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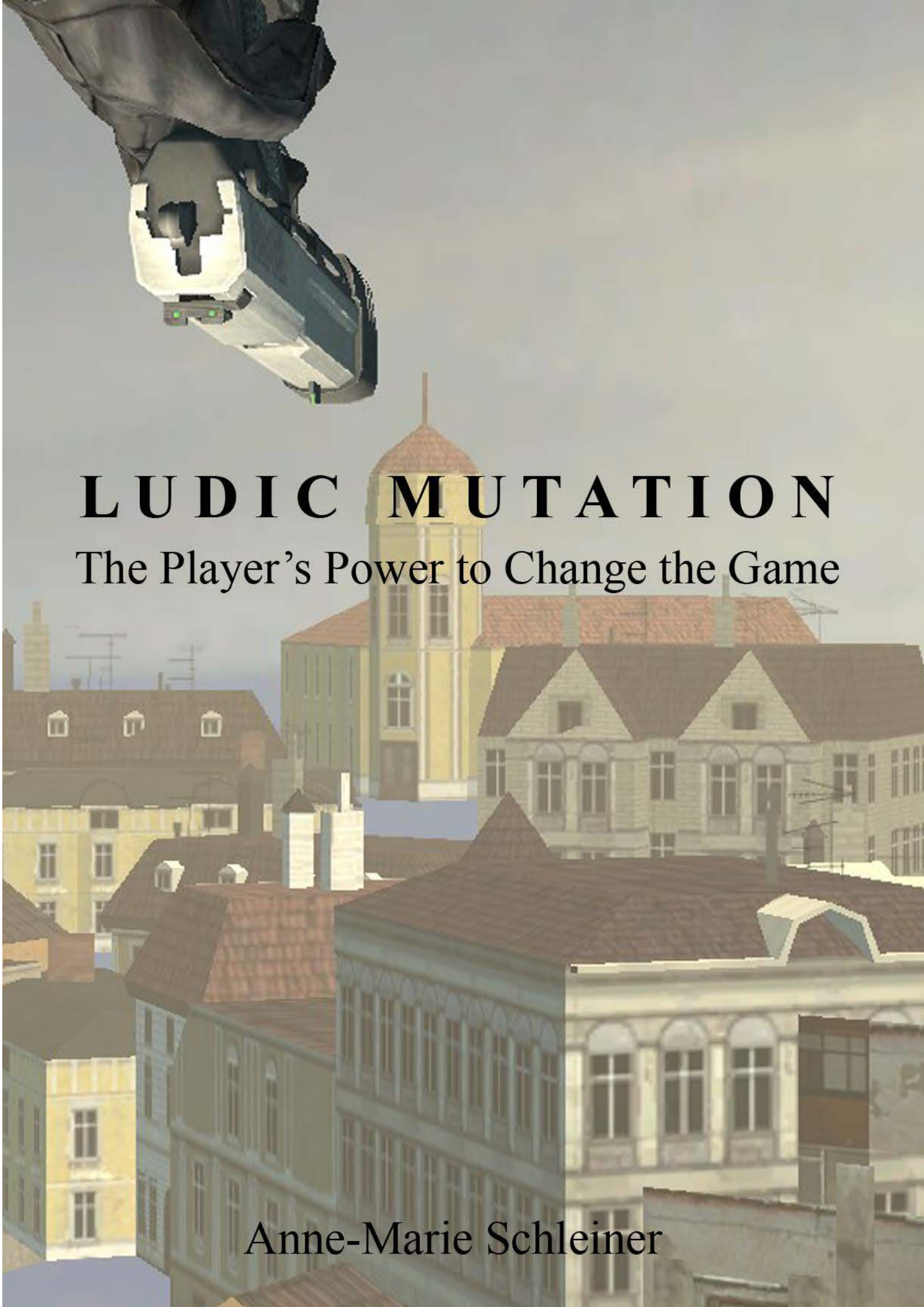

LUDIC MUTATION

The Player's Power to Change the Game

Anne-Marie Schleiner

LUDIC MUTATION:
THE PLAYER'S POWER TO CHANGE THE GAME

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Summary: Ludic Mutation: The Player's Power to Change the Game

