historical avant-garde. Numerous 20th century avant-garde artists had the shared goal of bringing about private and public transformation through creative acts[9]. Thus some artistic intervention takes the form of performance, parody, simulation, game, activist, and 'hactivist' strategies.

A number of female artists have been invested in interventionist strategies: The work of Dada artists Baroness Elsa von Freytag-Loringhoven (Hjartarson & Spettigue 1992, Gammel 2003), and Hannah Höch (Kimmelman 1997, Ollman 1998); Surrealist artists Maya Deren, Djuna Barnes, and Claude Cahun (Martyniuk 1998, Rice 1999); Gutai artist Atsuko Tanaka (Munroe 1994, Tanaka & Kanayama 2004); and Fluxus artists Yoko Ono (2000) and Alison Knowles (Weisen 2003) intervened in contemporary art venues, took over traditional art styles to change them, or depicted narratives that operated against social norms. Since the 1960s, numerous female artists have furthered these interests, such as British born Rachel Whiteread.[10] Other artists noted in later chapters who reflect an international current in art that subverts everyday lived experience by exposing negative or unexpected visions of the everyday (Rosenthal et al 1998). Intervention was a popular strategy historically with street performers and activists: women-focussed theatre groups reworked performance practices, for example, and turned to street theatre for intervention (Goodman 1993). Finally, contemporary electronic artists negotiate from traditional, institutionalised aesthetic discourses and emergent, organic forms of social communication. Electronic art has become an experimental

laboratory, not so much for new technology as for new social relations of communication (Wark 1995).

The definition of 'disruption' lies somewhere in between the two concepts of intervention and subversion. It is a term derived from 'Disruption-Innovation' theory from the IT business innovation field (Christensen 2003). Essentially, Christensen argues that disruptions are creative acts that shift the way a particular logic or paradigm is operating. In the high tech arena, disruptive innovators are those who introduce relatively simple yet 'paradigm-shifting' solutions to a particular market. Examples in business include Dell computer's direct-to-customer sales model or song-per-song online music sales, which are examples of low-end disruption (Anthony & Christensen 2004). Other disruptive innovations create entirely new markets. By creating need and new venues for products, the disruption effectively competes against very little. Businesses spawned from such an approach include Starbucks and eBay (which Anthony and Christensen argue 'democratised' the auction process).

Disruption–Innovation theory influences the approach of this thesis, for the game works are created in the research work as interventions into a technological and media saturated culture. As an artist I am creating work at a very different time, than, say, activist art in the 1960s and 1970s, when guerrilla street theatre performances of El Teatro Campesino, the Farmworkers' theatre, The Black Revolutionary Theatre (BRT) led by Amiri Baraka (Elam 2001), or the media interventions of Nikki Craft, Martha Rossler, or Joan Braderman (Mellencamp 1990, Echols 1980) were able to disrupt everyday activities when the 'street', not the computer, was the gateway to cultural intervention. Digital media is at least tangentially related to the business world of software and hardware (Paul 2003).

B. Serious Games

'Serious games' are defined as games that attempt to involve real data, enlist real world scenarios, or tackle real world social problems. Serious games could include those games created for an election, those addressing a political problem, or those engaging with a social crisis.[11] The games created by Ian Bogost or Gonzalo Frasca and his affiliates at newsgaming.com are among the instances of this type of game. The practice examples in this thesis could be considered instances of serious games. This theme is more fully explored in chapter five.

C. Activism

Here 'activism' is defined as an engagement in order to evoke social change. The term is used almost interchangeably in the thesis with interventions, except the focus in using the term activism centres on continuous or long term change. Artworks or artists engaged in creating social change can be considered through this lens. For example, the political and artistic activities of the Situationists in France during the 1960s provide a rich example of sustained activist artwork (Martin 1963). Situationist members, inspired by art and political movements as diverse as Dada, Lettriste, and Bauhaus, proclaimed that they lived among spectacle and worked to enact social awareness, performing radical social intervention through writing, street protest, experimental theatre, and illegal interventions/protests.

D. Feminism

Maguire, among many feminist scholars, notes that "Feminism is: (a) a belief that women universally face some form of oppression or exploitation; (b) a commitment to

uncover and understand what causes and sustains oppression, in all its forms; and (c) a commitment to work individually and collectively in everyday life to end all forms of oppression" (Maguire 1987, p. 79).

Much of the feminist work applied to the thesis is grounded in feminist epistemology and the feminist philosophy of science. From ways of knowing in everyday activities to the way knowledge is generated in research, theorists such as Harding, Haraway, and Harstock argue that dominant research and knowledge practices disadvantage women. Among early scholars to address feminist research practices, Roberts (1981) collected numerous important essays on feminist research methods in *Doing Feminist Research,* which bring to light the ways in which sociological work was influenced by feminism in theory, method, and research practices. Harding (1987, 1996) has long interrogated the troubling questions that surround classic research environments and gender, especially those of a technical and scientific nature, noting that social relations and sexual identities can cause problems not easily addressed by the scientific method in research. Focusing on epistemological issues, Harding problematises traditional research paradigms and urges researchers to rethink their practices. Stanley & Wise (1990) offer an interdisciplinary glimpse at how feminist epistemology can frame research practices across disciplines. Instead of focusing on quantitative analysis, for example, the book offers a wide range of ways to bring feminist practice into research.

Feminist research is a mix of many researchers' epistemologies, with the ultimate goal being to create social change (Saltzman Chafetz 1989, Collins 1990, Reinharz 1992, Devault 1999). Carefully noting the power relations that gender difference entails, bell hooks further defines the feminist mission as:

> the struggle to end sexist oppression. Its aim is not to benefit solely any specific group of women, any particular race or class of women. It

> does not privilege women over men. It has the power to transform in a meaningful way all our lives. Most importantly, feminism is neither a lifestyle nor a ready-made identity or role one can step into (hooks 1984, p. 26).

Doing feminist research risks categorising women under too wide and generic an umbrella; "the definition of the gendered subject that is employed therefore needs to be imprecise enough to allow diversity at some times but a form of specificity at others" (Bondi & Davidson 2003, p. 335).

Therefore, throughout the thesis, the terms 'feminism' or 'feminist approach' should be read as invoking the standpoint theories of Harding, Harstock, and Haraway, while the work of other feminists ground the relative nature of standpoint theory in lived experience: Maguire, Bondi and Davidson in their support of the broad articulation of women's roles and the investigation of power relations, hook's interest in the continuous and active practice to end oppression, Stanley's insistence on the cross-disciplinary nature of feminist work, and the social change hoped for by Saltzman Chafetz, Hill Collins, Reinharz, and Devault.

E. Culture

As noted earlier in this chapter, anthropologist Clifford Geertz defines 'culture' as "an ordered system of meanings and symbols, in terms of which social interaction takes place" (1973, p. 144). Many organised systems could be analysed as a culture, including games. Geertz noted that culture is "public because meaning is public"; to him, the systems of meaning are the collective property of a group. Those from different groups might hold a "lack of familiarity with the imaginative universe within which their acts are signs" (pp. 12-13). If culture is generated socially and if it demonstrates the learned behaviours of a given human society, women and men would be equals under that society. However the baseline definition

of culture is always negotiated. Historically, in many parts of the world, the power to define culture has been determined, at least in part, by gender.

F. Cultural Studies

As a grass-roots and now primarily academic movement that began outside academic circles, 'cultural studies' examines lived experience and offers a way to name how the social experiences within culture created sets of subjective knowledge. Cultural studies researchers examined lived experience through studying youth subcultures, native cultures, media culture, fan culture, and a host of other sites where groups have developed 'cultures' (Williams 1958). While initial investigations were primarily in the United Kingdom, scholars at an international level now effectively use the approaches offered by cultural studies to examine especially hybrid or cross-disciplinary areas. In all cases, overlooked aspects of everyday life are prioritised by the research.

G. Practice

Quite simply, 'practice' is 'making'. In the thesis I review artworks and other practice works. These include artworks and commercial games, which are associated with the research themes. I also produce four practical works.

H. Reflective Practice

Donald Schön is a leader in the design field, actively articulating ways that designers, artists, and professionals 'contemplate' design contexts and actions in order to reveal, consciously, the artist's decision making processes (Schön 1983). 'Reflective practice' is the name for the cyclical way in which this self-study occurs. Both Marxist and feminist

traditions also suggest that the capacity to reflect is a central way social change can be enacted, and thus Schön is operating from within a tradition that has interested those involved with social change. Reflective practice encourages producers of cultural artefacts to consider the social and historical content in which they create new work. In everyday interactions, through reflective practice, producers and consumers might partake in reflection in the sense of thematising, or making explicit, what was unintentional or implicit. In this way, practitioners may understand the underlying processes of social interaction and tool use which otherwise might mistakenly be considered 'intuitive'. To develop the reflective practice aspects of the methods described in the thesis, I reviewed the methods of Duchamp and the Fluxus movement. Following Schön's reflective practice method, I followed an experimental, iterative, and conversational process in the making of the work. More about this approach is detailed in chapter two of the thesis.

I. Everyday Life

For the purpose of this research, the 'everyday' is a contested arena of ordinary, day-to-day activities that have passed as invisible and unimportant and have thus been left out of typical historical accounts (think of banal activities such as tooth-brushing or answering the telephone). De Certeau described the everyday as a political site, and cautions that everyday activities are not homogenous across race, ethnicity, class, and gender lines, but rather are characterised by a range of social differences. Everyday life is a site for work, play, and if necessary, tactical resistance (de Certeau 1984). "Everyday life is the measure of all things: of the fulfilment or rather the non-fulfilment of human relations; of the use of lived time; of artistic experimentation; or revolutionary politics" (Debord 1961, p. 69). As I've suggested, much of

contemporary everyday life takes place on and through the computer.

Henri Lefebvre, a 20th Century philosopher looking at the social production of space and how space related to the construction of leisure, noted that it took the development of a bourgeois culture to create leisure. This, in turn, helped create a mass of cultural commodities; not products, but rather, symptoms of consumer culture and its inherent power relations. Lefebvre's politicisation of space helped form the 'radical' 20th Century critique of everyday life, a critique significantly shaped by the political and artistic activities of the Situationists in France.

J. Play

What is, for the purposes of this study, 'play'? Play is a notoriously difficult concept to define; it is a culturally- and socially- specific idea. Brian Sutton-Smith notes that play is fun, voluntary, intrinsically motivated, incorporates free choices/free will, offers escape, and is fundamentally exciting (1997, p. 174). He has argued that play activities can be grouped in four categories: play as learning, play as power, play as fantasy, and play as self (Pellegrini 1995b). While quick to recognise the dark side of play, including bullying, abusive situations, and frightening circumstances, Sutton-Smith also notes that play can be defined as a variety of activities: as exchanges of power, power plays which value competition and traditionally masculine play styles (1997, p. 87); as the act of bonding and belonging (p. 107); play as a practice of real life functions (p. 50); and play as 'fun,' being with friends, and choosing freely (p. 49). Play is recognised as one of the most fundamental parts of being human (Huizinga 1970, Csikszentmihalyi 1979, Sutton-Smith 1997, Salen & Zimmerman 2003). While play spaces are generally fantasy spaces, players often experience real stakes when inside of

them. One might easily find examples of the 'serious' aspects of play in sport and gambling.

Play is an integral and vital part of mental development and learning, and playful activities are essential aspects of learning and creative acts. In *The Ambiguity of Play*, Sutton–Smith suggests that play provides a working model of species variability by incorporating mental feedback that keeps a species flexible in evolution. He particularly focuses on play's potential to help define social norms and identity, noting that the "use of play forms as forms of bonding, including the exhibition and validation or parody of membership and traditions in a community" (p. 91) is essential to cultural formation. By playing together, people form close groups and develop a group identity and a sense of belonging. Play can also function as a tool to understand the self.

Many anthropologists have argued that play is the way children work out social and cultural norms. "Play can cure children of the hypocrisies of adult life", notes Sutton–Smith, and argues that children's play spanning from early childhood to teenage years offers narratives which negotiate the risks of the real world: "These stories exhibit anger, fear, shock, sadness, and disgust" (Sutton-Smith 2003).

Johan Huizinga, in his book *Homo Ludens: A Study of the Play Element in Culture*, defines play as something that is nearly impossible to define, with the exception that it is a "function of the living, but is not susceptible of exact definition either logically, biologically, or aesthetically" (1970, p. 25). Huizinga rather defines the formal characteristics of play as "a free activity standing quite consciously outside 'ordinary' life" (1970, p. 32). Other aspects include play as a voluntary activity, executed within certain fixed limits of time and place, having rules freely accepted but absolutely binding (1970, p. 36). In play, the aim is play itself, not success or interaction in ordinary life. Unlike Sutton–Smith, he focuses on adult play, and argues that play activities are not serious in and of

themselves, but shape culture nonetheless through ritual and social custom. At the same time, they absorb the player utterly in a special time and place set aside for play, "a closed space is marked out for it, either materially or ideally, hedged off from the everyday surroundings" (1970, p. 38) which he later refers to as 'the magic circle' (1970, p. 39).

Thus, the themes which emerge in scholarship attempting to define play are: Most anthropologists, and historians agree that play is central to human and animal life; play is generally a voluntary act; it offers pleasure in its own right (and by its own rules); it is mentally or physically challenging; and it is separated from reality, either through a sanctioned play space or through an agreed upon fantasy or rule set (Blanchard & Cheska 1985, Sutton-Smith 1997, Csikszentmihalyi 1981, Pellegrini 1995a, Pellegrini 1995b, Pellegrini & Smith 2004).

As I will argue in this thesis, play and the ordinary world are intermingled amidst the popularity of computer games, and electronic artefacts are becoming these "sacred spots" Huizinga identifies in his anthropological writing (Huizinga 1970, p. 39). A great deal of pleasure is derived from subverting set interaction norms, exploring what is permissible and what pushes at that boundary. I will demonstrate that there are several historic reasons for this in chapter three's study of the play practices of women and girls. If digital artefacts have truly become a 'magic circle' in which players enter a sanctioned play space, then this Playculture in which many participate is an open environment focused on experimentation and subversion

K. Games

In his 1980 book *The Art of Computer Game Design*, Chris Crawford contrasts what he call 'games' with 'puzzles'. Puzzles are static; they present the player with a logic structure to be solved with the assistance of clues. Games, however, can

evolve. Often, rules shift at certain points in a game; they are not static, but change with the player's actions. Katie Salen and Eric Zimmerman (2004), among other games scholars, note the wide variety of definitions of the term 'game'. Many critics argue that games are by their definition competitive in that they always have an end point, a winning or losing state.

Costikyan (1994) also has very concrete definitions of what constitutes a game. "A game is a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in the pursuit of a goal" (par. 28). For Costikyan, the structure of games versus other kinds of experiences (stories) is vastly different. He notes,

> "Stories are inherently linear. However much characters may agonise over the decisions they make, they make them the same way every time we reread the story, and the outcome is always the same...Games are inherently non-linear. They depend on decision making. Decisions have to pose real, plausible alternatives, or they aren't real decisions. It must be entirely reasonable for a player to make a decision one way in one game, and a different way in the next. To the degree that you make a game more like a story -- more linear, fewer real options -- you make it less like a game" (pars. 15-16)."Stories are linear. Games are not" (par. 20).

Salen and Zimmerman define games as "a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome" (Salen & Zimmerman, p. 80). Salen and Zimmerman offer 6 key game concepts in their recent and influential game creation book:

1. a game is a system
2. it is artificial
3. it has players
4. it has conflict
5. it has rules

6. it contains a quantifiable outcome / goal, ending state in which players can either be considered the 'winners' or the 'losers'.

Thus, Crawford, Costikyan, and Salen and Zimmerman all note the importance of rules in constructing games, with varying degrees of storytelling, conflict, and competition. In this thesis, the concern is less on the precise definition of a game or of differentiating a game to play. Rather, the intention is to delve more into the context in play experiences in which subversion, intervention, and disruption occurs. Therefore, these somewhat contradictory definitions from major scholars in the field can stand equally, as what are considered 'electronic play systems' and 'computer games' are subverted.

VII. Conclusion

This investigation into creating feminist computer game design methodologies began by defining the context in which many computer games are made. It then documented the lack of women in the game making industry and in the high-tech industries in the United States. The rationale for the research and the initial research questions were laid out and the terms were defined. It was made clear that women's role in digital culture is marginalised just as digital culture has become simply 'culture'. I noted that women and girls participate in computer games, the most robust media form in digital culture, in subversive ways, and set the stage to develop this idea further. In the next chapter, the collection of methods will be elucidated. In the fourth chapter, a historiographical look at women and girls' play practices in the home will be explored. Chapter five presents an exploration of contemporary feminist games. In the final chapters, the feminist game methodology is developed, explained, and applied in practice projects.

Notes for Chapter Two:

[1] In contrast, the film box office sales were just 7.7 million in 2000 (AP 2001).
[2] Lara Croft and Aya Brea have only recently been matched by the likes of human actors. One example is Uma Thurman in the film series *Kill Bill* (2003)
[3] The proportion of U.S. households with computers reached 61.8 percent in 2003, and 87.6 percent of those households used their computers to access the Internet. 54.6 percent of U.S. homes had Internet connections (54.1 percent in households with a personal computer or laptop. (US 2004)
[4] Significant research that has been removed from the thesis should be briefly noted as background material. A chapter on 20th Century art movements and women's use of games within them, such as the groundbreaking performance work of Claude Cahun and Elsa von Frietag Loringhoven, as well as the various Surrealist games or Yoko Ono's Fluxus games, for example, were deleted from the thesis to provide a tightened focus. Similarly, a chapter on the feminist subversion of online social networks such as *friendster* and *ebay* has also been deleted.
[5] Gramsci and Williams describe subversion as behaviour which works against the monolithic structures of 'culture' and 'state'. These structures Gramsci grouped under the concept of hegemony: the dominance of one group over other groups. Subversion is offered as a way to undermine such powers. However, the monolithic powers in technoculture do not directly correspond with the structures Gramsci was working against. Computer culture, and the widespread availability of information, for instance, makes it impossible to homogenise the different kinds of structures in operation. Jameson's concept of late capitalism, where capitalism co-opts any possibility of change or dissent back into its own matrix, is slightly more useful to extend this definition, for in this way we can better analyse the hegemony of cultural imperialism we see in globalisation practices.
[6] Foucault also extends the definition of subversion by his work on 19th century industrial revolution and the contemporary formation of Western nations and statehood. Foucault's *History of Sexuality,* for instance, details the discourse of regulation in the 19th century, and its sites for subversion of this regulation (1978). Contrary to Freud, who developed the idea that the unconscious regulated dark matters: sexuality, death, repression of desires were all linked within a framework to the workings of the mind, Foucault challenges the direct equation between personal "regulation" and the hegemonic state. Certainly the state, he argued, had a direct, vested interest in the control of the population's repressed desire and sexual urges.
[7] Informing the research are several contemporary philosophers such as Judith Butler; she defines subversion broadly, discussing the performative nature of subversion as a potential site for transgression (1990).
[8] In the 21st Century, the division of power changes and becomes much more murky. In terms of subversion, things have shifted from Gramsci's ideas of hegemony to more distributed hegemony; there is no one medium. Dick Hebdige, in his book *Subculture* (1979), noted the tendency to celebrate moments of resistance amidst mass cultural forms, from music to television; in his research he noted ironically, however, that "power breeds resistance" as power structures exist in order to simultaneously contain these subversions; there is no real way to escape power. Judith Williamson (1986) and Meaghan Morris (1988) also criticised academics that had spent their time finding subversion in any media form and through any kind of action.
[9] For over a century, artists with strong ideologies have utilised the 'manifesto' to communicate such group goals (such as the futurists, with Marinetti 1909, or the surrealists, with Breton 1924, 1971).
[10] Whiteread is an artist who creates reverse sculptures of everyday space, for example (Townsend 2004)
[11] The serious games initiative organises games researchers around the world. http://www.seriousgames.org/

INTERVENTION-DISRUPTION, GAINE RESEARCH, AND FEMINIST PRACTICE:

a hybrid method.

3

We know poorly the types of operations at stake in ordinary practices, their registers and their combinations, because our instruments of analysis, modelling and formalisation were constructed for other objects and with other aims (de Certeau et al 1998, p. 256).

I. Introduction

Digital artefacts are not neutral sites for work and play, but are situations permeated by symbolic representations, relations of power, contradictory social and cultural practices, and layers of history. Because the doors to cyberspace are created primarily by a relatively small group of elites, as

demonstrated in chapter two, certain values and thinking infuse these places, marking them with class, race, and gender nuances. As philosopher Langdon Winner and feminist scholar Diane Butterworth have argued, technological artefacts influence social order and embody politics (Winner 1980, Butterworth 1999). The task, then, is to find a collection of methods in order to assess, and rework, this tricky amalgamation.

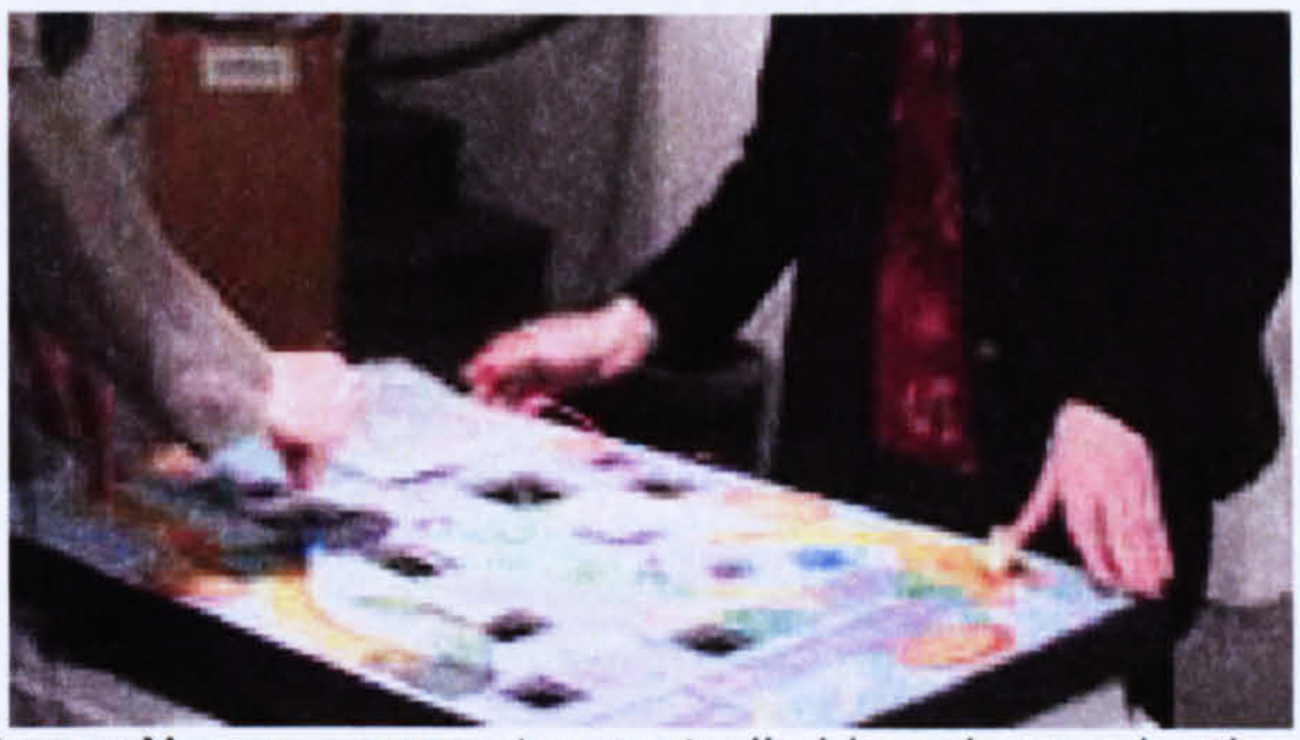


Figure 3.1: Career Moves, *a computer-controlled board game by the author*

Playculture needs to be analysed using methodologies from a range of disciplines which provide a multi-faceted lens through which to observe the artefacts of digital culture. "Hybrid media require hybrid analysis," noted technology theorist Peter Lunenfeld (1993, p. 7). With the added complexity of computer games, in particular, the thesis required a hybrid , trans-disciplinary set of methods for the structured analysis of the games and play strategies studied in this thesis; these terms are discussed in this chapter.

The methods utilised in this thesis research are drawn from three overall approaches: Interventionism, Feminism (particularly feminist epistemology and the feminist critique of science), and games research.

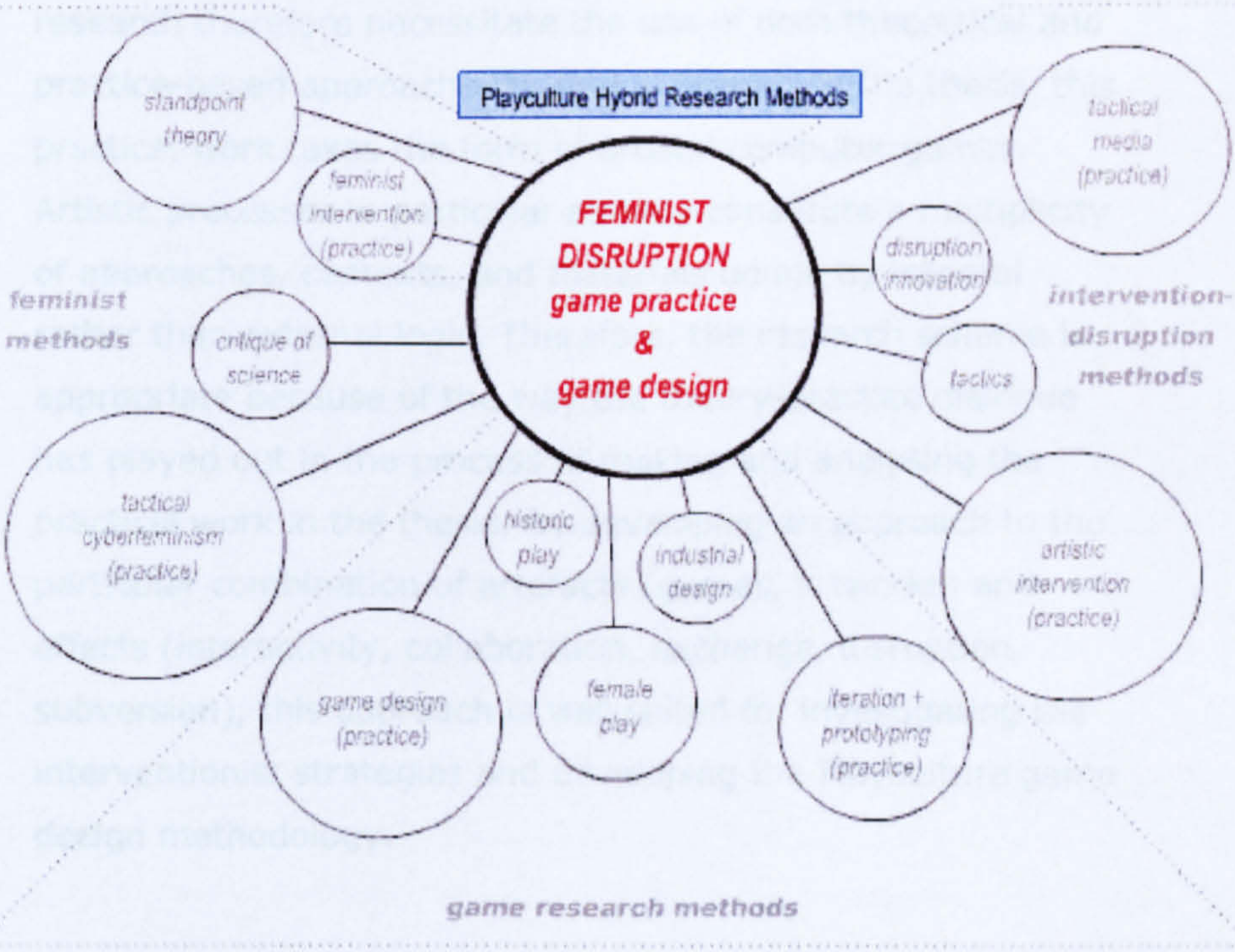


Figure 3.2: The hybrid methods

The role of practice is integrated throughout, yet it is also, somewhat paradoxically, important as a research approach in its own right. In each of these research areas, there is an integrated approach to theory and practice, and therefore is in this thesis research. Yet practice also poses different, but nevertheless important, questions for the study of computer games than do critical or theoretical approaches alone. Separating practice and theory in the research concerning Playculture would be inappropriate, for Playculture is characterised by interaction and 'doing'. Thus, approaching this study from either theory or practice alone would be inadequate, and further, would carry with it a very real danger of losing the ability to grasp the significance of the electronically-facilitated participatory activities in a society in which users both actively consume and produce.[1]

The Playculture research goal is to create a 'feminist' game design methodology, and the hybrid questions posed by the

research therefore necessitate the use of both theoretical and practice-based approaches to find answers.[2] In the thesis, this practical work takes the form of artists' computer games. Artistic processes in particular already constitute a multiplicity of approaches, contexts, and materials bound by internal rather than external logic. Therefore, the research scheme is appropriate because of the way the theory-practice dialogue has played out in the process of making and analysing the practical work in the thesis. By developing an approach to the particular combination of artefacts (games, artworks) and effects (interactivity, collaboration, exchange, disruption, subversion), this approach is well suited for investigating the interventionist strategies and developing the Playculture game design methodology.

II. Intervention / Disruption Methods

A tenet central to the activist, feminist analysis driving the research is that one can accomplish radical intervention through utilising critically informed, practical work research. In the case of Playculture, this is achieved through game making and 'radical' game design.

A. Tactics

The cross-disciplinary work of French historian and philosopher Michel de Certeau offers to the research significant ideas on the ways people use tactics as forms of resistance in everyday life. De Certeau wrote primarily in a historiographic mode, describing the way in which those who were not in power (i.e., those disenfranchised, or 'the other') were able to resist, survive, and, at times, thrive against or within dominant cultures. He described his resuscitation of historical accounts as interventionist, and like Foucault,

worked to bring to light what power structures lie hidden in the very act of recording such histories. The attention de Certeau paid to the everyday resistance of citizens, in turn, provides the evidence that he uses to question the totalising narratives fashioned by historians. In particular, de Certeau examines the act of consumption, and notes that consumers, instead of being passive and malleable, are in fact deploying 'tactics' which operate within and against power systems such as capitalism (1984). In everyday activities in spatial environments such as computer games, de Certeau's ideas on consumer culture are best articulated through the theme of movement. Physical movement and the active use of space produces various experiences of encounter that can be met with politically informed tactics for intervention. Tactics in games include tricking authority figures such as game administrators, using codes to comment upon or invert game play, or re-skinning characters to introduce humour or absurdist readings in a game.

With his emphasis on the daily tactics of workers and artists who are "making do" with the fragments that are collected, de Certeau's work can be used to argue for the effectiveness of subtle interventionist tactics.[3] "Many everyday practices (talking, reading, moving about, shopping, cooking, etc.) are tactical in character. And so are, more generally, many 'ways of operating'" (de Certeau 1984, p. xix). In other words, one's daily interactions can affect the hegemonic power structures that oppress, and in the online environments of the 'digital vernacular', these tactics become "an art of the weak" (1984, p. 37).

B. Tactical Media

Contemporary political art practice has emerged from a combination of interventionist theories and practices, invoking 'tactical media' as a response. The radical art and technology

collective Critical Art Ensemble is one such group utilizing tactics like those described by de Certeau to review and rework consumer culture (2003). The 'CAE' consists of both anonymous and known members and stages interventions and disruptions at various sites internationally. The group primarily relies on Situationist-style interactions: anonymity, surprise, mixed authorship, and brevity (Martin 1963, Sadler 1999, Situationists 1981). Critical Art Ensemble practitioners startle their audiences in order to foster massive critiques of biotechnology, new media, and aspects of computer culture. Most of the work is staged in the public: city squares, conferences, street corners, engaging in public interaction through the use of many new technologies such as biometric equipment and computational systems.

The methods used by tactical media groups engage in political subversion and disruption. Thus, some of these same methods are incorporated into the Playculture game design approach. Women artists who are already using such methods in game creation are discussed in chapter six.

C. Disruptive Innovation

The term 'disruptive innovation' is used to describe the process of business innovation that relies on large shifts or revolutionary changes within business paradigms (Christensen 1997, Hill & Jones 1998, Tidd et al 1997). A disruptive innovation might occur when a business presents a revolutionary new product or service, which disrupts an existing market (Christensen 1997, Christensen & Rosenbloom 1995). As noted in chapter two, examples include the spread of the coffeehouse chain Starbucks, the success of the iPod from Apple Computer, downloadable music, or the invention of the audio CD. These disruptions take advantage of a gap in the market and generate wealth by creating new demand. Key business innovators have argued that disruption has been the

most important force in democratising computer technology and bringing personal computers to the masses (Moore 1995, Christensen 1997). Designers and technologists are encouraged to:

1. Define key resources: the tangible (expertise, people involved, financing) and intangible (design, relationships, distribution mechanisms, audience).
2. Identify key processes: how is the work being created, coordinated, and finished? What influences come into play?
3. Define the priorities of the work so that execution can change to match these.

Disruption innovation methods are used by many industry leaders in the technology fields to alter larger business practices (Anthony & Christensen 2004). In computer gaming, multi-user/multi-player games have created a new paradigm of community and play.

D. Feminist Disruption

As the artists and theorists discussed earlier demonstrate, feminist disruption is a practice in which it is thought that social transformation is best executed by the act of disrupting cultural norms (Phalen 2001). This approach will be discussed more in the following section, but it is important to note here that the idea of disruption is rooted as much in theory as it is in practice.[4] The practice project *[rootings]* (2001) is an unambiguous example of women's narratives 'invading' the masculine culture of the arcade game.

III. Feminist Methods Used

Feminist research is essential to this thesis because it not only informs the subject choice (to examine the gender-biased arena of games, then examine and create feminist games), but also informs the strategies many of the women are using within the games field to raise consciousness or disrupt the almost exclusively male domain. When creating an approach to a new form of game design, it is important that the methods, while originating in feminist research, do not essentialise the real experiences of diverse women and girls. Throughout this research, the location of 'the female' is not assumed to be a fixed, rigid category but a cross-gender, cross-ethnic, cross-age site of subjectivity and agency, which 'others,' in the Lacanian sense (1977), may adopt for activist purposes[5].

What makes feminist research 'feminist', one might argue, is the application and critical analysis of the complex set of motivations, concerns, and 'situated knowledges' of particular relevance to the gender and class issues of women, as brought to bear on the active process of research (Goodman 1992). This critique offered by feminist theory was the critique of traditional, Western forms of knowledge and power. Derived from Marxist thoughts about oppression and class, feminist scholars generated a set of theories about knowledge exploring subjectivity and ways of knowing grouped under the rubric of 'standpoint theory'; this approach holds that the knowledge possible in any given situation is not only of a political nature, but that it is a particular, socially-generated knowledge produced from a particular, situated instance (Haraway 1988, Harding 1991).

Issues that are important to women and girls, for example, are a starting point. But in a broader sense, the definition and creation of this social phenomena are also of primary importance—"A male view of the social world has become *the*

view" (Maguire 1987, p. 82). In the various feminist approaches to knowledge, then, the objective is to open up the various views in order to realise diversity. In the parallel movements of cultural studies and feminist work, the impulse behind the research was to expose hidden lives and narratives, finding alternatives from those commonly available in academic and popular circles.

Engaging in feminist research is a challenge to both content and method, and this challenge manifests in the lines between traditional research and artistic practice. Because here, as in other feminist projects, "...feminist research is guided by feminist theory" (Reinharz 1992, p. 24), the feminist methods informed by theory are outlined in the next section.

A. 'Classical' Feminist Research Methods

Four of Shulamit Reinharz's suggested feminist approaches (1992) were used in the thesis.

1. Feminist research aims to create social change.

Feminist research is: (a) a belief that women universally face some form of oppression or exploitation; (b) a commitment to uncover and understand what causes and sustains oppression in all of its forms; and (c) a commitment to work individually and collectively in everyday life to end all forms of oppression (Maguire 1987, p. 79). In Playculture, the overlooked everyday act of using the computer for play and subversion was studied. For feminists—scholars who examine gender relations in terms of power and equity—games and gaming culture are important sites given their overwhelming cultural significance and gender imbalance in creation and consumption.

2. Feminist research strives to represent human diversity.

In Playculture, the processes of using computer games for play and disruption are examined. Because the concern of feminist practices has historically been for marginalised and silenced groups, Feminism has continued to be as much a practical and tactical movement as it was and is an intellectual one. Women's studies emerged as a discipline focusing on women's lived experience in careers, healthcare, and rights. Spivak (1987) proposed building upon existing research methodologies to use feminist methods to render visible the unheard voices of the oppressed. Feminist analysis is highly appropriate to apply to games because games involve the creation of unique complex subject positions.

3. Feminism is a perspective, not a distinct research method.

Feminist approaches have historically problematised traditional research methodologies, noting that, for example, the multiple roles that women play render it difficult to impossible to record straightforwards answers to complex questions (Roberts 1981, Oakley 1981). Donna Haraway's (1991) concept of partial or situated knowledges can be used here to analyse and question how 'objective' observations and inquiries surrounding feminist studies, and in this thesis, the game artefact, might render any one point of view not as an absolute, but rather as one of many points of view and truths. Feminist approaches to multiplicity and subjectivity in this way help create multiple readings of a game. This set of analytical tools emerged from feminist critiques of science and scientific processes (Irigaray 1985a, Mulvey 1989, Haraway 1991, D. Rose 1993, G. Rose 1993). The theories generated by feminists analysing visual culture have been used in the critical

discourse on cinema, architecture, the visual arts, and the study of popular culture. These too are relevant to this thesis, for almost every computer game has a visual component. Even with this rigour, Feminism remains a perspective that is admittedly incomplete by its very definition. Wolf notes, "it is important to recognise, acknowledge, and accept the imperfections and the incompleteness of feminist research goals" (1996, p. 36).

An important component of the feminist critique of science was the critique of process, and Harding has provided a methodology for how research should proceed under a feminist approach. Harding's critique, as well as other theoretical, critical, and historical methods, particularly historiography, was derived from the feminist critique of science. Sandra Harding's (1987, pp. 2–3) description of the techniques used in gathering evidence is essential for the organised enquiry into Playculture. She argues, like Reinharz, for the importance of emotions in research, an awareness of the researchers' background and life experiences, the power issues related to the research, and that researchers are all subject to 'standpoint epistemology', where the position of the researcher determines the way in which the researcher can know things.

These themes emerged in the Playculture research. Games are emotional spaces and this needed to be recognised. Each game player will experience a different interaction and a different game experience, so the standpoint of the game players is considered. In the Playculture prototypes, the typical logic of confirmation that is generally exhibited in a traditional scientific experiment is replaced by the logic of affirmation. In other words, priorities in the design of the interactive games function in the interest of process and change, not on final resolution; this allows for the role of the player or

researcher to be considered.

Here it must be noted that feminist ethics has a role to play in the development of a feminist perspective in the Playculture research. As a field of study, ethics has not traditionally included a feminist perspective; indeed, feminist ethics constitutes a relatively recent body of literature. Feminist ethics offers insights into the philosophical underpinnings of eliminating masculine bias, arguing for perspectives such as constructing 'truths' from all available perspectives (Thompson 1998, p. 141).

4. Feminist research frequently includes the researcher as an individual.

A great concern for the role of the researcher means an integration of the researcher as a person with a particular point of view. Creative makers such as game designers and artists work in a certain time, place, and situation; they work in a particular medium and genre; they use particular materials for such work. Any creative act is complex and usually generates what Schön calls "unintended consequences and understandings" (1983, p. 79). An action in an experiment could trigger a successful and expected outcome, or, conversely, a move could fail to produce an intended result and have desirable or undesirable consequences to which the inquirer responds. The experiments of what works and what does not work are linked together in a learning sequence of action, response, and further action; implicating and recognizing the researcher in this system, for most feminist researchers, is essential.

Artistic practice tends to spill over the traditional parameters of knowledge domains established in most research contexts. Practice depends largely on knowledge embodied in 'action' as 'enactment'. Practice methodologies, then, are quite different from the

qualitative and quantitative methodologies that are common in the sciences and especially the social sciences. In their exploration of various research processes, Deleuze and Guattari theorised various approaches to artistic research practices. They recommend in their theory of 'nomad art' that artists should move beyond seeing their creative work as an 'object of study', but rather, must lose themselves in a 'place of exploration', a smooth space 'devoid of landmarks'. Afterwards, Deleuze and Guattari argue, 'striation' can emerge in the form of drawing, documentation, and prototyping (Deleuze & Guattari 1983, p. 54). The space of creation becomes, for Deleuze and Guattari, a 'haptic' rather than 'visual' space, for example, ways which games have been described by games practitioners (Zimmerman 2004). Creative space, to Deleuze, becomes mobile and definable by the tactile relationships that emerge with the material and the context. Methodologies which consider tactility are essential to interactive art work; in the thesis research, traditional forms of scholarly research entered into the four game prototypes, but the games themselves emerged as haptic and tactile embodiments of their own research processes. Gaming is a participatory act: this participation sometimes involves chance operations, negotiation, strategy, or skill of a player, and because the games created for Playculture are entirely participatory works, outcomes change explicitly and implicitly through the participation of the player or the incorporation of a chance system. Gaming as an integrated part of this thesis, then, functions both as a set of methods of creation, and as a way in which participants interact, further create, and feed back into the works.

B. Feminism's Theory/Practice Method: Intervention

As noted by Reinharz in her proposed methods (1992), feminist research aims to create change. This is the foundation of the research model, and throughout feminist work, much attention goes towards some form of action or commitment to social change. Feminism has long had a history of intervention, and in particular, many female artists have used art as an interventionist practice. From the 1970s group *Artists in Residence* or *Where We At* to the *Guerrilla Girls* group from the 1980s onward, many instances of feminist intervention have historically been tied to performance situations. The work of Peggy Phalen (1993) is notable in this regard. A long-term interventionist and feminist, she argues that performance is a necessary component of social change. While recognizing that feminist research is often a commitment of scholars, a central way social change will actually occur is through feminist making, through the production of informed artefacts. As Phalen suggests, "Successful feminist art beckons us towards possibilities in thought and in practice still to be created, still to be lived" (2001, p. 20).

Feminist intervention has also been a way that scholars have critiqued historical accounts. First wave feminist scholars in the 1970s intervened in historic narratives, unearthing counter narratives to offset contemporary notions of authority in the act of creating history. In the thesis, the games of Bookchin and others are explored as interventions in chapter four.

1. Tactical Cyberfeminism

Intervention is a method specifically proposed by feminist scholars and activists that is used to disrupt the everyday practices which create gender stereotypes,

especially in digital culture; feminist interventions in online environments can "provide a strategic method for displacing the dominant conversation and creating reflective practice. It also immediately shifts the perceptions of audience and breaks whatever illusions of privacy and anonymity are operating at the time" (Hocks 1999, p. 115). Contemporary feminist theorists have proposed a 'tactical cyberfeminism' (subRosa 2002, Fernandez & Wilding 2003) that is used in the practice projects. The practice prototypes follow cyberfeminist and interventionist lines because they are informed by feminist analysis, cultural analysis, and the analysis of gaming culture as a gendered space. The work is consciously made to go around or beyond existing practices, encouraging players / users of the works to do so as well. In this way, too, the thesis works to politicise, consciously, the content, form, and function of the game works.

2. Performance

As noted earlier, performance has been linked to feminist intervention for years (Phalen 1993). In her book *Bodies that Matter* (1993), philosopher Judith Butler puts forwards a theory of performativity, noting that the identity of the performative subject is a creation of not a body per se but of a type of performance. Arguing that gender itself is a site of negotiation for subjects who must choose from unrealistic or exaggerated binaries of gender identity, Butler's work provided a point of resistance for those wishing to oppose such social categorisations. This resistance was adopted by 1990s cyberfeminists who wished to separate bodies from personae when the technologies of the Internet were on the rise. Butler's break between the biological tie to sex and the performative nature of the gendered self opened up a

spectrum of ways in which gender could in fact be embodied: Alluquere Rosanne Stone's gender and identity research provides an example here. Stone's performative 'dislocating' and 'relocating' of the body and its sexual aspects was highly informed by the writing of Butler (Stone 1996). Themes inherent to Butler's work include gesture and physicality, that is, the physical actions of performer, and the subversion of gender roles through alternate kinds of performance (1993).

Performance can also incorporate improvisation or 'flow', a common studio art methodology in which one is so completely absorbed in an activity that the ego falls away, letting creative urges shape direction (Csikszentmihalyi 1991). Similar to Butler's alternate performances, practice researchers Cole and Knowles suggest, "whether it is through poetry, prose, movement, drama, mime, meditation, painting, drawing, sculpture or any other non-traditional linguistic or non-linguistic form, the important thing is to find a way or ways that will allow us to follow the natural internal flow of our enquiry. In a sense this is an essential element for researching through artistic expression" (2000, p. 66). Marcel Duchamp's 'laboratory work' (1973) is another example of practice-based artistic research that incorporates multiple methods and concepts similar to 'flow'.

The feminist research methods applied in the thesis work are aligned with avant-garde practices of decentring authority (FPWG 2002, p. 135). Feminist approaches are powerful tools for the study of social structures of existing game experiences. An exploration into real world game designs as artworks using these methodologies substantiates an overall approach to feminist game design found later in the thesis.

IV. Game Research Methods

A. Game Methods from Art: Play as Method

"... if I had to say that I had a methodology then I have a method of play which is bringing things in without a pre-established notion of their use ..." (Macleod 1998). The activities surrounding 'play'—particularly, games, which can also be described, as structures to investigate play—are essential for this research. Gaming, then, constitutes an additional approach to the practice methods. To date, there are divides in the study and creation of computer games; there are commercial computer games, artistic games, training or educational games, and the academic study of such games. Creating games as part of a practice-based research methodology is a valuable and relevant approach when considering the particular prevalence of this media form to Playculture.