In recent decades we observe a closer relation between games and activism, between games and war, between games and the city, in other words, a gamification of certain regions of the world. What is the power of the game over life? Often the game imposes a kind of subjectification. The game's rules demand reflexive acts from the player. The player engages with the game's pre-programmed interactions, losing minutes and hours to the fascination of overcoming the challenge. And yet players also design and play their own games, thereby seizing back some of that which was lost to the game's digital regime. My underlying research question of this project concerns this power grab from the game. I understand these acts as player-driven transformation of an existing game into another, as a transformative process I will refer to as ludic mutation. The remaker of games sees the world not as a given, fixed place composed of static objects, but as play material, to be tweaked, hacked, altered, and reconfigured. Over the course of this writing, I investigate these player-driven changes to the game at varied scales and points of intervention, across gaming culture, in unique online communities of players, among artists, activists, and situated within the city—both in the digital game city and the augmented city. Players modify and evolve game structures and genres, taking back the authorial reins of game-making from a risk-averse commercial game industry. Artists conduct chaotic aesthetic hacks of the game's programmatic engine, reducing military-themed shooters and car races to abstract surges of colour and noise. Gamemakers with critical agendas simulate the world's problems in miniature toy worlds. Activist players carry out campaigns of ludic social resistance on the digital streets and public arenas of online game cities. And children of the future play mobile games of mixed reality within the urban habitat of the Japanimation city. Even in the midst of an informatic tightening of population control, users of technical gadgets hold the power to change the game.

Samenvatting: Ludieke mutatie: de macht van de speler om games te veranderen

In de afgelopen decennia zien we een nauwer verband tussen games en activisme, tussen games en oorlog, tussen games en het stadsleven. Met andere woorden, bepaalde regio's van de wereld verworden tot games. Wat is de macht van de game over het leven? Veelal leggen games een soort van subjectivering op. De spelregels vergen reflexieve handelingen van de speler. De speler wordt door de voorgeprogrammeerde interacties van het spel in beslag genomen en verliest minuten en uren in zijn fascinatie voor het overwinnen van de uitdaging. En toch ontwerpen en spelen spelers ook hun eigen games, zich daarbij een deel van wat ze aan het digitale regime van de game verloren opnieuw eigen makend. Mijn onderliggende onderzoeksvraag van dit project betreft deze greep naar macht over het spel. Ik zie de handeling van deze speler-gedreven transformaties van bestaande games in andere als een transformatief proces dat ik ludieke mutatie noem. De her-maker van games ziet de wereld niet als een bepaalde, vaste plaats die is samengesteld uit statische objecten, maar als spelmateriaal dat getweakt, gehackt, gewijzigd en hergeconfigureerd kan worden. In de loop van dit schrijven onderzoek ik deze speler-gedreven veranderingen van games op verschillende schalen en interventiepunten, doorheen de gaming-cultuur, in unieke online-communities van spelers, bij kunstenaars en activisten, en zich situerend in de stad - zowel in de digitale stad van het spel als de uitvergrote stad. Spelers wijzigen en ontwikkelen spelstructuren en genres, en nemen daarbij de auteursteugels van het game-maken over van de risico-afkerige commerciële games-industrie. Kunstenaars voeren chaotische esthetische hacks op de programmatische motor van games, waarbij zij de schutters in militaire themas en de autoraces reduceren tot abstracte golven van kleuren en geluid. Game-makers met kritische agenda's simuleren wereldproblemen in miniatuur speelgoedwerelden. Activist-spelers voeren campagnes van ludiek maatschappelijk verzet op de digitale straten en publieke arena's van steden in online-games. En de kinderen van de toekomst spelen mobiele

games van gemengde realiteit in het leefmilieu van steden uit de japanimatie. Ook al bevinden we ons volop in een informatiekundige aanscherping van de bevolkingsbeheersing, gebruikers gebruikers van technische snufjes behouden de macht om de game te veranderen.

Introduction: The Player's Power to Change the Game

In 1957 the Situationists penned a hopeful manifesto calling upon the revolutionary potential of play, for "the invention of games of an essentially new type" (Debord, "Report"). The brief descriptions of these early Situationist capers and "derives" that were actually played, not just theorized, recount exploring underground tunnel systems, occupations of Parisian railway stations, and spontaneous urban mappings (Debord, "Theory of the Derive"). During the Situationists' time, the "objet de resistance" of such critical play was the utilitarian, mercantile, everyday circulation of the city. Debord writes, "The situationist game is distinguished from the classic notion of games by its radical negation of the element of competition and of separation from everyday life. On the other hand, it is not distinct from a moral choice, since it implies taking a stand in favor of what will bring about the future reign of freedom and play" ("Report").

Half a century later, play does not seem to have realized its revolutionary potential entirely the way these young artists, architects and writers envisioned. And yet games may indeed have infiltrated everyday life only too well. Mckenzie Wark describes an ominous growth of "gamespace," an invasive agonistic, speculative, abstract game logic taking hold in global finance, education, narrative media, and other spheres once considered outside the game. He writes, "Play becomes everything to which it was once opposed. It is work, it is serious, it is morality, it is necessity" (Wark). "Gamification," a term that floats around software, game industry and pedagogic circles, refers to the addition of gamic features to everyday activities that were once outside the game, like an electronic list of daily tasks on the mobile phone that rewards "the player" each time an errand is completed or a grocery item is purchased. Digitized student exams provide instant positive or negative feedback on the player's answers.

Of weightier consequence, are the so-called "serious games" that train the soldier to conduct a flanking operation in the close quarters of the urban terrain of Mogadishu or Washington D.C., familiarizing soldier-players with M.O.U.T., "Military Operations in Urban Terrain." These virtual exercises prepare soldiers for life-sustaining refugee rescue operations and the killing of insurgents at sites of urban unrest. For instance, at the 2008 Serious Games Showcase and Challenge, three of four winners were military games on the topics of "geo-location, military procedures of the Canadian army, and medical treatment of burn victims" (*Serious Games Challenge*). The ludic operations of the "asymmetric" War on Terror, the war of a few among the many, thus find their way into the heart of civilian population centres; in the imagination and on the ground.[1] Likewise of greater consequence, is the game's hold over players who "live their lives" in a massively multiplayer online role playing game (MMORPG). While seated at computers located in Chinese "goldfarm" sweatshops, player-labourers earn valuable virtual gold in gamic economies by day. By night, they play these same games "for fun" (Dibbell).[2]

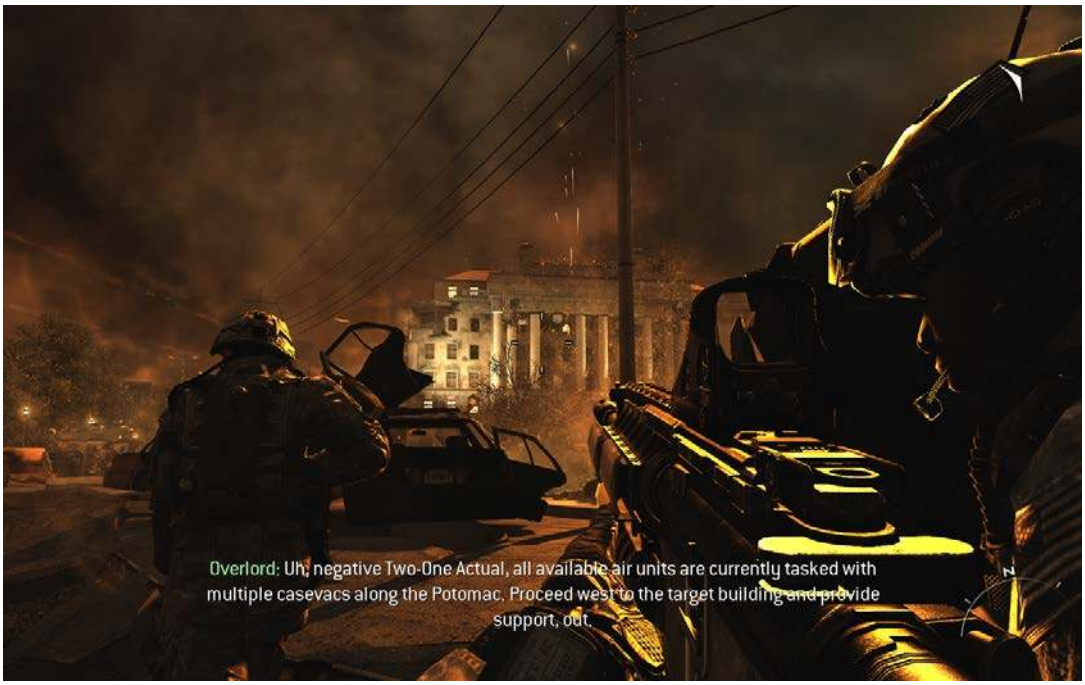

Fig. 1. Washington D.C. Level; *Call of Duty: Modern Warfare 2* (2009); Game Screenshot.

Common to these varied accounts of playing the game, is the broader relevance of game beyond that of entertainment. Wark's "gamespace" spreads into the world, into work, the city, into art, and into war. Frequently cited among game scholars is Johan Huizinga's notion of "the magic circle," a separate ritual-like sphere where voluntary play unfolds, either behind an imaginary border or within a literal barrier like the fence that separates the playground from the city and the school (10). Less widely referenced from his foundational treatise on play, *HomoLudens*, are Huizinga's investigations into the diverse roots of play in ancient culture (32). Huizinga's search for the elements of play in funerary rites, deadly Sanskrit riddles and prejuridicial Arabian contests presupposes that before modernity relegated play to the magic circle, play was at loose amidst culture, confusing the rational boundaries of life's necessary activities with the ridiculous, competitive, and flighty contests of the ludic (108). As gamification and serious games attest to, in the early 21st century, we may again be witness to a return to a similar "savage" confluence of the game with everyday life, a blurring of the boundaries of the magic circle.