Games as research tools have been long used in business and economics exercises. Art games can be a further means of disrupting everyday gaming assumptions. As an avenue of artistic research, games have their roots in Surrealism, Fluxus, and other 20th century art practices. In the 1920s and 1930s, the Surrealists furthered the ideas of Duchamp and his Dada colleagues with investigations into collaborative art making processes and the role of the subconscious in the creative process (Brotchie & Gooding 2001, Kuenzli 2001). Surrealist activities such as *Cadavre Exquis* and other games were used as procedures to open the path between artist intentionality and unintentional influences. In conceptual art, the process became the work itself, especially concerning games.

Throughout each of the artwork prototypes associated with this research, I designed each using gaming practices in tandem with other approaches. The practice methods also

rely, in part, on documentation and articulation of artistic practice as processes involving play.[6]

B. Game Methods from Industry: Iteration and Prototyping

By creating a set of artwork/prototype experiences in parallel with the critical and scholarly process, the creative practice is integrated into the Playculture enquiry through both reflection and a 'conversation' process. To develop the reflective practice aspect of the method, as mentioned earlier, Donald Schön's well-known reflective practice methods were reviewed (1983).[7] The thesis process followed a conversation style process between theory and practice as advocated by practitioners including Schön, as well as many scholars (both Marxist and feminist research traditions suggest that the capacity to reflect is a central way social change can be enacted).

In the practical works, the prototype-artworks materially and mechanically altered aspects of game worlds in order to develop what is critically explored alongside the text in a different 'language'. First, observation drawings were created. Observation drawings help me to analyse what may have been or could someday be. Drawing becomes an instrument of the thought process; the use of drawing and language together is an approach to connect the verbal and nonverbal. "Drawing and talking are parallel ways of designing, and together make up what I will call the language of designing" (Schön 1983, p. 80).

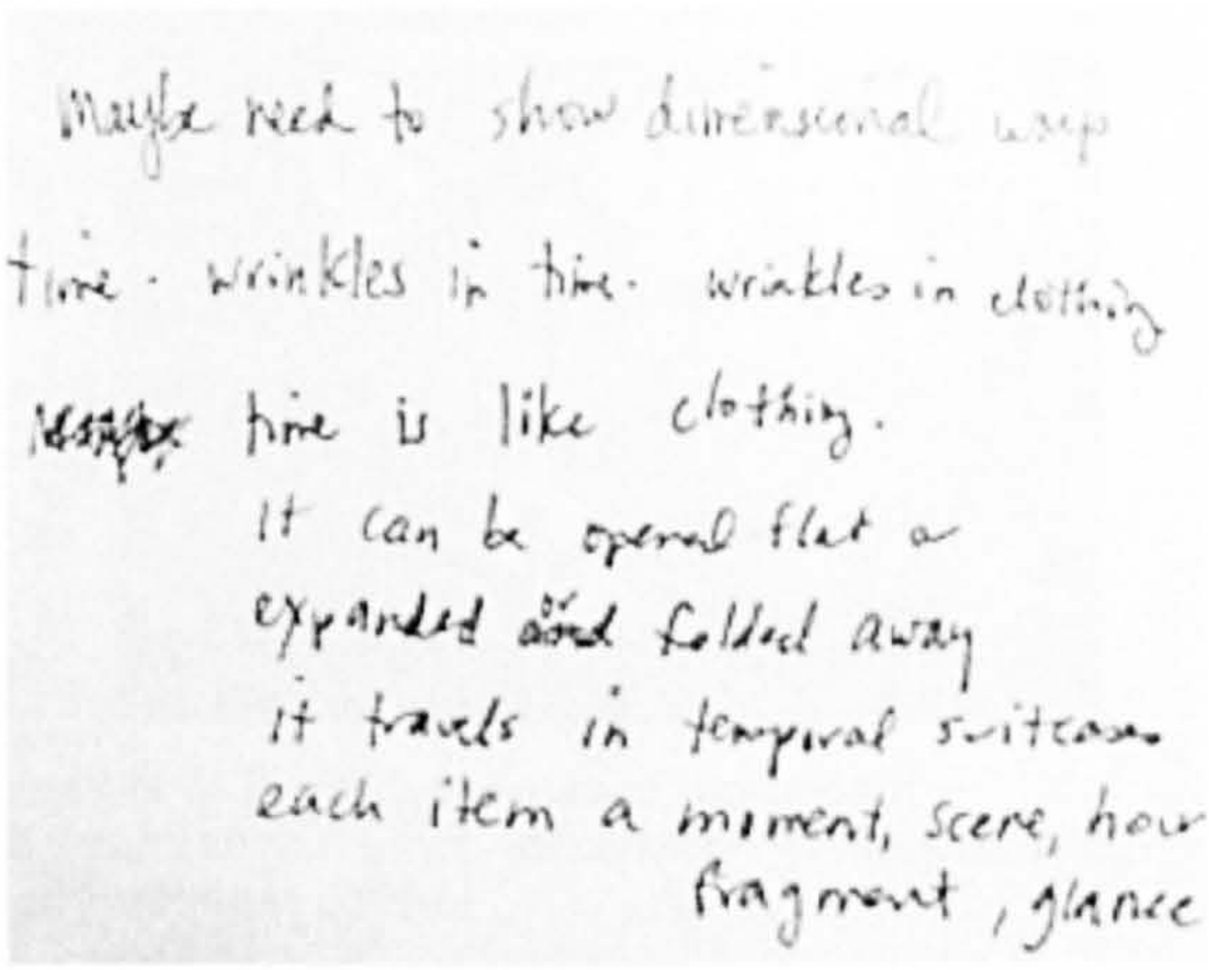


Figure 3.3: Examples of observation writing/drawings for [rootings] *i2001) and, next,* [six.circles] *(2004)*

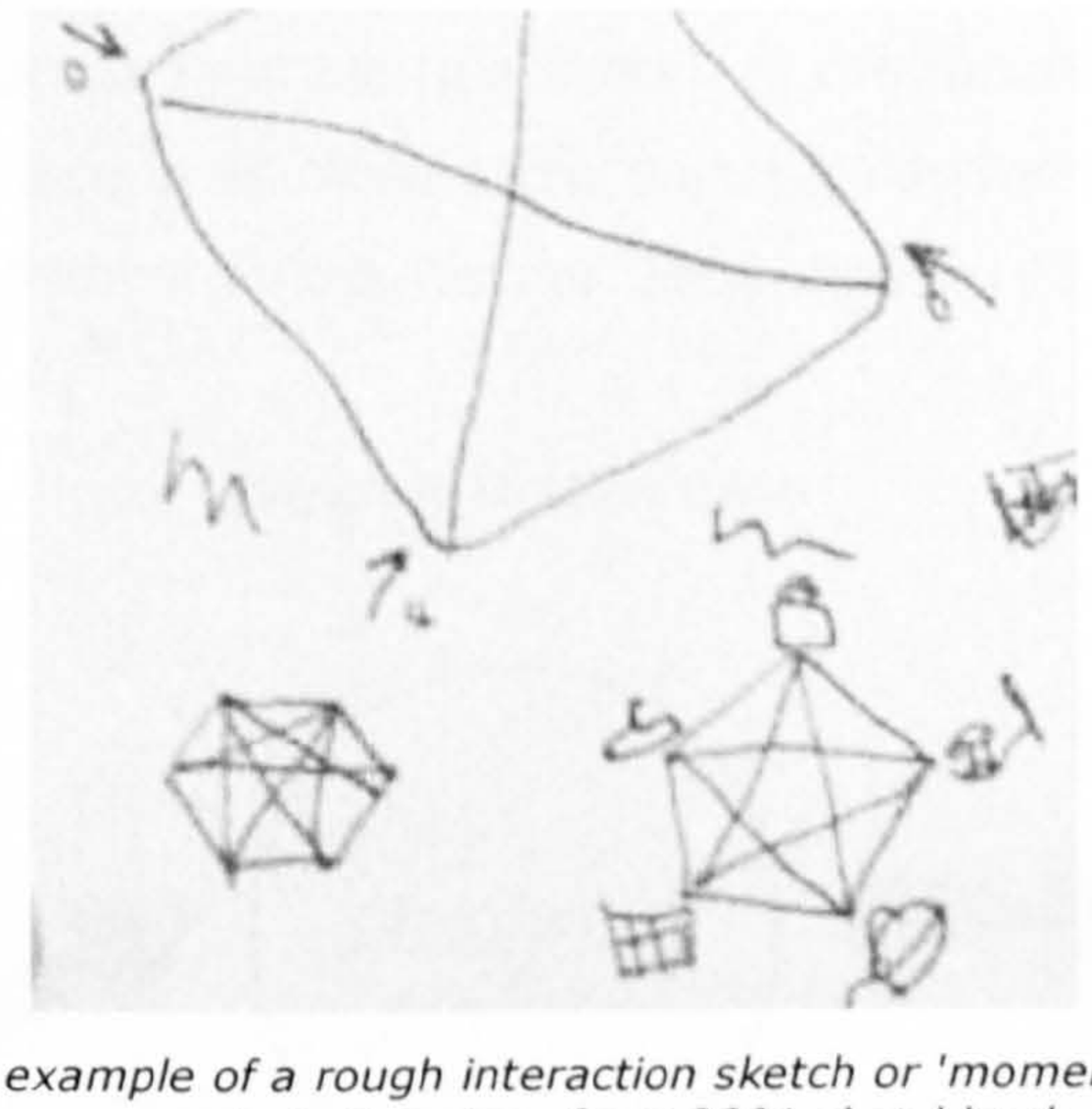


Figure 3.4: An example of a rough interaction sketch or 'moment collage' for the same project. Drawings from 2001 sketchbook.

Second, 'moment collages' are made, linking ideas to physical processes which explore concepts of inside and outside, place and space, and if possible, time, in the form of a rough flowchart.

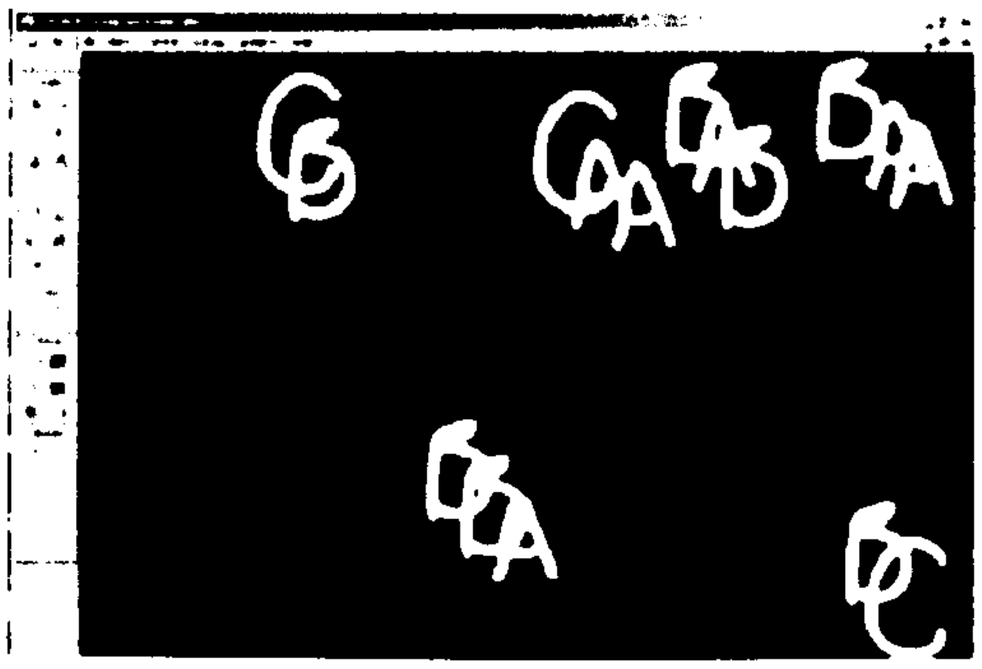


Figure 3.5: Example of a computer-based movement — sequential 'moment collage' using placeholder images for the practice project [rootings] *(2001)*

Sequential drawings were then made, which attempt to 'storyboard' a game interaction sequence or a game space. The final exercise is drawing a sketch of the functioning system or space in as close a cross section as the researcher can create (Milovanovic & Rosner 2003, Rowe 1987).

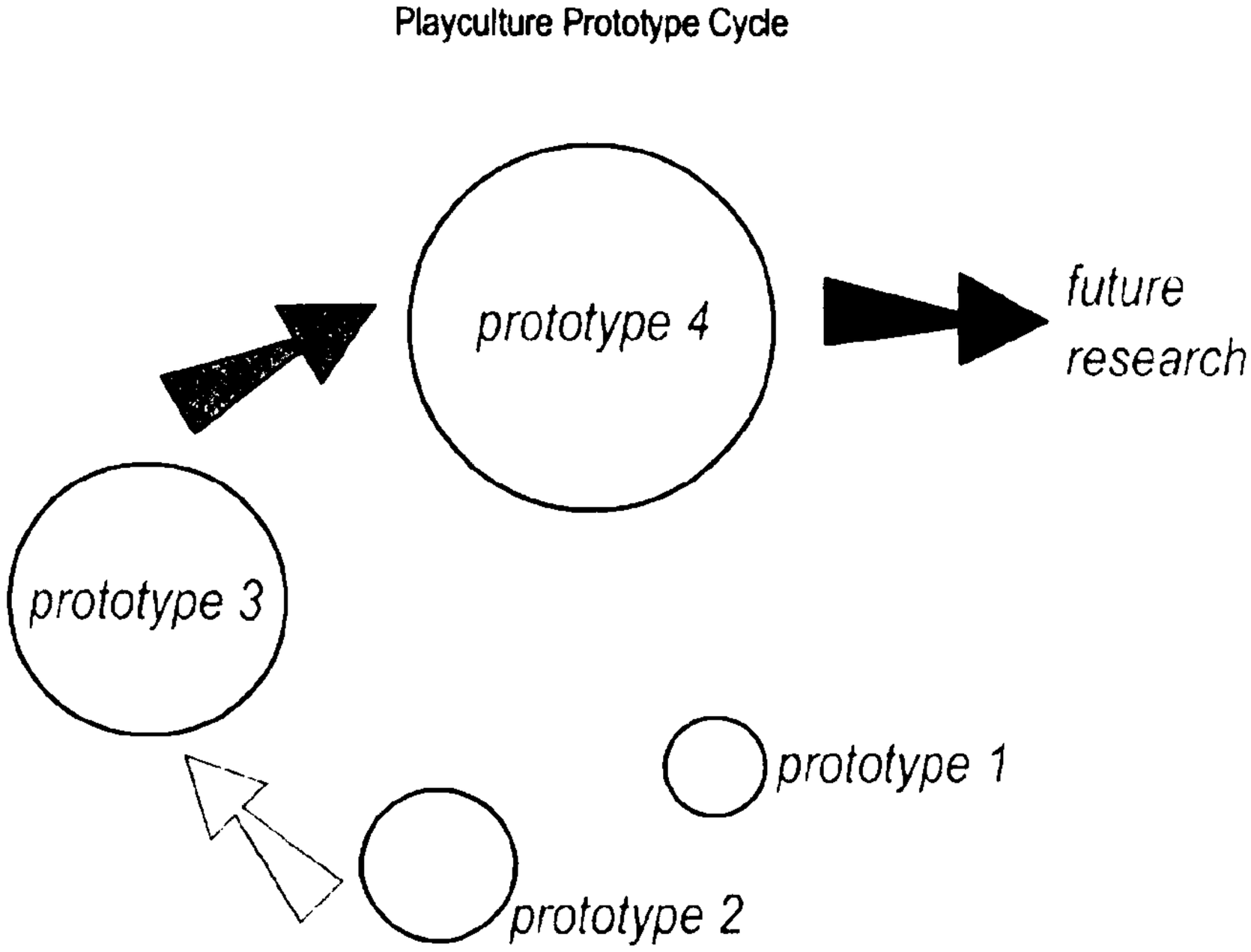


Figure 3.6: The Playculture prototype cycle

The Playculture prototype process was cyclical and iterative within each phase, which continued to help refine the research ideas throughout the process. These traditional

methods can limit traditional artistic process unless they can be used to foster experiential, implicit, and unexpected aspects of creative practice. Iterative cycles between prototypes are among the key features of this methodology (Zimmerman 2004).

The gaming studies groups have emerged out of an amalgam of fields: from philosophy and semiotics, law and economics, to sociology, film and video, and architecture, as well as new fields such at information technology studies. Obviously, a range of methods is emerging because of this mix.

Particular studies of girls and games bring useful methodological approaches to the Playculture research, even if the focus of this work tends not to be on art or subversion but on educational-style software. Kafai has examined in depth the assumption that girls are not violent players and has demonstrated that female players do not prefer violent interactions in games in her studies (1999). Several researchers have noted that girls preferred to play at their own pace in games designed without countdowns or timers, such as 'turn-based' games (Subrahamanyam & Greenfield 1999, Honey et al 2002). Kinder noted that girls become uncomfortable with games focused on competition (1999). Pearce also observed in her research that girls like to use technology to communicate (1997).

The games-based artwork prototypes change explicitly and implicitly through the participation of the player or the incorporation of a chance system. Gaming as an integrated part of this scholarship, then, functions both as a set of methods of production but also the platform in which participants interact and, further, feed back into the interactive systems. Grey & Pirie note, "Successful systems must be evolutionary—responsive to feedback, change, and new conditions" (1995), and the game prototypes were designed along these guidelines. The work of Water Cooler

Games, Ann-Marie Schleiner, and Gonzalo Frasca also informs the design approaches regarding the political use of games.

V. Selection of Research Materials

Moss is one of many feminist researchers who raise the questions, "What sorts of things do you need to know about in order to do feminist research? How do you go about making a conventional method feminist?" (2002, p. 3). She notes that the steps in a feminist research agenda are to scrutinise the process of selecting a topic, set the research question(s), decide on methods of data collection, and choose the materials. Through the research, a set of research questions were formulated, and using these, research materials were selected. One of the central questions for this research includes: Can an effective, theory-practice methodology be developed for game creation which uses activist or interventionist strategies that are informed by feminist scholarship on marginalised groups? There are more related questions, which were derived from the intersection of methodologies, and these are detailed in the next section.

During the course of the research, I defined a range of sites for exploration. These initially included games, of course, as well as a more cursory study of digital environments utilised by women including chat systems and online commerce sites. Informed by feminist scholarship on marginalised groups, I chose games which were popular, in common with those feminists studying the material culture of domestic space or labour history (Milkman 1985, 1987, Spiegel 1992, Blau et al 2001, Beneria 2003), I chose to rework those kinds of game environments popular with women in the United States and the United Kingdom. An example of the work chosen is the virtual 'dollhouse' game *The Sims*. In March, 2002, Electronic Arts announced that *The*

Sims had become the best-selling PC game of all time, selling over 6.3 million copies. Over 50 percent of new players and approximately 40 percent of all players are women (BW 2002).

Another example is the online game *Neopets*, which includes over 62 million users, almost 60 percent of those surveyed in 2002 were women and girls (Bowman 2002). Non-commercial systems were studied in the research. Examples of these include Natalie Bookchin's Internet game *The Intruder* and her simulation game *Metapet*. The game *Velvet Strike* by Ann-Marie Schleiner was also included, as well as my own practice and processes. Through practice and theory, a broader understanding of these digital artefacts is possible because the context is varied and articulated. Analysis is one set of methods and practice represents another. These two, sometimes distinct, areas of production and enquiry can converse productively, even in the early stages of a project.

While the 20th century technologies of radio and television must be acknowledged as important, mediated entertainment forms that entered the home, the Playculture project pays attention to the recent phenomenon of computer media and the two-way communication that technologies such as the Internet provide. Well over half of United States households are online and a similar number are online in the United Kingdom; the 54 percent of American consumers who used computers at home commonly use search engines, email, keyboards and mice, various disk drives, and computer games (USDC 2004). Email, chat, and online games are overwhelmingly popular with women (Chmielewski 2004, Grinter & Palen 2002).

In the following chapters, I will use this prior research to demonstrate the ways in which normative game play is resisted, obedience is challenged; and voice and empowerment manifests from artists in this milieu. The disruption of traditional gaming tropes, the involvement of

intimacy in a game environment, the definition of girls' common play goals, a feminist game architecture, and the adoption of such goals in working prototypes were areas of investigation. These themes underpin the practical works: *[rootings]*, *[domestic]*, *RAPUNSEL*, and *[six.circles]*.

VI. Details on Each Work and How It Answers the Research Questions (Practice Matrices)

In the practical work conducted for this research project, each game or art-design case study game was designed to explore particular aspects of the selected research themes. At the same time, however, my aim was to attempt to leave open windows for interpretation and free play: to make space for accidents, improvisation, and ways to let systems take on their own behaviour. As Nightengale notes, this is useful because "the silences and gaps between data sets can be explored to interrogate the partiality of knowledge produced in different theoretical and methodological contexts" (2003). Designing games allows the spectator's response to the work to significantly shift meaning and behaviour in each piece; creating interactive environments guides one to different hypotheses and theories in the course of developing a work. In the practical work in this thesis, each piece functions to answer particular questions in order to show how alternate practices might open up possible new positions for subjects and for creators. For example, in the work *[rootings]*, I used the look and interaction from the classic arcade game *Asteroids* to create a decidedly different game, *Narrasteroids*. These experiments were verified along the way to make sure they met the research questions.

A. Practice Matrix One: [rootings]

The following chart lists questions related to practice, how the process of "making" the first of the practice-led works, *[rootings]*, was used to respond to the questions, and the outcomes from each of the practice examples.

***[rootings]* questions build on the practical work**	**Practice Response**	**Research Results Outcome**
* Can a game engage with feminist concerns?	* *[rootings]* was designed with empirical (including historical) data about women and play; * interaction designed for working at player's own pace; * contains everyday content: e.g. letters (not classic game narrative of aliens/ enemies); * recreated scenes from childhood and shot video to use in the work.	* successful integration of personal narratives in arcade style game * play patterns complicated traditional arcade interaction, discovered players 'un-played' games in ways similar to historic play patterns (documented in chapter four).
* How are game conventions inverted, subverted, or undermined, if at all?	* shooting interaction used to spell out words; * contains 'under-studied' narrative; * reworked games such as *Asteroids* as storytelling vehicles (*Narrasteroids*) acted as tactical interventions in gaming.	* the game created a successful situation of subversion between goals/interaction * because of alternate game goals, players replayed game, extending interaction and time spent with the work.
* Is it important to win?	* a 'win' state was included in the design.	*in their 'un-playing', players worked to 'not win' the game intentionally and to enjoy the narrative, thus working against traditional game goals. Intervention was propitious.
* What new challenges emerge from the practice?		* the classic arcade style was effective for storytelling but less effective as an 'experiential' space.

Figure 3.7: [rootings] *practice response chart for Playculture research*

Summary for the [rootings] *game project:* A new theory was developed based on the *[rootings]* work in which the actions of the game were infused with point of view as a player explores the game space. Building upon these results, the game environment [domestic] was designed and created.

B. Practice Matrix Two: [domestic]

***[domestic]* questions build on the practical work**	**Practical Response**	**Research Results—Outcome**
* How is the subject positioned?	*[domestic]* builds upon *[rootings]*, creating a 3D aspect to gaming strategies; built within a 'first-person shooter' game; feeling of suspense and action is generated due to that genre's use of running interaction; * space was claustrophobic, intimate.	* the 're-skinned' game space was highly affective; players experienced the game as an installation-type space. * space generated high emotional and cognitive engagement. * intimacy countered the traditionally masculine, cold game environment and used alternate textures, text, and family photographs to alter the meaning such an environment.
*Has the performative approach affected the fundamental values and goals of the research?	* the player navigates the personal, memory-like, and disorienting space.	* players run through the game as though it were a commercial-style game, then go back to reread and re-experience the environments, and the players' interactions 're-wrote' how the text and narrative developed. * re-skinning led me to theorise that a break in conventional interaction should be made, focusing on text or the creation of shapes.
*What new challenges emerge from the practice project?	* unlike *[rootings]*, *[domestic]* has no "win" state—open ended in design.	* regardless of 'win' state, the work creates a constructive storytelling environment. However neither *[rootings]* nor *[domestic]* challenged players towards activist social change from within the game; these games were more diverse than typical games through the possibility of 'un-playing'.

Figure 3.8: [domestic] *practice response chart for Playculture research*

Summary for the [domestic] *game project: [domestic]* was designed with no 'win' state; after the first two practice projects, however, it became clear that a combination of game goals might meet both the feminist approach and the potential for disruption using games.

C. Practice Matrix Three: RAPUNSEL

***RAPUNSEL* questions build on the practical work**	**Practical Response**	**Research Results - Outcome**
*how do historic play situations popular with women and girls relate to computer game play practices?	* *RAPUNSEL* is being designed with focus on 'making' and 'doing'; *rich narrative, reliance on social interaction culled from empirical data.	*collaboration as an essential interaction component within the game emerged, 're-writing' prior play paradigms and game goals. *the ability to disrupt play and subvert the rules—these are emerging as effective results; 'un-playing' has been attractive for areas such as the 'underworld'.
* How are games altered through participation; i.e., is the play system created by the researcher a world of enquiry in which thoughts and feelings of the sources of discovery?	* players are creating their own objects and dances in the environment that teaches programming.	* traditional gaming tropes are supported but are challenged by the players, who are working to creating in order to be authors. * some players desire competition.
*Do players engage with the subversion of traditional gaming tropes?	* girls want to "make their mark" on the world with their creations. * girls are generating dangerous situations.	* risk is being added to game design strategy. * players are designing alternate characters, representing diversity in human creation and 're-skin' their characters to reflect themselves.
*Has the iterative method affected the fundamental values and goals of the research?	* reflecting and iterating on the *RAPUNSEL* game design is leading to the incorporation of a peer-to-peer sharing model.	* *RAPUNSEL* work is generating new approaches to the idea of "winning" which could combine competition and cooperation as equal game goals. Themes of competition are being integrated through dance competitions.

Figure 3.9: RAPUNSEL *Practice response chart for Playculture research*

Summary for the RAPUNSEL *game project: RAPUNSEL* benefited from prior work re: content and spatial design; the reward system was effective as it was designed along peer-to-peer sharing ideas where users benefit from each other's

successes. Empowered users both created and disrupted the worlds they created in tactical ways.

D. Practice Matrix Four: [six.circles]

***[six.circles]* questions build on the practical work**	**Practice Response**	**Research Results - Outcome**
*How can the prior games follow disruption-innovation theory?	* project created to address feminist concerns based on the results from the other three projects.	* game goals designed to balance competition with collaboration, 're-writing' prior game goals and reward systems. .
*Does the combination of the conventions make the works disruptive?	* goals of competition / cooperation are negotiated with risk through interaction with viruses. * quietly disrupts common ways of playing a game.	* players actively torn between competing and cooperating—do both in game. * pleasure in inflicting virus but also cooperating are successful outcomes. * incorporation of risk was effective and promoted the competition and cooperation factors in the game; thus in all of these cases, 'un-playing' was possible but had consequences or 'risk'.
*Has the iterative method affected the fundamental values and goals of the research?	* game neither faults nor valorises competition but rather balances it with group concerns.	* provides novel approach to game design through the balance of competition and cooperation. * work is promising and is to continue beyond the thesis research.

Figure 3.10: [six.circles] *practice response chart for Playculture research*

Summary for the [six.circles] *game project: [six.circles]* was designed to investigate the tension between competition and cooperation. This balance has high potential for use in disruption-innovation strategies.

E. Conclusions from Practice

These four research projects provided the central axis or 'practice-basis' of the research, by generating the primary data (see Figure 1 for a chronological chart of the projects which breaks down phases of practice by project). The nature of the projects can be distinguished from other forms of

research involving practice, such as personal research and critical practice, since they do not privilege a resolved end product over the process of enquiry. Instead, the research functions of each project have been defined in order to develop appropriate analyses (measured in research terms) of the practice. The projects have served specific functions within the formal research process through raising new questions, providing primary data, and providing a test-bed for developing appropriate methods of analysis. Measured milestones were designed into the process so that outcomes could be cumulatively gathered and described.

In the research, an experiment could trigger a successful and expected outcome, or, conversely, a move could fail to produce an intended result and have desirable or undesirable consequences. The experiments exploring what aspects work and which do not are linked together in a learning sequence of action, response, and further action. For Duchamp and other researchers, the artist alone does not perform the rigour within the creative act; the viewer attempts to fill in this missing link by deciphering and interpreting the work. Duchamp, as mentioned earlier, referred to his own creative practice as 'laboratory work,' and it is in this spirit that the creative works of design and artistic practice become research. Research goes into the game prototypes, but they importantly embody fields of study that change as they emerge from the works.

Conclusions/ Theories Which Emerged from Practice Process:	Conclusions from Practical Work	Research Outcome
*Can an analytical framework for game makers be developed to enhance the process of game design with the goal of gender equity?	* process generated 'The Checklist' in chapter seven. * findings substantiated by prototyping and testing of the projects, through the related literature, and the experience of other practitioners as generated in critique.	* enquiry produced four game works and the first feminist game design heuristic. * enquiry produced Playculture theory.

Figure 3.11: Project chart for Playculture research, 2001-2005

The games contribute significant and original practice 'fieldwork,' utilizing the approaches from intervention-disruption theories, feminist theory, and game research in a novel combination. The creation of the games is informed not only by the methods, but also by secondary sources and the empirical study of computer games. Traditional forms of scholarly research entered into the four game prototypes, but they themselves, as embodiments of their own research processes, importantly change as they emerge from the works. The endeavour follows patterns of gaming as a participatory act: participation sometimes involved chance operations, negotiation, strategy, or skills of a player. The games created for Playculture are entirely participatory works, in that outcomes change explicitly and implicitly through the participation of the player or the incorporation of a chance system. Gaming as an integrated part of this scholarship, then, functions both as a set of methods of production and creation, but the way in which participants interact, further create, and feed back into the interactive systems also takes on higher significance. I used the methods to create a framework for activist, interventionist, subversive, disruptive, and tactical games to support gender equity through changing play.

VII. Conclusions

For this research, the framework offered the ability to both do a 'sampling' of current digital practices by women as well as construct new works. The methodology presented herein considers power relations, cultural context, and how to change that context in various games. "Making sense of theory through one's own practice," and, conversely, "making sense of one's own practice through theory," was a core approach well suited to studying gender in the pervasive, invasive, and boundless field of digital games. Can game design enhance gender equity? Strategies could include enhancing authorship, autonomy, collaboration, and creativity through the system design, as well as disrupting games through subversive or activist interaction. The following chapters detail such strategies with a brief history of play and subversion and a look at contemporary feminist play practices.

Notes for Chapter Three:

[1]Online social play is actually a great deal of work. Participating in fan culture, assisting others in one's group, running a clan, and creating artefacts are ways game players participate socially beyond the game. *Second Life* users, for example, spend thirty-five percent of their time every day making and uploading user created content (Ondrejka 2004). Players can purchase islands for their friends, family, or business to grow in; in *Second Life*, a standard membership fee is $9.95 per month, but property is also available at extra cost. Islands (with custom names and their own ratings scheme) are priced at US$980 for sixteen acres. Monthly land fees for maintenance are US$195.

[2] Deleuze is one theorist who made such linkages a topic of research, and in an interview with Foucault, Deleuze shared his interest in the connections: "Possibly we're in the process of experiencing a new relationship between theory and practice. At one time, practice was considered an application of theory, a consequence...For us, however, the question is seen in a different light. The relationships between theory and practice are far more partial and fragmentary... Practice is a set of relays from one theoretical point to another" (Foucault 1972, par. 1–2).

[3] Artists and workers employ tactical maneuvers of 'la perruque' (a worker does his or her own work while 'on the job') and 'bricolage' (a piecing together of materials and ideas to create new cultural forms from the ground up) in their everyday challenges to authority (de Certeau 1984). These ideas are closely aligned with practice techniques described later in the thesis, in which particular opportunities for subversions, interventions, or disruptions are necessarily designed into games. De Certeau's theory described action in physical spaces but can easily be applied to movement and action in games, as games, too, create their own spaces (Jenkins & Fuller 1995).

[4] Julia Kristeva, for one, has written texts such as "Stabat Mater" which are constituted as dualities: the pages are divided into columns of personal writing and high theory, forging a new kind of theory-practice discourse while disrupting academic, totalistic notions of knowledge (1987). Luce Irigaray, as

another example, intervenes in critical discourse by advocating in her theoretical work the disruption of the relations that create woman as the other or the invisible. Irigaray argues for systems or actions which are 'fluid' as opposed to rigid, state-influenced, static systems (1985b, p. 113).

[5] Here we can refer to several works by Lacan to explicate the theory of the other; in particular the essay on "The Mirror Stage" in *Écrits (*1977).

[6] Through the practice process, the artist both consciously and subconsciously makes decisions that affect the outcome of the piece. In the end, there is a difference between what the artist intended and the work's realisation, a difference Duchamp might argue the artist is not aware of (1973. p. 139) and a difference Schön might describe as the full range of changes; those that match or fail to meet expectations together with those that fall outside the scope of the researcher's expectations (1983, p. 153). Therefore, there is a 'missing link' in the creative process; the relation between the unexpressed but intended and the unintentionally expressed (Duchamp 1973, p. 139). These links emerge in the process of experimentation, and in specific interactive experiences such as games.

[7] Schön details for practitioners the reflective practice methodology, where reflecting deeply about what one is doing during a design project works in conjunction with action, thus informing and enriching a designer's decisions. Reflective practice encourages producers of cultural artefacts to consider the social and historical content in which they create. In everyday interactions, through reflective practice, producers and consumers might partake in reflection in the sense of thematising, or making explicit, what was unintentional or implicit, and thereby understand the underlying processes of social interaction and tool use considered 'intuitive' or 'natural'.

PLAY HISTORIES AND THE HOME:

understanding domestic play and subversion.

4

I. Perfect Houses

If play has become an integral part of everyday life in Playculture, then the history of play, especially everyday, banal play, takes on new importance. Similarly, if women in Playculture are unequal as creators and consumers of games, historical aspects of women and girls' play may shed light on differences in play themes and cultural assumptions surrounding them. To this end, houses have functioned importantly in our imagination and in our process of play. In this chapter, examples of doll play and household play are investigated. The activity of playing house and the compulsion for making miniature houses and household goods is thousands of years old, and because of this, we can examine the ideas surrounding domestic play as mechanisms in

defining a particular culture (Armstrong 1996).

Figure 4.1: Victorian-era girls play with Campbell dolls, Eastern US

After all, play houses and dolls have been discovered dating from ancient Egypt (Levy & Weingarten 2003). Children have always played with dolls and have used them to mimic their own particular social and cultural contexts, but Sutton-Smith notes that contemporary practice emphasising object play with toys is unusual and particular to the human condition and could be attributed to technological developments in the West such as the Industrial revolution (Sutton-Smith 1997, p. 105).

Anthropologists like Sutton-Smith argue that it is human nature to recreate everyday activities and surroundings in our play as a form of early socialisation (1997). This chapter covers several examples of play and domestic space as these relate to women's play in contemporary computer games, and ends by exploring the virtual spaces in computer games that mimic or represent domestic spaces or activities by reviewing historical and specifically American play practices in the home.

II. Home

In recent United States history, the house has been the glorious icon of the American dream, representing class fluidity and the egalitarian promises of capitalism. While Marxist critic

Henri Lefebvre critiqued the consumption of space as a capitalist endeavour in his significant critical writing on space, he, like many other theorists and writers, falls into romanticising the house: "The House is as much cosmic as it is human. From cellar to attic, from foundations to roof, it has a density at once dreamy and rational, earthly and celestial" (Lefebvre 1991, p. 121). Some of these themes infuse early childhood play with domestic scenarios, customs, rules.

III. Playing House

Playing with domestic space and the roles within such spaces is an ancient tradition. Dolls have been found in children's graves from the Roman Empire, Egypt, and Greece. Wooden peg dolls were popular in Europe in the 16th and 17th centuries. Even three hundred years ago, fine doll houses were the fashion in Europe. Doll houses in Holland were large wooden structures (sometimes as much as two metres tall) fashioned as cupboards that opened up onto all rooms of the house. The late 17th century Poppenhuis van Petronella Oortman, in Amsterdam, is among the earliest and most ornate of doll houses.[1] Like most doll houses, the Poppenhuis mimicked the upper-class fashions of the times, including nine richly furnished rooms on three levels. Doll historians Armstrong (1996) and Formanek-Brunell (1993) note that doll houses are objects of attachment and fascination which many people preserve throughout adulthood, kept alive either by passing down doll houses through family generations or through a renewed interest in the 'collecting' of dolls and doll accoutrements in the United States and in the United Kingdom.

Playing house in miniature was a popular American pastime in the late 19th century, and dolls and other household play items were featured in home magazines of the late 19th to early 20th century. During America's Civil War era, dolls, doll houses, and toy stores proliferated due to changes in work patterns and social

class categories (Formanek-Brunell 1993). During this time, family roles became more solidified, and leisure time increased. The gulf between rich and poor widened and immigration to the United States provided an inexpensive supply of household labour for established urban dwellers. Children's magazines, books, songs, and other artefacts of the time reveal that girls were encouraged by adults to play within traditional gender roles and develop strong bonds with their dolls—often European, French-styled ceramic dolls possessing detailed features (Formanek-Brunell 1993). The following section details some particular aspects of house- and doll-related play in 19th and 20th century United States homes.

A. 19th Century Domestic Games

It is important to note the significance of doll play in the normalisation, and moreover, the institutionalisation, of social and cultural norms (Kuznets 1994). Before examining these issues through game examples, however, it is useful to recall the examination of 'normative' behaviour in Foucault's *History of Sexuality* (1978) and in his work on 19th century discourses of regulation. Contrary to Freud, who suggested the idea that the unconscious was the seat of one's 'dark matters' (i.e., sexuality, death, and the repression of desires), Foucault challenged the linkages between personal 'regulation' and external power structures (namely, the hegemonic state). The state, he argued, has a direct, vested interest in controlling the population's repressed desire and sexual urges, and in his work, Foucault detailed the power relations employed by the state to leverage the highest level of control. During the Victorian era, these chief mechanisms of control included social and cultural institutions such as marriage, the church, and the traditional activities and social roles within the home. Some of most provocative and compelling examples of 19th century play represented a working

out of, or rebelling against, normative, prescriptive behaviours (Formanek-Brunell 1993, p. 22), and most of the 'regulation' experienced by women and girls centred around their activities within the home. Then as now, playing house constitutes a symbolic act, and the meaning of this kind of play is, as we have seen, culturally negotiated.

It is no wonder that the first significant board game produced in the United States also focused on domesticity given the other types of play, such as doll play, happening in the home. In the 19th century, games, particularly games designed for children, were expected to have some moral or instructional value—preferably both (Turim 1990). *Mansion of Happiness*, created in 1843 by the W. & S.B. Ives Company in Boston, was the first mass-produced board game in the United States. According to game historians (including Jensen 2001, and O'Brien 1992), the game was developed by Anne W. Abbott, the daughter of a New England clergyman. In the game, good deeds lead children and their play pieces down the path to 'eternal happiness'. Good deeds move players forwards on the board towards eternal happiness, but the intervention (albeit through chance) of 'vices', such as cruelty and ingratitude, move them backward on the board (Bowdidge 1990, Turim 1990).

Mansion of Happiness was based on prior British and Italian games, such as *The Game of the Goose* (Jensen 2001). The goal of the game in the United States version, however, is distinct: players compete to be the first to reach "happiness" (heaven) in the centre of the board by good moral conduct in the context of the home. A player spins the spinner and moves along a path on which more than half the spaces are illustrated with virtues and vices. A player landing on a virtue moves forwards; on a vice, back, often all the way back to the starting point, depending on the severity of the vice. Success, in the case of this game, is attained through virtues such as piety, honesty, and charity and the avoidance of idleness, breaking the Sabbath, and other lapses in judgment. This idea is clearly laid out in the directions

to the game (Jensen 2001). According to the game materials:

> Whoever possesses PIETY, HONESTY, TEMPERANCE, GRATITUDE, PRUDENCE, TRUTH, CHASTITY, SINCERITY, HUMILITY, INDUSTRY, CHARITY, HUMANITY OR GENEROSITY, is entitled to advance ... toward the Mansion of Happiness. Whoever possesses AUDACITY, CRUELTY, IMMODESTY, OR INGRATITUDE, must return to his former station and not even *think* of Happiness, much less partake of it (Stevens Heininger 1984, p. 8).

Figure 4.2: Mansion of Happiness, *1843*

It was hoped that children would take these principles to heart and connect them to the secular joys of play: competing for positions, projecting themselves into situations of good and evil, and enjoying the company of their playmates and family (Goodfellow 1991, p. 53). Nineteenth century games reinforced high moral principles, and because of this, children's games were frequently played with a spinner instead of dice to avoid associations with gambling. One device, a 'teetotum', was a type of top with imprinted numbers for chance-based play. The 'boards', published in the same manner as maps, were flexible sheets of printed-paper backed with linen (Goodfellow 1991).

In 1860, Milton Bradley created another morality-based game called *The Chequered Game of Life*, which likewise rewarded good deeds and punished the bad. Other notable board games from the 19th century period include the 1898 Parker Brothers' *The Game of Playing Department Store*, in which players try to purchase the most goods during a shopping trip (Jensen 2001). With these commercially produced games and the paper playhouses which were played alongside them, 19th century play for children centred on the home as the heart of both morality and economic consumption.

B. Scrapbook Houses

For poorer children or for those in rural areas with less access to the Victorian commercial toy boom, doll play and paper doll play flourished. Girls in particular were encouraged to play house and play with dolls. With many families in the United States living in remote locations, catalogue sales industries boomed; commercial catalos represented a link to the larger world's fashions in furniture, clothing, and house wares. Leftover catalogues such as the Sears Roebuck catalogue became precious commodities for playing "scrapbook house". Children used old ledgers or albums as the basis to create paste-up graphic rooms—one room per open ledger page set. Often an entire ledger book would be filled with various rooms: flat, miniature representations of upper-middle-class houses. Most scrapbook houses were consistent in that one room would occupy an open ledger page, but some examples, such as the Grace Curtis Stevens' example dating from the 1880s, further miniaturised the domestic environment so that a cross-section of the house could be seen in its entirety.

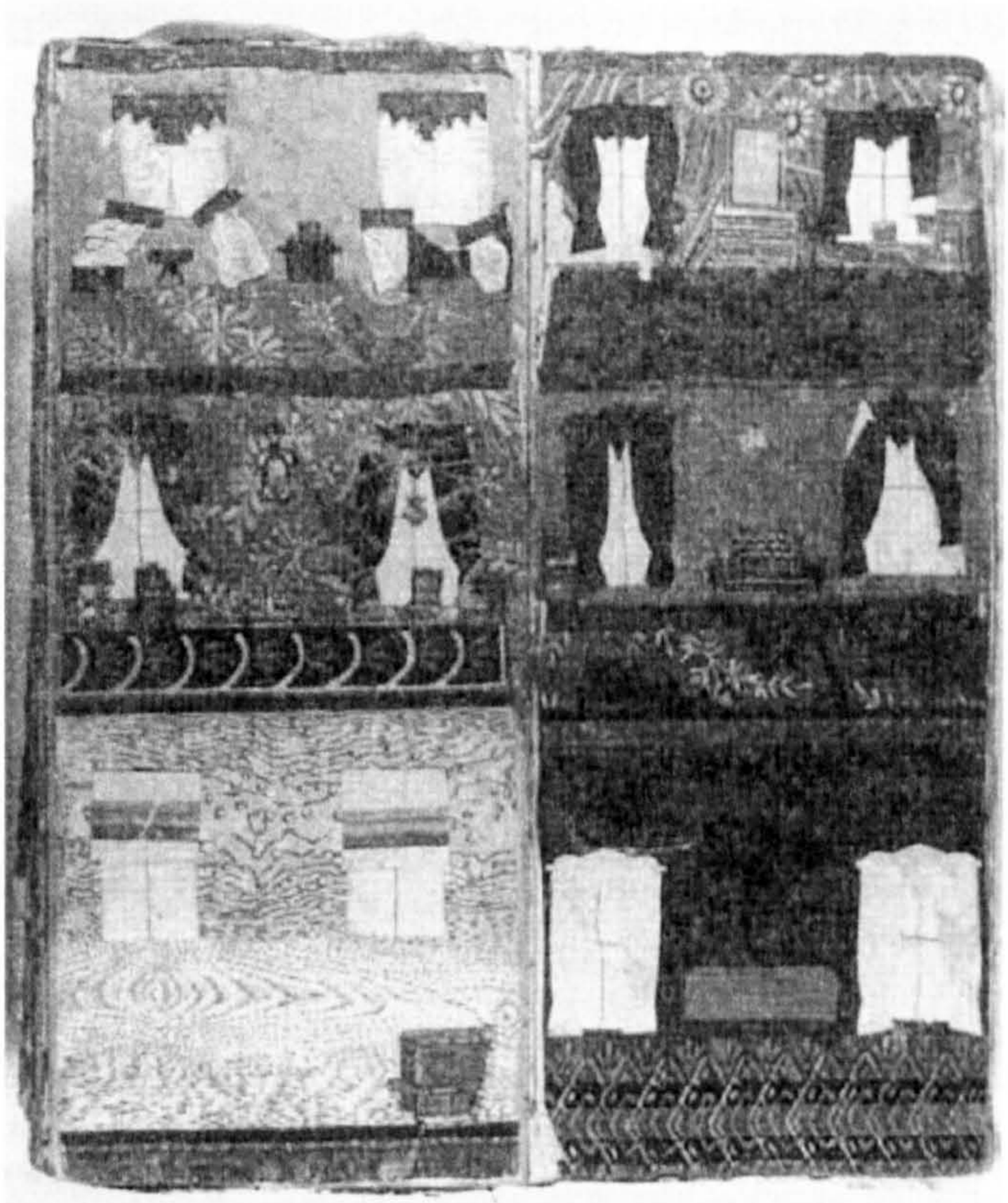


Figure 4.3: 1880s scrapbook house from Grace Curtis Stevens, Smithsonian Museum, Washington D.C.