Still, these allegations of the game overflowing into life may seem overblown, analogous to the media's sensational critique of the effect of violent games on unbalanced youth. In response to such reception criticism, and its implicit or explicit call for censorship, many in the game industry and in game studies have tactically adopted a stance that clearly separates the game as a type of fiction, like literature or filmmaking, from the world. Although my project will make a case for greater scrutiny of games, an entertaining cultural region that is often not taken seriously enough (even as fiction) ultimately, whether or not games are becoming a dominant paradigm of contemporary life around the globe, is a bigger question that I leave to Wark and others in diverse disciplines from philosophy to the social sciences. The sceptical reader may at least accept the more modest claim that much is to be learned of the power relations of a culture and its time through its games. In a somewhat

more visible strand of historical game scholarship (for much of such history is buried in obscurity), games provide insight into the strategies of the war of the moment. For instance, an ancient form of Sanskrit chess played with warrior-elephant and chariot pieces speaks of a time when the site of the battle was an empty field. Many of today's battle games, as I will discuss in Chapter Four, favour the city as the setting for battle.

1. THE GAME VS. THE PLAYER

If we can at least agree that we observe a closer relation between games and activism, between games and war, between games and the city, in other words, an infiltration of games into certain regions of the world, we would do well to analyse the power of the game. Rather than a revolutionary, freeing act of resistance as imagined by the Parisian Situationists, often the game imposes a kind of subjectification. To a certain extent, whatever kind of game it is, whether a military-themed First Person Shooter game, an online role playing game hinging on the exchange of digital artefacts, or even just an entertaining "casual game" challenge of throwing cartoon birds with little correlation to worldly concerns, the game's rule space takes over the player.[3] As phenomenologist philosopher Hans George Gadamer writes of the player's aesthetic union with a game: "Play fulfills its purpose only if the player loses himself in play" (102). The game's timed procedures demand reflexive acts from the player. The player engages with the game's pre-programmed interactions, losing minutes and hours to the fascination of overcoming the challenge, and then ascends to the next, incrementally more difficultly-scaled challenge. Claus Pias compares the player's race against the game's digital clock in single-player action computer games to timed efficiency tests conducted on early 20th century factory workers, writing: "The similarity [between games and work] lies in that all work can be optimized following the rules of space and time studies" (43). The player submits to the game's regime.

And yet players also design and play their own games, thereby seizing back some of that which was lost to the game. My underlying research question over the course of the chapters of this dissertation concerns this power grab from the game. I understand these acts as player-driven transformation of an existing game into another, as a transformative process I will refer to as *ludic mutation*. In what now reads as a prescient forecast of the mutable power of play, within a series of letters written to Kant, poet Friedrich Schiller invokes a dynamic "play drive" as the aesthetic force behind art making, an ongoing tension between an abstract "formal impulse" and a "material impulse" (65). Schiller questions, "But why call it a *mere* game, when we consider that in every condition of humanity it is precisely play, and play alone, that makes man complete and displays at once his twofold nature" (79)? The player's power lies in creation, change, and modification of the game. The remaker of games sees the world not as a given, fixed place composed of static objects, but as *play material,* to be tweaked, hacked, altered, and reconfigured. Such ludic mutation may be of short duration, a momentary intervention in the city's everyday life or a brief displacement of the dominant game's normal play procedures with a different set of rules—and yet even such temporary diversions may be of consequence. Also, I will keep in mind that such tactic interventions are not intrinsically resistant, for a new game can service powerful vested interests, as when the War on Terror occupies the city via games.

Over the course of this writing, I investigate these player-driven changes to the game at varied scales and points of intervention, across gaming culture, in unique online communities of players, among artists, activists, and situated within the city—both in the digital game city and the augmented city.[4] Players modify and evolve game structures and genres, taking back the authorial reins of game-making from a risk-averse commercial game industry. Artists conduct chaotic aesthetic hacks of the game's programmatic engine, reducing military-themed shooters and car races to abstract surges of colour and noise.

Gamemakers with critical agendas simulate the world's problems in miniature toy worlds. Activist players carry out campaigns of ludic social resistance on the digital streets and public arenas of online game cities. And children of the future play games of mixed reality within the everyday urban habitat.

2. CHAPTERS

The first and second chapters may be of greater interest to play theorists and cultural researchers concerned with the open evolution of digital game culture. I discuss mutable play forms that support gender and identity experimentation, as well as variant styles of play that verge on art making. Game structures and game changing methods are contrasted and evaluated in relation to their potential for empowering the player and facilitating liberatory ludic mutation. In Chapter One, in its purest, lightest expression, ludic mutation consists of player-driven, creative cultural change, unhindered by market pressure or societal strictures. I discover an open-ended manifestation of such ludic mutation in an unusual, free to make and play, 1990's adult Internet game known as "KiSS." Artist-players of KiSS participated in lightly unfolding gender and identity play with digital doll-like avatars that were passed around via the Internet.

Although dolls are usually associated with the traditional domestic sphere of women and children, these digital dolls broke from this domestic setting when they were appropriated by players of diverse genders of more mature inclinations—for adult KiSS players were often more interested in undressing, than dressing up the doll. Although this chapter's emphasis is not on the "real life" identities of these international players, it is interesting to note that these doll games appear to be a rare blossoming of erotica created by a substantial percentage of women player-gamemakers.