The furnishings, layout, and paper characters that 'lived' in the space created by players provide a specific idea of house as imagined by a particular class at a particular time and geography. The décor of the scrapbooks reflects contemporary interior fashions of the time. Flat paper model houses "were an ideal medium to introduce girls to their future roles as wives, mothers, and homemakers" and to the idea that the "house in a scrapbook, just as much as an actual one, had to be run and maintained properly" (Roth 1998, p. 308). Housekeeping thus acted as a continuous symbolic reinforcement of patriarchal norms, and the practical and ritualistic function of housekeeping became a desired focus of play. Because of their inexpensive construction and imaginative recycling of materials, however, the books could be made by anyone who could afford time, paste,

and scissors, thus making it a democratic medium (Roth 1998, p. 302).

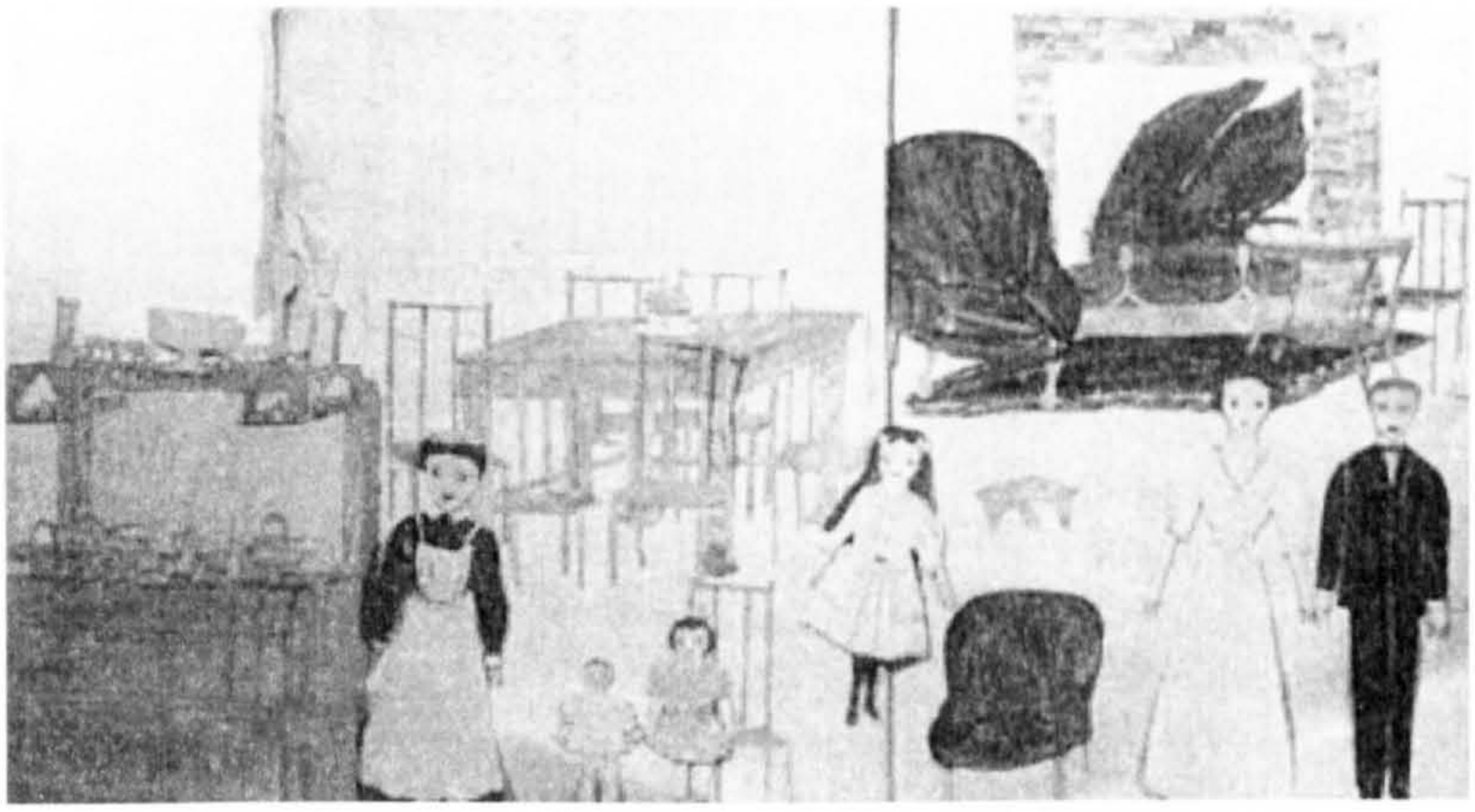


Figure 4.4: 1902 Dining room in a scrapbook house, with family and maid

Often girls playing scrapbook house would add paper human characters to the houses. They would clip out servants such as butlers and maids in addition to home furnishings, wallpaper, and exterior images found in magazines. In design, these houses incorporated all of the functional items needed for the family and staff to perform domestic labour. The presence of maids and butlers suggests household management as well: the goal was to effectively manage all aspects of this early version of a virtual household. Sometimes the household members were pasted or drawn into the scenes, and at other times, they were loose, able to be manipulated within each ledger page and moved to new 'rooms' in the ledger.

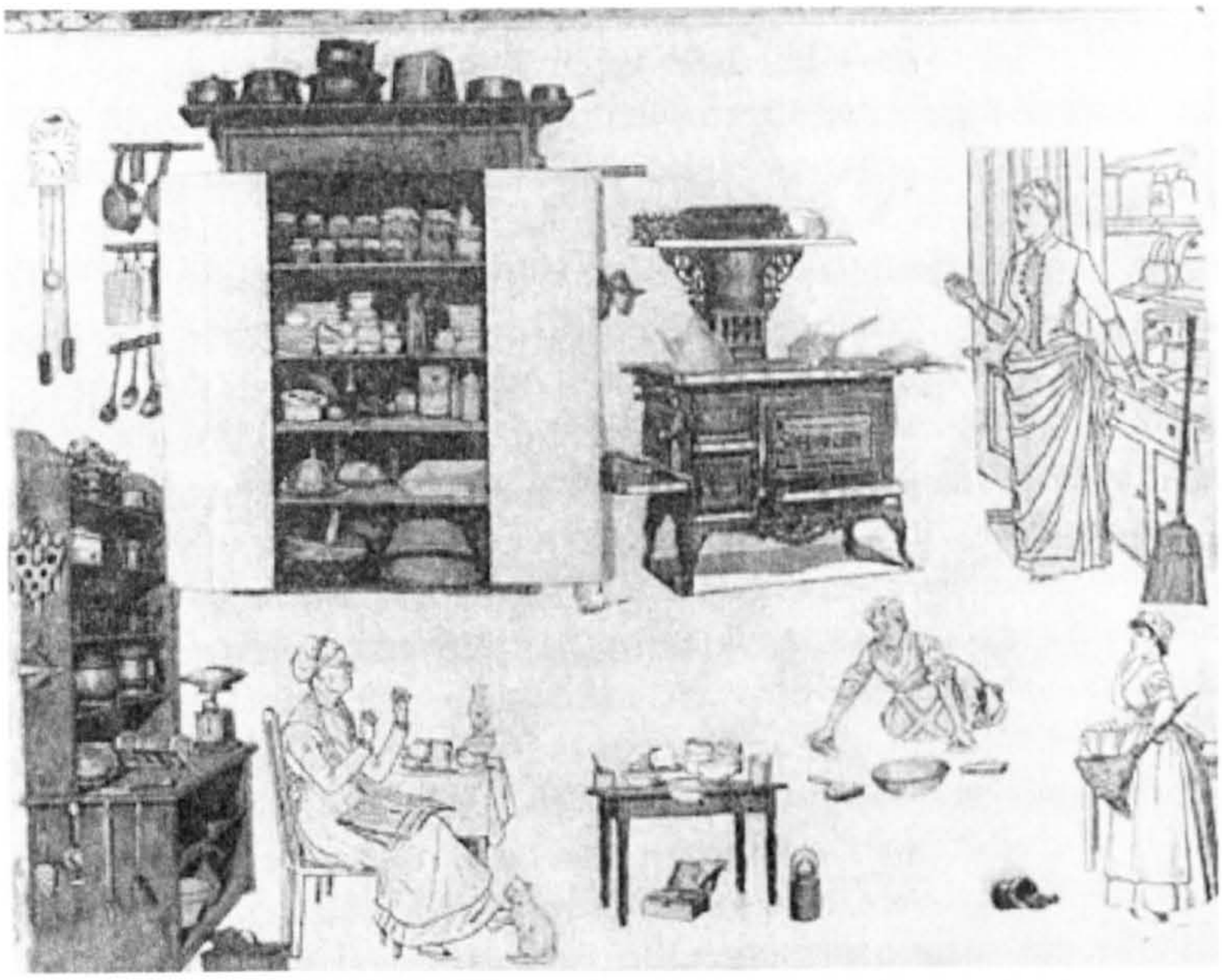


Figure 4.5: 1890 Kitchen in a scrapbook house, featuring multiple maids

Thus far this chapter has laid a historic foundation for play preferences and practices for girls in the space of the home. Doll play historian Frances Armstrong notes that historic documents detail that the events in the dolls' homes were a faithful mirror of what happened in real homes (Armstrong 1996). Such repetition was similar to record keeping or cultural documentation disguised as play. According to Armstrong, an anonymous account written in 1888 gives a detailed example of a typical day in the lives of dolls. The girl of the household would get her dolls out of bed in the morning, dress them, and give them breakfast before their 'school lessons' using small text books she had designed. The dolls studied at the same time the girl did, and, like her, had dinner, did more homework, bathed, and went to bed. The doll parents played cards, and eventually, all of the dolls and their owner went to bed for the night. These activities were parallel to the girl's own experiences, and the girl's mother commended her "for doing the duty of this toy house" (Armstrong 1996, p. 23)

Paper playhouses of the 19th century reinforced the idea that the house was implicitly a gendered space.[2] That female children

were trained to imitate their parents' tastes and to shop for desirable goods from mail order catalogues suggests that 'play culture' was developing and presenting its 'symptoms' through an intertwining of play, gender, and consumption well over a century ago. The space of the domicile is thought to be a traditional space, limiting to women and nurturing to men, clearly centred inside patriarchal structures. Home, then, becomes the site of instantiation of traditional gender roles, work, play, and consumption. Through the practice off housekeeping, players maintain traditions of cultural, material, and symbolic importance that work to reinstate historical female roles within the home.

19th century girls, however, met the emphasis on 'normative' domestic behaviour for women with subversive resistance. Here, the work of Miriam Formanek-Brunell, a central figure in research about girls' historical play patterns, is an essential resource. In her book *Made to Play House*, she notes that while adults saw playing with dolls as useful for social 'feminisation', some children would use the dolls for purposes distinctly different than their intended use (Formanek-Brunell 1993, p. 8). Rather than focus on mothering and other household skills, girls would frequently play out scenes of strife, family fights, and illness in fanciful play scenarios. Many times these play scenes resulted in the dismemberment or death of the dolls. The doll players would hold doll funerals in an effort to work out larger issues imbedded in Victorian social customs and rituals. "For some, a doll's worth was determined by its ability to subvert convention, mock materialism, and undermine restrictions" (Formanek-Brunell 1993, p. 32).

Here I would like to propose a term for the kind of play subversion demonstrated by Victorian girls. I refer to this type of subversive play as 'un-playing', in which players specifically enact 'forbidden' scenes or unfortunate scenarios, abusing their dolls or killing them in a reversal of the 'care giving' framework of doll play. This alternate kind of play reverses traditional

expectations regarding female care giving behaviours and allows players to rethink social conventions involved in these social roles. In later chapters, the thesis will explore the act of 'un-playing' translated to other play forms.

While at first the gruesome act of killing dolls was seen as subversive, parents encouraged doll death ceremonies in order to instruct girls on family funeral etiquette (Formanek-Brunell 1993, p. 20). Players began a second type of subversive of play, that of 're-dressing' or 're-skinning' the dolls in clothing ensembles appropriate for death. Parents eventually addressed the preferences of players by providing them with doll caskets; doll manufacturers began packaging their fashion dolls to appeal to such subversion by creating new doll products that catered to subversive play. Some dolls, for example, were sold together with elaborate black mourning attire (Formanek-Brunell 1993, p. 22).

Figure 4.6: Original funeral outfit sold with dolls, circa 1900

In fiction-based publications for children in the post-Civil War era, short stories about death, dying dolls, and mourning proliferated in books and magazines. In fact, many books were

marketed to the dolls themselves, with titles such as *The Dolls' Own Book* or "Dolly's Own Experience" which were purportedly written by doll authors (Formanek-Brunell 1993, p. 23). Here we might label a third type of subversive play style, that of 're-writing'. Texts from 'doll culture' crossed subjectivity lines (complicating ideas on point of view, for example) as well addressed social taboos. The fiction surrounding burgeoning doll culture was powerful for a number of reasons. First, it celebrated the subversive aspects that girls themselves had brought to 'straight' doll culture. Second, it reinforced and validated the existence of the dolls and the importance of girls' imaginative playtime. Finally, doll fiction was a way for girls to explore deeper social and personal meanings in play. As Formanek-Brunell notes, "It was the fictional literature of 'doll culture' that broached the more powerful feelings of love and violence" (Formanek-Brunell 1993, p. 23). These 're-written' texts helped expand parental approval over the various ways children were allowed to play. Participant narratives were important, then, on a number of levels, from merchandising to defining the culture of girls' play.

Figure 4.7: The children's periodical Babyland, 1883 issue

A fascination with dolls and the macabre was not simply the delight of Victorian era children exploring the boundaries of appropriate behaviour. The 1940s doll house of Chicago heiress and volunteer police officer Frances Glessner Lee is one of many other examples of an adult working among doll culture. Mrs. Lee made ghoulish scenes, called "The Nutshell Studies of Unexplained Death," in her own doll houses that were used as police training in forensics and crime scene investigation. Giving each diorama a disturbing name ("Burned Cabin", "Dark Bathroom"), Glessner Lee created custom clothing, crime weapons, and gore for the scenes. She had a professional carpenter create opulent structures for the rooms that she derived from true stories. Jennifer Doublet, an architect researching Glessner Lee's work, was noted in Kahn's *The San Francisco Chronicle* article *to note*: "For me there is perhaps nothing more satisfying in The Nutshells than the subversive pleasure of seeing the world of male detectiving blown wide apart by the macabre depiction of domestic violence in the precious, controlled, female space of a doll's house" (Kahn 2004, par. 16).

Figure 4.8: Frances Glessner Lee at work with her dolls

Glessner Lee, then, enacted all three styles of subversion described earlier. She 're-skinned' the doll house itself to be the scene of macabre crimes; by using actual crimes, she 'un-played' the conventions of police work and of normative doll play activities. Pushing at the boundaries of what is permissible and what is not, these playhouse subversions are linked to historical models of playing within domestic space.

C. Mechanical Dolls

In the United States, early doll makers were women—often sisters—working out of their homes making dolls until they had the funds to create doll factories (Formanek-Brunell 1993). Several inventors became interested in doll making in the 19th century, however, and dolls soon began to emerge as products made by former clockmakers and machinists (Formanek-Brunell 1993). Instead of the plush comfort of the rag doll and the array of clothing that female doll makers might wish to offer girls, many of the inventors-turned-doll makers were interested in doll functionality. Twentieth century doll making in North America was not based on an apprentice system, but rather on a toy industry that attracted male entrepreneurs (Hillier 1988). Inspired by late 19th century innovations in animation and the creation of lifelike products such as cinema and photography, doll makers specialised in creating parts of dolls with animated features or limbs—movement was a special source fascination for inventors (Formanek-Brunell 1993, p. 41).

Figure 4.9: Edison's Talking Doll

For example, some dolls had adjustable mouths, eyes, or limbs that moved automatically. Materials also changed; dolls with wooden or metal bodies gradually replaced rag dolls. Patents filed by various inventors from 1871–1901 show numerous mechanical dolls, such as George Pemberton Clarke's "Natural Creeping Baby Doll", patented in 1871 (Formanek-Brunell 1997, p. 42). The Industrial Revolution brought mechanical gadgets to the centre of everyday life and promoted the idea that pleasure could be derived from mechanical devices (Hillier 1988, pp. 93-94). It is, then, no surprise that until mechanisation, dolls were produced by women, but with the increase in interest in mechanisation, the culture of the inventor collided with the culture of earlier forms of doll making. Edison is credited with the first talking doll, a mechanical doll created almost entirely of metal that contained a miniature phonograph, in 1886 (Wood 2002, p. 111). The mechanically controlled dolls

were often not only unpopular with girls, but early mechanical dolls they often failed to function (Formanek-Brunell 1993). Without the pleasure of a mechanical doll appearing 'alive,' the broken dolls were heavy and difficult to engage with.

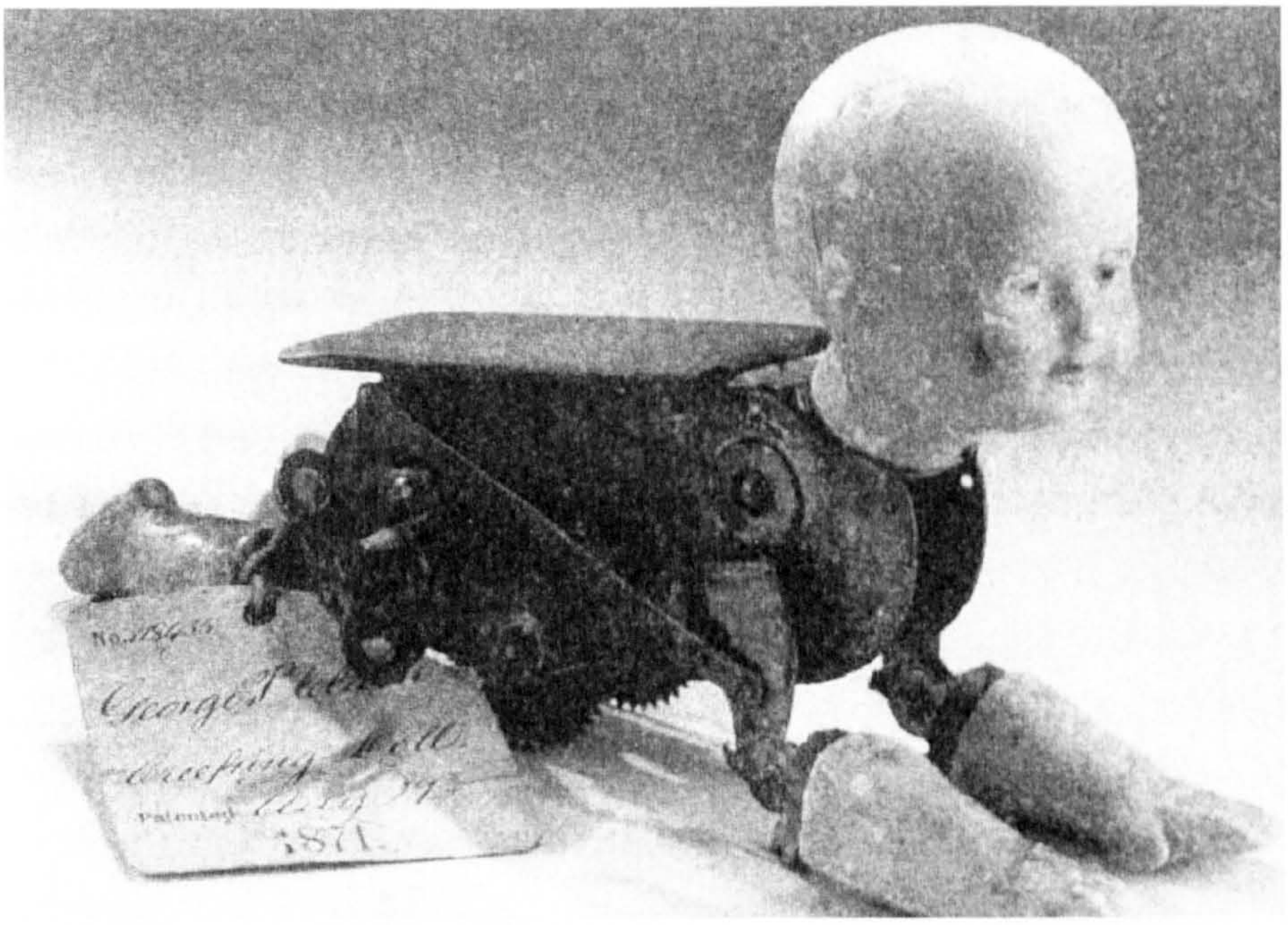


Figure 4.10: Natural Creeping Baby doll

Figure 4.11: Natural Creeping Babydoll *Patent Application Document*

IV. The Case of *The Sims*

In using the house and dolls as normative palettes with which to create their own image of home and human relationships, designers of contemporary computer games involving domestic experiences draw on ideas about domestic utopias from the cultural imagination. Gamers re-skin, re-design, and indeed, re-issue popular games such as *The Sims* and manipulate their own *Neopets* web pages, offering their own interpretations and inventions for play. Since Activision's 1985 game *Little Computer People*, domestic space has been an alternative theme to other forms of action and simulation in computer games. Thus the house serves as both a situation for, and a theme within computer games.

Figure 4.12: Activision's Little Computer People*, 1985*

Virtual doll house games provide an engagement with daily life in digital domestic space. This kind of play has captivated a segment of the computer games market for decades and has been particularly popular with women and girls. In the 2003 game *Neighbors from Hell*, players work to pull pranks and get revenge on their neighbours in return for suburban offences such as poor lawn care. In *The Sims* game (2000), players build and

maintain a consumer-driven everyday suburban family. In the *Neopets* (1999-present) online world, players create pets to live in Neopia, and keep their pets busy on quests, building homes as well as home pages. Games such as *Neopets* and *The Sims* focus on domestic activities such as 'care giving' and maintenance of everyday life. The most popular contemporary game featuring domestic space, *The Sims,* does not follow stereotypical, often violent, gaming models.[3] Instead, this popular game offers a virtual house, wherein players control characters within an electronic, intelligent play space. Known also as a 'paper doll' game among parent consumers, the space of the game is a site of negotiation between the real and the virtual domestic experience; it wholeheartedly embraces suburban-style consumption and domesticity. Because both computer gaming and playing house are mechanisms of fantasy (Crawford 1982, Formanek-Brunell 1993), it is valuable to examine domestic arena and gaming carefully; both types of play also involve a good deal of gender role definition, projection, and reversal, and thus looking at gender roles and spaces in relation to larger, more masculinised computer culture is a compelling imperative. Fan culture surrounding contemporary virtual dolls and doll play today also parallels historic play patterns of the late 19th century. The remaining section of this chapter will demonstrate how the play within the contemporary computer game *The Sims* has distinct similarities to historic doll culture, and focuses on the implications for feminist game design.

Adults often appropriate games seemingly designed for children: half of all Americans age 6 and older played computer and video games in 2003, while the average age of a game player is 29 years old. In fact, the demographics of game players is almost evenly split into thirds between the categories "under 18", "18-35", and "over 36" (IDSA 2003). *The Sims* and *The Sims Online* are such systems, attracting both adults and children. After purchasing the game, most new *Sims* players spend hours (and usually days) in non-stop manipulation of their

new, simulated house and characters within it. The goal of the game is to keep one's *Sim* characters happy, fed, clean, and nurtured. *Sims* players work to make their initial pre-fabricated virtual home their own. Players by default are given a modest one-bedroom home when beginning the game, compleat with yards, mailbox, flowers, some shrubbery, and an outdoor patio. The standard house in *The Sims* is allocated to players equally across player/character class, race, and ethnic lines. The house itself represents a particularly 'Levittown' standard in domestic American architecture, yet simultaneously is supposed to embody a player's individuality by presenting the opportunity to add on to and enlarge the house, purchase appropriate furniture, and take up a pastime such as reading or watching television. From September 2004 to February 2005, *The Sims 2* players created and uploaded more than 125,000 characters and houses to share with others (BW 2005). The imagery of the home never leaves the screen during gameplay, and players themselves are confined within or near the inner/outer bounds of the walls. While point of view can change through player commands, the house remains the focus of interaction and play; the structure of the house is the only space players see; it is in the house that *Sims* characters socialise, look for jobs, and study. While characters appear to have a life outside the home (most characters go to work, for example), players never visit work with their characters. In addition, there are no heirlooms, mementoes, baby pictures, or markers of history, particularly family history, among any of the artefacts in the home, thus requiring users to create their own personal objects for 'importation' into the game environment.

Figure 4.13: Configuring The Sims

Players have a set amount of start-up funding in order to purchase appliances, furniture, essentials such as lamps (otherwise the house is dark at night), a device to cook with, books, etc. Players are encouraged to purchase some furniture for their new characters. Expensive furniture tends to 'comfort' the simulated characters more—they derive greater happiness from sitting in an expensive, cushy chair, for example, than a plain wooden one. Once the player learns that caring for their *Sims'* happiness requires a bigger budget, they have characters look for an income that can then be used for further acquisition and shopping. Without an income, and without new toys and spaces to assist their development, the *Sims* become unhappy and things quite literally turn to chaos. Characters will stop using the washroom for fundamental needs; thus, their happiness will decrease, and, in addition, filth will accumulate in the house unless an income is developed. Without an income, *Sims* begin to lack food and entertainment; thus, earning 'Sim-oleans' is paramount to success, and there are many ways in the game to garner more money through 'cheat keys' as well as labour.

Most early interaction in introductory levels of *The Sims* occurs in the kitchen; it is among the largest of spaces in the default house given to players. The kitchen allows the most opportunity for interaction as well as the introduction of new gadgetry (many items available to new players are kitchen appliances). The kitchen is also the way characters enter and exit

the home, with the front door attached to the kitchen as the permeable boundary between inside and outside space. This is in keeping with the trend of kitchens in contemporary American life. In her book *Geography of Home*, Akiko Busch notes that kitchens in modern American homes have expanded beyond the size of other rooms in the house—mostly to accommodate appliances (Busch 1999, p. 45). There is room for experimentation with the system-set placement of material goods within the game, however. For example, if a player places a large chair and television in the kitchen, the characters are just as happy as if this piece of furniture were to be placed in the bedroom. This flexibility allows the player to change the stereotypical expectations of home layout. The acquisition of goods and social interaction, however, remains the primary way to affect *Sim* character happiness in the game.

A. Suburban Sims

While there are varying notions across cultures about spatial practices and particular urbanisation models, suburbanisation is certainly an international phenomenon and is reflected in the design of all *Sims* games. Silverstone attributes the first suburb to the city of London, where crowded conditions in the 19th century city drove the middle class outside the city (1997, p. 3). Populations of London suburbs doubled in the second half of the 19th century, and other world cities soon followed suit as transit systems such as the train and the advent of the automobile fostered suburban growth. *The Sims* recreates particular aspects of suburban design; primarily ideals that are focused on control over the environment and the idea of 'safety'. As architect Lars Lerup notes, the suburban dream extends even to the vehicles we drive and the way we go to work. To him, the Chevrolet Suburban is a now-classic icon that extends the safety and shelter of the suburbs throughout the commute to the dangerous city. The

larger the sport-utility vehicle (SUV), the larger our control over our environment is. Such grandiose control is explored in *The Sims* through desiring practice: players work to expand their homes and possessions, and a good deal of a player's success is measured not only by the size of the player's house, but also by the player's ability to accumulate goods and climb the corporate ladder. In the geography of *The Sims*, each player's house is constructed as a world unto its own. Houses are set in a generic, suburban tract just outside SimCity, where characters presumably work. All *Sim* characters, even nearly penniless families, live in these pleasant suburbs with wide, blacktopped roads. Nearby streets, houses, and even interior fixtures are rendered in three dimensions and offer players an abundance of detail. In fact, Will Wright has noted that French audiences complained that the wide roads felt "too American" (Boal 2000, par 13). As participants and voyeurs, players can zoom in or out and rotate the scene to get any view they prefer of the *Sim* suburbs.

If a typical American player's physical home is a romanticised 'castle', then the player's *Sim* house and the surrounding *Sim* suburbs easily become a utopia. *Sim* domestic space cannot be separated from domestic ideals culled from the popular imagination, and the last century's classic domestic setting has been in/is tied to the icon of the suburb. Suburbs offer not only particular kinds of architectural space and controlled access, but are, more importantly, a way of life; and with that way of life, the suburb is, in fact, a set of values, beliefs, and expectations. The suburban home was created in part as a response to women's working outside the home and the perceived collapse of traditional family roles. From the Industrial Revolution to World War II, the West has witnessed various liberations and subsequent 're-domestications', which work to control women by the insistent demands of the household. Spiegel notes that in post-war America, the "new suburban family ideal was a consensus ideology, promising practical benefits like security and

stability" to those who had lived through the deaths and rationing brought by war (1992, p. 2). After World War II, suburbia helped reinstate the traditional gender roles women held in the 19th century home. The "Rosie the Riveter" image was replaced by June Cleaver.

Figure 4.14: Norman Rockwell, Rosie The Riveter, *1943; Figure 4:15: June Cleaver from the television programme* "Leave It To Beaver," *with Mrs. Cleaver played by Barbara Billingsley, 1958*

Around the year 2002, the year the first *Sims* game peaked in popularity, a significant shift had amassed in United States culture involving the balance between the physical home and the virtual. Since the 1980s, there has been a growing American trend to move to controllable spaces; the house has shifted from being a place of comfort to a site for defence. *The Sims* game developed amid 1990s dot-com culture: a period of great optimism when a robust economy and the lowest crime rates in decades contributed to the utopian appeal of new technology development. Software and hardware industries provided an almost mythic promise of a new, technology-infused lifestyle. Americans actively participated in both the consumption of household goods and virtual technologies. After the crash of the dot-com economic boom, spending in the United States on durable goods dropped significantly, though it was still higher than pre-dot-com indices—in fact, since September 11, 2001, spending on durable consumer goods such as appliances and furniture has increased more than 10 points, especially on

kitchen appliances, alarm systems, and home technologies. These facts, combined with the increase with *The Sims*' popularity, demonstrate that American consumers are retreating into their homes both physically and virtually to find their utopian ideals.

Thus far this chapter has reviewed game play practices of nurturing, suburbanisation, and home building, and has presented consumption as a significant aspect of the game. *The Sims* does have tongue-in-cheek aspects such as 'whimsical shopping Muzak' that accompanies the shopping interface used for purchasing objects for the home. Celebrating the boundary between consumption and desire, many of the goals in *The Sims* imply a critique of the massive consumption the game play requires—ultimately, the game encourages players to question whether their characters would be happier with bigger, better items and houses. While goods and services are valued in game play, human interaction and compassion are also valued. The richer the characters become, the more they must work, and the less time they have—thus, the more effective their items must be at delivering pleasure. Just as the first generation of United States suburbanites (post-World War II Americans) were conscious of the performative and artificial nature of media depicting 'consumer dreams' and suburban family life in the 1950s, *Sims* players are faced with a paradox. While many *Sims* players are women and girls playing in idyllic virtual suburban homes, much research points to the social and collaborative nature of female play styles (Graner Ray 2004).

The positioning of consumption as a game goal is cause for further investigation, if only because it so closely resembles real world corporate messages and the everyday practices of 'consumers'. When video games, typically 'male' spaces, are integrated into both real (home) and virtual (game) domestic space, I use the arguement offered by Ann Douglas in her groundbreaking writing on the 'feminisation' of the consumer (1977, 1998). As argued in chapter one, games are rife with

underlying gender stereotypes. This 'feminisation' of the player represents the reclaiming of domestic space by the forces of capitalism. And just like the trend in capitalism towards globalisation (Jameson 1992), games such as *The Sims* operate across these cultural practices, offering an unadulterated model of American suburban living and capitalist desire. Suburbia is central to contemporary culture in physical and geographical, as well as cultural, ways, yet it, like the home, is a space rife with implications. *Sims* characters and neighbourhoods are very familiar to American audiences, and yet their non-human language, their unpredictable reactions to changes, and their autonomous behaviours play on the edge of comfort.

Doll houses, real and virtual, are compelling because they are sites of symbolic play in which symbols are used freely to represent external reality (Huizinga 1970)—play can either reproduce functional reality such as building a kitchen and having dolls 'cook', or players can adapt or assimilate the doll house or play house on his or her own terms. In *The Sims*, this play is made more complex and rich through the behaviours and reactions of the characters to their surroundings. The fundamental role of suburbanised domestic space in *The Sims* seems to be to present players with economic, political, and ideological norms which rely upon a traditionally feminine role to function: children learn through fantasy and imitative play adult roles, economic skills, and emotional roles (Sutton-Smith 1986). Symbolic work and creativity mediate, and are simultaneously expanded and developed by, the uses, meanings and 'effects' of cultural commodities. "Consumerism has to be understood as an active, not a passive, process—active, for it is a type of play which also includes work" (Willis 1990, p. 287).

A great deal of pleasure, however, is derived from subverting these set norms and exploring the boundaries of what is, and is not, permissible. These subversions are linked to historical models of playing with domestic situations: Victorian doll fiction has been replaced by fan fiction generated by *Sims* players, and

Victorian practices of doll funerals have translated into macabre *Sims* play with the ability to have the virtual dolls suffer, become malnourished, or even set objects on fire within the 'normative' suburban environment. This subversive desire must at once be compared to the domestic space and the degree of autonomy perceived to be inherent in a *Sim* character. In a game balanced the edge of user control and system control, *The Sims* offer an anxious variety of game play, one that strangely mirrors a player's own suburban fantasies, and thus one which compels players all the more. Invoking anxieties also evokes pleasure in the subject if the subject is put into a controlling position. Freud theorised the gaze as a phallic activity, an activity inextricably associated with the desire for mastery of the object—the gaze manifests the voyeur's desire for power over the object. In this system of objectification, objects are rendered passive and gendered feminine. Often the desired object is the female body viewed for male pleasure, an action Mulvey referred to as "the gaze" (1975). However, using the gaze as a way of reading the pleasure in *The Sims*, it is pleasurable to control characters in their daily routines and to see one's own influence upon the world. Repetition reinforces such pleasure (in particular with reference to Freud's notion of the uncanny, discussed later in this chapter), so the repeated actions players perform, the repeated and human-like gestures our virtual dolls enact, combined with the very repetitive actions of housekeeping in particular, add to *The Sims'* ability to generate both unsettling and particularly pleasurable aspects of game play.

Do these interactive doll houses represent the material fantasies of capitalism? Are they a direct confrontation with Freudian notions of desire? Or, more intricately, are such games manifestations of gendered performance? The next sections inquire into these themes.

B. Feminine Spaces

Here I return to examining the gendered nature of Playculture: thus far, we have seen how normative behaviour in domestic play practices was subtly supported in the types of play in which girls engaged. Domestic spaces continue to be associated with the feminine in the popular imagination of television, film, and other media.[4] As demonstrated earlier, playing house in miniature was a popular American pastime in the late 19th century and created miniature representations of upper-middle-class social practices and spaces. Contemporary computer games function no differently. In using the house and its immediate surroundings as a normative palette with which to create their own image of home and household relationships, game designers reinforce established ideas about domestic utopias such as proffered by advertising and corporate marketing research. The fundamental role of suburbanised domestic space in *The Sims* seems to present players with economic, political, and ideological models that rely upon historically feminine associations to function. Thus, the definition of space in *The Sims* is inextricably linked to larger process involving the representation of such feminisation and traditional conceptions of women's roles. If it is true (as Spiegel suggests) that domestic space has been historically linked to the feminine, players engaging in a game set in a doll house are in turn 'feminised' in such roles. That the game *The Sims* is popular among women and girls also supports this idea. In playing *The Sims* or other contemporary doll house games, players encounter a fascination with household objects, with consumption, and with normative class values. The feminisation of the player manifests through the design of the game space, game tasks, and game goals, and is reflected socially through the dominance of consumer culture.

C. Desire

The manipulation of characters and environments that many games offer are complex sites for negotiating player desire in controllable worlds. Like other pleasurable activities, play can be addictive and rhythmic, and care-giving games (from playing 'house' to playing *The Sims*) maintain the tantalizing suspense related to the fundamental human desire to connect (Kuznets 1994, p. 10). Who we are when we play games and how we relate to the worlds around us are important, for the pleasure from games relies on the structure of rules which defines the game environment: rules from specific internal game rules to more abstract social mores, commercial patterns, and gender definition (Kuznets 1994, p. 10).

While toy and game theorist Kuznets is not interested in the origin of desire in her work, the sources of such desire has long been an interest of philosophers and psychologists from Freud, Lacan, and others, it is the work of Deleuze working from this prior work whose work may shed light on complex play systems. Working from Freudian and Lacanian notions of the 'other', Deleuze offers a compelling arguement for the construction of the kinds of systems of desire that games represent by arguing that, contrary to Freud and Lacan, the desire for the 'other' is, in fact, a structure for the "*expression of a possible world:* it is the expressed, grasped, as not yet existing outside of that which expresses it" (Deleuze 1990, p. 307). Deleuze refutes the systems of desire offered by psychoanalytical frameworks of voyeurism, exhibitionism, and the various ways that the 'other' is positioned visually. In fact, he claims that interaction with the 'other' depends on a desire for either the object the 'other' represents, or the desire for other worlds the 'other' expresses (Deleuze 1990, p.307). Though there is not much room in this chapter to fully explore the implications of desire in online worlds, but one can recognise that games, blogs, and other participant-driven systems function because there is a desire to

produce meaningful interaction which motivates the creation of new worlds (Juul 2001, Salen & Zimmerman 2004). If this desire fills some kind of 'lack' in a Lacanian sense, the enthusiasm for intricate online games, for example, implies that game players have a need for connectivity and for ways to understand themselves within electronic culture (Kiplinger's 2004). Deleuze's post-visual look at systems of desire provides a valuable tool for examining online systems, where words and things are forever interchangeable and are exchanged in an everyday framework.

Doll play and computer games that mirror traditional doll play provide a safe space that encourages subversive identities and emergent community formation, as noted earlier. These still function within much larger cultural systems that are difficult to examine and slow to change. According to Luce Irigaray, we cannot simply step outside of current contemporary social systems so as suddenly to write and think in ways completely free of the rules of, for example, patriarchy, for language and discourse are themselves inscribed with those rules. Instead, we have to work like a virus from within patriarchal discourses to infect and radically change them, thus "leaving open the possibility of a different language" (Irigaray 1985b, p. 80). This different language may be a visual one, given the reliance in the West on visual culture, or they may in fact be structural, linguistic, or procedural, as hacking demonstrates. Other social theorists express similar concerns about creating meaningful social change with subversion. Judith Butler, for example, critiques many activist strategies by noting that it is only through changing the *logic* of traditional relationships and categories such as gender that larger social systems can be changed. Representing a certain kind of logic of power, social systems like heterosexuality or other systems with seemingly fixed categories (such as castes or class), Butler argues, can only be changed through the *redefinition* of these categories (Butler 1990, p. 9). While Butler argues that subversions such as cross-dressing help

indicate the locations of social constructions, such subversions also can be used as tactics for deconstructing normative social categories. Like Butler, de Certeau agrees that power systems must be changed from the inside out, and argues for tactics such as trading and bartering, free exchange, using scraps and working for oneself in the context of employment for another, and advocates the return of everyday tactics such as creating "networks of connivances and sleights of hand" (de Certeau 1984, p. 28). A great deal of pleasure is derived from subverting online culture's set interaction norms, exploring the boundaries of what is permissible and what pushes at that boundary. Online networks are where users discover what is permissible: the movement and play of all kinds of users within the structures of work and entertainment systems represent the pleasurable aspects in the creation of Playculture. The digital 'magic circle' which players enter is an open environment focused on experimentation and subversion (Huizinga 1970).

Thus computer games fit into the Deleuzian framework for not only the wish for, but also the creation of, worlds. While the 1990s liberatory claims for 'cyberculture' should be approached with caution, the structures provided by online cultural institutions provide a playground where we treat the everyday as a game. Play in the system of desire Deleuze describes, possible worlds in which the players participate in building, brings players unexpected kinds of pleasures, pleasures created through rule sets or emergent cultures which arise from social games.

V. Conclusion

Houses themselves as institutions of domestic space also are situated as mechanisms for control, signifying traditional family roles, which inherently indicate traditional, and limiting gender roles within a patriarchal world (Spain 1992, Silverstone 1997). Players, in their engagement with these

domestic spaces while playing within a domestic space, are fitted into these roles. Thus, the definition of space in *The Sims*, and the way we control our characters within the domestic sphere, becomes a process of domestication and of taming. The dollhouse, as Frances Armstrong notes, is a metaphoric place of imprisonment, especially for women. In studying traditional doll houses, Kuznets notes, "perhaps we should consider the longing for fixed familial roles a product of self-limiting nostalgia" (Kuznets 1999, p. 152).

How are games like *The Sims* pleasurable? Pleasure is not only found in the successful completion of tasks, but in the completion of tasks to maintain the status quo and in the pleasure of controlling characters and environments. Rarely if ever do players feel disempowered in these experiences, and this is essential to the wide appeal of the games. In other words, the player desires, but growth and player achievement is secondary to the pleasure derived from the assertion of control. Our pleasure from the virtual house is inextricably related to the mastery of the household objects and the human-like dolls that are so very familiar. And no matter how much a player works to maintain the household or keep the pet happy and healthy, the desire to return to the place before desire, that is, the paradise that drives the fantasy play in the first place, always lingers. Freud's 'lost object' may never be discovered in games in a literal sense, but products, money, success, player recognition, and a wish to return carries users from one session of play to the next.

These ideas are problematised through suggesting that the very constructible and artificial nature of physical doll houses and games such as *The Sims* could mean that players also see family relationships and social rituals as equally constructed; after all, masculine roles are certainly also constructed in the games as well. If consumption, interior design, and maintenance are traditionally feminising roles, masculine roles are created as a quest narrative which involves acquiring money, status, and

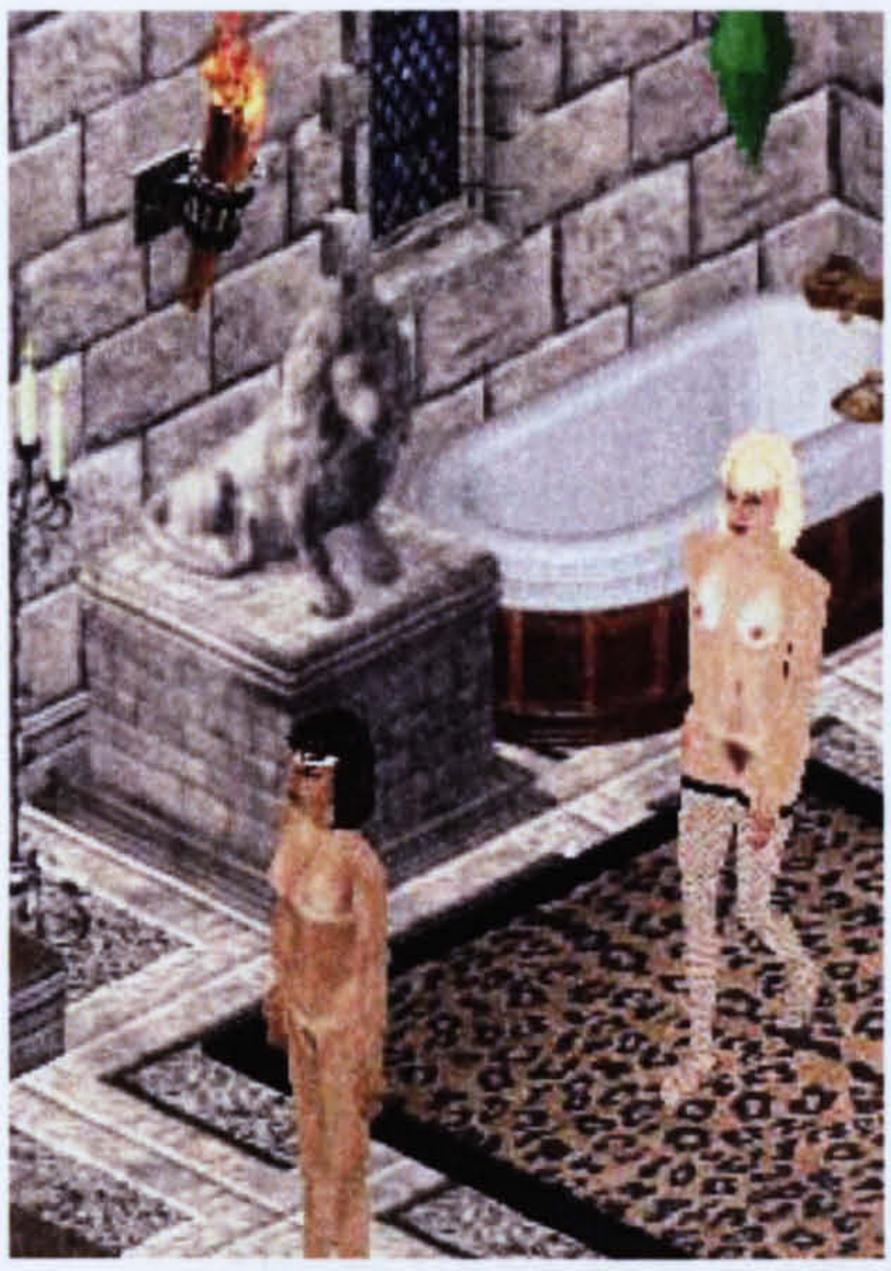
power, and in technological games, figuring out how things work. This narrative must offer players challenges to acquire more belongings and more happiness, a strategy that feeds into game play. Ironically, while players of *The Sims* work to subvert the game and project their unusual desires upon their *Sim* characters and houses, they do this from their own homes, keeping the order of the real patriarchal structures intact. However, the fun is viewed by players to be in the journey towards pushing boundaries and limits, and not in the destination. With too much control, in other words, there is no point in play.

The image of the doll house is a complex site for the generation of meaning. Doll houses evoke entertainment and child's play, but they also signify traditional family roles, repression, and consumerism. Henrik Ibsen's classic 1879 drama *A Doll's House,* featuring a troubled heroine who longs to leave the home she feels trapped within, demonstrates that doll houses also involve issues of control and domestic roles. Control is thus a central factor in the construction of doll play, whether virtual or physical. In his 1919 essay, "The Uncanny," Sigmund Freud explores the pleasure in doll play by investigating automata and life-like figurines. Using the term 'unheimlich' (uncanny), which literally translates to 'unhomelike' (Kuznets 1999, p. 143), Freud describes how the sense of the uncanny manifests when an otherwise normal situation reveals hidden abnormalities exposed by a small shifts or derivations from the norm. He links the uncanny to desires repressed from infancy, and this return to repressed desire is based on a desire for control (Freud 1955).

These uncanny situations can create dread, fear, or fascination out of what on the surface appears to be an everyday circumstance. Modelling everyday circumstances in games like *The Sims*, players engage with the creation of uncanny situations, furthering the already uncanny relationships players have with *Sim* worlds through creating disturbing circumstances in their subversion of 'expected' *Sims* play. While players of *The Sims* are reinstated into traditionally gendered feminine roles

when first playing, they are also allowed to create miniature rebellions within these confines. While unquestioningly tied to consumption, the feminisation of the player could in fact be liberating on other levels.

In *The Sims*, the feminisation of the player produced by commercialism in the game encourages player subversion in the form of alternate-goaled games. In other words, players work against the safe, consumerist system they are supposed to play the game to support.



Figures 3.16 and 3.17: Skins for The Sims

In many ways, the subversive aspect of *Sims* play is among the most powerful of alternate play strategies offered to women players of computer games. Some players subvert the game by purposely making life miserable for the little consumer characters. Players can download negative or subversive homes such as "Mr. Sadistic", a household where *The Sims* characters are tortured and frequently die. In *The Sims Online* world, for example, doll sadomasochism and sexual experimentation, such as evidenced in the online sex industry, are notable subversions in virtual doll play (Urizenus 2003). *The Sims* is a game in which subtle, yet powerful, methods of enculturation occur via game play and by which social values, interaction styles, and everyday activities

are practiced. The virtual household construction accomplished via shopping has a particularly loaded set of social meaning. Yet the normative play environments are designed specifically to be hacked and subverted, much like normative Hollywood films are meant to be 'camped'. Computer games reveal anxieties and uncertainties about domestic ideology and gender roles—uncertainties that manifest through the subversive playing of games. The player practices of subversion in *The Sims,* in fact, conspicuously follow the Victorian play practices noted earlier:

1. 're-skinning' characters or objects (In *The Sims*, this manifests as replacing the graphics of household object with other images, which could be objects of different value or objects which make no sense in the game);
2. 'un-playing' (In *The Sims*, this manifests as working to trap the characters, set them on fire, or abuse them);
3. 're-writing', or, the active participation of a player to redefine play from within the writings of fan culture (In *The Sims*, this manifests as narratives of life within *Sims* households are constantly written, re-imagined, and re-written).

These three player forms of subversion—re-skinning, un-playing, and re-writing—offer the interpretive space that the household space depicted in both historic and contemporary play practices do not. They constitute the basis for a 'methodology of subversion' for female players. The forms of subversion women players are adopting as strategies for social resistance of normative gender roles is consistent across technologies and time. These themes will be revisited in coming chapters; in the next chapter, we shall see how these same subversive practices are utilised in the creative, interventionist practices of women artists.

Notes for Chapter Four:

[1] The Poppenhuis is housed in the Amsterdam Rijksmuseum.
[2] Daphne Spain, in her book *Gendered Spaces* (1992), looks at domestic spaces cross culturally and the influence of gender associations in particular rooms.

[3] In March, 2002, Electronic Arts announced that *The Sims* had not only the best selling game in 2000 and 2001, but also become the best-selling PC game of all time, selling over 6.3 million copies worldwide Translated into 14 different languages, the game also appeals to women: more than 50 percent of new players and approximately 40 percent of all players are women (Business Wire 2002, par. 1).

[4] Examples such as the film *Fight Club* (1999) show how consumption and domestic interests are literally feminised and "fought against" by the development of the male-only fight club spaces.

FEMINIST GAMES:

women's playful art practice in late 20th and early 21st Century art.

5

> *By the madness which interrupts it, a work of art opens a void, a moment of silence, a question without answer, provokes a breach without reconciliation where the world is forced to question itself* (Foucault 1988a, p.3).

I. Introducing Women's Art and Activism

In the last chapter, three forms of player subversion were derived from Victorian era girls' play and *Sims* play: re-skinning, un-playing, and re-writing. Using the work of feminist practitioners from the 1970s and 1980s, this chapter locates these themes in a survey of the feminist intervention/tactical media work in the contemporary art field. It then uncovers the work of contemporary new media games artists Natalie Bookchin and Lucia Grossberger-Morales, charting how female digital artists use these forms of subversion for feminist disruption as well as other kinds of

interventions and tactics in contemporary digital artwork. In seeking possible practice implementations to the themes of player subversion, I developed my own practice work *[rootings]* (2001). This is the project that marked the first of the practical prototypes in the Playculture research. *[rootings]* utilised an 'old fashioned', almost 'retro' set of small arcade-style games reworked to tell personal, everyday stories from a woman's point of view. In this chapter, I explore both 'analogue' and digital feminist game projects, which, I argue, create subversive alternatives not only to other games, but to digital culture as well.

II. Contemporary Art Ties

Feminist artists of the 1970s had a great impact on contemporary women's art practices, and especially relevant are those women artists who either used technology in their own projects or who critiqued technology amidst larger cultural analyses in their work. Feminist artists of the late 1960s and early 1970s faced a hostile and male-centred art world. These artists turned to non-traditional media (posters, video, performance) to work against art steeped in the traditions and themes of masculine-focused modernism.

Figure 5.1: LCD panel in The Survival Series, *by Jenny Holzer, 1983*

A number of women artists were simultaneously involved in the political changes of the time as well as exploring their voices through various media. Artist Jenny Holzer, with her

pro-feminist, political poster brigades, stickers, and electronic LED messaging displays, is a noteworthy example of an early feminist artist using various forms of technology to confront the passers-by. Aiming to jar the public to reflect on the conditions of the consumer culture in which they lived, Holzer began creating language-based works in 1977 as a student. She distributed one-line phrases, or 'truisms', as posters or stickers from 1978–1987. Taking this work to public venues, she produced *The Survival Series* in 1983, which incorporated the truisms in various delivery forms, including signage (Holzer 1998).

Figure 5.2: Stickers in The Survival Series, *by Jenny Holzer, 1983*

Themes emerged from the work of general cultural concern, such as consumerism, as well as feminist issues such as gender roles and rape. Holzer's written messages took variety of forms in public spaces and in galleries.

Figure 5.3: Untitled work from Truisms, Inflammatory Essays, The Living Series, The Survival Series, Under a Rock, Laments, *and* Child Text, *L.E.D. display sign in the New York Guggenheim Museum, by Jenny Holzer, 1989*

Holzer's first web-based artwork, *Please Change Beliefs* (1999), is a site where Internet users can upload new 'truisms' to her list of truisms created in the programme (Holzer 1999). The truisms pass by at a timed interval but are open to change by users. Thus, participation by the general public is possible; and though not a game, the feminist concerns in the work are used to engage with technology in what appears to be a precursor to feminist interactive game art. This engagement with the public is not a mere preference of the artist, but essential to the practice (Foster 1982). In using the terminology of subversion described in the previous chapter, Holzner both re-writes advertising slogans for political ends and re-skins public surfaces through signage and stickers.

Contemporary conceptual artists such as Mary Kelly have focused on women's workplace issues such as equal pay as well as domestic labour, health, and power issues for women. One of her central works from the 1970s is her *Post-Partum Document* (1973–1979), a mixed media set of works produced in six stages; each explore phases of young motherhood. The

document represents a tactical and conceptual approach to motherhood and parenting, often through the guise of medical documentation and language. Her recent works use lint from washing and drying white towels to tell various stories. The house and domestic experience is a major theme of the work, mediated by personal technologies (in Kelly's case, technologies directed towards women: the vacuum cleaner, the washing machine, the dishwasher).

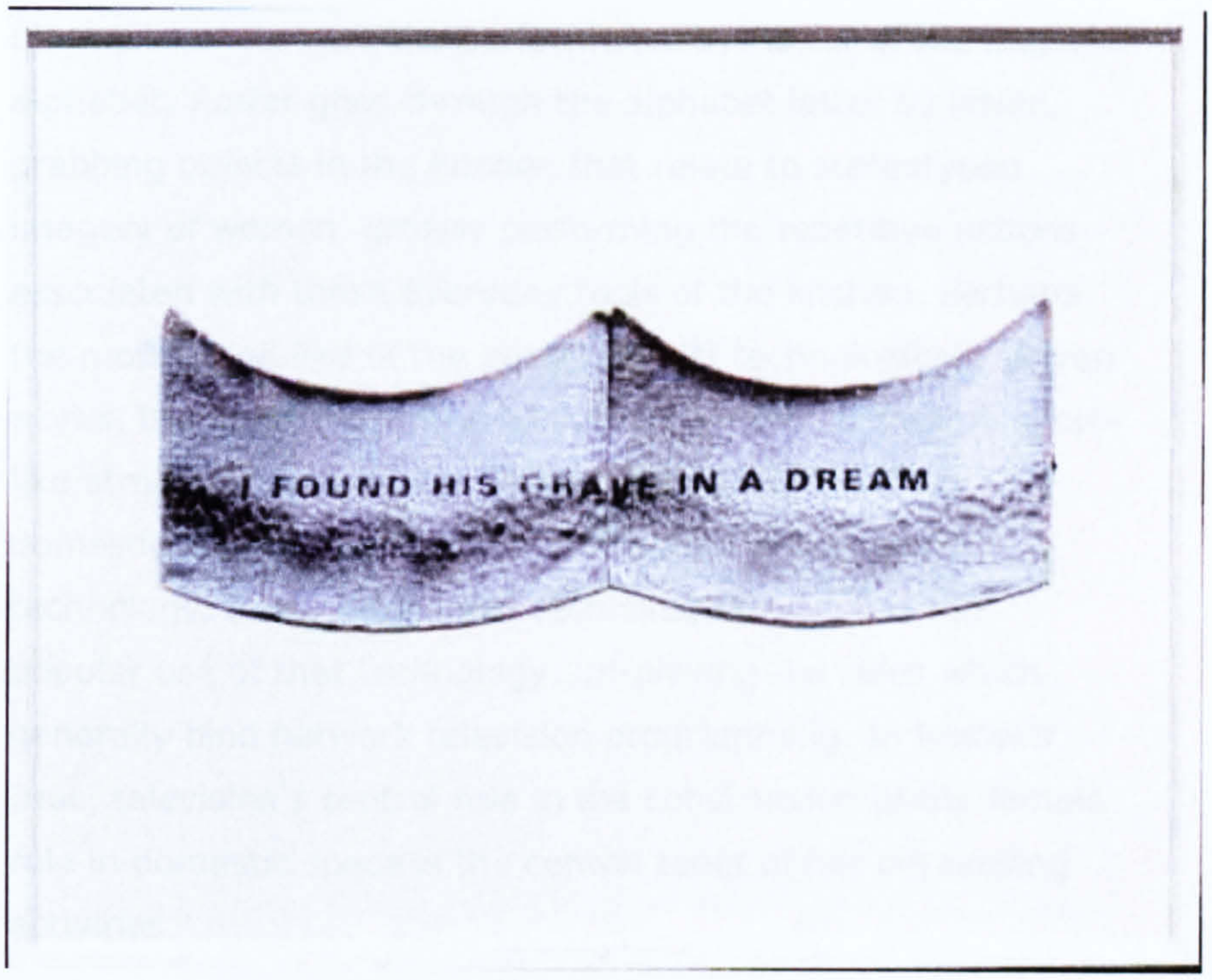


Figure 5.4: Mea Culpa (Study for Johannesburg), *by Mary Kelly, 1999/2002, compressed lint*

Influences of minimalism and conceptual art can be seen in *Mea Culpa* and Kelly's follow up work, *The Ballad of Kastriot Rexhepi* (2001), a text-from-lint piece as well which tells what is primarily a news story of an ethnic Albanian boy who was lost in a battlefield, rescued by Serbian troops, and abandoned again to eventually be returned to his parents. The domestic feel and banality of the lint contrasts with the war-torn context of the story, giving a contradictory sense of tactility and

distance. Kelly commisioned composer Michael Nyman to create a new musical score for the piece, and the music and visuals were presented together in exhibitions (Miles 2002). Kelly's works subvert popular narratives by strongly relying upon the re-writing of narrative and instigating unique methods of delivery of such narratives through fibres, handmade books, and image.

Martha Rosler's seminal *Semiotics of the Kitchen* (1975), an example of early performative video art, documents on black and white tape the performance by Rosler of the English alphabet. Rosler goes through the alphabet letter by letter, grabbing objects in the kitchen that relate to stereotyped imagery of women, grossly performing the repetitive actions associated with these everyday tools of the kitchen. Perhaps the most game-like of the early feminist technologically driven works, the video twists the kitchen into an almost game show-like atmosphere as Rosler violently performs everyday domestic activities. Like other conceptual artists using technology, Rosler employed technology to subvert the popular use of that technology, un-playing the rules which generally bind network television programming. In Rosler's case, television's central role in the construction of the female role in domestic space is the central tenet of her unravelling activities.

Figure 5.5: Still from Semiotics of the Kitchen, *by Martha Rosler, 1975*

In recent writing, however, Rosler is ambivalent about 'political art', noting that often, political art may not necessarily lead to good art, but that it can. In a 2004 *Artforum* essay, Rosler notes, "At its best, Conceptual and other post-Pop forms of art led to a tremendously productive encounter between artists and the 'life world,' providing a space for deduction, exposition, and insight, as well as self-revelation and play" (2004, par. 7). For future work, however, Rosler suggests interactive work and computer games as a direction for interventionist artists.

The contemporary art practices of Holzer, Kelly, and Rosler are merely a few of many such examples of women artists working against dominant norms using subversive tactics. Each artist's work represented here, however, is typical of many feminist approaches to intervention. Innumerable artists and artists' groups tackle the overbearing weight of the feminist position in art culture. A final example is the group The Guerrilla Girls, formed in the mid 1980s to critique cultural institutions such as the Whitney Museum and the Museum of Modern Art in New York (Guerrilla Girls 1989).

Figure 5.6: Guerrilla Girls attack the Metropolitan Museum of Art with Get Naked, *a media campaign; New York City, 1989*

Each of the artists discussed thus far presents a form of practical subversion. Each of the subversions can be traced to the rough categories of re-skinning, un-playing, and re-writing, which the play history review of the last chapter documented in detail. Holzner's work subverts contemporary information systems and advertising to shift the readers of her performative texts into social awareness and possible activism. Kelly's surprising use of banal household objects and seemingly banal events, ephemeral materials such as lint, and her attention women's domestic narratives activates a tension between abstract, contemporary art and the personal side of feminist artists' work. Rosler's pieces create game show-like spectacles in which the artist subverts television conventions and pushes on both the playful and serious ramifications of the work. The Guerrilla Girls literally re-skin themselves as jungle creatures to desexualise and complicate their female identities. While these works are not necessarily games, they are part of the lineage of the contemporary female 'hactivist' forms, subverting dominant notions in popular culture advertising schemes and television, as well as the 'traditions' ensconced within the contemporary art institutions.

III. Women's Contemporary Game Art

Are women new media artists, especially artists utilizing the Internet, utilizing similar forms of subversive practice in

the context of upload and download 'net' culture? Numerous aspects of everyday life in digital culture are entering the digital arts, and computer games are no exception: 'game art' represents some of the most significant political and controversial cultural artefacts (Frasca 2004a, 2004b). Artists working amidst the ubiquity of computer gaming repeatedly take on the role of interpreters and interventionists in the practice of exhibiting their work in both traditional (gallery) and native (networked) spaces. At the same time artists work to intervene in the flow of recent computer game traditions, participants in web culture download music and other media and upload their own, sometimes subversive, narrative hacks of existing cultural artefacts, such as telling stories within first-person shooter games ('machinima') to create personalised, context-specific senses of self, community, and space. It is not merely individual emails or art pieces that are uploaded and downloaded daily, but more broadly, the larger reality of wired 'technoculture' sets the stage for the reception of networked art. Artists locate their audience within the web of net-connected machines across the globe, and this enables the development of fluid and seamless transitions between work and play, as well as public and personal environments. Examples of net art are diverse, but by the nature of the medium all function within the context of both work and leisure tasks. This blurring, which is characteristic of Playculture, sets the stage for active feminist intervention in games.

It is important to read the practice projects in this thesis: *[rootings]*, *[domestic]* and *[six.circles]*, along with the activist *RAPUNSEL* project, within the context of other women's digital games and the larger context of turn-of-the-millennium 'cyberfeminist' practices, in which traditional feminist activists turned to using network technologies in their work. The remainder of this chapter will explore the first thesis practice endeavour, *[rootings]*, in light of interventionist traditions. It

will then pursue themes among other independent games by women artists: non-profit, artists', and 'hactivist' games produced at the margins of the largest entertainment industry in history.

A. Cyberfeminism and Games

An examination of game making and its relationship to cyberfeminist practice is useful, for as a critical creative and literary movement, cyberfeminism specifically has addressed the problematic position of woman within technological culture (Braidotti 1996). Cyberfeminists actively study technoculture to find ways to place women back into both the history of technological development and within (or at least alongside) current digital practices and institutions. Perhaps the most effective investigations in cyberfeminist research originate from an analysis of empirical thought, as well as the critique of objectivity and knowledge started by philosophers interrogating scientific practices (e.g., Kuhn 1996; Fox Keller 1985) and furthered by feminist scholars (as noted by Kuhn 1996). The feminist study of science traces the way new technologies might offer possibilities for women to invert traditional power struggles and hierarchies in regard to the body, work, and the use of technology by finding alternate ways of defining scientific processes and truth claims. Donna Haraway, among the earliest of what could be considered cyberfeminists, as well as one of the most influential, suggests that women seize the tools and technologies that have already marked them as 'other' (1991, p. 175). Her radical claim, to choose to be a cyborg rather than the more commonly invoked second-wave feminist/new age 'goddess', engages questions concerning the emancipating possibilities for women—both spiritually and materially—through technology. Sadie Plant furthers this arguement by noting that women have long been a part of the history of both the use and

development of technologies, and uses an essentialist arguement to envision women's increasing use of technology from their innate background as 'weavers', enables a kind of empowerment; to Plant, once and for all "cyberspace is out of man's control" (2000, p. 273).

While some of these celebratory claims have led to problematic arguements, more critically, the utopian nature of cyberfeminist writings about technology led to a backlash against the movement. The collected cyberfeminist approach seemed unrealistic in the face of real discrimination and social imbalances (Wilding 1997). The utopian cyberfeminist voice became tempered with more complex and contradictory positions that reflect the multifaceted nature of gender, identity, and technology as experienced in networked culture. Feminist critiques have become an important component of technology and cultural discussions in academic circles, and have had a dramatic impact on discourses about innovation, science fiction, political activism, and history. The writing of cyberfeminists additionally brought attention to women's digital artist practices, especially in regard to the burgeoning domain of women's art games. The work of the Australian group VNS Matrix, for example, grew equally out of cyberfeminist theoretical concerns and artistic practice. VNS Matrix artists Josephine Starrs, Julianne Pierce, Virginia Barratt, and Francesca da Rimini worked together to simultaneously subvert and deconstruct gender imbalances inherent in emerging technological forms and interactive systems, working virally to 'infect' patriarchal control of such structures. According to Breeze, "Cyberfeminist practice offers a way of constructing a space within the dominant confines of computer culture—one that celebrates organic creation and non-narrative, often non-linear writing and art practice" (1997, par 9).

The two women artists next explored can be described as 'cyberfeminists', for they use the computer as a tool for both

artistic expression and as a means for critique. Natalie Bookchin, an artist and professor in California, and; Lucia Grossberger-Morales, another California artist working in local galleries and art centres, both engage in creating factual/fictional game experiences and through this format tie their work to larger technological and cultural trends. I then discuss the practice-led game project, *[rootings]* (2001).

B. Natalie Bookchin's Work

As noted earlier in the thesis, very few women are involved in the games industry or in technology creation overall. Women artists' games, through their 'outsider' stance in relation to popular gaming culture, suggest alternative readings of contemporary issues in electronic media and offer commentary on social experiences such as discrimination, violence, and aging that traditional gaming culture either avoids or unabashedly marks with stereotypes.[1] In her 'low-tech' game projects, California artist Natalie Bookchin uses humour, pixilation, and juxtaposition to place the player in various difficult, challenging, or paradoxical situations; her use of both political- and personal-style stories emphasises ideas about the outside and interior worlds of a game.

1. *The Intruder* Project Background

Most well known of Bookchin's gaming material is *The Intruder* (1998-99)[2]. Working from "The Intruder" short story by Jorge Luis Borges, the game takes the participant through 10 arcade-style games as the means for interactively conveying the narrative. Participants must play the simple arcade-style games to advance the plot line, with words emerging as players engage in traditional arcade interaction.

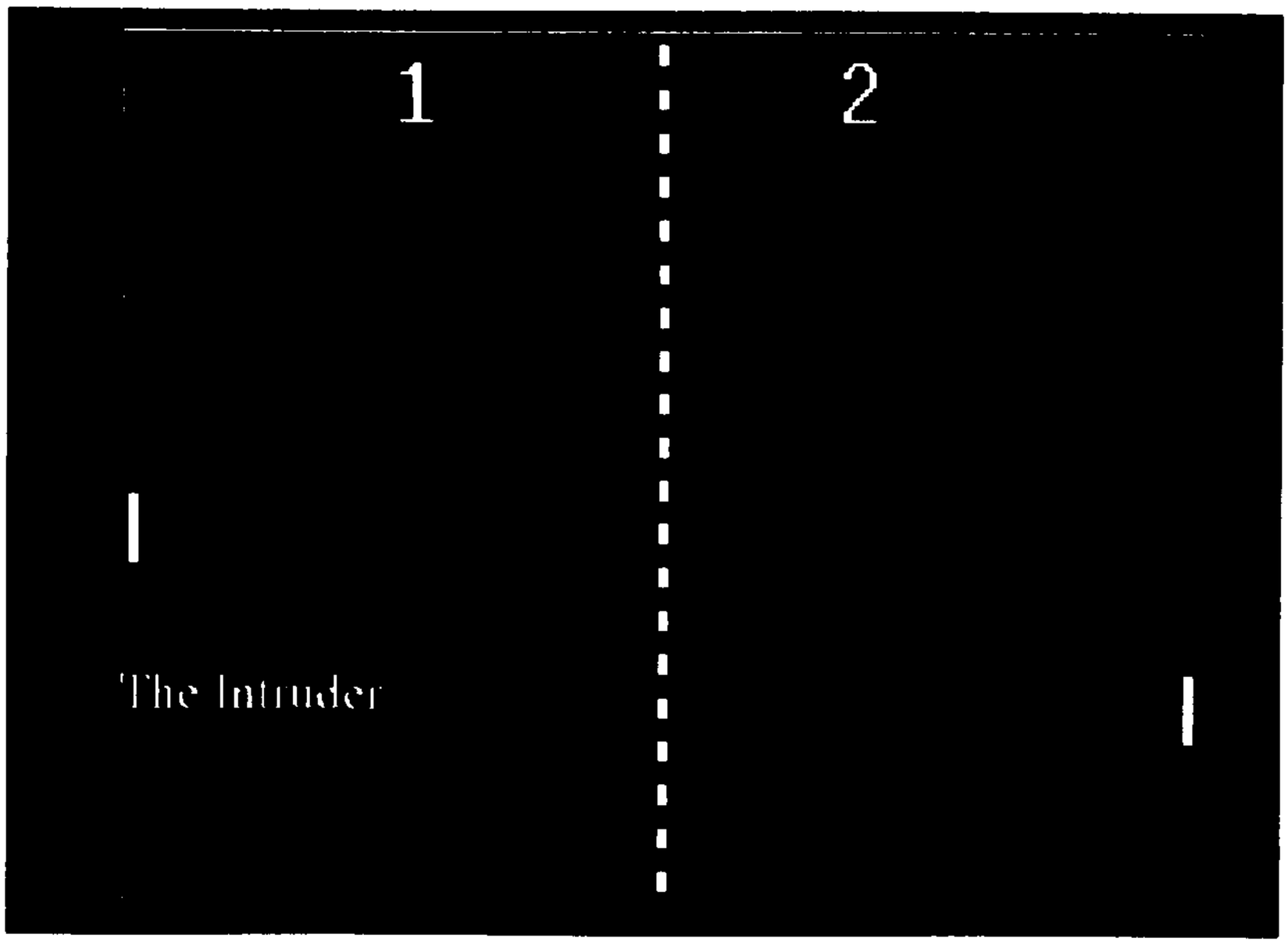


Figure 5.7: The Intruder *opening title scene, in which playing the game "Pong" advances the credits, by Natalie Bookchin, 1998-1999*

In the story, two close brothers decide to share their intimate relationship with a woman named Juliana. Different games along the narrative path enable the player to cause the story to move forwards. With each game move, the player earns a sentence or phrase. Players/readers learn about the brothers' relationship, their history, and their fights over Juliana. As the narrative progresses, things become more complicated. When the brothers decide that Juliana is getting in the way of their close relationship, they have her pack up her meagre belongings in a bucket and sell her to a whorehouse.

Figure 5.8: The Intruder *trinkets collection game, by Natalie Bookchin, 1998–1999*

At the start of this game, participants are presented with the image of a woman's bare underside situated over a bucket. The body produces little trinkets that the player must catch while manoeuvring the bucket. This loaded image represents several narrative layers: Juliana's meagre possessions, her own status as a possession of men, and the value of the woman's body (as trinkets in the narrative can be exchanged for the sale price to the whorehouse). In the end, the everyday objects fall from her body like loose children, and players collect these bits to learn more about her fate.

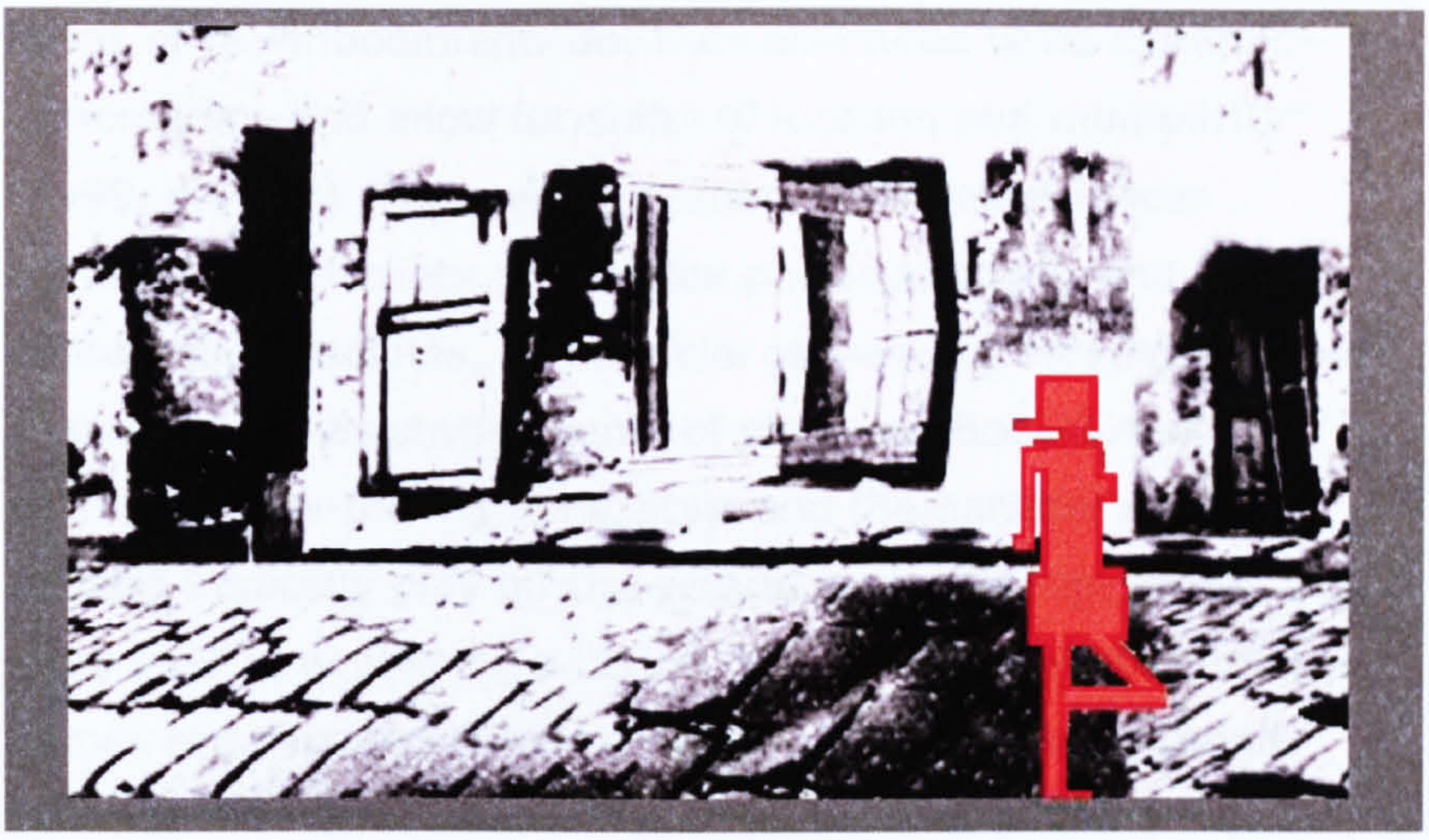


Figure 5.9: The Intruder *woman running game, by Natalie Bookchin, 1998–1999*

In another game, Juliana takes to the street. When a silent, pixilated blocky figure of a woman appears onscreen, players immediately know this is Juliana, yet she is never given dialogue or a voice in Borges' story. At the same time as the story unfolds around her, the Juliana character becomes a mere blocky shadow produced by men's desire. The game's aesthetic further supports this narrative evolution: while the background graphic is somewhat detailed (a small photo-realistic image of a town), the closer human figure is obliterated in chunky pixels. Game players manoeuvre Juliana, causing her to run or jump, eventually advancing the narrative when she falls into the trap holes set for her in the street.

2. *The Intruder* Process

Looking at the content of the work and the interaction style, players immediately notice the gap between the interaction and the story; a gap cyberfeminists might note could be a site for irony. To cyberfeminists, irony is celebrated as a strategy of resistance. Cyberfeminist scholar Rosi Braidotti notes that irony must be performed, not simply presented: "Postmodern feminist knowledge claims are grounded in life-experiences and consequently mark radical

forms of re-embodiment. But they also need to be dynamic—or nomadic—and allow for shifts of location and multiplicity" (1999, par. 22). Thus, while women's lived experiences culminate in a variety of complex physical, social, and philosophical realities, commercial games' stereotypical female characters act as static agents of pleasure. Bookchin's seemingly 'low-tech' graphic style and the narrator's solemn reading ironically play off the arcade game concept. While the story itself is written by a Latino, the pieces excerpted into the games are narrated (when there is voice at all) by a Latina. Because the narrative involves the control of a Latina character, having a Latina both participate in the narrative and refute, or at least cause us to reflect upon the issue of voice by reading it aloud, is an important aspect of the artwork. Here, Bookchin not only subverts arcade-style interaction through the un-playing of the game (for example, the narrative advances when Juliana falls into the hole, which, in other games, would represent failure or restarting), she also re-writes questions of authority, identity, and representation in games through the confusion of narrative voice.

This re-writing is particularly evident in the position of a game player versus that of a reader. Game players participate in the construction and evolution of narrative in different ways than in traditional textual forms. *The Intruder* narrative grows to become particularly effective and poignant because players, the once perhaps 'innocent' readers of text, now find themselves actually *participating* in the abuse of Juliana in the interactive format of the game. What is striking about *The Intruder* as an interactive work is not the assembly of cute, fun games—for their look resembles early arcade graphics and utilise blatant, funny sound effects—but rather how those cute, fun games implicate the participant within what is actually a very dark narrative. The political position of the game interaction against the narrative becomes stronger when one takes into account the player: players are positioned in a

precarious and uncomfortable place, not the typical controlling, 'command post', impersonal subject position of power most computer gaming examples provide for players. Software theorist Chris Chesher (2003) explores this unquestioned positioning of power in his work on game interfaces: "The cursor is not telling me something, but indicating that it is listening for my command" (Chesher 2003, par. 5). Players are almost always constructed as powerful agents, even gods, in games. Additional implications of this positioning for the male player (or, at least, a male gaze) come to the fore because of the patriarchal nature of the current games industry. "Control," Chesher notes, "undermines the liberal notions of privacy based on the inviolability of the subject. It changes what a subject is" (2003, par. 84).

Figure 5.10: Players hunt Juliana in The Intruder, *by Natalie Bookchin, 1998–1999*

In Bookchin's work, then, it is precisely the players' default, 'overpowering' position of control that works to

complicate the Borges narrative and pose a feminist critique. The final tense game in the set transforms feminist implications into an indictment: the player takes part in a 'fugitive' style game in which we guide crosshairs over a pixilated, natural landscape graphic. The point of view from the crosshairs and the sound of a helicopter let us know we are indeed the hunters and, thus, there is also someone or something to be hunted: a victim. To compleat *The Intruder*'s disturbing narrative, we must aim and 'shoot at' a fugitive figure below (metaphorically at least, this is Juliana) to earn the 'reward': the story's end.

While the debate about violence and gaming rages on, the use, or at least the suggestion, of violence is invoked in Bookchin's work.[3] At first, Bookchin's work appears to be simplistic, arcade-style entertainment; however, while interacting with the games that constitute *The Intruder,* players are positioned *to cause* Juliana's destruction. Perhaps this paradoxical involvement is a stronger indictment of violence in computer games, or perhaps it should be read as a metaphorical critique of the larger technologically influenced culture to which women do not yet substantially contribute.

3. *The Intruder* Work in Context

Bookchin's work is engaged with larger issues of work, home, and in some ways feminist visions of utopia. Bookchin's most recent work, *Metapet* (2002), is an online simulation game which examines the fascinating line between work and play. In the simulation, players create virtual workers of the future in biotechnology mega corporations. The player's task is to try to help the employees, seated at desks at work just like many of the game's real players, become more efficient in their duties. As a tongue in cheek critique, this game allows users to examine critically the worker's role within corporate networks as workers and as player/participants. This game also begins to touch on the

constant presence of the network, and the addiction to maintenance brought forth by email, online dating, instant messages, voicemail, news sources, and games like *The Sims*. Themes inherent in the game include constant checking, tweaking, and maintenance upkeep, products of networked culture inherited from both domestic practices and from the lower echelons of the information technology workplace.

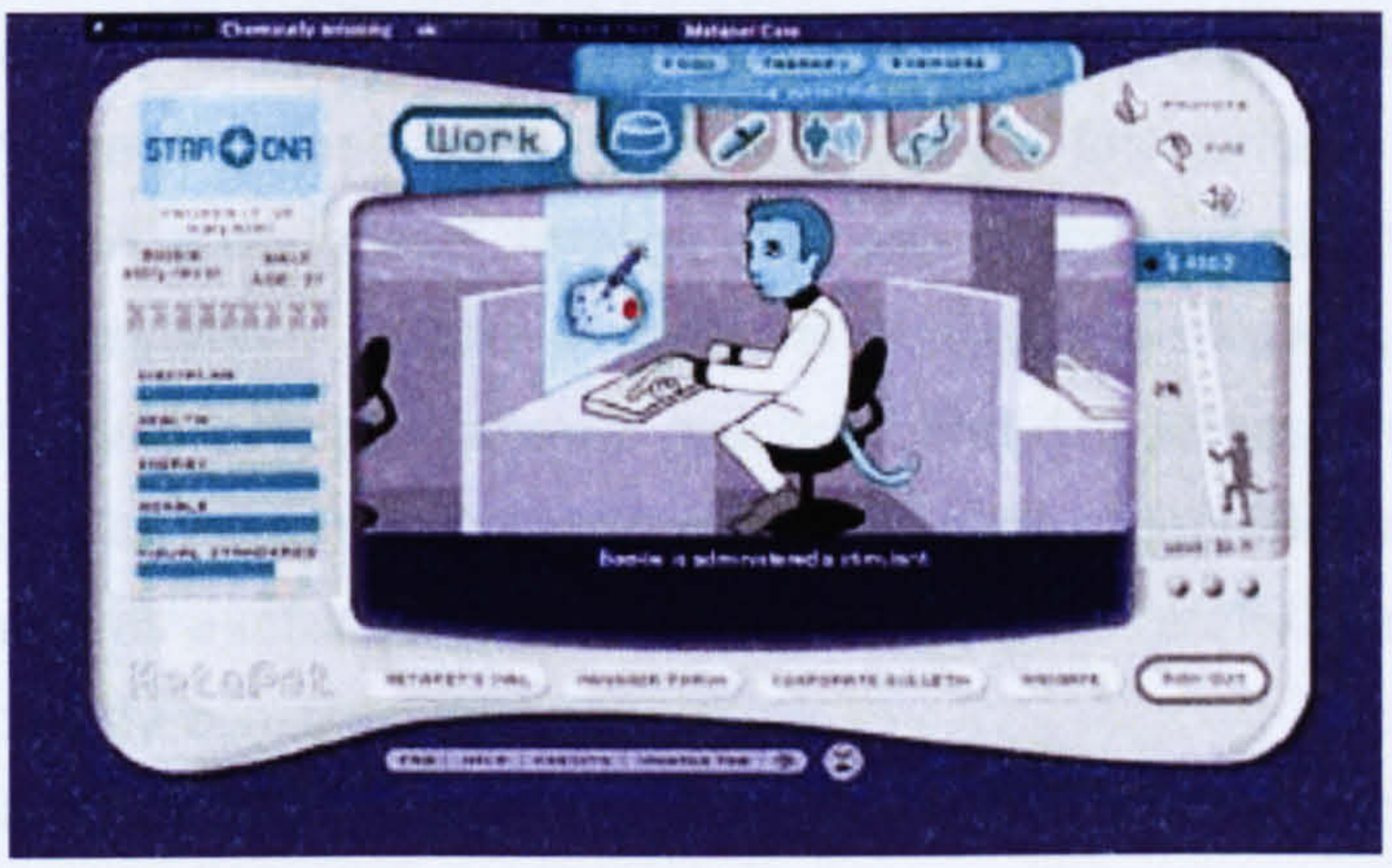


Figure 5.11: Metapet, *by Natalie Bookchin, 2002*

Through game play, players are constantly reminded of the ubiquitous presence of the network and of the constant upkeep and work they themselves do at terminals throughout their workdays. Manuel Castells, in his book *The Rise of the Network Society* (1996), notes that the change in the ways technological processes have become organised looks at the shift from surplus value and economic growth to data and knowledge economies. Bookchin's work taps this type of economic flow. The network as a conceptual structure plays a vital role in the formation of Bookchin's work an in many other kinds of net art, engaging with systems of information and communication and allowing us to examine links and structures which shape our experience of computer mediated culture.

Many women's gaming projects delve into the meaning of 'woman in technoculture', an investigation often at odds with

stereotypical game images of women. The perpetually problematic issues brought forth by the body-mind duality are exposed by women artists and theorists as inflated by the incorporation of technology artefacts; the relationship of the body to the mind to, now, the network must be better articulated and mapped out. Indeed, as we "construct what we know, and these constructions are deeply influenced by our early experiences and by the nature of our underlying relationship to the world" (Franck 2000, p. 295), a plethora of violent video games and killing machines are phenomena that have been experienced through the body. Because the body itself is not only a matter of material existence but is also constructed through common practices and discourses, the question of women in computer games takes on additional meaning as avatars and virtual characters are literally and consciously constructed.

Gaming culture's production of 'woman' is problematic when read in the light of a cyberfeminist critique (Spender 1996, Pearce 1997, Plant 1997). While computer games seem to offer a variety of types of female characters—from random monsters in *Resident Evil* to *Tomb Raider's* Lara Croft—for every liberatory image of a female heroine or monster in these games, the problematic side of these characters—through dress, unrealistic body design, and the relationship of the body to the user—tends to dominate (Oldham 1998, Slagle 2004, Krotoski 2004). Braidotti, among other writers, is struck by the repetitive image of "pornographic, violent, and humiliating images of women" that are circulated and produced in new technology artefacts (1996, par. 46). Proponents of computer games argue that characters are simply characters, and thus fiction; some say no serious reading of them should be encouraged for either males or females (Steinberg 2005). Yet the problem lies not only in the representation of the image of woman, but the relationship we have to the female image represented. The centrality of female characters and bodies in

computer games is disturbing because of the control relationship to the virtual body. Players cause these virtual women to respond to their actions at all times, and the players assume a command and control relationship with such bodies. This is problematic because the absolute control over the body, any body, makes the body itself quantifiable and 'ownable'. Computer gaming can foster a controlling relationship with virtual characters, and could have a particularly negative effect upon women and women's bodies: since women are at a disadvantage by being historically 'tied' to the body in range of ways (Flanagan 2000a). As feminist Dianne Butterworth cautions, high-tech "propaganda reinforces men's (and via them, women's) conceptions of the 'inherent' dominance and subordination in sexual and other relations between the sexes... The technological," she notes, "is political" (Butterworth 1996, p. 320). From the writings of classic epistemology to current-day practicalities (such as higher health premiums due to the capacity to reproduce), to needing to 'fix' the body (with cosmetics and other products), the controlling relationship to our virtual 'avatar' bodies can be interpreted as reducing women's autonomy and value in the gaming milieu. Gaming culture has historically been defined by men; and thus women's alternative practices in electronic media can be seen as working against both popular culture creations and the work of other male electronic artists, bringing a reinterpreted vision of "woman" into technoculture practices.

C. Lucia Grossberger-Morales

Like many works of art by women that explore themes of memory, loss, and retrieval (such as the work of Mary Kelly, as noted earlier in this chapter), some games also are created to occupy a position of subjective exploration. For example, digital artist Lucia Grossberger-Morales' interactive artworks

and games are preoccupied with notions about the body, homeland, loss, landscapes, identity, and social constructions. Is this because of women's lived experiences, or is it for more deeply rooted reasons explained by psychoanalysis? Perhaps like Freud's description of the 'Fort – Da' game children play, or Lacan's re-reading of this interpretation, where Lacan notes that loss is rooted in desire, an inability to master personal loss is the very cause of desire, these game experiences are in touch with loss and desire in complex ways (Fer 1999).

Creating work that reshapes or creates new enactments of memory and history is a way to productively explore ideas about identity, the body, and loss. Like much of feminist artwork, popular computer games are almost exclusively composed of bodies and environments. But unlike the feminists who play with concepts of disassembly, dissolving or displaced landscapes, and memberment/dismemberment, popular commercial games work to construct the contrary: cohesive, 'realistic' rooms, containable lands, whole and hyper, (or oppositely, "dead" or broken) bodies, and rigid boundaries. Grossberger-Morales, an artist who has been creating interactive art since 1982, is an appropriate example of an artist who engages with reworking and recreating memory and identity through the desiring process inherent in interactive games. The artist created the installation and CD-ROM *Sangre Boliviana* (*Bolivian Blood*) in 1995 to explore her personal, bicultural, situated and embodied history.

1. The *Sangre Boliviana* Project Background

Sangre Boliviana focuses on Grossberger-Morales' experience of being both from Bolivia and from the United States. The project consists of nine interactive pieces, each of which concentrates on a segment of her visit to her homeland and comments on the politics of home and place. Grossberger-Morales uses different media elements within interactive layers in order to reflect upon and

recreate the fragmentary and layered nature of identity and memory.

The main menu features an animated, flickering Virgen de Guadelupe de Sucre with a strangely animated, coloured background. Music from an Andean flute plays while the user chooses his or her path.

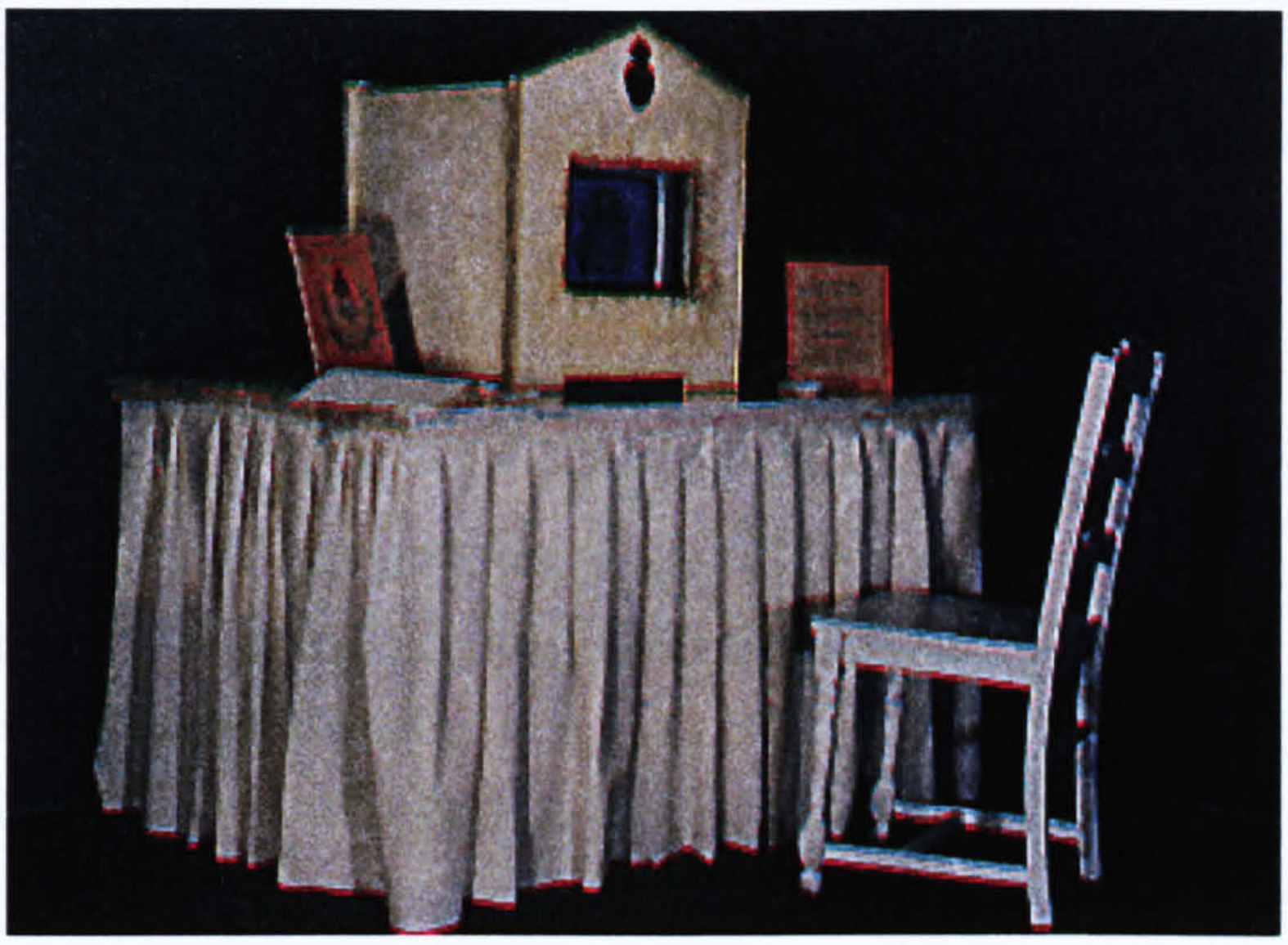


Figure 5.12: Sangre Boliviana*, the interactive experience by Lucia Grossberger-Morales which contains games such as "Cholera 92", 1995*

The section entitled "The Dream" leaves the user within an animated scene which describes a dream. Grossberger-Morales is first driving with friends in a Jeep Cherokee, and then becomes lost in a mysterious landscape. She begins a narration about computers, which sends her on an adventure with her mother and her younger self. Another area, "Emigrating," layers reminiscence with family photographs in order to show the relationship between personal and national history by focusing on the town in which Grossberger-Morales was born. The arcade game experience entitled "Cholera 92" explores the Bolivian cholera outbreak in 1992 in which 500 people perished. Users 'shoot at' cartoon images of water, toilets, dirt, and other sketches drawn from the artist's dialogue. As a

"reward" for shooting the image, we learn more about cholera, the history of the Andes, and the simple cure for cholera shown in short 'Quicktime-format' movies and text. Then, after the informative moment, it's on to the next level, which displays a different cartoon image to shoot. Here, a hybrid of game and interactive art techniques is used to subvert computer gaming tropes with political messages.