The KiSS doll-character changes its attire and even body with toy-like variability over the ten sequential frames of the game, arriving at a variant ending each time it is played. I refer to such changeable games that lack predetermined goals, but nevertheless conform to a chain-like, iterative structure, as *unfolding games*. In this first chapter I venture an analogy between the play acts of the unfolding game to the open-ended, aesthetic political actions of political philosopher Hannah Arendt's "Space of Appearance" (206). Modern notions of politics, such as that of a representative democracy, appear to have little to do with playing such games. Yet Arendt's understanding of the individually disclosive, performative actions undertaken within her "Space of Appearance," modelled on the polis of the ancient Greek city-state, is a distinctly aesthetic formulation of political exercise that in many ways fits the unfolding game (198).

In Chapter Two, I analyze players' appropriation and modification of commercial computer games. Contingents of players and amateur gamemakers known as "modders" actively produce their own variations of commercial games. A game modification, or "mod," might be a relatively minor change to the game, for instance an early 1990's hack of a female character into the male only turf of the militant First Person Shooter genre. Or a mod might be an entirely new game with a new architectural level, thematic setting, and play style, referred to among players as a "Total Conversion." Some mods have outlived and eclipsed the popularity of the original commercial game, such as the *Defense of the Ancients (DoTA)* mod of Blizzard's *Warcraft III* (2002), a strategy game of territorial invasions.

Modding entails a relation between two distinct spheres of cultural production, on the one side professional and proprietary, and on the other volunteered and nonproprietary, and this relation is imbued with certain inequalities and tensions. In this second chapter I draw on Michel Serres' multivalent figure of *the Parasite* as a key to understanding these relations,

approaching modding as a kind of parasitism or borrowing from a wealthier commercial "host" (5). In addition to appropriation, the parasite also makes disruptive noise in the game system. Artist-made mods thrive on the chaotic pleasure in dismantling industrial game engines, reducing a photo-realistic First Person Shooter game of militant agon to abstract fields of pixelated color and fragments.

And yet I also question who is the greater parasite in such cases—is it the player who hacks the commercial game, or is it the commercial game developer who profits off the free voluntary labor of player-modders? Critics of such relations contend that such voluntary labor constitutes an easily exploitable "outside" that Information Age industries deliberately cultivate (Terranova 79). At other times, instead of the parasitism or exploitation of a host, modding seems more a matter of mutually beneficial, symbiotic evolution. Players leave their mark through customizations and other changes and subsequently the game industry incorporates some of these player innovations. Thus commercial games evolve in concert with the contributions of players, absorbing player-driven changes on certain fronts. And yet over the course of such "evolutionary" productions and iterations, when does the computer game industry choose to ignore the contributions of modders? In this chapter I identify those moments when the modder's symbiotic "gifts" to gaming culture are too feminine, homoerotic, or otherwise different in play style to cross over into the industry.

The third chapter, "Clockwork Game Worlds" explores operational concerns, game design issues, and existential quandaries relevant to activist games. Rather than underscoring the player's power, this chapter emphasizes the power of the game over the player. In a genre of serious games I label "activist simulation games," gamemakers model the operation of a harmful process in the miniature toy world of the game. For instance, Gonzalo Frasca simulates a satellite powered airstriker for eliminating minute cartoonish Middle-Eastern city

dwellers at a distance. And in bold and cheerful colours, Paolo Pedercini of Molleindustria simulates the overseeing of environmentally destructive farming, cattle slaughter, and fast-food hamburger production. And yet I argue that although such activist games attempt to cast a dynamic operation such as war or destructive business practices in a critical light, the player may easily fall under the enchantment of the game.

To better understand why many activist games fail to instigate the player, in this chapter I draw on a tradition of philosophical thinking from outside the customary realm of game studies. Functional "clockwork" operations are easily normalized within what Martin Heidegger refers to as "everyday sight," a common-sense view on the workings of the world (107). Losing oneself to the game through interaction with the mechanical routines of the game offers the player an all too welcome reprieve from what Heidegger's former student Gadamer refers to as the "strain of existence" (105). Paradoxically, the only way for an activist gamemaker to awaken a player's deeper reflective faculties and spur them into action may be to program the game to interrupt and sabotage itself, to become a *broken toy*. In this chapter, the importance of when the game breaks down becomes crucial.[5]

Of potential interest to activist artists, urbanists, and to political and military theorists, in the last chapters, Chapters Four and Five, I stage an analysis of both gamic occupations and resistant ludic campaigns within the city. Games and toys are evaluated for both their resistant or libratory promise, as well as placed within the context of militarization and informatic population control. In the fourth chapter, "City as Military Playground: Contested Terrain," I compare an interventionist approach to playing the city among artists to a curiously parallel military approach to ludic occupation of urban terrain. Drawing on theories developed outside of the humanities, I cite the military rationale behind asymmetrical warfare, as well as referencing "post-mortem" level design reflections from the computer

game industry, unravelling what adds up to a gamic militarization of civilian population centres.[6] I then turn my attention to the "artist's camp," following a thread that begins with the early formulations of Parisian Situationist artists and architects for playing the city. This interventionism is later taken up in the performative disturbances of systems orchestrated by "hacktivist" artists. I close the chapter with analysis of ludic activist affronts and protests staged on the militarized streets and public arenas of computer war games.

In the last chapter, "Toys of Biopolis," I analyse fictional, not actual, mixed reality games played across the episodes of Mitsuo Iso's Japanimation television series *Dennou Coil*. The populace of Iso's science fictional Daikoku City have become the subject of a citywide experiment with mobile, mixed reality gadgets that project data and artificial life forms into the everyday urban habitat. The series hypotheses the societal effects of mixed reality technology that some predict as the next phase of digitalization, extrapolating from current mobile smart-phone usage. In such an augmented "control society," a fluid web of informatic control is imposed upon Daikoku City's citizenry via the glasses and the wireless infrastructure that electronically tags every place, object, and person on the municipal grid (Deleuze).

In this final chapter I draw upon theorizations of the biopolitical to account for an erasure of political space and everyday freedoms in Iso's vision of a near future city. I then explore how the informatic hold that the city has over its inhabitants, and the biopolitical logic legitimizing this control, can be broken and reprogrammed with toy-like gadgets. If the apparatus can be diverted from its control function through play, it may be that a vestigial "polis" lives on in the child characters of this future Asian biocontrol city, for they have been equipped with the power of playing the city.

From the adult unfolding games of dolls, to avid player modding, to ludic activist campaigns on digital streets and hard pavement, to the hypothetical "futureware" mixed reality toys and games of children, this thesis will conduct an investigation into the potential for channelling the power of games back through the players' hands. Other important examples of remaking the game supersede the space of this writing, and many ephemeral acts of ludic mutation have yet to be visibly documented. My framing of these practices is intended to illuminate the power of the game over the player, as well as to offer hope of changing the game.

Notes

[1] Asymmetric warfare, discussed in Chapter Four, refers to a disproportionately small amount of either terrorists or soldiers in comparison to a larger civilian population.

[2] In such gold farms we also find evidence of interesting distinctions between regional and global implementation of the game that merit further exploration. I begin to articulate a Japanese and Asian situated perspective on mixed reality games in the last chapter. A sixth final chapter on "Southern" approaches to ludic mutation, where I intended to analyse artist and design collectives in Latin America and Southeast Asia, was eliminated due to this project's current length and scope.

[3] Casual games are computer games of short duration and demand less skill at the outset than more "hard core" game genres. Casual games are often played on mobile phones and tablets, and the settings tend to be abstract or cartoonish, supposedly appealing more to women, children and the elderly.

[4] "Augmented Reality" or "mixed reality" refers to the mingling of informatic data with geographic locations, such as a mobile phone camera application that when pointed at a building, overlays icons of businesses contained in the building onto the phone's camera view.

[5] Such a negative strike against the game's power may take a polemical turn, when a "no play imperative," an interruption pre-programmed into the game, forcefully ejects the player from the game's enchanting spell.

[6]Post-mortems are written subjective accounts of the development process of a game that are made public only after the commercial release of a game to market.

Chapter One: Lightness of Digital Doll Play

In this chapter I will present my first example of transformative play, or what I refer to throughout this writing as *ludic mutation*. What follows the presentation of this chapter's object, a 1990's erotic digital doll game known as "KiSS," is an attempt to describe the conditions that facilitate creative and liberatory play. An international community of adult players remixed these digital doll games with variable results each time the game was played, experimenting with projecting fantasies of becoming other genders, creatures and imaginary beings onto doll-like, player-created characters. KiSS games break from the domestic setting and the roles commonly associated with women's and girls' dolls, the private domain of household "necessity" that philosopher Hannah Arendt describes as "the oikia" (24). I will borrow Arendt's constructive divide between this household, economic sphere of vital necessities vs. a freer, aesthetic, public arena, hazarding a stretch of Arendt's public "Space of Appearance" to encompass artistic *unfolding games* of identity and gender play (199).

1. THE CHANGING CLOTHES DOLL

A curious computer game form known in Japanese as Kisegeau Ningueu, or "changing clothes dolls," surfaced during the early stages of the Internet, fading from use around the turn of the millennium. In the mid-1990's, anonymous programmers digitized the paper dolls printed in the back page of Japanese comic books, commonly referred to in Japan as "manga." The freely downloadable game software was taken up as an adult erotic play practice among an international cadre of digital doll makers. A changing clothes doll (hereafter referred to as a KiSS doll), could be created by a single author or collaboratively drawn by multiple artists in a "KiSS Jam Session." The author(s) of the doll set first drew the

doll's clothes and accessories over ten sequential picture screens, when finished uploading the doll to the Internet. Secondly, players—who quite often were also the authors of other dolls—downloaded the digital doll, reconfiguring the ten screens of doll figure and accessories.