Grossberger-Morales notes in her artist statement that she can best represent her bilingual and bicultural experiences best through multimedia, and that her work creates a "post modern collage" (Grossberger-Morales 1995). Like *Sangre Boliviana*, *Endangered and Imagined Animals* (1995) is an interactive CD; it contains seven interactive experiences; some use fractal generated images to create animals inspired by the weaving of the Andes and the extinction of species in the Amazon. Grossberger-Morales notes in her artist statement on the CD that the idea for the name *Endangered and Imaginary Animals* came to her in the year 1988:

> "Inspired by the name, the images flowed quickly. Images of strange animals woven into complex weavings, painted on walls of ancient murals, baked into clay, and moulded into metal. These are images from ancient civilisations" (1995).

Again, exploring nature and memory through the work, Grossberger-Morales explores the web of life—in fact, one of her games is entitled "Web of Life".

2. *The Sangre Boliviana* Process

Grossberger-Morales was inspired to purchase a computer while working as a reading teacher and watching students become more enthralled with video games than the work in her courses. After witnessing a student

absorbed at an arcade, she had a dream in which she was a small black boy with "a magic light box". In the dream,

> The light created complicated images in the sky that was rapidly turning dark in order to enhance the magic of the light box. In some ways the images looked like fireworks, but they were more structured, more precise. Instead of the diffuse, short lived light of fireworks, the light was coherent and persistent" (Couey 1995, par. 9).

Immediately after, she started working with the computer. This work, originally designed as an installation, was turned into an interactive CD-ROM in 2001.

Grossberger-Morales pushes the links between her creative computer work, history and memory by contextualizing her work culturally. She tells us that during the years 1988–1995, whenever she wanted to play and "let my fun flow" with the computer, "animals would emerge". Some writers argue that women artists' 'memoryscape' involves landscapes and bodies as key areas for exploration because they provide the context of women's lived experiences. As feminist philosopher Sandra Harding notes, "one's social situation enables and sets limits on what one can know"; women's games thus help articulate these boundaries, providing a fundamental map between the unknown and the known (Harding 1996, p. 240). In many ways, Grossberger-Morales offers abstracted or interpreted kinds of game landscapes within which to push these limitations. Landscapes in popular commercial games have believable rules (gravity and walls, for example, impose understandable, rational limits) and a coherent order. But, as bell hooks importantly argues, "Spaces can be real and imagined. Spaces can tell stories and unfold histories. Spaces can be interrupted, appropriated, and transformed through artistic and literary practices" (2000, p. 209). Thus, it can be argued that

women's games thus counter traditional gaming spaces and offer alternate visions of virtual space.

3. The *Sangre Boliviana* Work in Context

Grossberger-Morales fervently connects her art practice with her lived experiences and with other projects, such as the CD-ROM game "real and imaginary Animals, in which she notes that sketching is a significant aspect of her practice. "...[O]ne day," she noted, "I understood what the animals [sketches] meant. I understood it was my unconscious struggle to reconcile my connection to native cultures with computers" (Grossberger-Morales 1995). Engaging with these types of native cultural memories and her association with technologically driven contemporary Western culture, the artist both re-writes the boundaries between these two phenomena and re-skins typical computer-created game spaces. Her real and imagined animals, along with the bicultural dream spaces in *Sangre Boliviana*, function to counter seamless, cohesive game spaces and complicate identities offered by commercial gaming practices and personalise the electronic arena into an intimate, personal space.

D. The [rootings] Project, 2001

In the practical work, I used themes from the conceptual space of the home and themes of memory to begin creating interactively-driven narratives works. Initially, a feminist interpretation of everyday spaces was, in part, motivating my work prior to this set of investigations. *[rootings]* (2001) is a set of web-based interactive game environments that offer players personal narratives about time and memory. Participants explore stories involving time, its duration in terms of aging, its slips and turns in terms of memory and

forgetting; this, within the context of an experimental narrative loosely based around different life episodes. Time—passing, skipping, rewinding, and time travel were each featured themes within personal, true stories.

1. The *[rootings]* Project Background

Empirical research showed that women enjoyed strong narrative themes in computer experiences (Honey et al 2002), so following my interest in time and personal narrative, I developed *[rootings]* to contain personal themes, including letters from relatives and friends and some non-fiction autobiographical content. Here, like Bookchin and Grossberger-Morales, I countered the archetypal game narratives of 'aliens' and enemies. The individual games used small, personal narratives as a content-driven way to alter gaming space and gender paradigms within them. Questions driving this project centred on fostering documented female play styles in the overall artwork. The strong narrative and the use of feminist subversive practices developed in the research were used to reconsider how a play system can be constituted. How might one re-write, re-skin, and un-play traditional arcade-style interaction? Could a computer game—generally so cold, distant, not intimate, bombastic, even violent—be created to do exactly the opposite: to become personal, intimate, and introspective?

Background research involved enquiry into physics and scientific theories of time as well as sketching, drawing, and collecting personal material for the games. This research initially focused on linking hard science (string theory) to daily domestic, personal experiences. The work evolved from this initial set of research questions toward the fascinating, sometimes true, sometimes distorted domestic memories. The events taking place in each game were designed into the overall experience to mirror the

contradictory nature between personal episodes in one's life in contrast to the scientific theories of time, for example, as more like a simultaneous event, parallel world, or constant, not simply a memory or a past happening. This project uses a scientific platform to investigate the perception of time to tease out ideas about duration in narrative, mental order/disorder, and domestic life. *[rootings]* was a manifestation of 'old fashioned', almost 'retro' style set of small computer games reworked to tell personal everyday stories from a woman's point of view. The set of games was created as the first of the practical prototypes in the Playculture research. *[rootings]* involves many kinds of player interaction; many of the games take the form of one-player puzzles or rework classic works such as *Asteroids* as storytelling vehicles (for example, *[rootings]* contains my storytelling game entitled "Narrasteroids").

The main interface of *[rootings]* is based on a reverberating circuit diagram. The interface is a simplification of memory circuits within the brain and its 50 billion nerve cells. Any type of activity in the brain (hearing a sound, problem solving, reading) sets off neural circuits throughout the nerve cells. While every experience creates new pathways, some of the circuits created repeat over and over, marking out a fixed location and becoming part of memory. These reverberating circuits start with input that produces a signal, which in turn becomes encoded within a neuroloop, producing a short-term memory function. A reverberating circuit, for example, creates physiological memory.

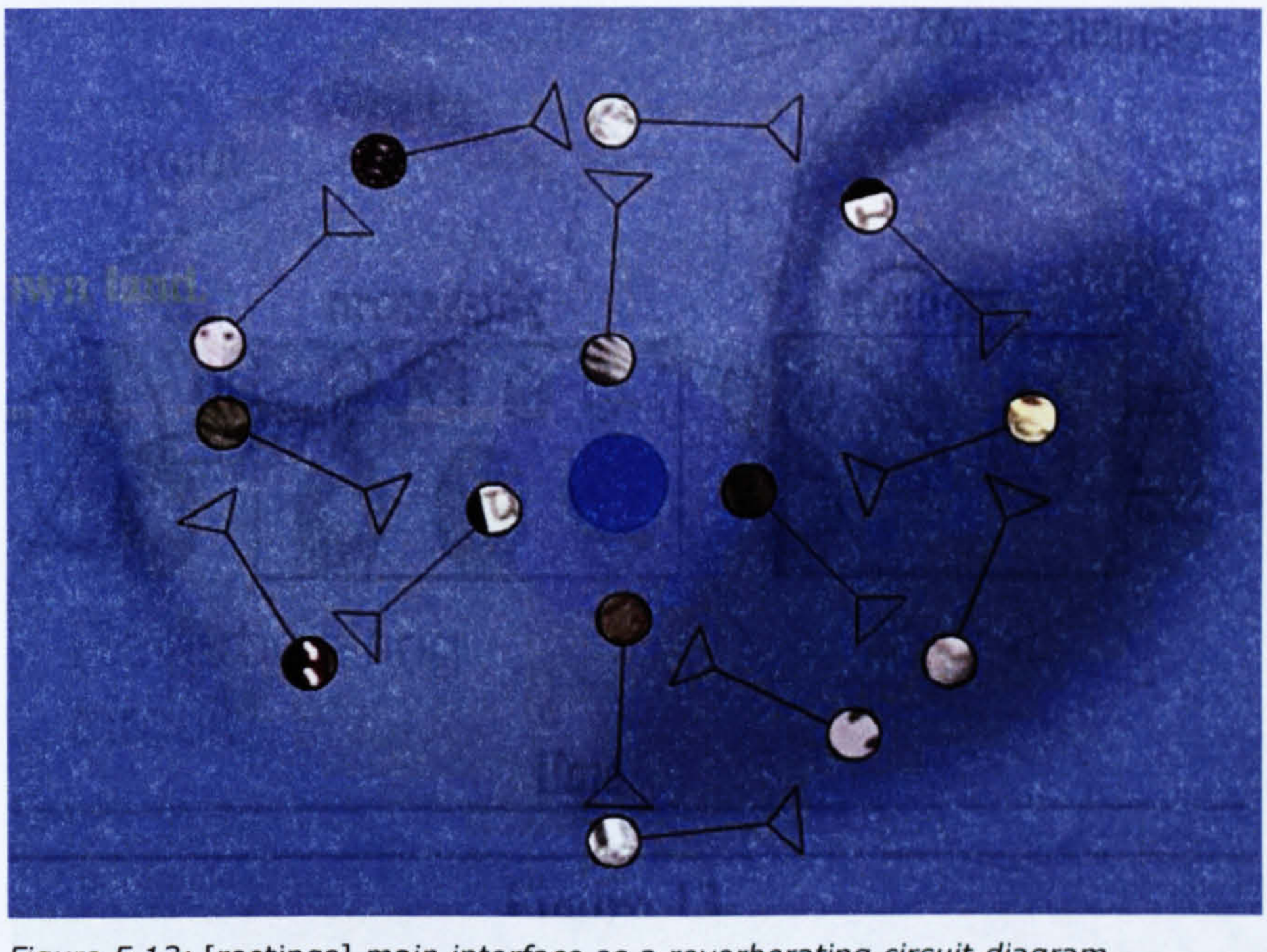


Figure 5.13: [rootings] *main interface as a reverberating circuit diagram, by Mary Flanagan, 2001*

In a reworking of classic arcade games, the *[rootings]* players interact with one of the 14 games. In "Narrasteroids", players commence playing the game by trying to 'shoot' bullet-like words at large blob-like image-asteroids, which contain snippets of memories and personal events in the form of small videos (see Figure 5.14 for a screen-shot). At first, players can expect to interact in rather traditional ways. They may shoot and shoot at the image-asteroids, and as they shoot them, the image-asteroids break into smaller and smaller pieces and eventually vanish. This interaction closely follows the 1980s commercial *Asteroids* game, where the goal is to shoot to destroy the asteroids from outer space.

This is precisely where the subversive un-playing becomes meaningful. Players can shoot, and thus delete, the image-asteroids. However, if they delete the images on screen, the game automatically ends. The players may then realise they weren't able to read the narrative flowing from the 'gun', and choose to play again. In order to read

the story flowing from the gun, players must begin playing 'oppositely'; that is, they must avoid the traditional 'winning' scenario of deleting the image-asteroids order to receive all of the text that is shooting out of the gun.

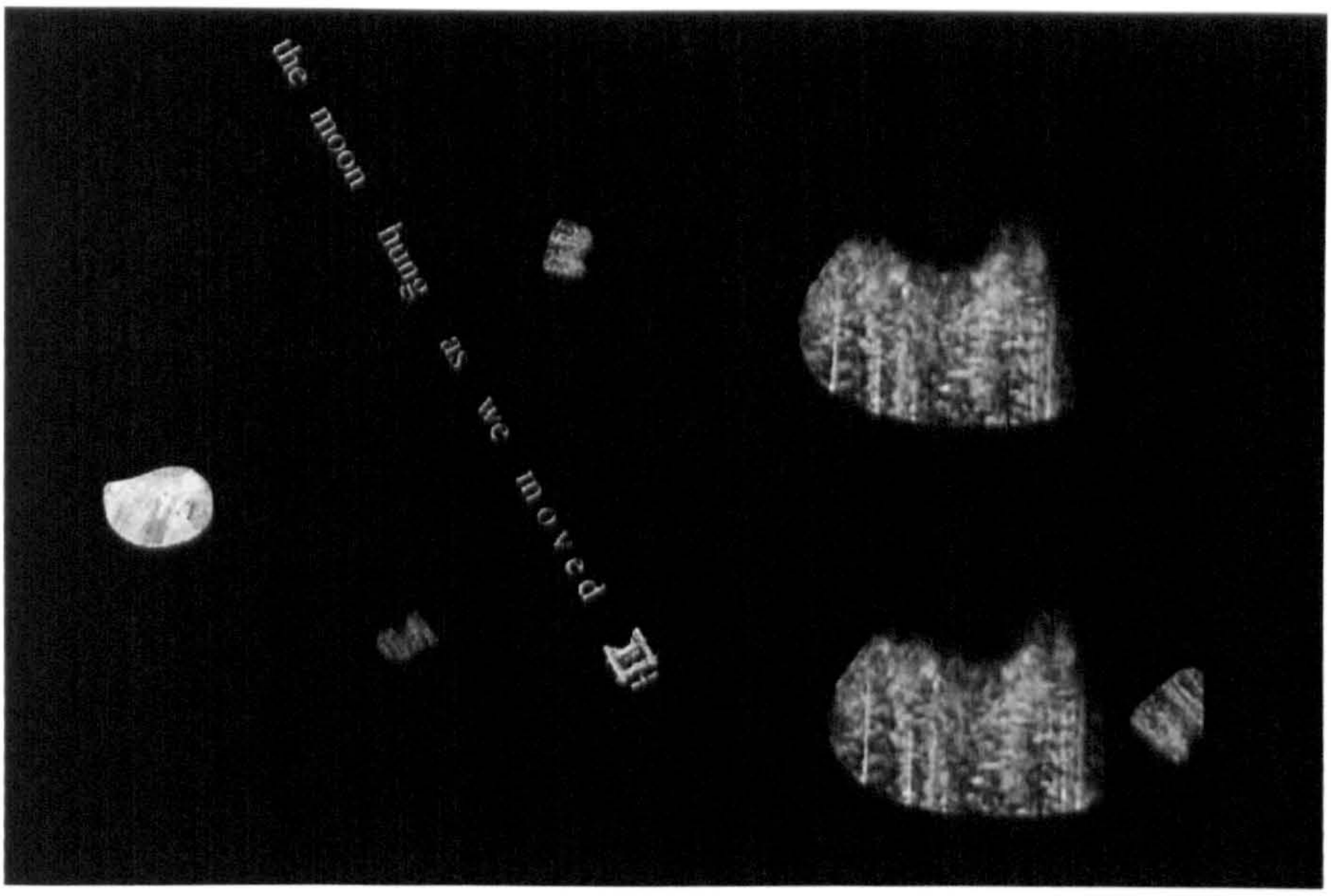


Figure 5.14: [rootings] "*Narrasteroids", by Mary Flanagan, 2001*

A starting point for investigating the second of the games in the *[rootings]* work was one of my earliest memories of a household emergency in which, as a six-year-old child, I woke in the night unable to find an adult in my grandmother's rural home. Was it a dream? Was it a slip through time? By using a similar "Narrasteroids" framework, I was able to explore how the space of the game is at once made familiar by these images, and yet unfamiliar and distanced to the application of such a personal, childlike narrative housed within the *Asteroids* context.

In another *[rootings]* game I refer to as "Shopping," the attempt to understand domestic consumer activities brings to light the project's investigation of aging and desire as a secondary focus. The game focuses on a letter from my grandmother in which she admits there is

"nothing much to do" at age 91, because there is "nothing much to shop for". The links between age, domestic space, and consumption were made explicit in this personal exchange dated from March 2000; indeed, for the artist, the idea that women reach age at which they are no longer the target of consumer culture was a revelation. I then researched the history of how consumer goods marketed to women; in particular I studied women's 20th century magazines, most of which ranged from Hollywood fan magazines to housekeeping and fashion magazines. Images were scanned which directly targeted female consumers throughout different decades of the 20th century In the "Shopping" game, players frantically move their shopping bag around on the screen to catch the flying goods while the letter from my grandmother is gradually revealed on the bottom of the screen, arguing against consumption.

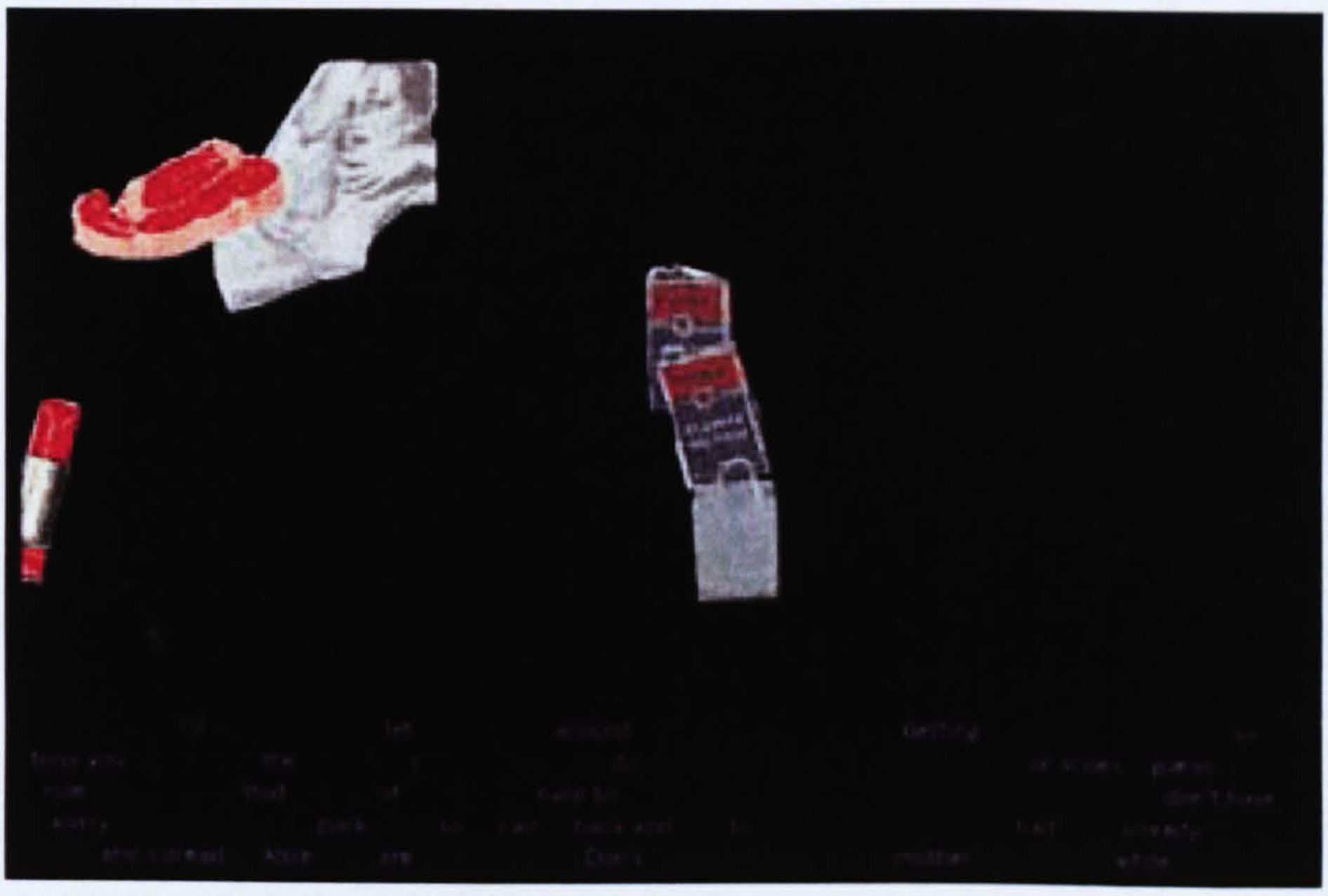


Figure 5.15: [rootings] *consumer game, which reconstructs grandmother's letter discussing consumption, by Mary Flanagan, 2001*

2. The *[rootings]* Process

The themes of domestic narratives and consumption are posited in multiple ways throughout *[rootings]*. I decided to work using the idea of the game as a way to explore these personal themes. Games were an ideal way to traverse the content because, first, the historical surrealist artistic methods and processes involved gaming and chance operations to uncover aspects of the artist's intention and new ways of participating with the work. In *[rootings]*, players encounter time in unusual ways; each string or episode is a recurring or cyclical event that takes the form of an abstract yet interactive arcade-style game. Therefore I activate game systems as materials and methods by which to explore these boundary zones, involving both intellectual hypotheses and the commonplace as locations and manifestations of socio-technological phenomenon; both the conditions of time and memory are extremely difficult to study and are heavily subjective.

Reflection upon the game design in *[rootings]* is important to determine where feminist intervention entered the game design. In utilizing two-dimensional games for more complex narrative experiences, the spatial cues and translations through such spaces are simplified and abstracted; in other words, they are completely re-skinned and reinterpreted according to the principles of feminist subversion that have become important in feminist intervention.

Feminist games necessitate contextualisation due to the ways in which space and time are posited by critical theorists. Michel de Certeau describes spatialising practices in terms of stories that people perform as they go about daily life. These can be understood in terms of the narrative spaces produced by the artists thus far discussed in this chapter: Natalie Bookchin, for example, linked abstracted and disparate narrative paces in *The Intruder*

with a cohesive narrative thread. Spatial narratives are, de Certeau claims, trajectories which "traverse and organise places; they select and link them together" (1984, p. 115). In *[rootings]*, personal trajectories are as unified by narrative threads as they are through the main circuit interface and game design. The significant aspect to note about these daily narratives is that they are linked as trajectories, which implies movement. A Analysing the spatialisation practices moves the attention from structures to actions, from place, to space, to movement: computer games are more than spaces, but are also participatory, performative- (movement-) based experiences. Actions take precedence as both the interpretation of intentionality and as the resulting effectiveness of the experience. De Certeau describes everyday space as a 'practiced place', a site that is fluid and constantly transformed by its shifting performances (1984, p. 117), and indeed, games constantly shift context depending on player decisions and skills. Games provide 'practiced' places; as players, we must learn the rules of each gaming space. In *[rootings]*, the flat game spaces provide each game theme the "condition of its possibilities" through the trajectory of the players' interaction in the narrative (De Certeau 1984, p. 120). *[rootings]* encourages players to begin digging among the content, using the physiological actions of clicking, tracing, dragging, and the repetitive process of game play to reinscribe memories from maker to player.

Indeed, such fluctuating interaction environments can be described in Deleuzian terms as sites of 'becoming'. In his work on this concept, Deleuze describes a state of event-centred being that is fundamental to understanding interactive experiences (Deleuze 1990, pp. 1–3). The mystery of 'becoming' can "elude the present, is the paradox of infinite identity (the infinite identity of both

directions or senses at the same time – of future and past, of the day before and the day after, of more and less, of two much (sic) and not enough, of active and passive, and of cause and effect) (1990, p. 2). Most importantly, they created a context for the production and reception of radical versions of social order through their emphasis on shifting the authority of the artist and the popular media through the creation of a networked community of artists and audience.

Rough sketches and experimental writing informed the design of the games:

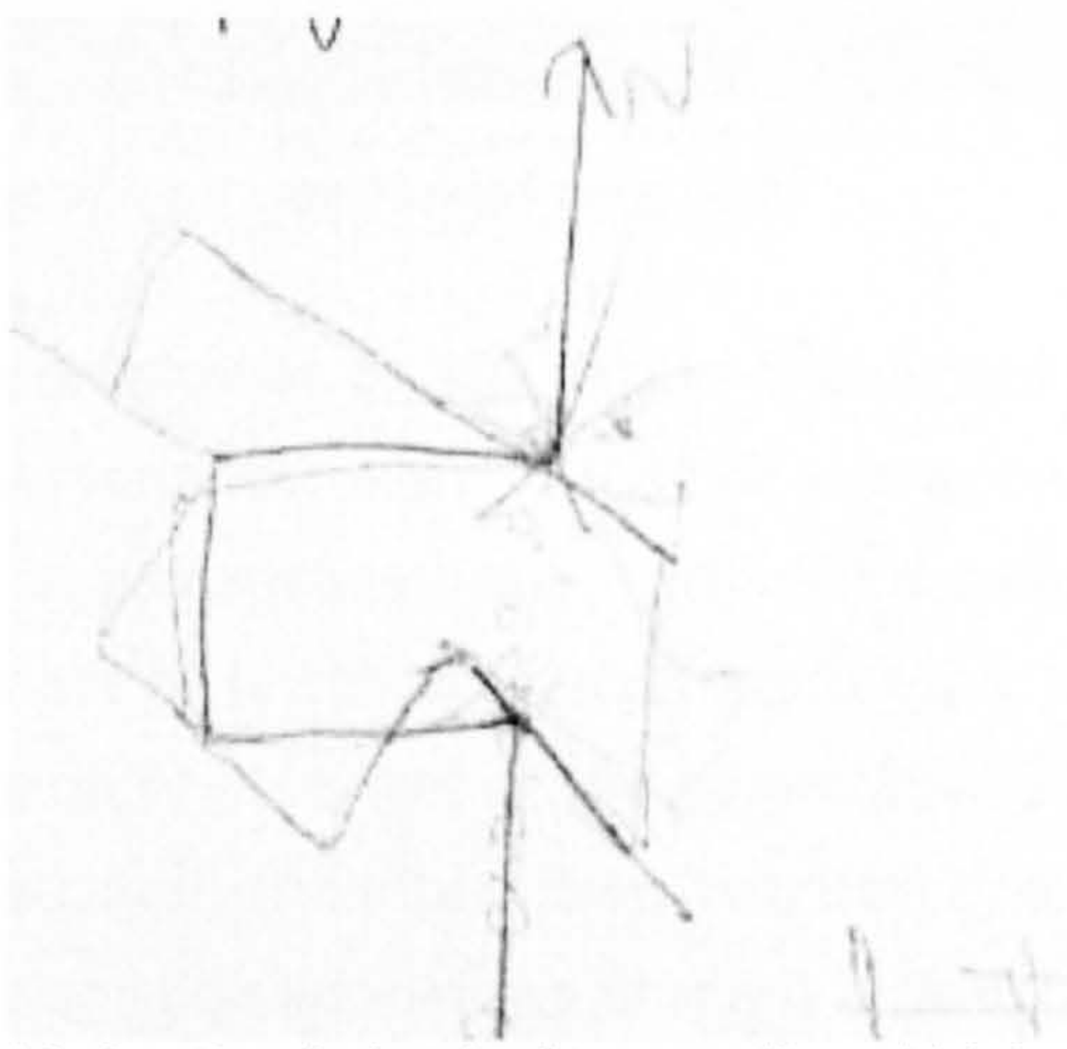


Figure 5.16: [rootings] sketch of temporality, which looked nothing like the visuals in the final game, by Mary Flanagan, 2001

In the sketches, the themes of movement and space were mapped out in three dimensions, even though the game was to be seen when finished as a two dimensional game, to capture these elements of becoming.

Figure 5.17: [rootings] *doll game, which figures how one object can carry several meanings through time, 2001*

The emphases on space and movement were made more personal through a focus on narration and humour. Games automatically bring a whimsical tone to a topic; players are at once distanced from a topic because of the permission of play, yet at the same time, as Bookchin demonstrated, the interaction required in a game can emphasise the seriousness of even fictional narratives.

The process of creating the work involved both personal and scientific enquiry. The manifestation of the abstracted domestic activities, the banal household items depicted, and the arcade action in the game fused unusual elements which focused on alternate styles of un-playing traditional arcade-style games.

Figure 5.18: [rootings] *"Narrasteroids", which puts childhood memories inside the classic "Asteroids" game to rework the how interaction creates meaning, 2001*

[rootings], like other gaming projects, is not 'created' unless participants are interacting with it. The work becomes a blend between research, process, and performance when played. It creates a framework, where players work inside a particular rule base to fuse their own answers interactively.

3. The *[rootings]* Work in Context

Over all the other facets present in women's art games, perhaps the most interesting is the way in which they bring exploration, chance, and links or connections to the forefront. These games celebrate the act of playing as a means for self-discovery: not high-score world discovery or conquest as primary goals. Perhaps this discovery is even more important than the product produced by play. It is certainly the case that artists' games place play and content over outcome, especially since artists' games as a product are themselves an awkward commodity as they have no standardised system of distribution or mode of reception.

What is it about artists' games that encourage discovery? In the curatorial statement to the 1997 interactive art exhibition "The Interaction: Towards the Expansion of New Media Art", curator Itsuo Sakane ties gaming and interactivity together in a useful formula. He notes that because interactive art is struggling with large-scale ideas:

> connected with the broader human reality and the joy of discovery, [interactive art] should be seen in the context of Caillois and Huizinga's ideas of play as a basis of culture. In it one seems to have stepped away from the traditional elitist ideology of art, in pursuit of something that is at once both cultural and concerned with human survival. From the perspective of interactive art, we sense at last a development in the social and ethical character of art (Sakane 1997, par. 19).

To curator Sakane, interactive artwork is almost universally "enjoyed in a manner similar to enjoying a game, [where] the artist's presence is hidden and does not draw attention" (Sakane 1997, par. 5). From the perspective of art history, artists have made games since the time of the Surrealists, and one could argue that even the Dada subversion of art world practices and their whimsical interpretation of art and performance was a form of gaming. Drawing heavily on theories adapted from Sigmund Freud, the Surrealists sought to unite the worlds of fantasy and dream with that of everyday existence. As the foundation for the imagination, it was postulated that the unconscious could be accessed through particular types of methodologies that worked to reveal it. Games were frequently used in this context to tap the larger meaning systems of the self and other. The fascination with art games has continued ever since, from movements like Fluxus to the women's digital games discussed here. While other games such as team sports

and board games like chess re-enact the logic of war play, computer games also have a particularly violent historical context; not only were computers developed for warfare, but games scholar Celia Pearce notes that "the earliest virtual reality systems were developed for training military personnel" (Pearce 1998, p. 222). Artists using the computer for their games work must come to terms with this history, and with, more recently, the Western cultural imperialism of the American software industry, and reflect upon the impact such histories have had on the work.

IV. Conclusion

In the last chapter, three forms of player subversion were derived from Victorian era girls' play and *Sims* play. In this chapter, I used the work of feminist artists from the 1970s and 1980s, as well as contemporary computer games created by Natalie Bookchin and Lucia Grossberger-Morales, to demonstrate how contemporary artists are re-skinning, un-playing, and re-writing gaming conventions and codes in their work. I offer a glimpse of several of the subversive and alternative game spaces created by women and point out aspects which make them significant, and describe the process for creating one of these game spaces through a look at *[rootings]*. I then discuss *[rootings]* and demonstrate the ways in which it utilises one of the strategies of subversion, un-playing. From this work I developed a new theory for the next practice project, [domestic] (2003), where I chart how re-skinning and re-telling as subversive strategies might work.

Women's games question the cohesive narratives and the 'speed rush' offered by commercial game culture, and the examples of work by Bookchin and Grossberger-Morales demonstrate the significance of their approach to popular culture. Their games represent a new way of thinking about

gaming, technoculture, and digital art. Meret Oppenheim, a significant contributor to the Surrealist movement, noted in 1955 that Surrealist works, based on the psyche and automatism, "will always remain alive and will always be revolutionary" because they are in alignment with the organic, with nature"; explicit to Surrealism is a reliance on theory and practice, and gaming, to foster this organic, revolutionary state (Rosemont 1998, p. LI). This thesis presents the arguement that revolutionary activism within contemporary art practice is prospering in the rather novel form of women's computer art games. First, these games counter the hegemonic representation offered by commercial computer games and popular technoculture; second, they explore the construction of 'woman' in such a setting; third, they are focused on land, memory, and history; and fourth, they introduce tactics to celebrate notions of movement, chance, and play for self-discovery. The approach that women digital artists are utilizing in their work offers an essential counterpoint to digital culture; artists are making the cyberculture, a distant and masculine terrain, into an area for more personal exploration. The anxious digital artefacts produced by these artists are not only helpful for us to understand the contemporary context that women game artists work within, but our own cultural situations, for women's games differ both from commercial games and independent male artists' games in their incorporation of personal stakes within conceptual and formalistic play.

As Andre Breton noted, artworks that involve interactivity tend, inherently it seems, to produce activities that involve play and exploration as forms of artistic expression (1978). Some of the most compelling game activities –those such as Pong or Tetris, or the other arcade game archetypes employed by Bookchin and Grossberger-Morales, for instance– seem to have little to do with narrative, race, gender, or lived experience. However, women tend to use

these games 'against themselves': that is, in order to do precisely what they are not designed to do. Through these strategic appropriations of gaming conventions, feminist game makers are able to make popular their insightful and subversive critiques of contemporary practices. With critiques of traditional gaming culture stereotypes built into their new game strategies -including critiques of social experiences such as discrimination, violence, the representation of women, and aging - women's games and gaming strategies now celebrate the act of playing as a means for self-discovery, reaching beyond the boundaries of 'everyday culture'.

What kinds of social change can we hope for through women's gaming practices? Women game artists are in some ways the embodiment of the cyborg 'weaver' imagined by cyberfeminists such as Haraway and Plant. They are technically proficient women who have chosen to incorporate political ideas into their work, while still remaining conscious of the limitations imposed by their male-constructed and male-dominated milieu. This is very similar to other feminist projects: for example, how could feminists, especially structuralist feminists, hope to both treat all media as 'texts', yet also follow in the structuralist path to escape language altogether? Does altering game systems and game design shift the texts outside normative practices, and therefore, normative power structures?

The goal here is for designers to be able to reach a point where they can reshape the systems of gaming to allow for multiple voices, multiple realities, multiple designs, multiple subversions. This, of course, means reshaping along the way popular discourses and language—even academic discourse about gaming. For as Luce Irigaray notes, "So long as one does not question the overall functioning of the psychoanalytic discourse, and even of all theoretical discourse—even unconsciously—one only guarantees the continuation of the existing system" (Irigaray 1985b, p. 81).

The main point of Irigaray's work is to discover and foster experimental forms of discourse that someday might foster authentic differences and legitimate alternatives. This type of shift, we have seen here, is much needed in the day-to-day discourse of technoculture, and gaming specifically.

While one can not quite argue that there is enough of these kinds of works to instantiate an intentional, political, progressive 'women's gaming movement', the number of women game makers is growing. There is a large group of women online who refer to themselves this way—'gamegrrls' and 'womengamers.com' among them—but they are not seeking to create new games. Rather, they work to get women 'accepted' by male gaming communities by playing games directed at men.

In this chapter I have looked to women making games for themselves using the tools of this system, countering it, and subverting it. This 'movement' is not to be seen as monolithic, united, or creating a counter-hegemony en masse. Rather, like Irigaray and other feminists who offer ideas about women's liberation and feminism, if women's gaming did become a 'movement', it would be one consisting of pluralities; as Irigaray notes, "Indeed, in the women's struggle today there is a great number of groups and tendencies; thus to speak of them as a Movement runs the risk of introducing hierarchies amongst them, or of leading to claims of orthodoxy" (Irigaray 1986b, p. 86).

The detriment of this quick conventionalising is again the tendency toward singularity; it has been difficult to bring into existence the experimental practices such as web art, artist's CDROMS, and artist's games. Artists' voices, the voices of people of colour, gay and lesbian voices, 'differently-abled' voices, economically disadvantaged voices—these are not yet present in either the independent or the commercial game worlds. The effect is that this absence allows for further assumption of virtual space for the consumption of

mainstream stories that continue the cycle of oppression. In one way or another, the games discussed in this chapter poke holes in this seamless ribbon.

The largest challenge facing artists with subversive and activist aims is the state of the world; many artists, even the politically charged and engaged Holzer (who had several public works display during the 2004 US election week), in the face of war and tragedy, have difficulty seeing the point of such small interventions (Pollack 2001). In the next chapter, we'll look at the serious edge of subversive artists' game efforts as well as two practice projects that both enact and problematise the 'methodology of subversion' developed in the last two chapters.

Notes for Chapter Five:

[1] Note, for example, the inherent racism in the game *Manhunt (2003)* from Rockstar Games, in which players can choose which ethnic group to chase and kill.

[2] See Bookchin's website, "The Best of Natalie Bookchin," http://www.calarts.edu/~bookchin/

[3] Mary K. Jones, producer for Edmark software, notes in an interview that while it is too simple to blame video games for cultural violence, games do offer a unique encounter with violent imagery when compared to other media; "I think the trouble with computer-game violence is that you actually cause it to happen... you make choices in computer games" (Gillespie 2000, p. 17).

SERIOUS GAMES:

examining games engaged with the world.

6

"...it is increasingly difficult to tell where play ends and non-play begins" (Huizinga 1970, p. 233)

I. Defining Serious Games

In chapter five I examined women's art games and the first practice project from 2001, *[rootings]*, and demonstrated how contemporary game play and game design can enact the 'methodology of subversion' described in chapters three and four. In chapter six, I will further pursue this theme by examining the phenomenon of 'serious games' as a form of subversion and activism, including two practice projects: *RAPUNSEL* (a three-year project begun in 2003) and *[domestic]* (2003).

Digital worlds are enormous sites for the imporatation of content from the real world, including social constructions such as racism and sexism. As noted in the introduction to this thesis, game making and technology production are not

diverse occupations in terms of gender and race. Since the 1990s failed attempts of 'games for girls' companies such as Purple Moon, there has been a great deal of anxiety about gender and gaming in commercial game and entertainment software circles. On the one hand, female characters are proliferating in games, with 'slutty' monsters on the attack or 'tough grrl' heroines with excessively voluptuous bodies increasing in number within action, adventure, and first-person shooters. On the other hand, it was established early on in this thesis that women are barely involved in the creation of such games, and have little voice in what content, interaction styles, character representation, and reward systems go into them. Building on the background this thesis has thus far charted through the history of subversive games in an art historical context and in contemporary feminist games projects, this chapter takes the research a significant step further by looking at feminist games which attempt to address directly a social issue or event within the popular gaming engines.

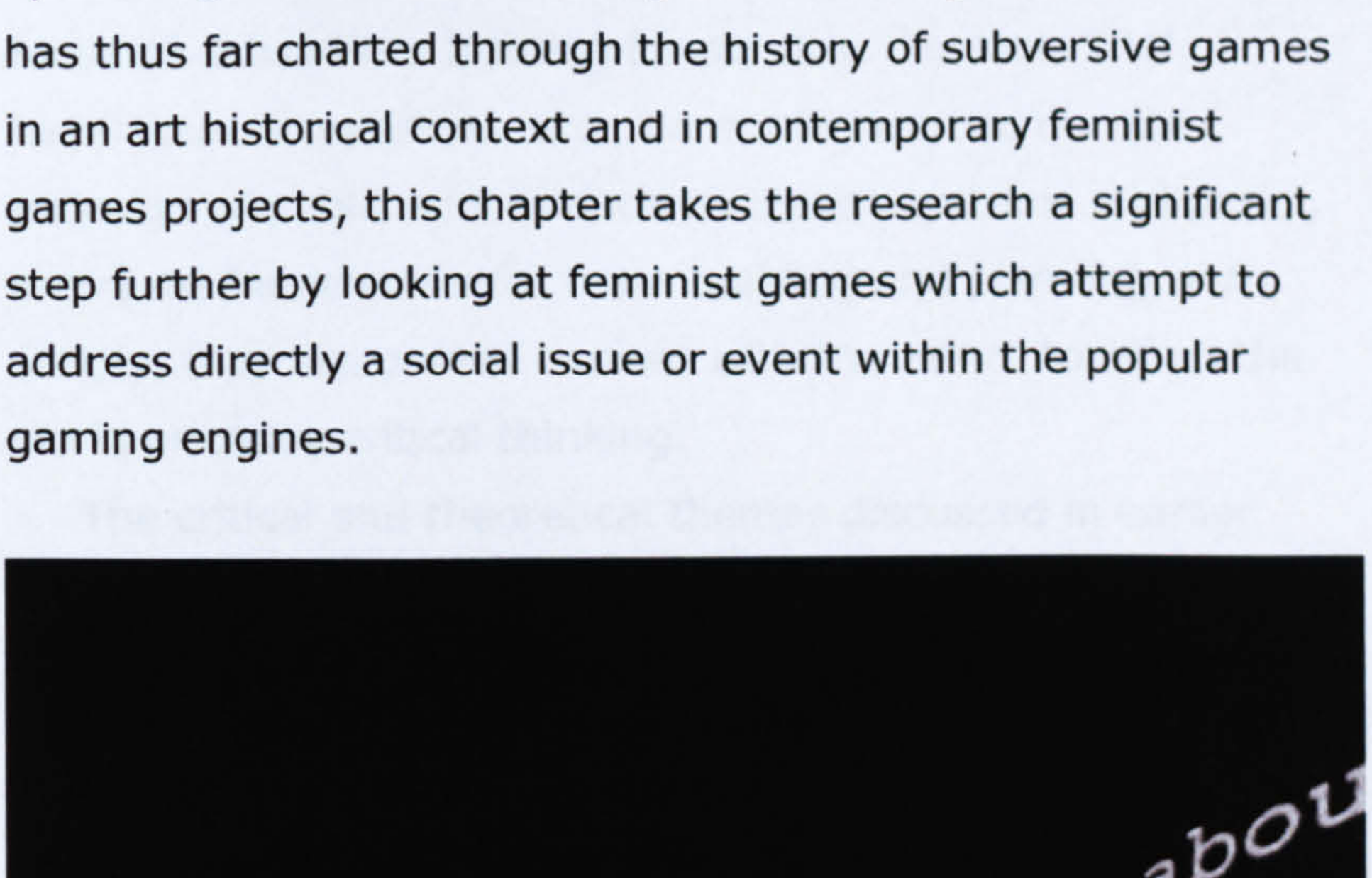


Figure 6.1: A scene from the game [domestic] *by Mary Flanagan, 2003,* discussed later in this chapter

The examples discussed in this chapter can best be described by use of the term 'serious games', yet it should be noted that there exists a tendency towards debate in the general use of the term 'serious games'. Games scholar Woods argues that 'serious games' are the goal of those within the game industry for the future of games, noting that many developers wish to create 'serious' content or experiences that are typically represented within traditional narrative forms such as books or film (2004, par. 1). As defined in chapter three, 'serious games' are those games that attempt to integrate real world data, to use real world scenarios, to hack into game engines designed for social change, or to tackle real world problems.[1] These games may focus on education, training for service, disaster relief, hazardous occupations, etc., on crime reduction or the redesign of public spaces such as transit systems and parks, or create frameworks for team building and planning. Put simply, they are games created with the intent to affect the world or cause critical thinking.

The critical and theoretical themes discussed in earlier chapters, as well as the practice events of the preceding chapter (contemporary female artists' computer games) are implemented as 'serious games' for intervention. In this chapter, I first describe the activist work game of Anne-Marie Schleiner, whose work advances the feminist game concerns raised in chapter five, and then relate my practice project *[domestic]*. I follow this with a discussion of the design involved in the collaborative project *RAPUNSEL*.

The specific questions these games address are: Can an approach to game design be derived from some traditionally feminist concerns (for example, fairness, diversity)? Can 'real world' games be hacked and redesigned for the purpose of engaging with feminist concerns? Working from the methods outlined in chapter three and building on the research into girls' play styles in games, the designers of the games in this

chapter engage in engine hacking, alternate storytelling environments, and educational scenario creation.