In each picture frame, the player rearranges the doll's clothes on the screen, even moving and removing appendages and organs from the doll. Interactive KiSS dolls contain hot spot areas on the screen that play a sound file, a moan, or a pithy comment from the doll, in response to the computer mouse curser rolling over sensitive body parts. No longer merely a dress-up doll for little girls, a KiSS doll was as frequently undressed as dressed. Dolls switched genders and cross-dressed, wielded fetish instruments, and grew fox ears and a feline tail. A miniature doll body might be revealed beneath draggable robotic appendages, or the doll might be inspired by a popular figure from Japanese Anime, the Hollywood film industry, or from art history, such as a doll version of Michelangelo's David sculpture. Fantasies both naive and queer, asexual, violent, and pornographic, were mapped onto the surface of the doll body.

Fig. 1. Leena Felinsky, a "furry" animal fetish doll by Canadian college student Kim Galvas. The background behind the KiSS doll consists of the icons from the graphics applications she used to draw the doll; 1999; Game Screenshot.

2. UNFOLDING GAMES

The digital age did not bring about the first appearance of these mutable games, available for download from websites like Otaku World.[1] We find antecedents for similar recombinatory games in women's and children's paper dolls, coinciding with the ready availability of paper since the 18th century. The modern fashion paper doll was dressed in changeable outfits designed to wrap seamlessly around the doll's figure. A paper doll and its fashion accessories were drawn by the player herself or the doll's clothes might be repurposed from other sources like a newspaper or a catalogue. In remote Western-American frontier towns, children cut out attire from the mail-order Sears Robuck catalogue to dress the dolls of their collaged paper "scrapbook dollhouses" (Flanagan 28). Other paper dolls, as in the Japanese comic

book dolls directly prefiguring digital KiSS dolls, were purchased with all their components and forms ready to cut out.

Fig. 2. Japanese Sailor Moon Anime Character Paper Doll; Web; 1 August 2011.

In Surrealism, as practiced in artist gatherings in Parisian cafes, we find another pre-digital age precursor to what I am referring to as an *unfolding game,* a game of mixable components that add up to a unique combination each time the game is played. Motivated by an interest in the irrational, chance associations of the unconscious, Surrealist artists designed a game of drawing and collaging body parts alternately known as the "Exquisite Corpse," "Rotating Cadaver," or "Sequential Drawing." Seated around a cafe table, each player drew one segment of the body on a fold of paper and passed the paper on to the next player, who would then add head, body, torso or leg on a separate, hidden fold. The chain-like, sequential

iterative protocol of an Exquisite Corpse game prefigures the collaborative KiSS doll. Each author of a collaborative doll set draws one doll frame and then passes the doll to the next author, at the final moment of "unfolding" revealing a surprise outcome for all creators.

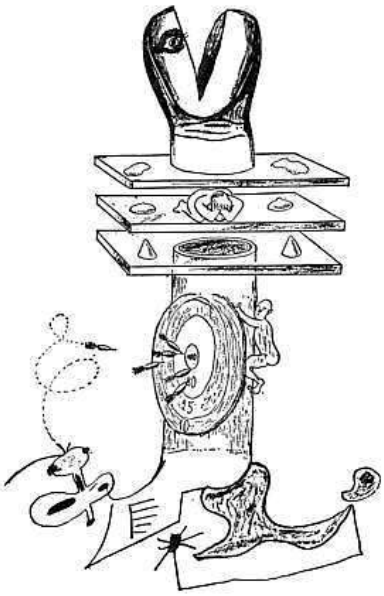

Fig. 3. Exquisite Corpse Drawing by Yves Tanguy, Man Ray, Max Morise, Joan Miró; 1926; Web; 1 March 2012; http://www.tcf.ua.edu/Classes/Jbutler/T340/SurrealismLecture.htm

An unimagined outcome emerges from a nevertheless structured, chain-like play protocol in an unfolding game. The final result of the drawing of the Surrealist "cadaver," or for that matter the final appearance of the KiSS doll, cannot be precisely predicted, and the more surprising the outcome, the greater delight invoked among other players. This contingency of outcome contrasts to games that culminate in a pre-determined end-game state, such as the final checkmate of a round of chess. Although subject to fixed rules and parameters (in each of a chain of ten sequential visual frames there will be a doll body with interactive parts), the unfolding game may also be understood as a generative toy. At the interstices of play and art-making, players of an unfolding game participate in a generative process that is in itself artistically performative and also culminates in an art object, a unique drawing or record of a particular game.