II. Game Work by Anne-Marie Schleiner

Anne-Marie Schleiner's curatorial projects, performances, and computer game projects allow users to see that the design of computer-based communities and computer games are of political consequence: the types of structure imposed by systems, and what users are allowed to do within systems, are significant conceptual constructions that Schleiner exposes. In her creative pieces, Schleiner spends much of her energies exploring online characters, reworking first-person shooter style games (such as *Counter Strike*) and responding to or undermining networked computer gaming experiences such as *America's Army*. She began work creating game patches as art projects in 1998, posting these to public sites for others to share. Her *Parangari cutiri: Epileptic Virus Patch* (1998b), intended to "induce eye twitches" and blur the line between 'software' and 'wetware', consisted of a code-patch for the *Marathon Infinity* game to make the textures on the screen twitch and flash (Schleiner 1998a). In 2001, Schleiner curated a show called "Snow Blossom House" in which she chose 18 Japanese-style interactive doll games to exhibit, most of which were gathered from an interesting pop culture movement called 'KISS dolls' (paper dress-up dolls for adults, often with adult content and themes). Dolls included a range of figures such as the *Alexei Goth Doll by Anna Mae (Figure 6.2):* the characters ranged from male, female, and transgendered, to half-animal half-human.

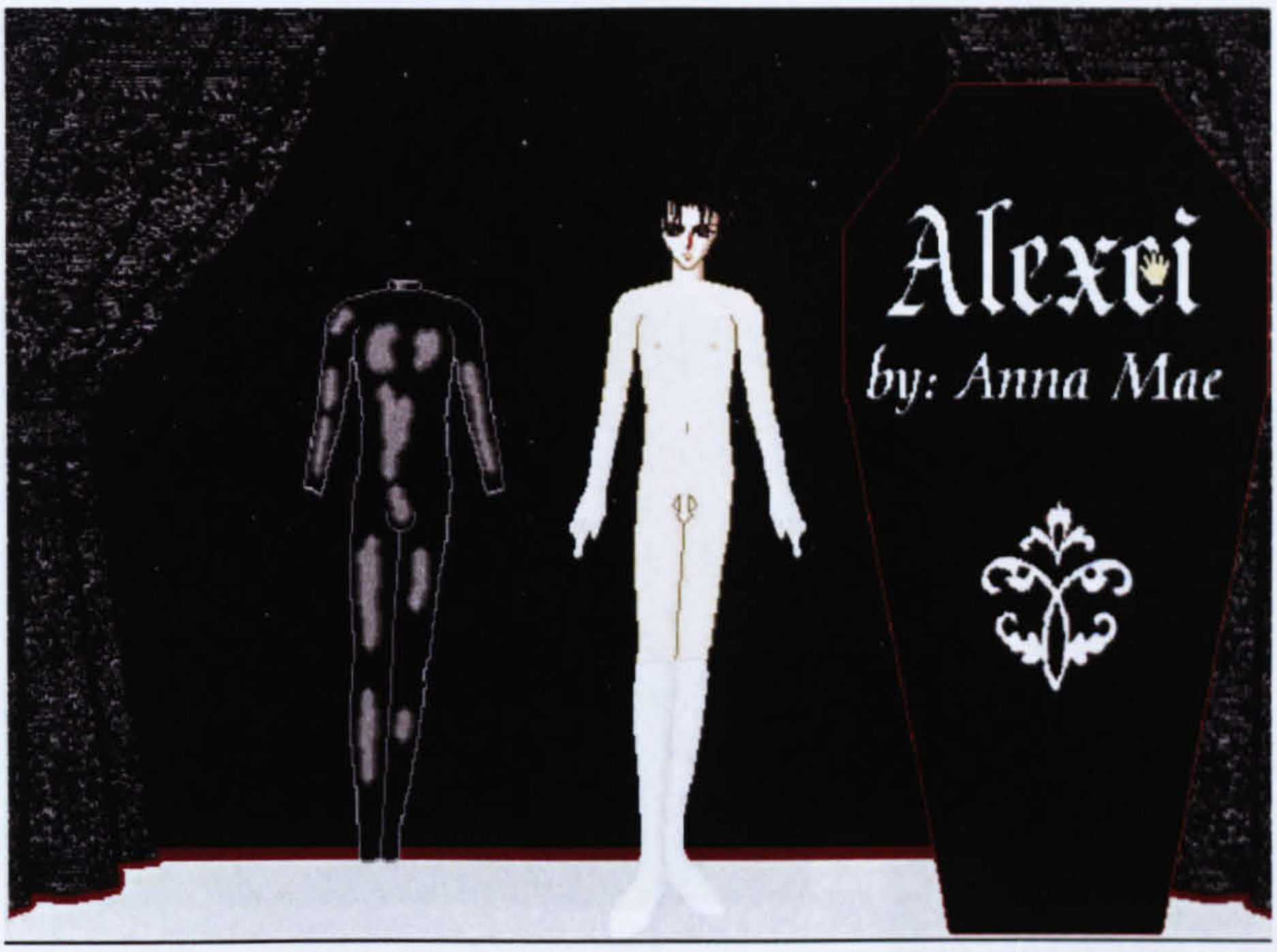


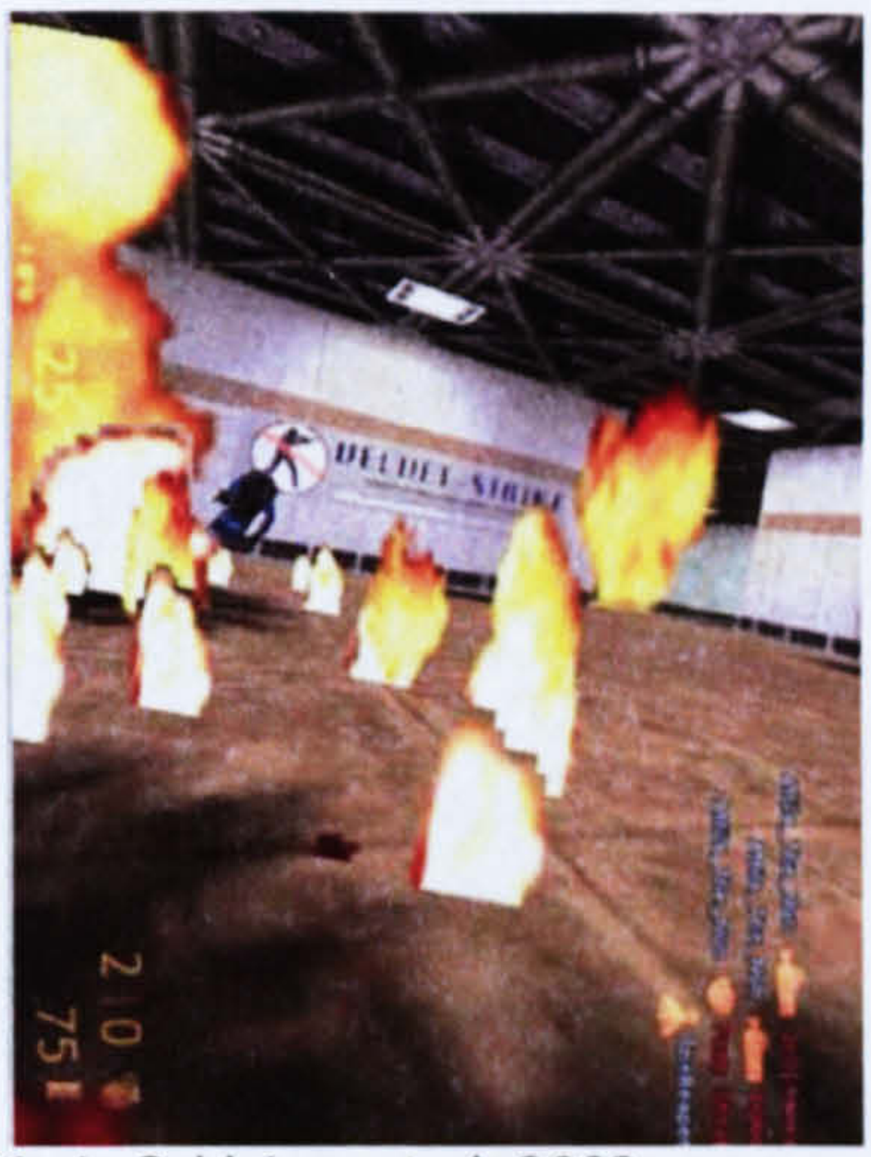
Figure 6.2: Alexei Goth Doll*, by Anna Mae*

Schleiner's collaborative work with the *Half-Life* game modification, *Counter Strike*, called *Velvet Strike*, was an effort to create counter-military graffiti for the network shooter game *Counter Strike* as a response to President Bush's military invasion of Afghanistan. *Counter-Strike* is a first-person shooter game in which players enter an immersive three-dimensional realistic game environment, blasting away enemies as they run around the game.

Figure 6.3: Velvet Strike*, 'Spray Paints' for the game* Counter-Strike*, by Anne Marie Schleiner et al., 2002*

Schleiner and her collaborators created a set of 'spray paint' graffiti image-textures that players shoot at the walls and other objects in the game world. Participants in the *Velvet-Strike* initiative download the anti-war spray paint graffiti created by others, and can create their own for other

players to use. Graffiti ranges from cute, cuddly bears to anti-war slogans and propaganda.



Figures 5.4, 5.5: Scenes from Velvet Strike*, by Anne Marie Schleiner et al, 2002*

Some makers of game art modifications position themselves, like Schleiner, as artists critical of contemporary games, using existing game 'mods' as a way to subvert expected game experiences. Schleiner's 2004 work, *Operation Urban Terrain (OUT): a live action wireless gaming urban intervention*, however, used an existing game environment designed to recruit soldiers into the United States Army as a site for performance. The game, *America's Army*, was commisioned after the success of many first-person shooter games as a way to entice young American men to join the military.[2] The game costs nothing to download and play. It has a strong following of primarily male players, and the gaming population includes a large right-wing Christian contingency. Armed with a mobile Internet connection on a bicycle, a battery-powered video projector, and a laptop, Schleiner and friends projected their intervention into *America's Army* on and in public sites in New York City during the 2004 Republican National Convention. They played the game live as they projected the game onto the buildings and streets of New York, intervening in regular player's operations and discussing anti-war and anti-military content in the game.

OUT is considered by its performers to be an artistic intervention in the public space of online games and cities, working to keep:

> Republicans OUT of New York. The United States OUT of Iraq and the Middle East. Escalating worldwide Militarism and Violence, from whatever source, (right wing oil hungry U.S. capitalists or wealthy Islamic fundamentalists), OUT of Civilian Life. The U.S. Army and Pentagon computer game developers OUT of the minds of prebuscent [sic] gamers (Schleiner 2004, par. 3).

Games thus can be seen as critical frameworks, and when used in the context of artistic practice, become environments in which player-participants can make meaning. This is an active process, where meaning is created in the space between the player and the game through interaction. This scenario of a situation which produces more than simply an 'active reader' impassioned writer is akin to Barthes' notion of 'the scriptor': "the modern scriptor is born simultaneously with the text, is in no way equipped with a being preceding or exceeding the writing, is not the subject with the book as predicate; there is no other time than that of the enunciation and every text is eternally written *here and now*" (Barthes 1977, p. 145 [ital his]). Games represent such a 'performative' text, with blurred authorship and meaning creation actually *enacted* as the game unfolds. There are additional deep ties to interventionist feminist art practice with this way of thinking about the fluidity of performance and simultaneous reading and authoring of texts.

Schleiner argues in her curatorial essay, "Cracking the Maze," that "Many artists, art critics, new media critics and theoreticians have expressed a disdain for games and game style interactivity, in fact, to describe an interactive computer art piece as 'too game-like' is a common pejorative. But considering the increasing popularity of computer games with younger generations, even at the expense of television, it

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seems perilous to ignore the spread of gaming culture" (1998b, par. 4). The tension between popular culture (specifically, games) and art is an important, yet perhaps passing, phenomena, as museums and galleries from the Barbican Gallery in London to the Whitney Museum of American Art have shown artistically created computer games in the 21st century.[3] In any event, artists' appropriation of games Schleiner's commitment to activism through games and her use of games in large-scale, public spaces present a potent approach to social change.

III. The *[domestic]* Project, 2003

The 2003 project, *[domestic]*, is, like Schleiner's 'modding' work, a computer game built upon a commercially produced game engine, capable of being distributed to those who already own the engine. The engine, called *Unreal Tournament*, functions as a first-person shooter game: players in such games typically blast away enemies as they explore a maze-like collection of rooms. As digital artist Mark Tribe has observed, *[domestic]* could be called a Situationist-style 'detournement' of *Unreal Tournament* (Tribe 2005). Instead of a narrative of violent conquest within the original *Unreal* game, however, I used the game engine to create a home-like environment for the exploration of childhood memories through photographic images and fragments of text.

Unlike Schleiner's work, the practice project *[domestic]* does not directly critique violent shooter-style games or the interaction players have within them. Rather, a different set of questions is posed. *[domestic]* asks, Can 'high tech' game spaces, often violent, cold, or impersonal, be subverted to create the inverse experience: an effective game that personalises the space and therefore politicises it? Can

navigation in a 3D game operate as a means of challenging or 'un-playing' the conventional workings of shooter games? Essential to the investigation of these questions were the theoretical essays of Gilles Deleuze and Felix Guattari, who note in their theory of nomad art that artists must no longer see their object of study, but must "lose themselves" into the practice: to become "without landmarks" in smooth space (1993, p. 493). In the case of serious games, game makers actively choose to engage with or against software industry practices to create an openness, a place of exploration, with orientations which are not constant but which instead constantly change (Deleuze & Guattari 1993, p. 493). *[domestic]* literally removes familiar landmarks from the gaming space, creating both an artwork environment and a site for subversion of larger gaming tropes. After such defamiliarisation processes, Deleuze argues, 'striation' can emerge from artistic shifts away from typical situations in the form of drawing, documentation, and other methods which surface from the horizontal and vertical normative spaces of commercial artworks, forming "diagonals" to a situation and providing continuous variations (Deleuze & Guattari 1993, p. 498) The space of creation becomes a 'haptic' rather than visual space, nomadic and definable by the tactile relationships which emerge from the material and the context. In games, this haptic quality translates as the actions in the game such as running or jumping; the performative aspects of un-playing emerge as a way to engage in serious issues.

A. The *[domestic]* Process

The process behind the creation of *[domestic]* is one of variable direction that allows for a variety of forms to emerge. As mentioned, the play space in *[domestic]* is created from a first-person shooter game paradigm, and an automatic feeling

of suspense and action is generated due to that genre's established custom of requiring players to run through the space. Counter to commercial games, the space in *[domestic]* is intended to be personal, impressionistic, and disorientating. *[domestic]* explores visual and interactive devices for depicting personal spaces (snapshots and disjointed texts, for example) with the aim of symbolising memories of the home and family. A mix of photographic images and text layer the environment to reframe the act of memory—specifically, how childhood experiences intersect with spatial, temporal, and visual conventions within the interactive environment.

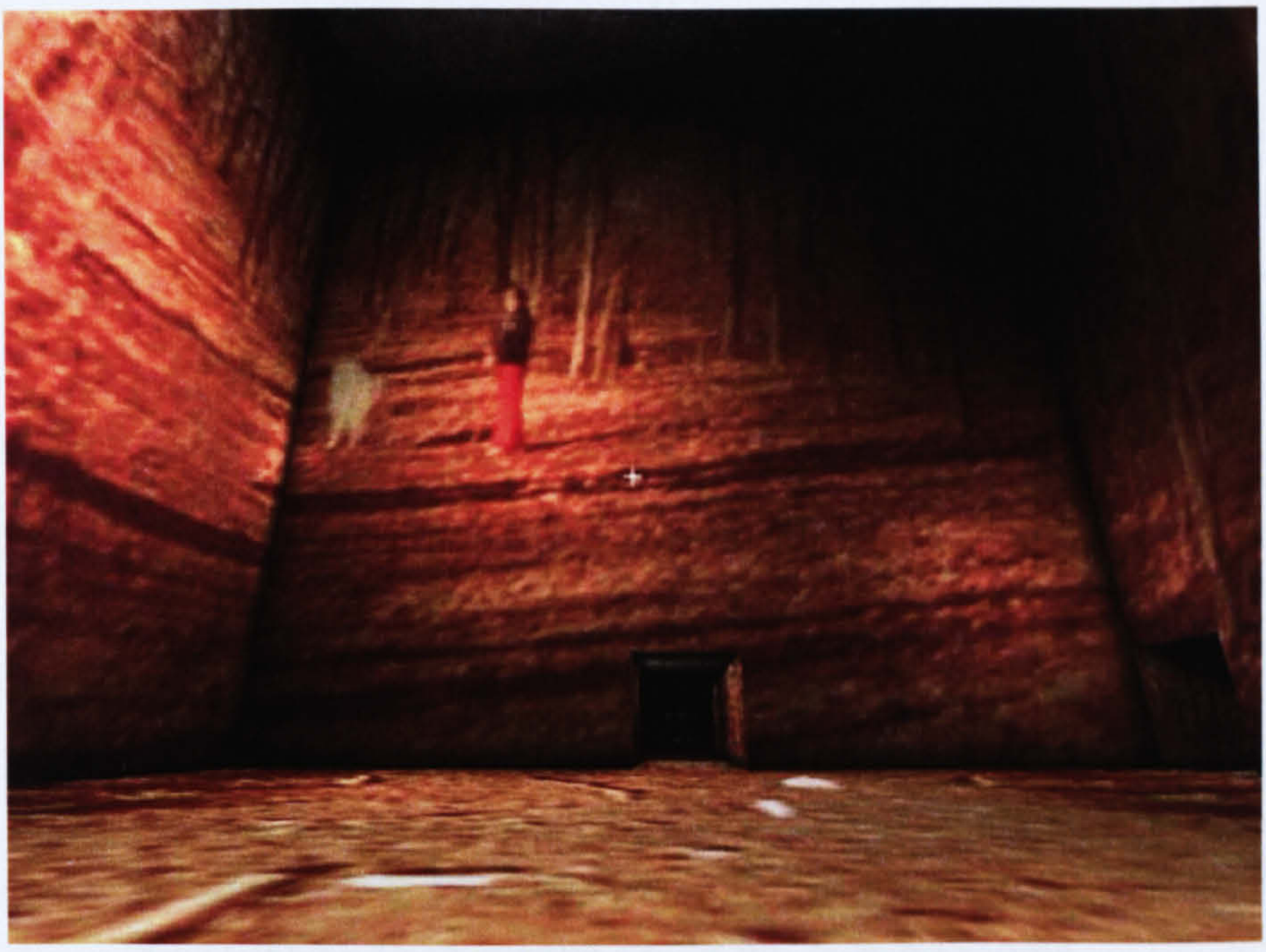

Figure 6.6: [domestic], *The introductory room, by Mary Flanagan, 2003*

Three dimensional action games generally consist of warehouses, military bases, and other large, open architectures that include obstacles such as crates, pillars, and large objects. As a computer game modification working off of these conventions, [domestic] breaks with these standard architectural arrangements by creating a claustrophobic, conceptual environment in which images take on iconic connotations. The picturesque family snapshot, for

example, is mingled with the crisp square framework of a computer game level, creating a particular sense of scale and abstracted sense of space. All of the images used, with the exception of the fire texture, were actual family snapshots from my home.

In an exhibition setting, among both male and female players, the most common form of play was for players to go through the game as though it were following commercial conventions and gradually go back to reread and re-experience the environments. I observed that female players explored the game in less goal-directed fashions when compared to male players, and male players tended to act as though the game is competitive and chose to run through the space, shooting. The level was created by mapping the entire space of the memory/event, which was the basis for the game.

The specific memory I used to structure the level emerged from childhood memories. One Sunday when I was about 7 years old, my family (with the exception of my father) had left home to walk to church through a small forest that separated the two places. Afterwards, as we approached the house from a path in the woods, we noticed smoke billowing from the windows of the house. We ran towards the house, knowing my father was inside, in order to try to save him and put out the fire. The task in the recreated game space, then, is to enter the house and put out the fire in the burning rooms.

To create this project I customised what is called a 'game level' or 'map'. This process produced not a scientific map per se, which might erase how it was produced and might allow a kind of disengagement. Rather, the creation of the scene's map followed a kind of psychogeographic mapping practice, where the story guided the interpretation and manifestation of space. By this, I mean that I literally blended the various spaces I experienced – church, woods, paths, and my childhood home—into one self-contained 'map' devoid of

traditional spatial landmarks. This fits well with Deleuze's notion of nomad art as discussed earlier, where spaced can be created on multiple levels. This 'map' started as a conceptual model, moved to a drawing, and then became a three-dimensional 'world' in which players in the game environment could enter. In this game level, I build three-dimensional, claustrophobic and abstract architectures derived from the routes and spaces I remembered: from the church, to the house, to the interior of the house itself.

Figure 6.7: [domestic], *by Mary Flanagan, 2003*

The process in *[domestic]* involved theorising exactly which techniques could produce a break in conventional interaction and how such breaks should be created, focusing on text or the creation of geometries. *[domestic]* functions as an installation in the virtual environment of the game engine—I utilised the *Unreal Tournament* game engine much as a conventional installation artist might appropriate the space of a gallery or the street and transform it into a three-

dimensional artwork. The work approaches interactive storytelling conventions by loosely depicting a childhood memory of the house fire. Created primarily of texts from within and extruding out of the walls, the work's creation of the virtual house becomes a container for memory, and player movements retracing the memory. Players shoot 'coping mechanisms' at the walls and at the growing fire within the space in order to contain it as it threatens to consume the world—and the player. In the space, the 'normative' home begins to disintegrate, literally, as text emerges and is pulled from the walls.

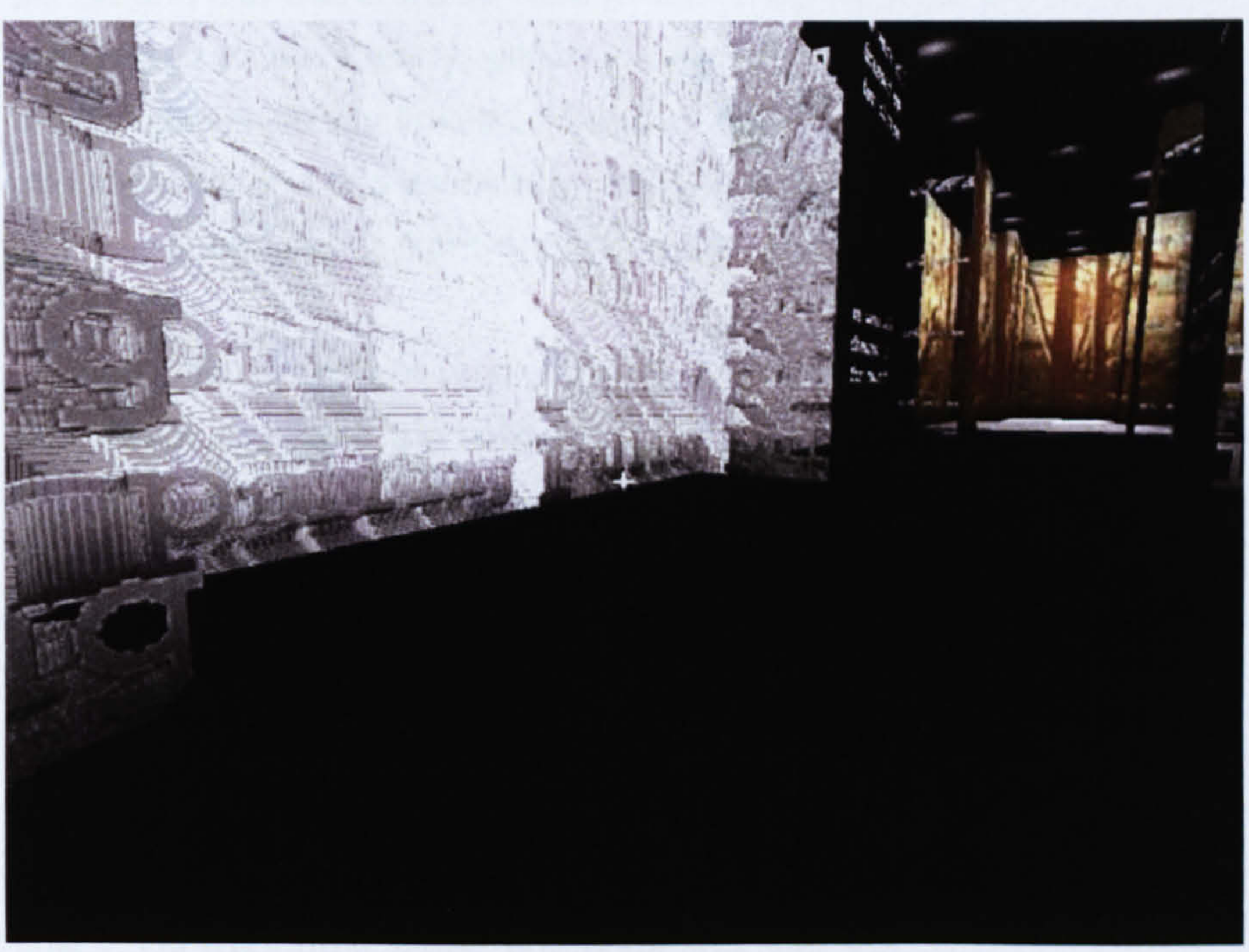

Figure 6.8: Text emerging from the walls, [domestic], *by Mary Flanagan, 2003*

B. The [domestic] *Work in Context*

As the second in the practical work (following the first, *[rootings]*), *[domestic]* subverted several kinds of expectations. First, of course, the interaction behaviour was challenged; players in this 'modded' version of a 3D first-

person shooter shot 'coping mechanisms' into the game world rather than any bullets. This style of interaction thus disrupts player expectations of typical, commercial-style shooting games.

Second, typical gaming space was challenged by the simultaneous abstraction of the space, and the use of photographic images to connote the real. In this way, the approach to the creation of *[domestic]* closely followed de Certeau's notions of critiquing everyday culture through movement (1984). While de Certeau's theory was written from the point of view of experiencing physical space, here this focus on movement is virtual, but it is also not localised per se and can therefore be read in the larger context of electronic culture. Clearly, game experiences like *[domestic]* create spaces closely linked to the way physical spaces are experienced, and this association brings spatial associations into computer games from the real world (Fuller & Jenkins 1995).

Third, game content was challenged by the importation of a personal story and the subsequent interaction with the fire theme. Finally, game goals were challenging; *[domestic]* had no overtly stated game goal, and was thus open-ended. Unlike *[rootings]* there is no 'win' state designed into the experience. It is open-ended in its design. Exploring this space requires a different sense of time and duration, a different way of reading space that commercial 3D game environments offer. Player rewards come from exploring the space, confronting the fire, and engaging with the documentation/recreation of eerie memories. Like *[rootings]*, then, *[domestic]* succeeded on a number of metrics, including activating the elements of the 'methodology of subversion' detailed previously. Neither the 'win' state of *[rootings]* nor the open-ended state of *[domestic]*, however, challenged players toward social change from within the game, though these offered more diversity than typical game play.

Therefore, after looking at the ways *[domestic]* functioned as a set of activist strategies, I theorised that a combination of game goals might meet both the activist goals and bring into being female player's interest in the game. It was with this theory that I began work on the *RAPUNSEL* project design.

IV. The *RAPUNSEL* Project, Years 1 and 2, 2003-2005

As documented in prior chapters, in the last decade there has been a great deal of debate about gender and gaming. On the one hand, female characters in games are flourishing, with female monsters on the attack and tough girl heroines or beguiling clue-giving characters proliferating in action, adventure, and first-person shooter games. On the other hand, women are barely involved in the creation of computer games. In this second part of chapter five, I continue my research by wearing an altogether new 'hat'—that of a serious games activist designer.

The interdisciplinary *RAPUNSEL* project (Real-time, Applied Programming for Underrepresented Students' Early Literacy) serves as a test case for this research and builds on work established before the thesis work began (see *The Adventures of Josie True*, http://www.josietrue.com). *RAPUNSEL* (http://www.rapunsel.org) is an online computer game / learning system research project with the goal of enabling children, especially underprivileged girls, learn to programme computers. It is being developed at the Tiltfactor Laboratory at Hunter College, New York, and the Media Research Laboratory at New York University.[4] The goal of the project is to make a 'self-teaching' environment where girls are motivated to learn Java programming incrementally through a game environment in which they will be able to master fundamental programming concepts and hopefully transfer this knowledge to situations outside of the project.

As a third site for practice research for Playculture, *RAPUNSEL* provided an ideal test bed. A central difficulty in using the 'methodology of subversion' outlined thus far in the thesis in order to challenge gender stereotypes inherent in computer culture is that one may inadvertently create new problems. Categorising 'girls' together in a group is a potentially problematic task for which there must be a clear reason, such as working overall for gender equity issues science and technology. Attempting to create something for 'girls' as a category obviously navigates a dangerous border zone between personal, specific, lived experience, and generalisation. 'Girls' are as diverse in their interests, abilities, and tastes as any other category of people (e.g., 'students' or 'the French'). In gender research in the games industry, designers must be able to work towards gender equity without falling into stereotyping traps, realising the inherent breadth and contradictions of categorisation. The goal of this approach is to design for a multiplicity of experiences, parts of which could be co-opted or rebuilt entirely by the users. Focusing on a few of the niche interests expressed by girls involved in this work, then, may help diversify all kinds of game goals and address numerous types of play styles. Therefore, one way to address designing for girls is designing for a multiplicity of play styles and providing diverse thematic content.

RAPUNSEL involves a large multi-disciplinary group of collaborators seeking to design and implement the experimental game prototype intended to encourage interest and competence in computer programming among middle-school-aged girls. The project includes several interlinked components: engineering, paedagogy, interface, graphics, networking and more. In my role as lead designer of the game I brought the questions and background research from the Playculture work to bear on this project to produce interesting and useful results.

In addition to the three project leaders, an interdisciplinary team ranging from 6 to 14 additional researchers works on the project, including graduate and undergraduates studying the disciplines of art, computer science, and media studies. In addition, parents, other scholars and game designers, experts from industry, and children have contributed from their specialty areas on an ad hoc basis. A specific subgroup of the 'outreach' aspect of the project is known as the 'design partners'. These are groups of middle school girls who engage with the project and act as project advisors. The girls offer informal feedback and game/character ideas to our team (Druin 1999).

As the lead designer, I used the methodology in this thesis, which is aligned to aspects of research being conducted in the Values in Design effort (Nissenbaum 1998, Flanagan, Howe & Nissenbaum 2005). Incorporating these ideas but emphasizing a particularly feminist aspect of the work, the goal of the *RAPUNSEL* design is to address the needs of players generally overlooked by software industry (and even academic) designers, asking questions such as:

- What are the kinds of social situations and game goals that can be effectively incorporated into multiplayer game design specifically for girls?
- What kinds of values do these decisions bring to the design of software considered 'activist' by some mainstream designers?

In attempting to answer these questions, in addition to what had been already articulated (for example, by the *RAPUNSEL* research group, or in the funding proposal) as the primary project objectives, several other core goals emerged during the course of the project: encouraging authorship, collaboration and creativity; altering status-quo perceptions and biases concerning gender; and enacting new possibilities,

overall, for game reward systems for a variety of types of learners and players. As these goals emerged they were seen to embody larger values such as liberty, equity, and collaboration (to name a few) which support feminist gaming practices. The values which emerged also raised challenging question about how to recognise and integrate new themes and values as they surfaced during the course of research.

What are girls looking for in games? In this research towards *RAPUNSEL*, I began with the Playculture historical play styles research as well as researching the current girls game market (what games are already popular with women and girls). I compared statistics and sales figures to what our New York-based design partner group reported. The work with design partners at this stage of the project took the shape of informal meetings; therefore the work with the design partners has generated primarily qualitative material. Large-scale assessment and research will begin in the third year of the project, when design prototypes are developed which can track user input carefully and monitor knowledge transfer from our project out to the rest of the world. However, the design principles are well established from this partnership.

On a national scale across the US in early 2005, games such as *The Sims II* and the Internet based game *Neopets* prevail with the target demographic in the US and the UK (Lawson 2005, Waugh 2005).

Figures 5.9, 5.10: Sims Online, *Left, and some scary* Neopets, *right. Girls report in our design partner meetings that they like action and love to be scared.*

Locally, design partners disclose different preferences. Almost every child involved in the *RAPUNSEL* research project (approximately 60 in early 2005) enjoys some kind of game, on or off screen.[5] The design partners report that if they were to choose what they wanted in a computer game, they would like some level of action. The children express a desire to be challenged, judged, or compete in a tournament or competition. The design partners have also reported that they wish to be 'scared'. Many participants think that some sort of action, violence, or fighting should be included within most games. Extreme situations and narratives over more traditional kinds of play are popular. However, in every group we work with, there is a consistent segment of the population that appreciates care-giving games, who like to decorate things (for example, houses in *The Sims)*, and who play card games. For many of the 11- to 13-year-old design partners involved in the *RAPUNSEL* research, most have never heard of the online game *Neopets* even though it has over 70 million, primarily female, users; rather, favourite games include violent action games such as *Mortal Combat* and *Grand Theft Auto*.

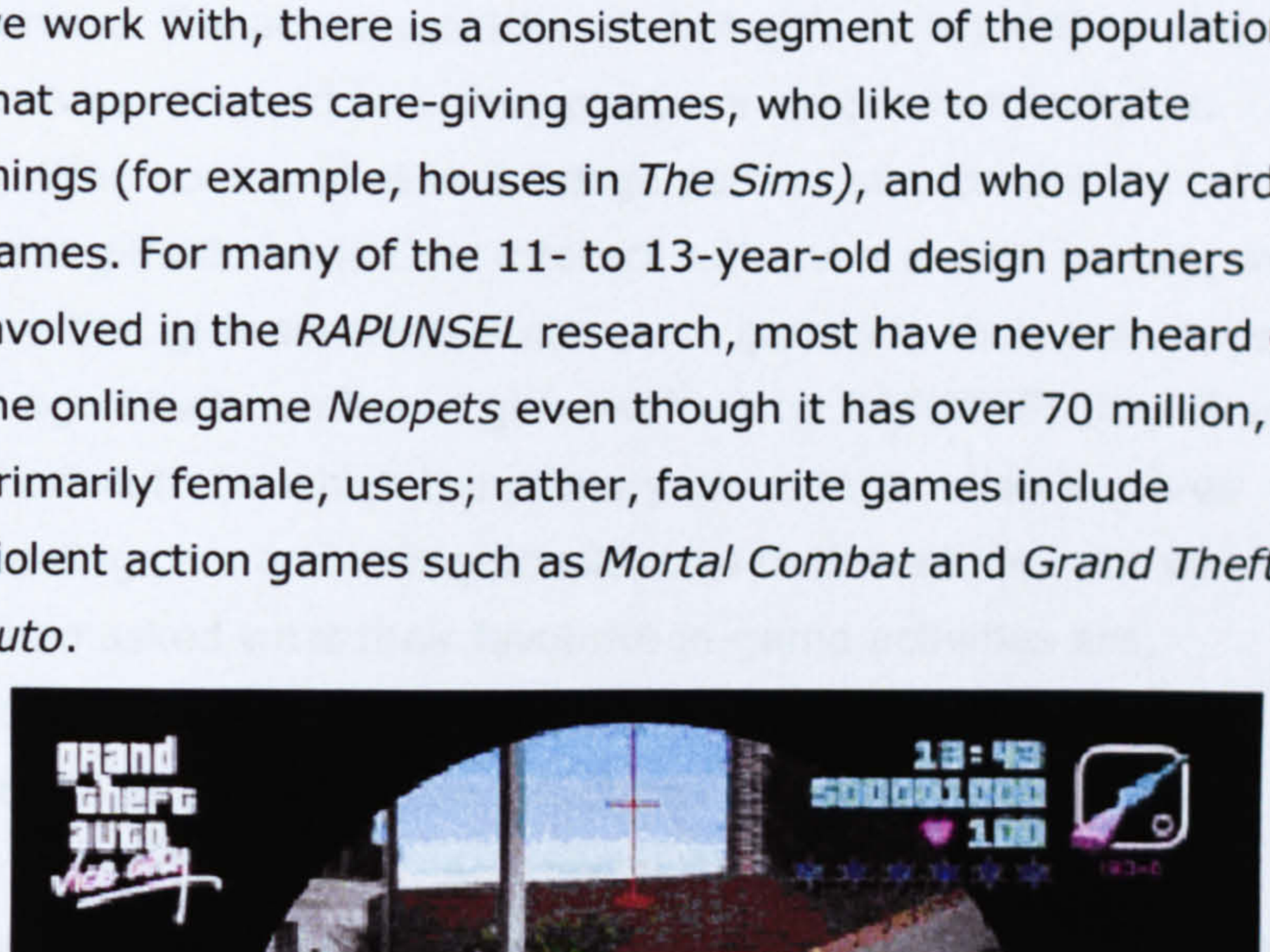

Figure 6.11: Games favoured by girls in 2004 include the notorious Grand Theft Auto: Vice City.

Most of the *RAPUNSEL* design partners on the team are African-American girls who live in public housing projects in the metropolitan New York area. Girls' families predominantly contain several siblings, and all report having access to one or more game consoles at home or at a friend's home. Interestingly, girls who report growing up in all-female households with mothers, and many times, grandmothers, seem to have access to fewer games and report playing more off-screen games such as card games and board games. It seems that while some girls still like playing house, others—perhaps many more—prefer more traditionally 'masculine' or violent games. But this observation merely scratches the surface. The actual realities of what girls do when they play such games, and how they play, are much more complex.

When one probes in a design partner session and asks what girls do while they interact with even violent games, we find that girls sometimes play such games in their own ways. A significant number of girls working on *RAPUNSEL* play *Grand Theft Auto* (in which the primary game interaction involves stealing cars and killing people) two to three times per week; when asked what their favourite in-game activities are, however, several players responded that they pay no attention to the mission structures in the game, but rather, prefer to "just drive". Another participant noted that she "wanted to help people" after her brother went on an in-game rampage with a baseball bat. In some first-person shooter games, girls will go off on their own and test out the virtual body to "see what I can do".

A. RAPUNSEL Process and Game Design

The hypothesis in approaching this project as part of the Playculture research required deep design for certain aspects of the game, and indeed, this design had to incorporate certain elements in order to advance gender equity. The

decisions involved in goal design or representation in the game, for example, might prove instrumental in achieving the central activist goal to educate girls to become programmers. We learned through prior work and with the design partners that women and girls tend to be attracted to particular themes in games. As noted in chapter three, female participants also have a tendency for subversive play; girls have historically taken on the 'hacker' position, challenging the status quo through their play. "Play can cure children of the hypocrisies of adult life", notes anthropologist Brian Sutton-Smith. Smith argues that the most basic forms of children's play, from early childhood to the teen years, offer narratives which help children negotiate the risks of the real world: "These stories exhibit anger, fear, shock, sadness, and disgust" (2003).

Could these kinds of subversive and unsettling trends translate into a new kind of game goal or game architecture that did not develop in *[rootings]* and *[domestic]*? Or, more specifically, that commercial-style, educational, and art-games could incorporate? Could points or rewards for the completion of cooperative goals (as opposed to points for individual achievement or no set goal) emerge as important intra-game goals and become higher-level project goals for socially-engaged game research? The choice of a reward structure that celebrated, for example, creativity and sharing could sway user experience dramatically by supporting a preference for these principles in the methodology, even though an alternate reward structure might have worked just as well to teach the project's skill set. In this case, embedding social values into the creation of *RAPUNSEL*, then, was part of a larger feminist design strategy geared toward diversifying technological experiences.

Early on, the design was based on the 'care-giving' structure, one that is found within games such as *Neopets* and *The Sims* series; it is a popular game model for female

players. Care-giving games are those in which players care for (feed, clothe, etc.) virtual pets, people, or other creatures; activities may include cleaning up after a pet, shopping for a *Sim* character's household objects, or making sure the character has eaten. Yet these goals also support consumption and capitalism, themes critiqued in many artists' games, including *[rootings]*. They also do not promote sustainability or the power of the group. In the revised *RAPUNSEL* design, the themes for the game design are based on prior play style research and expose subversive play practices through a focus on the balance between collaboration/cooperation, empowerment, and autonomy.

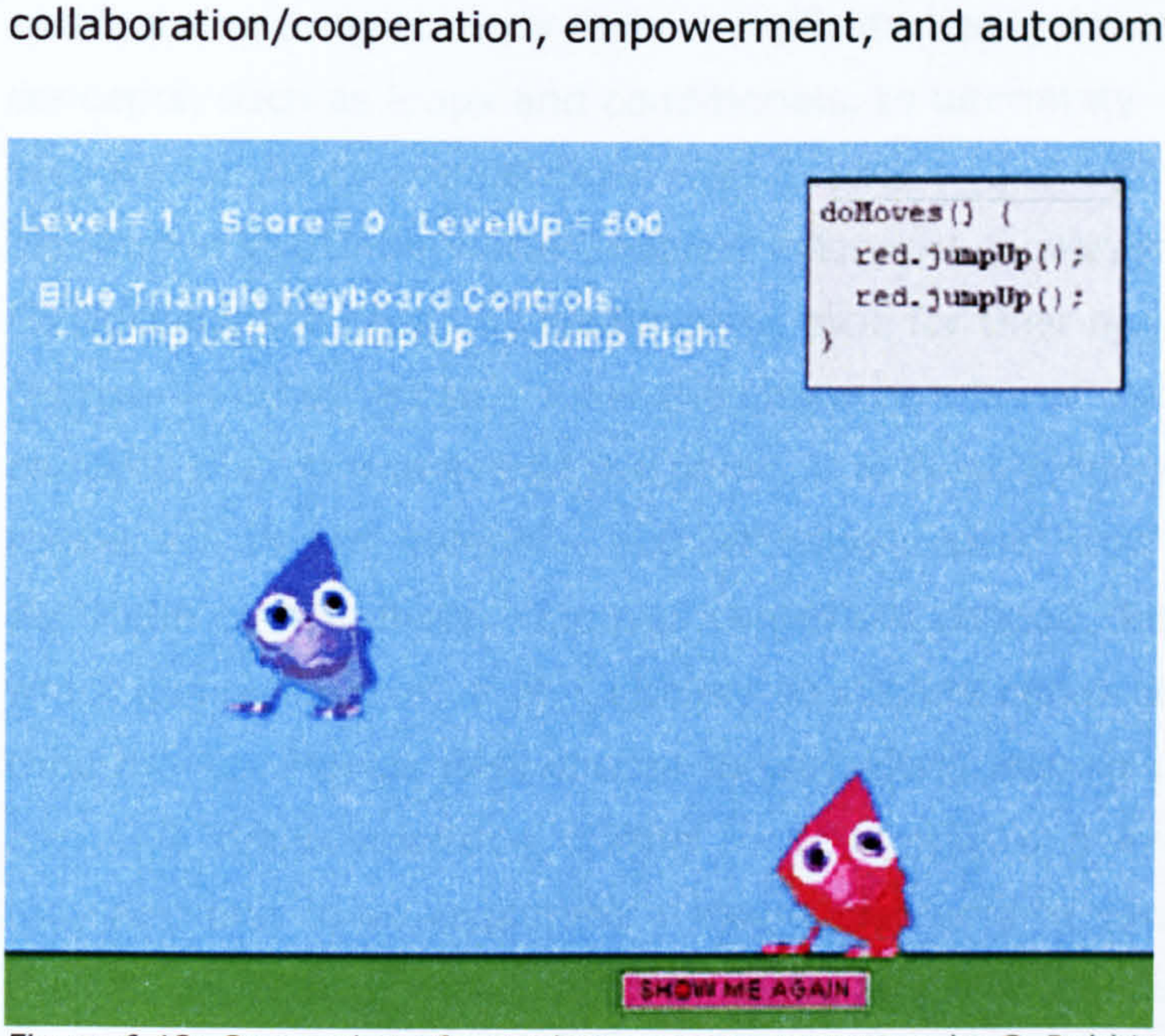

Figure 6.12: Screenshot of a work in progress prototype by C. Robbins, used to see if girls can relate characters to programming

The *RAPUNSEL* design was created to provide an easily understood game and learning system to teach programming concepts. It uses the project goals—learning programming—as essential components of the overall game goals and reward system. The game economy, which focuses on technical, social, and creative currencies in the game system, offers multiple reward tracks.

A brief synopsis of the game is helpful in revealing the game economy. The Peeps game takes place on a dance-driven planet that is populated primarily by two groups of creatures: Peeps and Gobblers. Both groups like to dance because it is in their nature to do so, but Peeps learn their dances the hard way, while Gobblers learn through copying or taking moves from Peeps. These two groups are enemies. Gobblers live in the Underworld, while Peeps live primarily in their own 'home base' called a 'crib'. Players control Peeps to 'teach' them to become good dancers within short lessons. At first they learn short sequences of moves, then save these and learning progressively more complicated programming concepts, such as loops and conditionals, to ultimately prepare for dance competitions with Gobblers (and with other players) in the Underworld Gobblers intervene, however, threatening the Peeps by stealing the code for their dance moves—in other words, "what the characters know". While dance is the main theme of the game, it is loosely defined, as moves are also be defensive and offensive martial arts, and particular combinations of moves can evoke voodoo like spells which can put a 'trance' on Gobblers so players can protect their moves. Players may choose to play along with this narrative in a competitive, 'battle' mode of play, or players may also play in an 'exploratory' mode, choosing to decorate their home base or make music (avoiding confrontations like the dance competition).

Players are motivated to move on to advanced levels in multiple channels. First, the game rewards players for various activities with measures such as PeepsPoints, Creds, and Originality stats, which are earned as the player learns more about code and dance moves, saves them, and invents new ones that others will use. Players invent new moves by learning more code and dance moves, save them, and invent great new ones that others will use. Second, players may be motivated to advance in order to earn PeepsPoints and find

pieces of code to facilitate home base decoration and music gathering. Third, players may be motivated to move between levels due to a need to retrieve code from Gobblers. Fourth, social recognition in the system on any number of levels is a significant motivating factor.

The Peeps game reward system incorporates a familiar, points-based system. It additionally incorporates alternate reward routes. This combination game economy was devised to address divergent game goals. First, we incorporated PeepsPoints, which represent the technical currency in the game. PeepPoints are earned through doing the interactive lessons. Lessons offer more points for activities the higher the level of the lesson; therefore, in the introductory levels, points are accumulated very slowly. Points can be gathered up and exchanged for new music loops or editing time in the music editor studio in the Underworld, or players can exchange PeepsPoints in the Underworld for items to decorate the home base. Players may someday be able to adopt extra Peeps to incorporate them into complicated dances using PeepsPoints.

Second, we incorporated 'Creds', or credibility, which represents the social currency in the game. Creds are based on reputation and respect within the game and are earned when a player's dance or music is used by another player in the system. If someone in the system uses a player's code (which is watermarked with original author), the originator get to make new music and save it in the system. The name of the author of the code sample is stamped into a saved piece of code. Players post their sequences and characters in the shared, game-wide library, which has a voting forum, and other players rank the moves or dance sequences. In a sense, Creds are a kind of 're-skinning', in the sense that objects are created and replaced by players to gain a better and better reputation but may also lead to wild kinds of interpretation by players. This social system of exchange provides a key motivation in the game, as 12.4 million US teenagers use

instant messaging regularly and social software is especially popular with teens (Chmielewsi 2004, Grinter & Palen 2002).

Finally, the design involves a reward for creativity. 'Originality' represents the creative currency in the game. The sheer number of unique, modified pieces of saved code in a player's repertoire constitutes the originality index. Saving any dance move automatically saves it to the public library. However only modified pieces of saved code—things that are not exactly like what the system has provided a player—will help the player develop originality points. This practice provides a site for one of the Playculture themes of subversion, 'un-playing'. *RAPUNSEL* players must hack and rework the system for Originality points. The Originality rank empowers players.

Figure 6.13: Screenshot of a work in progress prototype used to discover if girls can programme the character Esmerelda to dance

In the case of *RAPUNSEL*, as users create their environment, it contains their own artefacts. These artefacts become, in a sense, separated from external ordering powers and rather reflect the individual and collective nature of the game. *RAPUNSEL* allows the user to experience his or her world as a unique encounter, thereby not only reflecting the user's interactions, but to a larger degree the user's

redefinition of self within technoculture. Gillian Rose has asserted that basing feminist understandings solely in real spaces and real materials can only produce masculine styles of power; she argues that distinguishing between real and imagined spaces, as oppositions along a dichotomy, is troublesome to theorising notions of space and place from a feminist perspective (Rose 1996). Her arguement for the collapse of the distinctions between real and imagined space is particularly meaningful to the analysis of virtual spaces created in games. The zones between physical space and virtual manifestations of space have perhaps permanently altered the way we gather, process, and understand knowledge. Could it be that the third space offered in between virtual worlds and the physical, articulated through computer games, will become the foundation for a feminist generation of technologically driven culture?

It is through this re-writing of space—indeed, the re-writing of computer code itself—in which players of *RAPUNSEL* participate in subverting dominant norms and find a site to express their own intention and goals. *RAPUNSEL* offers a situation in which girls may generate their own kinds of knowledge

V. Conclusion

> We can manifest a different future. And we must. ...It is not enough to simply call for this and then hope for the best; we need interventions at the level of popular culture. Culture workers at their best make just such conscious interventions—mindfully creating technologies that cause us to produce new myths, and mindfully making art that influences the shape of technology (Laurel 2001, p. 103).

Every game includes some amount of social engineering, and mechanisms for such social mechanisms are inherent in

the game goals, interaction styles, and architecture of each and every game. Subversion requires the shifting of authority and power relations towards a non-hierarchical, participatory exchange, disrupting our belief in the overly naive picture of social reality that hegemony depends. We can help make systems that change things, and the designs of both *[domestic]* and *RAPUNSEL* are steps in this direction.

In this research, the work of politically engaged game artist Schleiner and my own practical work *[domestic]* were useful for exploring the implications of utilising first-person shooter games in different contexts. Schleiner's games *Velvet Strike* and *[domestic]* take on the interaction style of popular games to explore their possibilities within larger cultural intervention.

Through the research into play systems, this thesis has examined the ways in which girls participating in play activities (such as doll play) worked against these same play codes and environments, and how players in popular computer culture use intervention in games as a play style. In this chapter, I demonstrated that 'serious games' utilise the methodology of subversion through their re-skinning, un-playing, and re-writing activities. They also activate specific aspects of these categories. For example, *Velvet Strike* and *[domestic]* re-skin the first-person shooter, but *RAPUNSEL* is designed at length for many stages of re-writing. *RAPUNSEL* focused less on re-skinning but much more on re-writing new activities and narratives in the game. In *RAPUNSEL*, players go further to re-write, literally, behaviours and actions by writing the code themselves. This act of inscription takes re-writing and un-playing on to the next level of importance through its empowerment to girls, and further supports the methodology framework.

The *RAPUNSEL* game prototype evolved into a test bed for taking the developing questions and utilising them in a commercial-style, instead of artistic or experimental style

game; this context translated across games created for different purposes and for different audiences.

This practice project also expanded the categories in the methodology; this is essential, for the goal of the Playculture research is not merely to succeed in this particular case, but to discover and articulate the general methodological principles proposed through the artistic practice that could be usefully applied in other cases. The following chapter details the 'checklist', a guide others can follow to create projects that bring to the forefront feminist principles of addressing multiple perspectives, types of desires, and authorship through the game goals; interesting girls and women in technology; and empowering women and girls to repossess their own voices in technoculture.

Notes for Chapter Six:

[1] Here the term 'serious games' is used in a way aligned with games researchers and practitioners such as the Serious Games Summit 2004 participants including Jim Dunnigan, John Wilson, Ian Bogost, Gonzalo Frasca, Aaron Thibault, et al.

[2] America's Army cost over $3 Million US and was created by professional game makers for the US Military

[3] The 2004 Whitney Biennial included "Super Mario Brothers: Clouds" by Cory Archangel, the New York Guggenheim included Archangel's "I Shot Andy Warhol" game in a 2004 exhibition, the Barbican Gallery in London exhibited the "Game On" exhibition in 2002, and the "Bang the Machine" computer gaming art exhibition showed in early 2004 at the Yerba Buena Arts Centre in San Francisco. It is interesting to note that few major computer gaming art exhibitions have taken place in London, for the ICA was the site of the first computer arts exhibition in the world: "Cybernetic Serendipity" was curated by Jasia Reichardt in 1968.

[4] *RAPUNSEL* is a large multi-disciplinary collaboration aimed at designing and implement an experimental game prototype intended to encourage interest and competence in computer programming in middle-school aged girls. This ongoing, three-year project includes a variety of interlinked components: engineering, paedagogy, interface, graphics, networking and more. These components map roughly to core expertise of the three project leaders: coding tasks primarily managed by the computer science team led by Ken Perlin (New York University); game design led by Mary Flanagan (Hunter College), a new media designer; and educational assessment led by Andrea Hollingshead (University of Illinois).

[5] Crazy Eights and Solitaire are popular card games with women and girls as reported in informal interviews.

THE CHECKLIST:

developing the game design checklist using an activist project.

7

> *To question the habitual … how are we to speak of these 'common things', how to track them down rather, flush them out, wrest them from the dross in which they remain mired, how to give them a meaning, a tongue, to let them, finally, speak of what is, of what we are* (Perec 1997, p. 205).

I. Developing the Game Design Checklist

If the goal of the Playculture research is not merely to succeed in producing more and more effective practical works as an individual artist, but to discover and articulate the general methodological principles generated through the theoretical work and practical examples that could be usefully applied in other cases, such a scheme of enquiry needs to be extracted and articulated from the practical examples. In chapter five, I detailed *[rootings]* and described how it was

created with the 'methodology of subversion'. In the last chapter, I demonstrated that the serious games *[domestic]* and *RAPUNSEL* also utilise the methodology of subversion outlined early on through their re-skinning, un-playing, and re-writing activities. I noted how *RAPUNSEL* expands this work by extending the 'methodology of subversion' by creating a new kind of game design, that is, the redesign of game goals to specifically interest a wide variety of girls, on a larger project involving many people.

To reiterate the approach of the thesis, the incorporation of feminist goals here is important. Feminist researchers have advocated searching for a multiplicity of answers to complex questions (Roberts 1981, Oakley 1981). In addition, Donna Haraway's (1991) concept of partial or situated knowledges is essential to use in order to create alternatives to 'objective' observations and inquiries; in games, players play in a variety of ways, and any one point of view not is not an absolute truth, but rather one of many points of view and truths. This multiplicity is also demonstrated in theories about play. In addition to the aspects of play already defined in chapter one of this thesis, Huizinga notes that when playing, a child makes "an image of something different, something more beautiful, or more sublime, or more dangerous than what he usually *is*" (1970, p. 32).

Thus, customisation and the ability to extend the self through the game play and within the game environment are essential elements to both ingredients for good play and for feminist design. Play can also foster the "formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means" (Huizinga 1970, p. 32). Using these ideas, it became imperative in projects like *RAPUNSEL* to allow players to create social groups, but not depend on social interaction alone to address multiple play styles.

Figure 7.1: Real world design and feminist approaches: Flanagan discusses feminist design with members of Still Water New Media Centre, University of Maine.

Designers work in a certain time, place, and situation; they work in a particular medium and genre, and they use a variety of materials. Because any creative act is complex and usually generates what Schön calls 'unintended consequences', in Schön's picture, the logic of confirmation in experimentation is replaced with that of affirmation; the latter involves setting and altering priorities as a result of findings and not on reaching a final, or definitive, resolution. Schön notes, "it is the logic of affirmation which sets the boundaries of experimental rigor" (Schön 1983, p. 155). Other reflective frameworks, such as 'critical technical practice' advanced primarily by computer science practitioners in artificial intelligence (for example, P. E. Agre and M. Mateas) have similar aims and are employed by a growing number of technologists committed to the notion of a continuing dialogue between values and practice. In sum, reflective practice encourages designers and technologists to verify that both their design goals and their values are supported. More on this information is included in section A, below.

II. Game Design Heuristics

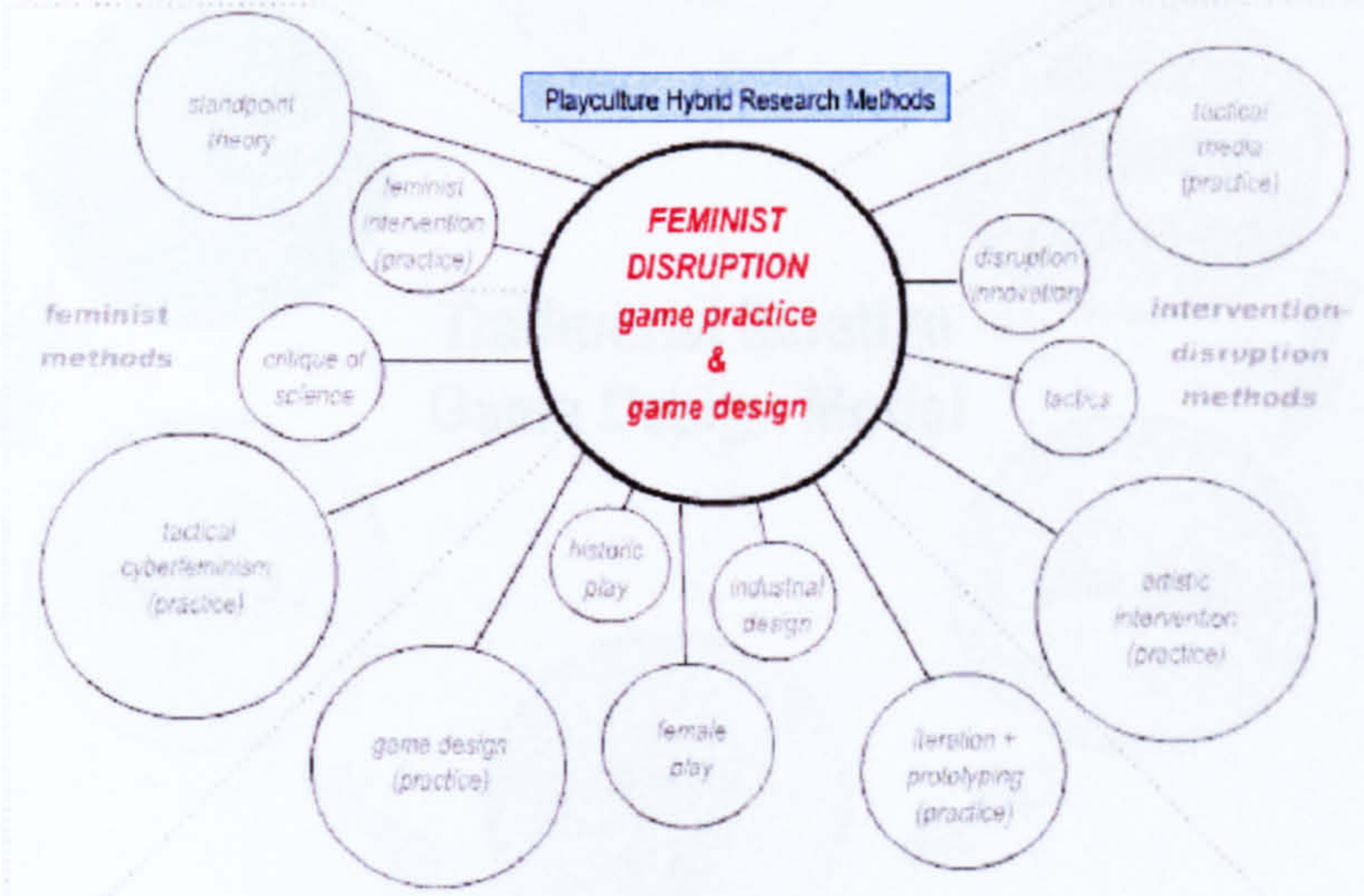

Figure 7.2: The hybrid research methods discussed in chapter three

A. New Game Methods

Any design heuristic would be ill conceived without working in the existing game design context. For example, many game designers practice an iterative model of design (See Salen & Zimmerman 2004). As noted in early thesis chapters, such design is cyclical and is followed by standard game development groups:

- Set a design goal to create meaningful play
- Develop the minimum rules and assets necessary for the goal
- Develop a playable prototype
- Play test
- Revise or elaborate on the goal
- Repeat

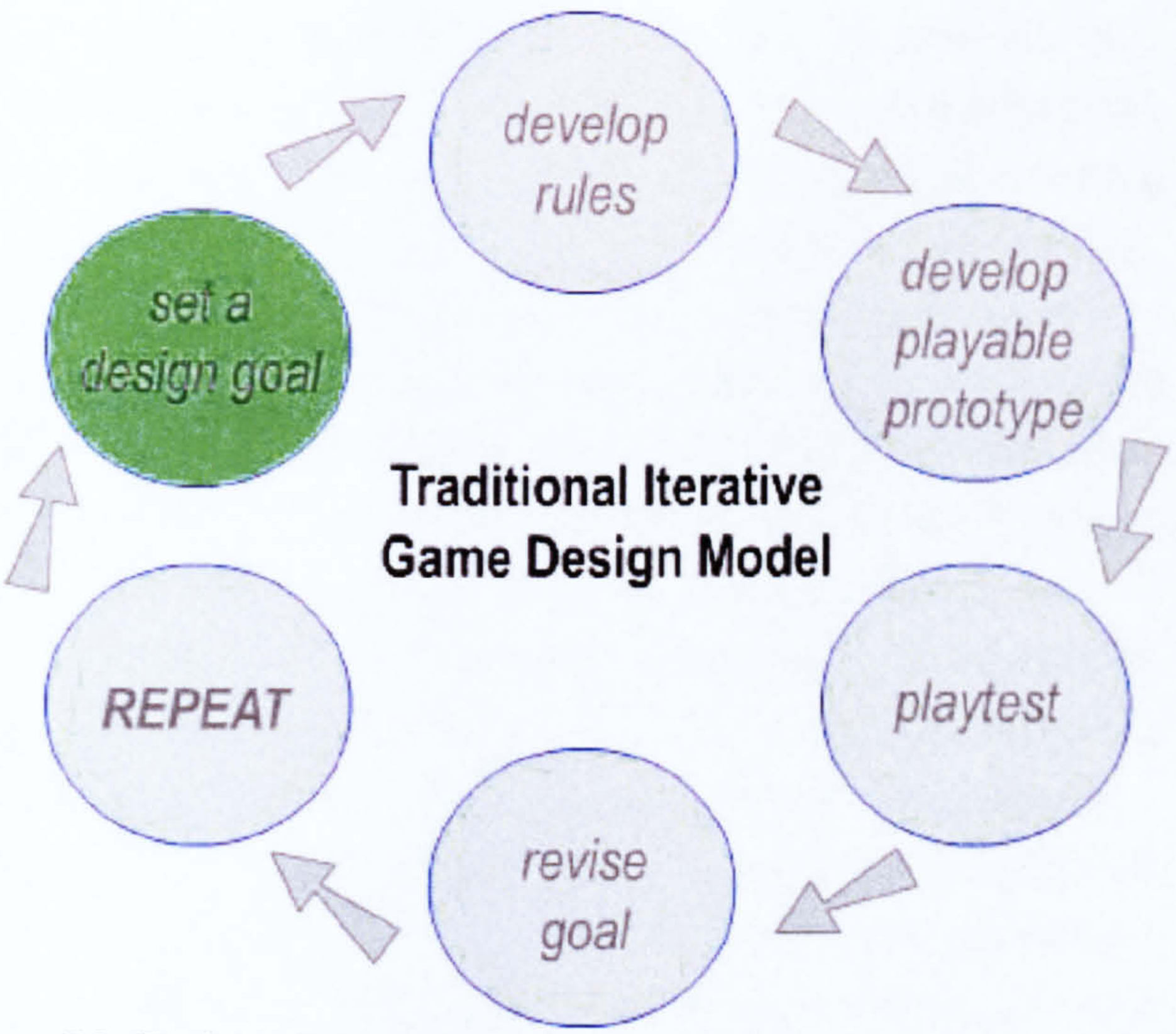

Figure 7.3: 'Traditional' game design model

Thus, the traditional game design model creates concrete steps towards realising a particular design faithfully, and iterating such a design until it has been adequately matched in production. Generally, a designer or team may choose to iterate one small design goal, or one small aspect of a particular game, or they may choose to iterate the entire game system. Thus this model is scalable to many types of play and development.

In this chapter, I wish to problematise this process by suggesting that the iterative cycle needs also to address social issues and goals alongside—or *as*—design goals. The process emerging from the Playculture research integrates several new key elements into this iterative model to be more fully articulated throughout this chapter.

In each of the practical works, testing with paper or electronic prototypes proved to be an especially important tool for verifying that design decisions adequately handled the complexities of feminist principles (such as equity in power relations, or enhancing diversity) in the design process. In

such testing, it was necessary to determine not only that a particular feature or idea was successfully implemented in a technical component, but also that its implementation did not detract from prior decisions that were functional, interactive, or conceptual in nature. Additionally, as significant research suggests, working in tight, iterative cycles can be an effective approach to software design in that such cycles facilitate the incorporation of feedback from a variety of sources (Bødker & Grønbæk 1991, Shneiderman 2000, Freeman-Bensen & Borning 2003). Throughout any design project, it is essential to verify that aspects of the design can be mapped back onto the functional, technical and 'values-oriented' categories of concerns any developer may have. Throughout the course of the Playculture research, the overall feminist goal of gender equity provides a good example of one such 'values-oriented' aspect that needed to be included into each of the practical works.

Even if values are considered in the course of a particular design trajectory, areas of design including playability, entertainment value, and in the case of *RAPUNSEL*, pedagogical components must all be weighted. This is especially true in the case of game design. Balancing each of these goals with competing objectives (as provided by players, testers, clients or funders, etc.) increases the challenges inherent in large-scale projects like *RAPUNSEL*.

In the rest of this chapter, I outline how one might set about balancing these goals in what I call a 'feminist iterative game design' model.

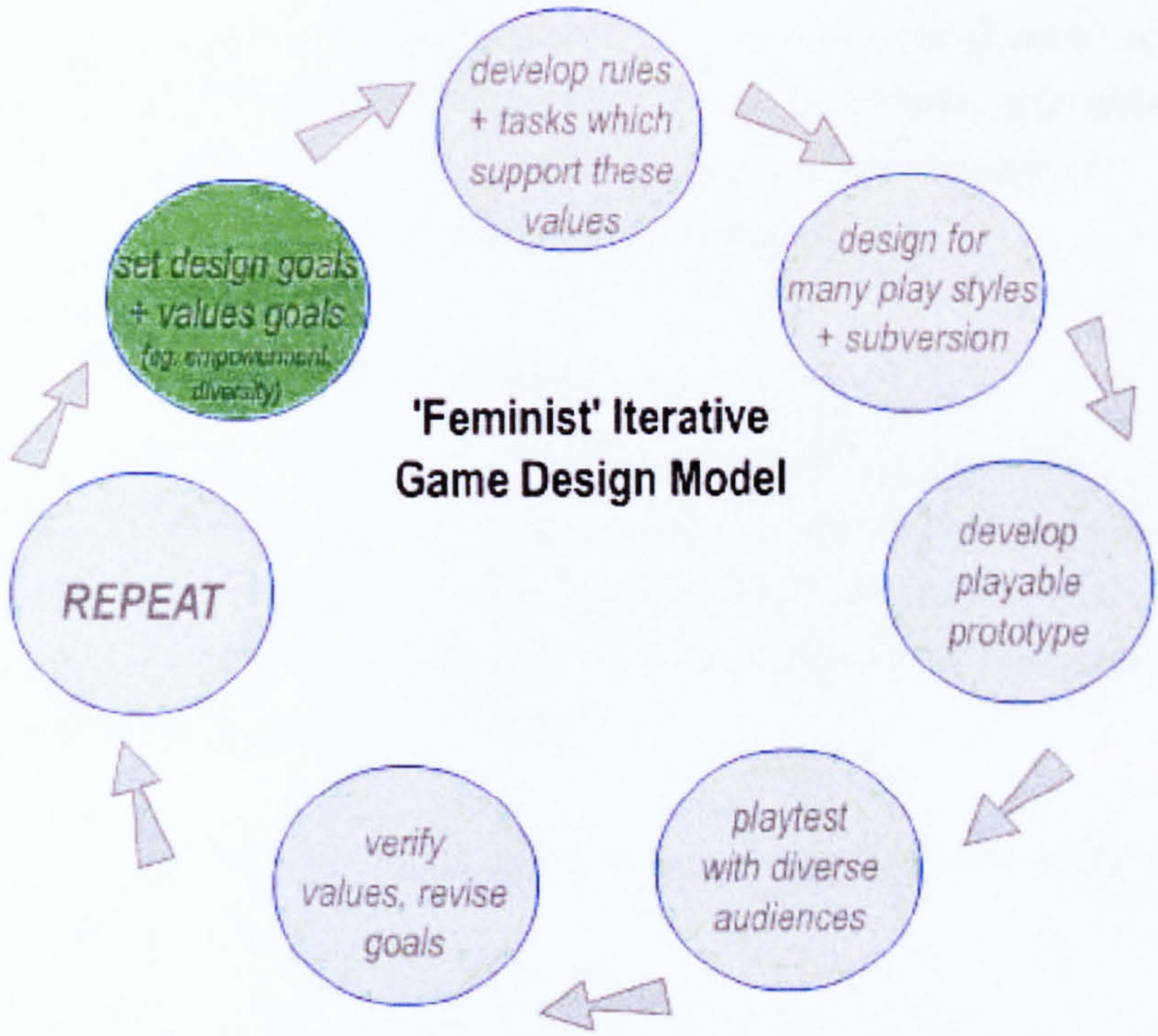

Figure 7.4: 'Feminist' iterative game design model which supports feminist, intervention, and game design approaches

III. The Game Design Checklist: Feminist Game Design Heuristics

The remainder of this chapter attempts to capture the multi-faceted (sometimes theoretical, sometimes intuitive, sometimes obscure) collection of design concerns into a concrete list supported by the practical work thus far created.

This checklist was derived specifically from the trajectory of the Playculture research and is informed by many aspects, including existing heuristics to evaluate the playability of games (Desurvir et al 2004), research concerning gender equity in computer environments (McLester 1998, Honey et al 2002), values in design research (Nissenbaum 1998, Flanagan, Howe & Nissenbaum 2005), and my own experience as a professional designer of 15 years. These elements are integrated into the process of the creation of the list and

tapped, even unconsciously, through the 'laboratory work' of the project. A systematised, feminist interventionist approach to game design could be extremely useful in all corners of game design, from activist to commercial work.

A. Initial Stages of the Project

At the beginning of any project, participants detail the goals of the project. Designers meet with clients, brainstorm, analyse requirements, create functional specifications, and draft the design and architecture of the project. Proposals and design documents are drafted.

1. What is the design goal of the project? Articulate the design goals.

2. What are the social goals of the project? (Social goals refer to those principles the project is to promote or embody).

3. How has the prior work in the field addressed your goals in terms of equity and empowerment? Where is it lacking?

4. Is the project politically charged? If so, will the game be complex enough to embrace several modes of play and several types of readings?

5. What are the interests of the parties involves? These parties may include: the funders, the designers, the fields in which the makers have been trained, the institution within which one works. Are aspects of the design addressing these interests while balancing the design for equity and access?

6. How is success defined? What is a successful game and what values will make it successful in terms of the project?

7. As the iterative cycle of software development suggests, cyclical work is important in the game design process. Re-examine point one. Are the values dimensions and social dimensions inherent in the articulation of project goals?

8. What are the living conditions of the players and conditions of reception of the game (economic, spatial, cultural)?

Make sure the game designer is aware of the following:

1. Interests of the audience/design partners regarding games (favourite games).

2. Interests of the audience/design partners outside games (such as social interaction, chatting, drawing).

3. Larger social dimensions of the project.

4. The technical trap: i.e., completing technical tests/functional requirements and interests that detract from the attention to social goals (focus on game engine or physics mechanisms of the game world, for example, without knowing larger goals, values, social dimensions of the project).

5. There will always be other interested parties/ stakeholders who will wish to have input into the game (parents, curators); this could damage the project if feedback is integrated too late into the development.

B. Development of the Project

The development stage of any project includes the largest number of people creating artwork, sound, audio, and code for a given project. Project development is focused on the production of the game, and tricky 'technical' issues such as enjoyable game play or 'content' issues such as character stereotypes can be addressed through the use of prototyping.

1. How do intra-game goals map to the project goals?

2. How will the project handle tricky issues of representation, stereotypes, and power relationship within the game?

3. Does the design support group dynamics, social interaction, and collaboration?

4. How does the design balance competition and cooperation?

5. Is the game fun and/or engaging? To many players?

6. What production process promotes equity in the game play experience for the user?

Make sure the game designer is aware of the following:

1. The game designer must check each iteration of the project to a) make sure the iterations match the project goals and b) verify the decisions that have social implications/consequences are not made by the implementer(s) without discussion.

2. The intra-game goals must support both the project goals and reflect the empirical evidence

regarding women's game preferences.

3. Research suggests that collaboration and communication are key aspects of games popular with women.

4. Users will want to guide or change the experience, and the design will have to account for customisability and flexible play.

Figure 7.5: Flanagan discusses the design of RAPUNSEL with members of Still Water New Media Centre, University of Maine.

C. Testing and Iterating the Project

Testing various aspects of the software is essential to any project. Games need to be tested for many aspects – functionality, playability, the integration of values and social goals, appeal to the target audience, optimisation, and more.

1. Can individual aspects of the game be verified through game play success or other empirical means?

2. Can the larger activist goals be verified through game play success or other empirical means?

3. Does the audience participate in the development of iterations and testing? How?

4. What surprises arose during the process? Does the research support the incorporation of user feedback?

5. Are functional requirements met? Are larger game goals embedded in project?

6. How are particular aspects of social issues and values changing with each iteration?

Make sure the game designer is aware of the following:

1. The game designer must check each iteration of the project to a) make sure the iterations match the project goals and b) verify the decisions that have social implications/consequences are not made by the implementer(s) without discussion.

2. The project must meet functional requirements: efficiency, robustness, etc.

3. The game designer must embed project goals and values.

4. The game designer must not embed new values, particularly values that are antithetical to the core project values.

5. Sometimes tradeoffs must occur. Designers must be careful in their design choices to avoid choosing a functional requirement over a social goal.

D. Finalising the Project

When software projects are created and multiple iterations of a design have been tested, designers must test and verify the project's final implementation.

1. Does the implementation of the project match the initial goals?

2. Are there unexpected outcomes? Does the research support the incorporation of user feedback?

3. Is the project popularised, marketed, and distributed in a way that supports the project goals?

Make sure the game designer is aware of the following:

1. The project may have unintended effects; reflection on the practical work could help the designer find out where the pitfalls of the process and content lie.

2. Packaging is part of the game itself; design a package to reflect the overall vision for the project.[1]

IV. Deriving the List

The development of the game design checklist detailed above can be mapped onto the workings of the RAPUNSEL project. While many factors and the research presented here all informed the list, here, I outline which aspects of RAPUNSEL contributed to the creation of this list.

A. Initial stages of the project:

1. What is the design goal of the project? Articulate the design goals.

As we saw in the last chapter, the *RAPUNSEL* project was created to help girls learn programming. Several feminist goals involving equity, self-realisation, and empowerment were part of the overall game goal, in support of existing research (Maguire 1987, Haraway 1991, Harding 1987). With *RAPUNSEL*, part of the project's purpose articulated at the onset was "to address gender inequities" and meet the technology learning needs of a sector overlooked by the software industry by constructing "a game environment to teach disadvantaged middle-school girls to programme computers" (Flanagan, Hollingshead & Perlin 2003). Thus, gender equity and social equity are not mere lofty goals but are also built into the functional definition of the project to be designed.

2. What are the social goals of the project? (Social goals refer to those principles the project is to promote or embody).

The designers found that in addition to what had been articulated (e.g., in the funding proposal) as primary project objectives, several other core goals emerged. These included authorship, collaboration and creativity, altering status-quo perceptions and biases concerning gender, and enacting new possibilities, overall, for game reward systems, which would apply to a variety of types of learners.

3. How has the prior work in the field addressed your goals in terms of equity and empowerment? Where is it lacking?

The project's core hypothesis is that the significant absence of women in technology development, particularly in computer science and computer programming, is due in part to the style in which fundamental scientific and mathematics subjects are taught. There is much documented evidence on the lack of women in science and technology (Brunner et al

1997, Flanagan et al 2003, Inkpen 1995, Von Prummer 1994). To remedy this lack, the design strategy was to incorporate socially-oriented interaction and environments with the subject areas. For female adolescents, online computer games are a significant pastime for the target audience. Thus, an engaging social game in which programming is an essential and, importantly, integrated skill for cooperative, creative, and even competitive interaction (all as prior research suggests) became an important project goal (Kafai 1995). For the *RAPUNSEL* project, these novel goals are political as well as practical, for they work to meet girls' diverse needs and empower them by rewarding many types of interaction with programming (AAUW 2000, Mubireek 2003).

As an expert in the field for decades, renowned educational theorist and software designer Seymour Papert demonstrates that teaching programming can easily be linked to larger social goals. Papert notes: "... programming is the most powerful medium of developing the sophisticated and rigorous thinking needed for mathematics, for grammar, for physics, for statistics, and all the 'hard' subjects. In short, I believe more than ever that programming should be a key part of the intellectual development of people growing up" (2005, p. 38, see also Papert 1993).

4. Is the project politically charged? If so, will the game be complex enough to embrace several modes of play and several types of readings?

The project was immediately socially and politically charged, for the collaborators had the desire to meet the needs of those players generally overlooked by software industry designers and empower them. This desire generated the following questions:

- What kinds of social situations and game goals can be effectively incorporated into multiplayer game design specifically for girls?

- How much context is needed to provide the motivation to programme?
- Will girls be able to make the leap from chatting (a text-based linguistic system) to programming (also a text-based linguistic system, but one which is logical, ordered, and derived from algorithmic rules)?
- What kinds of ideas do the particulars of design decisions bring to the software, and is 'activist' design fundamentally opposed to 'fun' or enjoyable-to-play game design?

In attempting to answer these and many other questions in the iterative, feminist game design process, the team discovered additional goals which either

a) conflicted with the project goals or

b) enhanced the larger project goals such as equity, autonomy, creativity, and empowerment. This discovery process also raised challenging questions about how to recognise and integrate new goals and values as they emerge in the practical work.

5. What are the interests of the parties involves? These parties may include: the funders, the designers, the fields in which the makers have been trained, the institution within which one works. Are aspects of the design addressing these interests while balancing the design for equity and access?

Because *RAPUNSEL* is a large, interdisciplinary collaborative project whose result is not only traditional research results but an experimental game prototype as well, the project has included many interdependent aspects ranging from software architecture design to paedagogy to interface and graphics, to character design and dance moves design. One of the project's outcomes, the game itself, will be distributed online and must in many ways 'rise above' and mitigate the interests of the parties involved to serve the

target audience. Keeping a focus on the design partners means that, with conscious effort and conscious discussion and decision-making, the team could watch for outside influences on the design.

The team specifics should be noted, however, for background and training, as well as economic, ethnic, gender, and other factors play an important role. The research team included three principal researchers, as well as graduate and undergraduate students in computer science, media studies, art, and design who worked to contribute ideas, character models, images, and interaction schemes. Those not on the production team but integral to the project included teachers, parents, scholars and other interested game designers, and experts from the game industry. These participants contributed from their own unique perspective. Important to the project were middle school age girls themselves, who not only tested out software and gave advice but truly acted in the capacity of "design partners", who provided both formal and informal feedback concerning the game (Druin 1999). As a process-driven project, the team works together in weekly meetings as well as through an online WIKI resource.
Discussion of new designs and prototypes as well as user input and assessment were conducted here.
As a significant note in terms of the interests of the involved parties: as a research-focused project without commercial interests, the designers were lucky to be able to constrain the input of concerned parties to a limited few. Certainly the project would have been strongly affected by the interests of publishers and distributors, and because of this, it is important to note the significant struggle that developers must engage in with the commercial world to participate in feminist design. In a game project, each involved party has specific desired outcomes: example, a social scientist may wish to study how groups communicate in an online game, while a computer

scientist may wish to publish peer reviewed essays on technical aspects of a project.

6. How is success defined? What is a successful game and what values will make it successful in terms of the project?

In *RAPUNSEL*, success is measured according to three criteria: a) whether we are teaching some level of programming, b) whether children are enjoying playing the game, and c) that the game promotes the project values of gender equity, autonomy, authorship, collaboration and creativity, altering status-quo perceptions and biases concerning gender.

7. Re-examine point one. Are the values and social dimensions inherent in the articulation of project goals?

We found that while the values dimensions were articulated in the project goals, the team encountered other values related questions when deciding how to situate their project in relation to currently popular computer games, which are generally competitive and contain problematic representations of gender and race (over-sexualised characters, dark monsters vs. white heroes), social and hierarchical markings (advanced players with wealth and power), and interaction styles (killing vs. protecting vs. collaborating). The multi-disciplinary research team, in conversation with other design participants representing a diverse range of sectors and interests, generated much discussion of values. Furthermore, as a social system where users engage in frequent interactions and exchanges, *RAPUNSEL* naturally raises considerations about how software design leads to the engineering of social relations, including right and wrong behaviour in the treatment of others.

8. What are the living conditions of the players and conditions of reception of the game (economic, spatial, cultural)?

Most of the design partners and prototype testers involved in *RAPUNSEL* lived at or below the poverty line in the city of New York. Most did not have computer games at home and a few of the children (less than 10 percent), did not have a permanent home, but were shuttled back and forth among neighbours and family members. Thus, the stability of the play environment was not ensured. In addition, most did not have computers at home but did, in fact, have XBox and PlayStation game consoles.

B. Development of the Project

The development stage of *RAPUNSEL* included many people creating artwork, sound, audio, and code for the project.

1. How do intra-game goals map to the project goals?

The *RAPUNSEL* game included a novel reward system, which incorporated several reward outcomes. Most of the reward was accomplished through a familiar, points-based system. However, collaboration, creativity, and competition activities formed the heart of "the game economy. This interaction system was devised to address diverse player interests and play styles. The team incorporated points as PeepsPoints, a kind of currency in the game. PeepPoints can be earned through completing the interactive lessons, which offer more points for activities the higher the level of the lesson. The points can be exchanged for new music loops or or special secrets in the Underworld. Players can also exchange PeepPoints in the Underworld for items to decorate the nest. Second, in support of the feminist goals for a wide variety of voices and decentring of authority, we decided to reward

social interaction and engagement as well as technical skills acquired (FPWG 2002). Therefore, the team incorporated 'Creds', or credibility, which represents the social currency in the game. Creds are a "reputation and respect" status metre within the game and are earned when another player uses a player's dance or music. When created, a player's name is stamped into a saved 'Move' so that when it is exchanged, they receive credit. A voting forum serves as an area for competitive play, where members of the community rank the moves of various players.

2. How will the project handle complex issues of representation, stereotypes, and power relationship within the game?

Some of the challenges of the project design came from the users, as they bring with them a complex range of interests and values to *RAPUNSEL*. Player's perspectives on preferences, context of play, and player community interest were surveyed in meetings with design partners. It was here that, as with *The Sims* or other historic play models, subversion arose as a theme. The popularity of subversive play among our design partners led to our highlighting the theme as an overall game value, for it represented authorship, confidence, and creativity. Similarly, the players expressed an explicit desire to build and dress-up characters, another activity functioning to promote the same values.

3. Does the design support group dynamics, social interaction, and collaboration?

The system of content exchange was the core of the motivational aspects of the feminist aspects of the game design. User interaction in online environments has been cited by (Inkpen et al 1995) as likely to significantly affect how players form social networks but also their motivation to do

so. In addition, issues such as point of view affect interaction and collaboration. If, for example, if players are controlling multiple characters, they may have less time to chat. Or, if players interact from a first person point of view, they may become less interested in the game as they would not see their character's appearance. Social markings also affect social interaction in games: for example, visual displays of wealth, clan, or class might alter group dynamics.

4. How does the design balance competition and cooperation?

Players in *RAPUNSEL* can work towards dance competitions to earn PeepsPoints and Creds, but they may also choose to work independently or simply focus on sharing creatively made code. Therefore, this design allows players to choose their style of interaction along a wide set of possibilities.

5. Is the game fun and/or engaging? To many players?

Thus far, users report enjoying the game and liking the characters and scene developed. Trying out the game with a diverse audience (urban girls and rural girls) has been an important part of the project. Girls outside of the New York area focus a bit less on competitive play and fighting. We have also found boys like working with the software, as long as it is not labelled "a game for girls".

6. What production process promotes equity in the game play experience for the user?

Making sure women and girls had a strong voice in the production process was important. We found that the sheer number of women and girls in a design meeting, for example, swayed the focus of the design meetings away from technical discussions and more toward design and usability.

C. Testing and Iterating the Project

Testing various aspects of the software is essential to any project, and with RAPUNSEL, iteration was a weekly process. The game was tested for many aspects: functionality, playability, educational content, and the integration of values and social goals.

1. Can individual aspects of the game be verified through game play success or other empirical means?

Verifying, or checking to see if elements of a design are actually implemented successfully, is a common process in iterative game design. Verification can include the assessment of functional issues (optimising, ease of use, technical issues) or it can assess whether an individual project feature supported a feminist goal. Take, for example, sharing and cooperation, themes that were important project values which needed to be cleverly implemented in the game. One of the ways we sought to implement such themes was to foster code sharing and allow several participants to work together to achieve game goals. The players are encouraged to write new code and easily share it for points or status in interface elements similar to inventories we have called 'backpacks'. The backpacks contain the code editor and all of the moves, objects, and attributes assigned to a player's file. In addition, an instant messaging system (known to be attractive to girls, Chmielewski 2004) can facilitate inter-player communication (the subtext) alongside the character's speech bubbles, enabling one player to chat, gossip, greet or berate another player as well as query another to learn what pieces of code they might be carrying. After conversing, players may agree to share some or all of the code segments in their backpacks.[2]

2. Can the larger activist goals be verified through game play success or other empirical means?

Conducting assessment in such a multifaceted environment calls for an appreciation of the many factors that play into people's responses to technologies—responses shaped by beliefs and ethical views, as well as prior experience which can set expectations for what a piece of software or game may be. In the context of *RAPUNSEL,* the team found that by looking at individual features we were able to assess whether these small factors culminated to meet the activist aims of the project as a whole. For example, small instances of subversion in making a particular dance move could mean that overall in the game subversive actions and authorship could be enhanced. Unplanned player interaction within a simulation style game meant that the game could support subversive activity without anyone knowing ahead of time what form the subversion might take, providing the necessary robustness to withstand a wide range of unexpected outcomes. In other words, the basic idea is to build a robust (real-world, physical) model that runs whether or not human players are present, making the characters 'smart' enough to deal with unanticipated states by continuing to pursue their goals without crashing or falling apart. As the designer, I also created an 'underworld' and nasty characters called 'gobblers' to address user interest in subversion.

3. Does the audience participate in the iterations or testing? How?

For *RAPUNSEL*, the team found prototyping and interviews to be the best ways to uncover the themes, beliefs, and preferences about which users felt strongly. Therefore, we used a variety of prototyping methods (focus groups, one-on-one sessions with design partners, surveys, drawing, image mock-ups, and prototype software modules). Noting the pleasure users derived from building and dressing up characters and from manipulating them in the game to engage in relationships with other characters via flirting, dancing, and

other social behaviours, *RAPUNSEL* designers learned about the ideas of creativity, community, and collaboration as valued by users.

The *RAPUNSEL* work repeatedly demonstrated that the reward system is an important medium for expressing values in a game. *RAPUNSEL*'s unique scoring system, which incrementally rewards players for sharing and authoring, thus motivating co-operation and code exchanges. With the integration of code swapping with a reward system that encourages sharing, the team was able to implement the theme of collaboration in both the technical framework and the game mechanic organically. This approach also rewarded players with the accumulation of knowledge via code versus material goods such as money or weapons; again, these are elements which support the project goal of creating a game based on values of equity and empowerment.

4. What surprises arose during the process? Does the research support the incorporation of user feedback?

The team created an online character survey of user preferences for a variety for character representation styles. The results of this survey showed that design partners consistently preferred overtly sexualised female figures to animals or abstract shapes. For example, one user stated, "I didn't like any of them, I just chose the ones that look normal". The design partners linked their preferences to the existing commercial products they enjoyed. Overall, the favourite character, a hip-hop styled female from a popular girls' website, was regarded by one 11-year-old design partner as a "cool girl ... she's modern, art-time; she has attitude". The team nevertheless wanted to resist stereotypical images of women and girls. This conflict about representation is one many designers face, a situation which pits ideologically-driven system designers against user preferences and social norms.

Although these tensions have not, to this point, been resolved, making tradeoffs and compromises are the most likely path. Designers will not concede to the overly sexualised figures preferred by design partners but may yet opt for gendered characters of a more 'sporty' type.

5. Are functional requirements met? Are larger game goals embedded in project?

The team must continually assess whether the design intentions have materialised and feminist aims have been successfully implemented in the system. Verifying the inclusion of values is likely to draw on strategies and methods not unlike those applied to similar questions about other design criteria, such as functional efficiency and usability. Verifying the feminist values introduces an additional layer of complexity to the project, however, be, first, it is important to determine not only that a particular value was successfully implemented in a specific component, but also that its implementation does not detract from the attainment of other design goals. Second, since our grasp of what it means for a value to be implemented in a system (e.g., claiming that a system is 'privacy-preserving' or 'autonomy enhancing') is not nearly as firm as our grasp of what it means (according to the state of the art) for a system to function properly or be 'usable' (e.g., claiming that a control mechanism is usable). The difficulty is due not only to the more controversial and less concrete nature of value concepts (compare autonomy to usability) but because the means by which values are embodied are, potentially, more diverse.

6. How are particular aspects of social issues and values changing with each iteration?

In *RAPUNSEL,* the team has tried to use various modes of verification, from approaches mentioned earlier: prototypes (such as described in work of Glass 2000, Laurel 2001, Rettig

1994, Zimmerman 2003) were useful for sorting through the complexities of tradeoffs between functional and social goals. Iteration of the game allowed the team to incorporate feedback from a wide range of users.

In addition, the team employed approaches such as agile programming methods to assist in implementing technical aspects of the system (Freeman-Benson & Borning 2003) while not overlooking the importance of playability to create a successful game. Balancing these many goals is a challenge for any developer interested in feminist game design.

D. Finalising the Project

1. Does the implementation of the project match the initial goals?

RAPUNSEL is not yet compleat, but as a medium for raising the appeal of math, science, and programming, *RAPUNSEL* has proven to be a modest tool for promoting social justice and gender equity by encouraging the development of marketable skills and a means to bridge the digital divide.

2. Are there unexpected outcomes? Does the research support the incorporation of user feedback?

Unexpected outcomes are still emerging in the project, and the team continues to incorporate user feedback. New user feedback in design partner meetings, for example, suggests girls enjoy making their characters talk as much as they enjoy having them do dance moves. This result shows the interest girls have in using technology to communicate; in addition, more and more the design partners express an interest in conflict and fighting in games.

3. Is the project popularised, marketed, and distributed in a way which supports the project goals?

The current web site is not the final site for the project's mass distribution (we will likely change the name to appeal to as many players, male and female, as possible). We are in discussion with Scholastic, Inc. and the Girl Scouts of America to see if one of these large groups will partner with us to help us reach girls. In the United States, Scholastic is a book club and publisher that also donates many books to underprivileged school districts.

V. Conclusion

The checklist was developed in the conversation style supported by Schön and others. In the next chapter, I will show how I used the checklist in the creation of an artistic game, *[six.circles]*, the fourth
practice work in the Playculture research.

Notes for Chapter Seven:

[1] As Will Wright, the developer of *The Sims*, notes, it can help a designers think through the design process. Wright makes the box first in the game design process, and this 'reminder' helps guide and streamline the process.

[2] On a technical level, the implementation of sharing and collaboration in the manner described grew complicated as designers considered how players might save and transport pieces of code in various stages of the game. The iterative dialogue between functional, feminist, and technical concerns again lead designers in interesting new directions, yielding positive externalities well beyond the initial 'problem' considered.

CHANGING PLAY:

a new kind of game design.

8

... that (space) which is non-real is condemned by geographers as dead, deathly, frozen, icy, calcified, as feminine; and it is condemned, expelled into the realm of the non-real (Rose 1996, p. 69).

I. The *[six.circles]* Project, 2004

In the preceding chapters, I examined various aspects of play and subversion, and in the last chapter offered a checklist as a starting point for game makers wishing to inform their design with feminist concerns of equity and empowerment. In this chapter, I wish to address one of the central thesis questions: can games truly be activist? Here I will demonstrate how prior empirical work, prior practice, and the checklist led to the creation of the game *[six.circles].* I will show how this game is a manifestation of a subtle and

effective style of activism. The chapter ends with a summary of the Playculture research, demonstrating its significance.

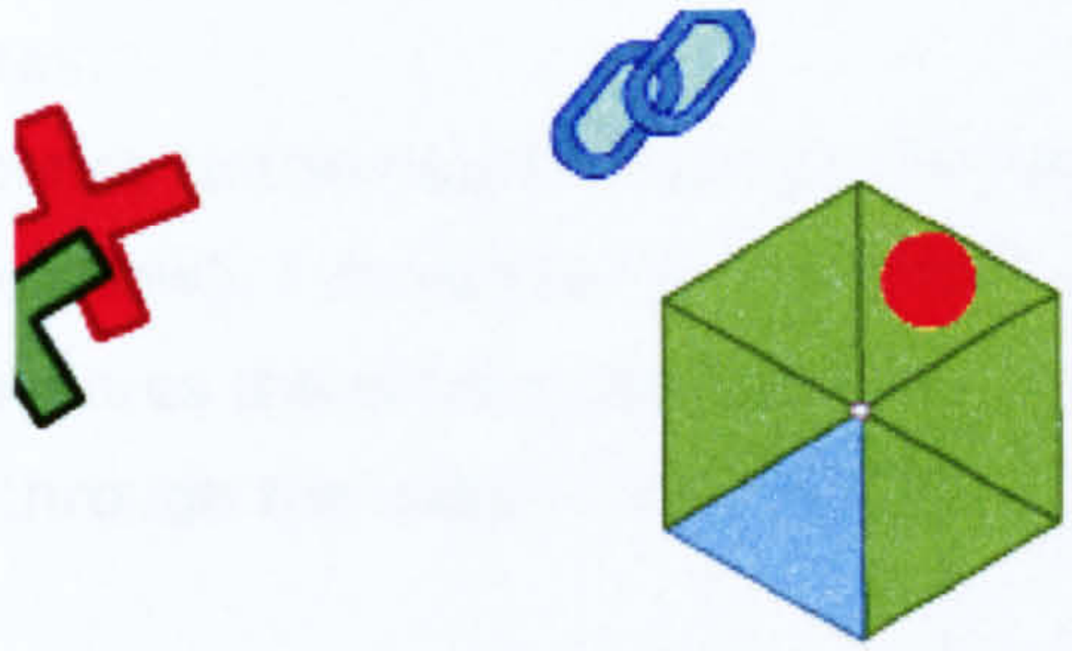

Figure 7.1: A close-up of the [six.circles] *game in action*

[six.circles] was created for the Playculture research after a request by the Danish Wooloo Arts organisation for its *Thank You* show, an HIV awareness project which raised funds for the creation of an HIV Education Centre in the township of Khayelitsha, South Africa, via online interactions with the art work. *Thank You* confronted its audience with the relationship of exchange between Africa and the West. Curators wished to explore specific issues of disease and exploitation using online technology to bring to life the very different economic realities of both sites. The show was meant to be a platform to critique altruism and exchange while at the same time help real people, and the curators successfully solicited donations of computers to the community. The event was used in part to introduce digital art into the community, and to provide a potential foothold for members of the community who in the future would use computers for education, enjoyment, and community building. Each viewer interaction with the online works resulted in the release of one South African Rand (approx. US $ 0.15) from donors towards the cost of setting up an HIV Education Centre in Khayelitsha; thus, when visitors clicked on one of the five projects, they helped fundraise for the centre. The "Thank You" show took place simultaneously in two physical locations: Artists Space, NYC, and a public stage in Khayelitsha, Cape Town, as well as online. The works

were presented on computer monitors in the two project locations from 1st–11th December, 2004; a video hook-up linked the sites.

As a response to the request (and as the only American invited to the show), I developed a networked, turn-based game that explores the consequences of cooperation and competition through the construction of simple geometrical objects.

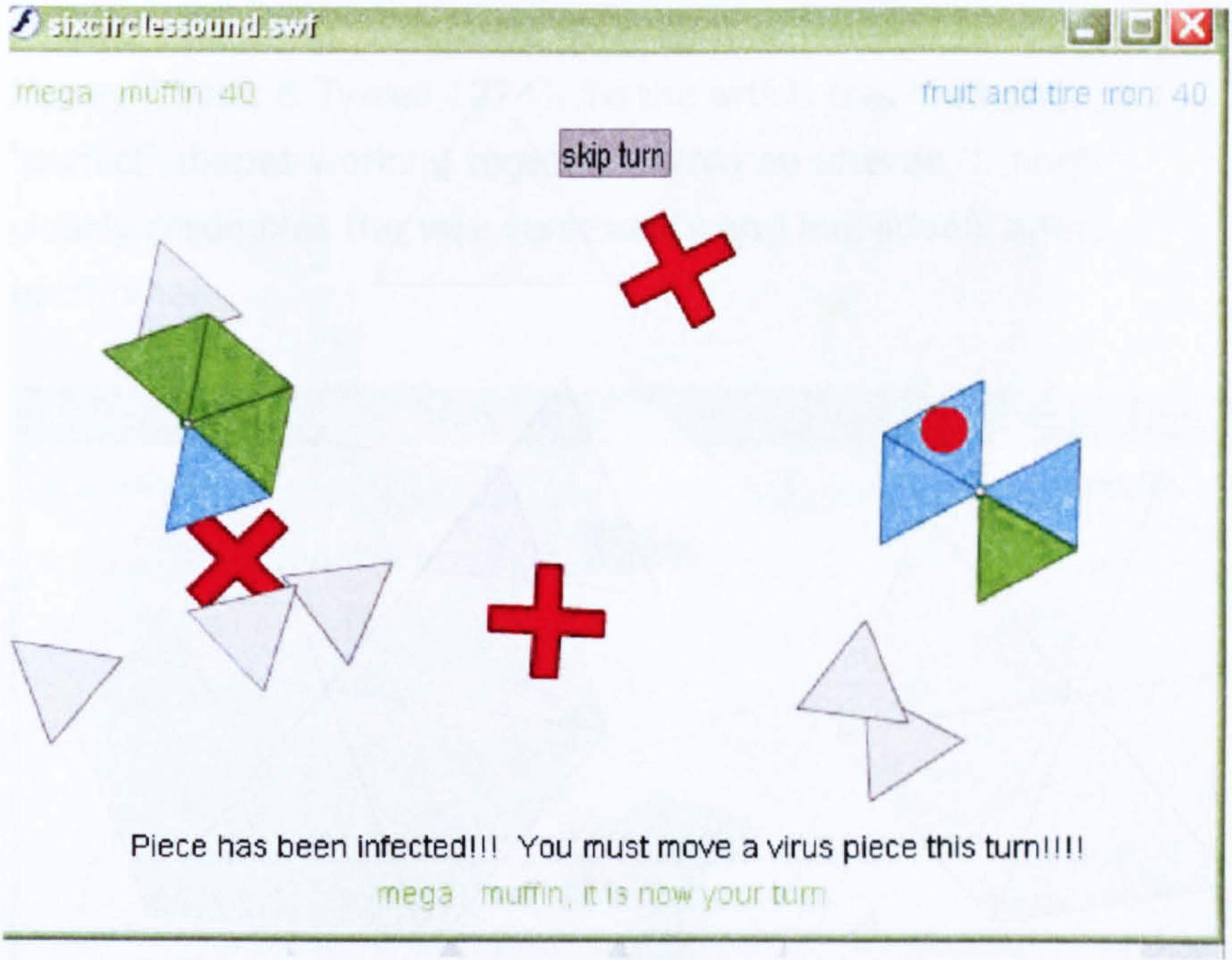

Figure 7.2: The game, featuring the shapes; red 'x's are viruses and when attached to a piece, form a red dot.

Players interact with the game by constructing groups of shapes which eventually form compleat circles, but they do so amidst attacks by virus objects that invade the community. In the abstracted space, there are virus objects and 'good juju' pieces that can cure disease. As the game progresses, players must attach illness pieces to some shapes every so many turns, and as players build circles, illness spreads down the chain, infecting it turn by turn. When all the pieces of a given chain are infected, the infection changes with each turn to a full-blown diseased piece that can no longer be assimilated

into a circle. If an entire chain is diseased, it spawns new disease pieces, with the number increasing each turn. Players have to negotiate and sacrifice to cooperatively solve the problem and prevent the spread of the disease, while still attempting to win the game by creating six circles. The game is based on the 'six circles' mathematical theorem: in a triangle, any chain of circles that touch their neighbours and successive pairs of sides of the triangle counts at most six circles, where the sixth circle is tangent to the first (Evelyn, Money-Coutts & Tyrrell 1974). To the artist, this metaphor of 'perfect' shapes working together within an uneven 'triangle' closely resembles the way community and individuals affect each other.

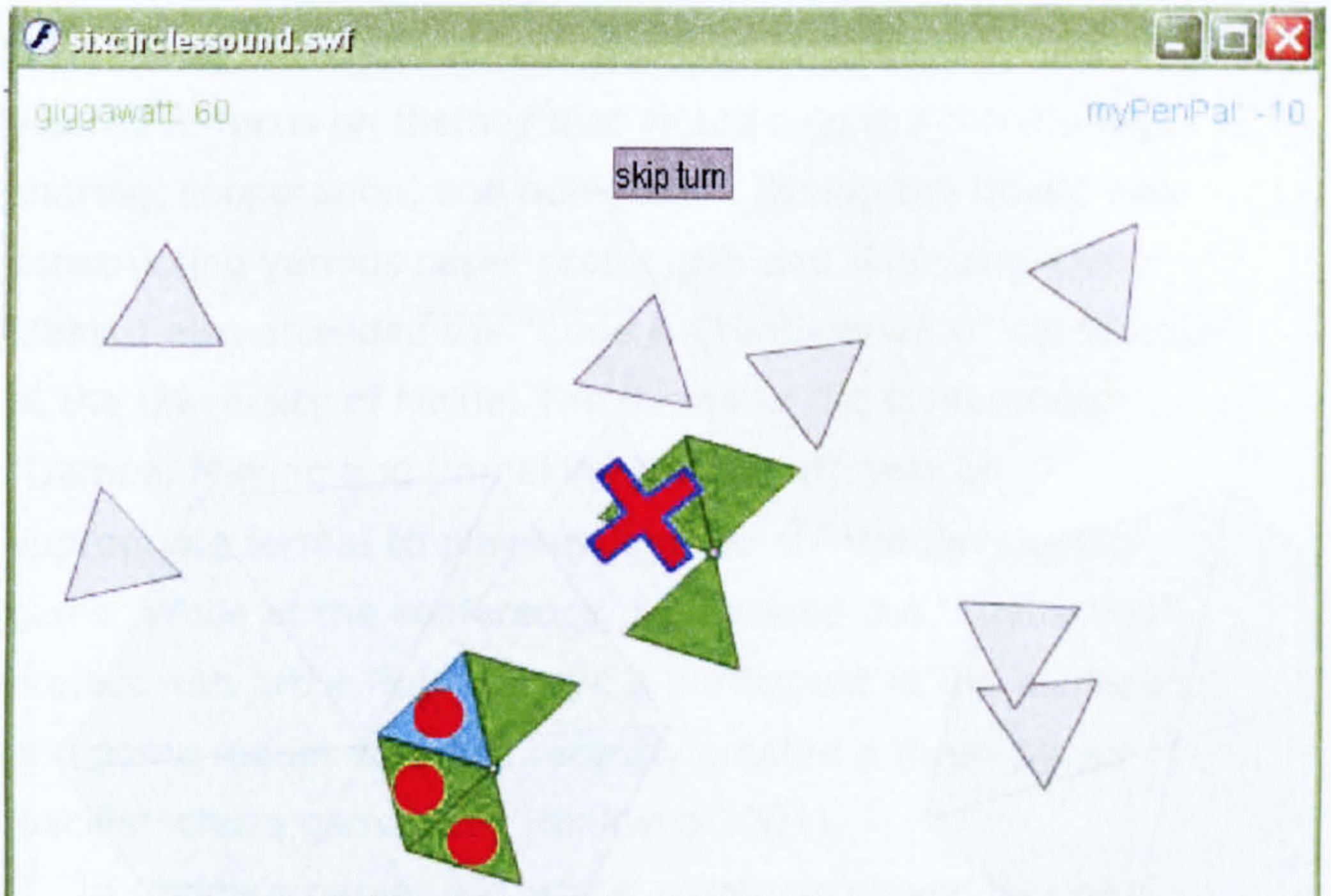

Figure 7.3: The game; the red dots show how viruses spread through a growing shape.

While one of the two players generally wins the game, the structure of the game explores the themes of cooperation, interdependence and conflicting goals in play—a combination

rarely found in popular games that could appeal to a wide variety of players. This combination could foster values such as tolerance (Kafai 1995, 1999, Thompson 1989).

A. [six.circles] *Process*

The game emerged from the process of considering the AIDS crisis from a political, feminist viewpoint. I researched facts about the crisis and about the South Africa's particular situation, especially the way in which the government was mismanaging diagnoses, education, and completely halting the international shipment of the drug supply for patients.

During my research and brainstorming time, I decided to focus on an abstracted look for the game, and reach the themes of the game through interaction activities rather than storytelling or too-literal references to AIDS itself. I also wanted to focus on themes that would help the community: sharing, cooperation, and non-action. During the time I was constructing various paper prototypes and sketching game ideas, I also attended the "Code & Creativity v3.0" conference at the University of Maine. The theme of the conference, "Games: Making and Unmaking the World", was an appropriate format to play test and iterate the developing game. While at the conference, I discussed the "Thank You" project with artist Ruth Catlow, a participant at the conference and game maker who had recently created a three-player 'pacifist' chess game (Cox Hankwitz 2004).

In Catlow's game, the 'white' royalty is played by one player, the 'black' royalty by another, and the pawns by a third player. The pawns' collective goal is to stop the royalty from killing, turn by turn; after five turns of non-violence, grass grows on the board, and if the pawns win, time has overcome the conflict. Instead of staving off conflict, the design goal of *[six.circles]* was to balance conflict through the incorporation of the theme of cooperation and offer consequences to the concepts of collaboration and

competition. Here, collectivist ethics came into the design process, as the task was to represent community views. Without cooperation, there can be no collective decision-making procedures. In addition, collectivism is thought by feminist scholars to promote tolerance and humility (Thompson 1989, p. 142). The feminist approach, according to philosopher Elizabeth Porter, would put forwards the opportunity to recognise the tremendous variations of women's lives and investigate decision-making. This decision-making process would not only be beneficial to women, but would furnish an alternative to break down "dualistic, discordant, or simplistic" views of ethical decision-making processes (Porter 1999, p. x).

With *[six.circles]*, the goal was to involve players interacting with other players, not merely the computer itself; ideally, players at the South Africa location would be able to play those in the United States and vice versa. I decided to implement a turn-based game using abstract, 2D shapes, as this would appropriately allow the investigation of these concepts without 'overloading' the game experience with, for example, realistic imagery.

Figures 7.4 and 7.5: The paper prototypes of [six.circles]*, September 2004*

At the conference, I created a rough prototype using a cut-up paper plate to simulate the pieces in the game, and then

tested with another designer to see if the ideas in the development of the game were enjoyable. As play continued, the players/designers considered the checklist questions: first, how could the game goals be complex; that is, based on both cooperation (to support community building and responsibility) and competition (to support recognition of the individual)? Negotiating the balance was essential to the larger values questions. In the quest to negotiate this balance, I planned for the game to offer rewards for the individual player (such as points) while at the same time feature a game environment motivation in which both players would have to work together for the sake of the community. Balancing individual interests (for example, points for making circles) and group interests (staving off the spread of the virus) leaves players with an interesting, and politically important, set of decisions at each turn. In *[six.circles]*, the game rewards take on an almost 'anti-spectacle' approach; its simplicity sets it apart from commercial games. By using abstract shapes, the project design avoided thorny issues of representation, and by creating a two-player game, the design supports group dynamics.

B. The [six.circles] Work in Context

Political games often have players literally play a political party, fight a politician, or work in a war situation as 'one side' or the other. Note, for example, Gonzalo Frasca's 2001 game *Kabul Kaboom*, a game he made in response to the September 11th attacks and the subsequent United States bombing of Afghanistan. Frasca notes, "I wasn't expecting much when I posted it online, but after a few days it had several thousands players from all over the world and this encouraged me to keep using videogames as a form of political expression and experimentation" (Frasca 2004a, par. 2). Frasca's other games, including some collaborations that are called 'newsgaming' projects, include *September 12th*, *Howard Dean*

for Iowa, *Madrid*, and *Cambiemos*, a commission by the left-wing coalition for the Uruguayan 2004 presidential elections. Frasca, one of the few political gamers, in fact argues in his essay "Videogames of the Oppressed" that games can take on and change the Aristotelian style of storytelling, in which spectators become immersed in the narrative and lose their critical distance; rather, he argues that following another model such as Brasilian playwright and activist Augusto Boal's "Theatre of the Oppressed" could foster critical thinking and give spectators active participation in the events (Frasca 2004c). In fact, Boal argues that by dynamically putting players into situations in which they must respond to oppression can succeed in promoting awareness of social conditions (Boal 1985). *[six.circles]* advocates non-violent cooperation and resolution, and, like those instances of resistance analysed by Foucault in his study of large systems of disciplinary power such as monarchies and federalism, the cooperation can be localised, or could emerge to take larger forms of subversion and resistance including social, economic, or political action (Foucault 1980). The abstracted community interactions featured in the design of *[six.circles]*, with the focus on negotiating strength through diversity, might have a larger impact on cooperative thinking.

Regarding the feminist stakes in such a design, several accounts of how women and girls use the Internet can validate the approach. Theorist Pamela Takayoshi and her two teenage step-daughters write in their cyberfeminist work that the various ways in which adolescent girls create and participate in online communities is complex. Together, the authors note that women's relationship to technology "is neither fixed, predetermined, nor stable across the categories of women's lives" (Takayoshi et al 1999, p. 91). Female players do not occupy stable locations when participating in digital culture. Therefore the kinds of subject positions and game goals offered in games created with, by, and for women must

address the multifarious subjectivities, experiences, cultures, attitudes, and ultimately, desired outcomes of using technology.

II. The Checklist Relating to *[six.circles]* Specifics

In the last chapter I presented the game design checklist and demonstrated its use in a thorough case study of the *RAPUNSEL* practice work. In this chapter, I will further demonstrate the use of the checklist a different kind of practical work. *RAPUNSEL*, for example, is a large scale, commercial-looking non-for-profit game project involving large teams. [six.circles], however, is an individually-created art game. While at first these two projects seem vastly different through their intent, scope, and scale, in fact the use of the checklist shows how they can be considered under the same rubric. Therefore in this chapter I will repeat the use of the methodology on a personal artwork in order to demonstrate the effectiveness of the checklist approach across media types.

A. Initial Stages of the Project

At the beginning of [six.circles], I detailed the goals of the project. I met with the members of the Wooloo organisation, researched the context for the work's reception at both venues, brainstormed ideas, analysed the technical and play requirements, created a draft design of the project.

1. What is the design goal of the project? Articulate the design goals.

The design goals for *[six.circles]* were to create a multi-player game which could be played on the Internet between

visitors in South Africa and visitors in New York to help fundraise for HIV medication in Khayelitsha.

2. What are the social goals of the project? (Social goals refer to those principles the project is to promote or embody.)

The design goals for *[six.circles]* were to create a game which encouraged critical thinking among participants, with a focus on themes that would help the community: sharing, cooperation, and non-action.

3. How has the prior work in the field addressed your goals in terms of equity and empowerment? Where is it lacking?

In the case of *[six.circles]*, the prior work I drew from was the work of Schleiner, whose work was explored in chapter six of this thesis, and Catlow, whose work (including her three player chess) was previously detailed.

4. Is the project politically charged? If so, will the game be complex enough to embrace several modes of play and several types of readings?

The game was shown in a politically charged, activist exhibition. The project was intended to alter a common (one could argue, fundamental) aspect of a game through the focus on cooperation into competitive paradigms. To visually address the themes and reach the aims of the game through interaction activities, I avoided any documentary style, narrative, or storytelling, or too-literal references to AIDS itself.

5. What are the interests of the parties involves? These parties may include: the funders, the designers, the fields in which the makers have been trained, the institution within which one works. Are aspects of the

design addressing these interests while balancing the design for equity and access?

The online exhibition was arranged by a European arts organisation and they were very 'hands-off' in terms of design and artistic preferences of the works shown. This meant I had great artistic freedom to create any system I wished.

6. How is success defined? What is a successful game and what values will make it successful in terms of the overall project?

Success for the project was defined on several levels. First, each visit to the game online raised funds for the township, so there was a direct correlation to the number of visitors to the site and the financial success of the project.

7. Re-examine point one. Are the values and social dimensions inherent in the articulation of the project goals?

The interaction requires cooperation and this in itself is a social and values-rich dimension. Most of the project's values goals remained integral to the core design of the game.

8. What are the living conditions of the players and conditions of reception of the game (economic, spatial, cultural)?

The situation for South African players was very difficult. On a large scale, the government was mismanaging diagnoses, education, and completely halting the international shipment of the HIV drug supply for patients. No one in the town had seen a computer game before, so the system had to work in a simple fashion. The *Thank You* show took place simultaneously in two physical locations: Artists Space, NYC, and a public stage in Khayelitsha, Cape Town, as well as online. The works were presented on computer monitors in the

two project locations; there was a video hook-up linking the sites.

B. Development of the Project

The development stage of *[six.circles]* was very small and thus containable. Most of the development and prototyping efforts were aimed at making sure the project functioned and was enjoyable as there were few outside interests and parties involved in the process.

1. How do intra-game goals map to the project goals?

The project goals of promoting international cooperation and localised community cooperation became the fundamental design goals of the project.

2. How will the project handle tricky issues of representation, stereotypes, and power relationship within the game?

The game's visuals are abstract, 2D shapes, as this appropriately allows the investigation of these concepts without 'overloading' the game experience with, for example, realistic imagery. By using abstract shapes, the project design avoided thorny issues of representation, and by creating a two-player game, the design supports group dynamics.

3. Does the design support group dynamics, social interaction, and collaboration?

As noted in the narrative description, with *[six.circles]*, the goal was to involve players and encourage them to interact between the United States and South Africa locations. Players are recognised by the player names they chose when logging in.

4. How does the design balance competition and cooperation?

The game was designed to offer rewards for the individual player (such as points) while at the same time feature a game environment motivation in which both players would have to work together for the sake of the community. Balancing individual interests (for example, points for making circles) and group interests (staving off the spread of the virus) leaves players with an interesting, and politically important, set of decisions at each turn.

5. Is the game fun and/or engaging? To many players?

Players have called the game 'addictive', which at this point appears to be a description of a successful game. I have seen several players in public spaces logged on to play against themselves, as well as play against other people both onsite and off.

6. What production process promotes equity in the game play experience for the user?

The production was not a team effort but rather under the control of the artist. Therefore, it differed greatly from the large, complex production of a project such as *RAPUNSEL*. The processes of iteration, testing with users, and the values considerations integrated into every stage of the process were vital to providing a game in which the play experience was activist.

C. Testing and Iterating the Project

Testing various aspects of the software is essential to any project, and with *[six.circles]*, the game needed to be tested for many aspects, functionality, playability, the integration of values and social goals, and the game's appeal to the target audience.

1. Can individual aspects of the game be verified through game play success or other empirical means?

Certainly game play, starting the game, and other 'mechanical' aspects of the game can be observed and processed according to empirical study.

2. Can the larger activist goals be verified through game play success or other empirical means?

Verification of activist or social values is a challenge. Through the design process and attention to the iterative feedback garnered throughout the process, however, observation and feedback suggested that the project's values goals were supported. Players indeed interacted using aspect of both cooperation and competition.

3. Does the audience participate in the iterations or testing? How?

Yes the audience and game players, from novice to advanced, were involved in iterative play testing. Prototypes of the project were posted to my Web site and various people, from friends, to staff of the organising group Wooloo.org, to students who tested the game as it developed.

4. What surprises arose during the process? Does the research support the incorporation of user feedback?

I did not expect the players to find the game play addictive—I had hoped they would enjoy the interaction, but I wondered if the system would be compelling even though it did not incorporate chat. Currently, there is some speculation on similar qualities in other games, such as the popular on-screen version of the game *Solitaire*.

5. Are functional requirements met? Are larger game goals embedded in project?

[six.circles] was effective in communicating the manifold concerns of a feminist game developer to others who may not have the same interests, or to those unfamiliar with a project. Feminist thinking is important to help define how disruptions are designed and orchestrated with technology by examining how power relationships play out. Because women occupy mobile positions in Playculture, the kinds of subject positions and game goals offered in games created with, by, and for women must address the multifarious subjectivities, experiences, cultures, attitudes, and ultimately, desired outcomes of using technology.

6. How are particular aspects of social issues and values changing with each iteration?

Clearly, not all of the games for women and girls are created to orchestrate disruption. As mentioned above, Solitaire is compelling and undisruptive.

D. Finalising the Project

As *[six.circles]* was created and multiple iterations of a design were tested, I had to engage in verifying the project's final implementation.

1. Does the implementation of the project match the initial goals?

In the design of the competition and cooperation balance, the abstract look, and the multi-user aspects found in *[six.circles]*, there was little danger of producing a clichéd game. The project was successful on almost all fronts.

2. Are there unexpected outcomes? Does the research support the incorporation of user feedback?

The one drawback to the game *[six.circles]* is that, because of its abstraction, game rules were not as apparent as they might have been had players been interacting with characters. This represents a possible site for improvement on intuitive interface design for new computer game players. This information was only gleaned through the iterative process and observing other players interacting with the game.

3. Is the project popularised, marketed, and distributed in a way that supports the project goals?

As of yet, the project has been distributed online. In December 2004, it was picked up by an international RSS feed which led to thousands of players playing the game. I consider it a successful launch.

III. Conclusions on Implementing the Checklist

The checklist was an incredibly useful tool for setting up, and sticking to, particular goals during the development of *[six.circles]*. It was also effective when communicating the manifold concerns of a feminist game developer to others who may not have the same interests, or to those unfamiliar with the project (such as the participants at the "Code & Creativity" conference). The checklist, like Boal's musings in "Theatre of the Oppressed", can help snap both the game developer and the game player out of 'normalcy'. Deleuze argues that as people, we "normally perceive only clichés. But, if our sensory-motor schemata jam or break, then a different type of image can appear: a pure optical-sound image, the whole image without metaphor, brings out the thing in itself, literally, in its excess of horror or beauty, in its radical or unjustifiable character..." (Deleuze 1989, p. 20). When assembling images or artworks, we cannot merely show what we are thinking about; many theorists, from Eisenstein to

Bergson, have argued this point in their various theories of image making and image editing. One runs the danger of merely pointing out resemblances, confusing images together. For art to move beyond cliché, to Deleuze, it must engage with a set of strategies "to show *how and in what sense*" an image means x or y to wrest the image away from the danger of cliché (Deleuze 1989, pp. 20–21). It is in this spirit, avoiding the cliché and breaking into new conceptions of games and play, that the checklist comes in handy. Findings during the use of the checklist were substantiated by prototyping and testing of the projects, through the related literature, and through the experience of other practitioners as generated in critique.

IV. Conclusions from the Playculture Project

Knowledge structures and social realities are actively being reshaped through the use of computer game environments. Computer culture in the United States has created a blend of work and leisure, social and personal which I call 'Playculture'. What is distinctive about Playculture is that one cannot see a clear boundary between play and social reality. However, female participants in Playculture are using 'everyday' popular artefacts in surprising ways by playing differently and intervening in games and online systems. Women's play is creating new meaning and challenging existing power relations in these systems and is aligned with activist/interventionist strategies.

Post-modern culture and the technological revolution may have changed histories, social relations, markets, and homes in deep and profound ways. Yet globalisation and its effects may produce or reinscribe problematic ideologies into technological artefacts such as computer games, which I have discussed in terms of the problematic representation of female

characters, for example. In this research into play systems, I looked at the ways in which girls participating in play environments historically (such as with doll play) worked against these systems, and how players in popular computer culture use intervention or subversion in games as a play method. "We can manifest a different future. And we must. ... It is not enough to simply call for this and then hope for the best; we need interventions at the level of popular culture. Culture workers at their best make just such conscious interventions—mindfully creating technologies that cause us to produce new myths, and mindfully making art that influences the shape of technology" (Laurel 2001, p. 103).

As I mentioned in the introduction to this thesis, it is my hope that the feminist approach espoused in the Playculture research documentation is read not as essentialist, that the identities of 'girls' and 'women' players are not interpreted as fixed, rigid categories, but rather locations of agency and culturally constructed subjectivity. Cultural change at the margins, among categories of gender, class, ethnicity, language, sexuality, and able-bodiedness, requires the recognition of the incomplete subject represented by feminist research agendas. In her essay "Feminist Reverberations", Joan Walach Scott eloquently argues:

> Feminism is constituted by its methods, its theory, and its history. We carry our pasts into the present, but never entirely. If we have extended the reach of our politics well beyond protests against gender discrimination, we have echoed, but not restated, an old feminist claim that women's interests are society's interests. There is repetition, but not seamless continuity, because the repetition itself makes a difference—is a difference ... difference as a fact of human existence, as an instrument of power, as an analytic tool, and as a feature of feminism itself (Walach Scott 2002, p. 20).

Systems that support subversion, disruption, and intervention are powerful sites for empowerment for

marginalised groups to have a voice. Feminist criticism and practice has an important role to play in defining such disruptions with technology, examining how power relationship play out, and how intervention is orchestrated. Women's disruption of contemporary games, whether through play, or better, through original design which eschews some of the embedded game play and interaction styles in current computer games as a feminist practice may offer models for other emerging practices in Playculture. A feminist game design methodology requires the shifting of authority and power relations towards a non-hierarchical, participatory exchange, disrupting the existing social realities offered by most popular computer games.

Computer games, especially networked computer games, have become often-used 'public', social spaces. As such, they must be seen as spaces of translation, already transformed by game designers and the growing numbers of game players: international, trans-bordered, fluid. However, this international significance brings ever more importance to what those games are *designed* to be, what one *does* in them, and how play is constructed *within* them. Political change once occurred in the public space of the street, town square, and the plaza. We now have many kinds of games; some types geographer Gillian Rose labels "non-real"; yet these games are almost *greater* than real, for games are *cultural spaces*. As the site for production and consumption of culture, community, language, commerce, work, and leisure, this Playculture is a third space; I argued in this thesis that games now constitute what Homi Bhabha called in *The Location of Culture* the space of subversion, hybridity, and blasphemy. In fact, Bhabha argues that hybridity and cultural translation are in themselves subversive ideas, and therefore must be the place where binary divisions are challenged (Bhabha 1994). As Anne-Marie Schleiner notes, "Instead of replicating the binary logic of the shooter genre, of Cowboys and Indians, of the

football game, if the US government borrowed tactics from real time strategy gamers or RPGers, we might be looking at a different global response" (Schleiner 2001, par. 11).[1]

Urban planner Edward Soja argues that all spaces are "thirdspaces" which are lived and imagined spaces in between "firstspace" (empirical or previously understood geographies; physical forms) and "secondspace" (conceptual, ideological, or semiotic spaces of representation; mental forms). The thirdspace is the site for play and struggle; players eschew binary oppositions and allow for the possibility of a subject to be simultaneously in several spatialities. After all, Soja comments, spaces are socially produced (Soja 1996). To Soja, thirdspaces are the only sites that contain the possibility for social and political transformation (Soja 1999). If we think of games as presenting the possibility of the thirdspace, a social space with its own social relations, struggles, and symbolic boundaries, it is within this thirdspace that we must envision a much more diverse and equity-promoting kind of play than has been previously imagined.

Notes for Chapter Eight:

[1] By 'RPGers', Schleiner means players of 'Role Playing Games'.

THESIS

CONCLUSION:

summarizing the research contributions.

9

I. Thesis Conclusion

In fulfilment of the requirements of the PhD degree at the University of the Arts, I have submitted four practice-based media art works as well as this substantial written dissertation. The critical text and the art work together comprise my major research submission. The two components have been developed in tandem, in an iterative process of art/game-making, and reflection upon the reception of the games and engagement in analytical writing about that practice, as both practice and product. The overall title for this theory-practice research project is *Playculture: developing a*

feminist game design. Like other practice-based research projects undertaken in the UK, the written work and the practical art/media work (in this case, the computer-based interactive games produced from and along with the theory) have equal weight in the making and writing of the thesis, and should therefore be weighed equally in the evaluation of the work.

II. Summary and Self-Assessment of the Thesis Project

This feminist analysis of Playculture is not meant to produce a feminist-only, or women-only, theory or way of working; rather, it is meant to produce a new theory, based on a new body of practical work, informed by the investigation of and challenge to potentially 'masked' (or hidden) power relations and tendencies towards marginalisation of certain aspects of (mainly women's) experiences in our daily 'play worlds'. The thesis project has examined games as works belonging to a quantifiable genre ripe for analysis through a feminist lens. The thesis has set out to develop a new methodology for game design, and has led to the Game Design Checklist, intended as a tool for future makers and scholars.

Some of the methods employed in the thesis are adapted from feminist analytical methods for re-evaluating cultural processes and products, as defined by Shulamit Reinharz (1992), whose analysis incorporates four distinct approaches: empirical research (historical/comparative analysis), theoretical research, content analysis, and practical work. As I have demonstrated, a feminist approach to game design might best be loosely identified by its commitment to the following trends:

☐ An ethical and aesthetic approach to game environments;

☐ Collective and cooperative negotiation rather than competitive models of interaction;

☐ Interaction that is both reflective and active, and that demonstrates an awareness of individuals and their social, environmental, historical, and/or cultural contexts;

☐ Interaction and environmental settings that empower both the player *and* the designer; and

☐ Game environments and activities that engage actively (usually, deliberately) with social change.

III. Reviewing the Criteria for Evaluation of the Practice-based PhD

As part of the process of writing and making a new feminist game design methodology, it has been necessary to engage in a constant process of self-reflexive evaluation: to study the games and art pieces made in the context of the new theory as it develops.

As I submit the final bound version of the thesis, it is therefore necessary to bring the iterative process of research and documentation into focus, as the framework for this work.

☐ **It is important to note that this new genre of Feminist Playculture, is relevant to and builds upon - but is also substantially different from, and positioned largely adjacent to, the fields of Game Studies, Interactive Art, and Communication Studies.** It will most likely make its most important contributions to those working in one or more of these distinct fields and beyond. Different aspects of the work (for example, the review of play histories in the home, or the Game Design Checklist I have designed and now make public) could be relevant to and effective in reshaping future scholarship in the fields of Women's Studies, Art History, and Art and Design as well.

☐ **Undertaking this kind of practice-based study, it has been important to highlight the practical as well as artistic and critical applications of these related**

fields. This dissertation is thus accompanied by a large and active website and a DVD ROM of some of my own games and Net Art works. While I could only submit some of the work made over many years of artistic and critical research into feminist game design, I have attempted to include an exemplary range of works illustrating and demonstrating different parts of my overall arguement about Playculture. One of the goals of the research was to create a method by which other practitioners – be they artists, commercial designers, non-profit media groups— could become more sensitive to feminist issues during the development of game projects. Thus, the checklist offers a practical application for other makers. The historical significance of women's and girls' play, and the relationship between that play culture and the domain of popular computer games more widely 'in play' provides on of the main focal points of this research.

☐ **I have structured the research questions and framed the discussion carefully, in order to bring three major areas of concern into focus.** Here, the tripartite approaches of disruption-intervention, feminist, and game design methods have been combined. The combination I have designed, is expressed in my diagram of feminist disruption intervention methods, which makes explicit the fields of overlap and of separation of different research concerns.

☐ **In this written part of my research documentation, I have been careful to site the major bodies of theory relevant to my study of 'Playculture', the social and technical phenomenon I name which represents a site for the merging of work and play.** I have concentrated on the bodies of theoretical work that has most influences my own approach: e.g. the field known as feminist standpoint theory (as offered by Harding and Haraway), and theories of play (as advanced by theorists such as Huizinga and Sutton-Smith).

☐ **The written research has defined the core concepts of the thesis and the bodies of knowledge upon which they are based, and has set out to clarify the interrelation of these fields.** I have defined 'Playculture' as a particular site where work and play mingle due to the interjection of technology, and have also offered new ways of approaching some of the key concepts related to the research including: subversion, intervention, disruption, activism, and 'serious games'. The thesis as a whole (the written dissertation and the practical works submitted) together demonstrate how subversion, intervention, and disruption stand as related but separate concepts: a standing *illustrated in this* text through my

tracing and discussion of their historical importance.

☐ **In attempting to identify and examine the significance, limitations and relevance of the research results to relevant fields,** I have provided a significant innovation in design methodologies by incorporating feminist activist approaches alongside methods such as iterative design. The same kind of significant shifts have also been observed between the related fields of Game Design, Digital Art, and Communication Studies, yet few combine practice-related innovations alongside content/social approaches.

☐ **The research for the body of work submitted here (both the written and the practical submissions) has been conducted independently. Though some of the practical work has been influenced by the contexts of exhibition and collaboration/ commission that the field of art always involves, I have researched, designed, made and written all the work submitted independently as well.** The Playculture thesis offered here has involved a unique and very valuable opportunity to examine the 'doing' of 'practice', within a methodological, critical, and independent research context. At the same time, the fact that the work has been created within a community of scholars at Central Saint Martins College of Art & Design and the SMARTlab Centre has imbued it with a sense of confidence, as that community has offered consistent feedback whilst not interfering in the originality of the research in any way. The work is original work by the student.

☐ **My main thesis around Playculture was conceived from the start of the research process as a 'problem statement' that could lead to discovery of a new theory and practical approach of use to future scholars and artists alike.** The innovation involved in the Playculture thesis research was centred around the iterative process of searching through practice for a systematic and original style for a new feminist game design methodology. The thesis 'problem' or originating thesis question centred around the creation of feminist, activist games using methods derived from historic female play patterns. The study of other artists' work and practice methods has informed my research, yet the relative dearth of other feminist game design examples has influenced the work most of all by forcing a certain independence of thought and method as I have approached this fledgling field. At the same time, the proliferation of (non-feminist) games and the recent growth of Game Studies as a recognised academic field, has provided me with a certain context for the work, within

a community of scholars and artists who wish to challenge the 'norms' these games put forth. Mine is the first thesis to employ a specifically feminist approach to this by making and analysing the impact of women's game art and practice in the postulation of new game design approaches.

In summary, this thesis has sought to establish Playculture as a new term in the lexicon of Game Studies, and to demonstrate the importance of considering feminist methods as well as the experiences of women and girls in making, testing and playing games as a serious and significant field of study.

I argue that the body of work submitted achieves those aims, in the following ways:

1) The thesis defines and names 'Playculture'. Playculture is, in short, a new cultural phenomenon that blends work and leisure within a matrix of technology and gaming.

2) The thesis provides an arguement for why Playculture is an especially important site for women and girls. The work explores games that interest women or are made by women.

3) It analyses games from a feminist point of view, focusing on the ways in which games are destabilised by female participants. Games which support 'subversion' as defined and elucidated in these pages, are shown to be significant sites for empowerment for marginalised groups. In the process, a feminist method is put forwards as an important role-based means of examining how power relationship 'play out' in game play, and in challenging these relations through strategic intervention.

4) The thesis project conducts a serious study of 'serious play' and approaches games research through the practice of game making. To date, very few practice-based research projects have focused on games, and even fewer have focused on the themes and concerns affecting the practice of making games from a feminist perspective.

5) The emphasis on subversive play in this thesis is unique among current studies of games. My emphasis on the history of three subject domains (e.g. girls' play patterns, women artists' game making and play, and my own artistic and activist practice in feminist game design) are merged into a critically innovative and coherent thesis on Playculture. I examine the practice of disruption within games, and also study the ways in which women digital artists working at the margins of popular computer culture have used intervention as a thematic approach to their work. This thesis contributes to the field of Game Studies and to Cultural, Gender and Media Studies more widely, by making the major intervention in those fields from the perspective of explicitly subversive and female-oriented game play. No existing large-scale scholarship examines feminist subversive practices in computer games.

6) This project broaches an important question, namely: Can games be activist? I argue that subversion in games, and in games made by growing numbers of women artists in particular; indeed, women are actively reshaping everyday digital culture. Further, I argue that this new instantiation of feminist practice can be, at least in part, systemised into a set of game design heuristics. The heuristics in chapter seven provide an effective model for designing to encourage the subversion of popular media through game making. By proposing this feminist game design model and by creating artworks with this methodology, it is hoped that other practitioners and researchers will be able to question and tease at the 'norms' embedded in current technology practices to create a more diverse group of technology users and makers.

7) Finally, this thesis and the body of research data includes herein offer a substantial advance in the theory of game design. Previous to this research project, very few researchers had advanced the knowledge of gaming from a historical and social network perspective. Numerous previous scholarly studies had focused on the early forms of computer gaming as a field, studying for the instance the first game made available to the public: *SpaceWars* (1961) at MIT, along with Atari's first arcade game, *Pong* (1972). In this thesis, I have studiously avoided reference to those studies, for several reasons. Firstly, typical histories of computer games have not examined the practice of play outside of or beyond the realm of computers. Secondly, these historical studies do not generally involve women and their roles, either in the making or the playing capacity. Thirdly, few of these studies made any serious attempt to ground contemporary gaming in art history (an important feature of this artist

made practice-based research project); and fourthly, few of these histories have made the connection between computer games and art.

☐ **Finally, I hereby attest that this thesis is formatted according to regulations and that all stages of the submissions process have been adhered to in an organised and timely fashion**. The examination and final copies have been bound, formatted, and submitted according to the University of the Arts London guidelines, and hard bound copies will be filed in due course with the British Library.

IV. A summary of the goals and achievements of this Thesis

As noted throughout these pages, the primary goal of this major study was to fashion, through a combination of theory and practice, a feminist game design methodology to be used in the creation of practical work. The written thesis contains a total of nine chapters and a prologue. The objectives of this research project are to develop a systematic methodology incorporating ideas such as 'Playculture', activism, feminism, subversion, disruption, and intervention. In order to accomplish these objectives, I studied the ways in which both Victorian-era girls and contemporary girls subverted normative play systems such as doll play or computerised 'doll house' play to show how female players have tended to resist such norms.

I have argued, by providing examples, that games tend to incorporate some level of (more or less explicit or deliberate) process of social engineering into their interaction design. The mechanisms that create social systems are inherent in the game goals, interaction styles, and architectures. Guattari and Negri have argued that the meaning system of capital has colonised "the remaining private sphere—family, personal life, free time, and perhaps even fantasy and dreams" (Guattari & Negri 1990, p. 25), According to this line of thinking, there can

be little distinction between personal, public, work, and play; in other words, these scholars point to the blend of work and leisure that constitute Playculture.

By contrast, in this thesis, I have argued that Playculture is influenced by the predominant role and influence of the home as a new social space and site for creative work. I have examined these play systems in detail, in order to postulate a *feminist* game design model, examining the liberating nature of reworking game *goals and creating artists' games as a form* of social activism. The thesis studies a wide variety of players and play methods - from girls playing with dolls to activist or interventionist groups who utilise processes informed by feminist scholarship on marginalised groups - in order to see what desires are expressed by women in Playculture. The thesis has then developed a feminist game design methodology building upon a large body of original scholarly and artistic practice. Equity in online systems, I have argued, can only come about through the conscious effort to include values espoused by approaches such as feminism along with the types of involvement which foreground interventionist practices. I have ended the thesis by proposing a methodology to be used for intervention in digital culture.

Hindsight is said to be '20/20', and as I submit this thesis, I am aware of the original and substantial contribution it makes to the field of knowledge, but I will also welcome new approaches to the work which I now make public, and hope that future scholars, researchers, artists and gamers will contribute to the new area of debate to which this thesis has opened the door.

FIGURES:

Prologue

Figure 0.1: [rootings] *2001 by Mary Flanagan*
Figure 0.2: [domestic] *2003 by Mary Flanagan*

Chapter Two

Figure 2.1: The Playculture research sphere demonstrating the literatures involved

Chapter Two

Figure 3.1: Career Moves, *a feminist computer-controlled board game, created by the author in 1999*
Figure 3.2: The hybrid methods
Figure 3.3: Examples of observation writing/ drawings for the practice project [rootings] *(2001) and, below,* [six.circles] *(2004)*
Figure 3.4: An example of a rough interaction sketch or 'moment collage' for the same project. Drawings from 2001 sketch book.
Figure 3.5: Example of a computer-based movement—sequential 'moment collage'

Chapter Four

Figure 4.1: Victorian girls play with dolls, Eastern US
Figure 4.2: Mansion of Happiness, *1843*
Figure 4.3: 1880s scrapbook house from Grace Curtis Stevens, Smithsonian Museum Washington D.C.
Figure 4.4: 1902 Dining room in a scrapbook house, with family and maid
Figure 4.5: 1890 Kitchen in a scrapbook house, featuring maids
Figure 4.6: Original funeral outfit sold with dolls, circa 1900
Figure 4.7: The children's periodical Babyland, *1883 issue*
Figure 4.8: Frances Glessner Lee at work with her dolls
Figure 4.9: Edison's Talking Doll

MEDIA INFORMATION:

Four pieces of Practical Work are submitted with the thesis document.

[rootings] is submitted in its entirety on the accompanying DVD

[six.circles] is submitted in its entirety on the accompanying DVD

RAPUNSEL is submitted in the form of project documentation video on the DVD, and also is documented in an image slideshow on the DVD.

[domestic] is submitted in the form of project documentation video on DVD.

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