3. DOLL AVATARS

The playful transformation of the dolls' images, and of their genders, roles, equipment and characteristics, invites comparisons to other computer games wherein the player manipulates and customizes fictional virtual characters. For a KiSS game author, the doll becomes a projection of a player's self on the computer screen, similar to an "avatar," a protagonist character controlled by the player of a computer game. Like an adult computer game avatar controlled by a child-player, the paper doll is a manifestation of the little girl's (and of the fashion industry or of the comic book maker's), fantasies of adulthood and femininity. The girl imagines herself becoming the fashion cut-out doll even as she eroticizes the fetishized body image of the doll as a woman other than herself, dressing her doll up for imaginary private and public (non-domestic) adult functions, for work, college, parties, or vacations. Thus similar to a game avatar, the paper doll is already imagined to be an actor in the adult world. But KiSS digital dolls enter into even more adult territory than paper dolls.

A doll as a fantastic projection of an adult self, or as an eroticized other of various genders, diverges from a prevalent notion of doll as infant that prepares a girl for the properly domestic, reproductive labour of mothering. Yet as Mary Flanagan argues with convincing historical examples, even domestic dolls can be played subversively. In her media archaeology of "critical play" forms, Flanagan invokes doll house scenes of labour strikes and funerals as evidence of doll play that is resistant to proper notions of Victorian domesticity (32). Troubled children reenact violent traumas with dolls, and the therapist suspecting abuse observes children playing with dolls. And for modern young girls, infant dolls asking for maternal nurture are not the only toy figures populating their imaginaries—other toys; a teddy bear, a robot or a green, one-eyed monster represent imaginary playmates and play parts in childish fantasies. As Flanagan notes, toys and "games of women and girls"

such as dolls are an under-appreciated play form in game studies, their relatively unconsidered and subordinate stature in comparison to other games and sports likely stemming from their connection to the "non-public," feminine, domestic sphere (31).

Yet unlike the subversive scenes described in Flanagan's chapter dedicated to dolls entitled "Playing House," KiSS dolls are seldom contextualized within the everyday, domestic stage of family and home. Like modern paper dolls, KiSS doll figures are divorced from any background scene whatsoever. Drawn against blank white or framed within a sparsely defined backdrop, KiSS dolls float in a liminal, other-worldly void, an empty digital page that invites adult, multi-gender doll play.

4. THEORIZING LIBERATING PLAY

My analysis of unfolding games of remixable doll identities, of not only playing with dolls of variable genders but also role playing as other animals, monsters, robots, and quasi-human beings, will require a detour into philosophical and political territory. I hope the reader will bear with the scope of the first chapter analysis of light, mutable doll play, as I launch this exploration of ludic mutation and ludic power from a wide satellite view of this chapter's games, introducing concepts from the political philosophy of Hannah Arendt that will provide both a constructive framework and a critical contrast to transformative play in later chapters. Retracing Arendt's steps, I hope to illuminate a separated play sphere of free unfolding actions, and to describe the conditions that give rise to such pockets of online free play. In so doing, I will stretch Arendt's notion of freeing aesthetic political actions to encompass games, taking my own liberties with her categorical distinctions, including disregarding Arendt's dismissal of play and "hobbies" like art as trivialized, leisure pursuits of the Industrial Age (128). Viewed through a more muted lense, the digital doll game

phenomenon can certainly be dismissed as an escapist hobby, as superficial, anonymous experimentation in a safe, virtual "closet." Yet no matter how passing, ephemeral and limited the occurance of such games, and no matter how frivolous (and possibly very gay), even in contrast to other computer games, I will argue that unfolding games are evocative registers of liberating, transformative play.

At the end of her foundational treatise on politics and philosophy, *the Human Condition*, Arendt empties politics of material economic "necessity" and social pressures, clearing the way for her aesthetic and agonistic "Space of Appearance," a liberating public space of collaborative, aesthetic "words and deeds," suggestively drawn from ancient Greek politics and culture (199). Although the Space of Appearance is not defined with detailed action examples in the *Human Condition*, Arendt suggests it is space not only for political discussions but also for poetry, tales, drama, and agon—for contests and competitions—if so then why not also a space for unfolding games? I propose that a public online platform, an unfolding game available on the Internet, approximates a liberating Space of Appearance. Games can be performative, public "agoras," public plazas for open-ended identity play and disclosive tales of self, or in Arendt's more philosophical terms, a space for the unfurling of "the who" (179). Such an analysis of libratory play is distinct in methodology from socio-demographic studies where games are approached as communal containers of "the what," fixed common qualities of player belonging, for instance a study of twenty-five year old, male North American Military First Person Shooter games, or of forty-year old Korean housewives' shopping games.

5. LUDIC MUTATION VS. LUDIC STASIS

A liberating divide shields between virtual and non-virtual; an "alternate universe" is available to the anonymous user on the computer screen where theoretically his or her "real world" identity and behavioral routines can be left behind. Likewise, a gap divides between game and not-game, the border at the periphery of the game and the rest of the world, the fence dividing the playground from the school and the city, the play-time separated from work or study time. Dutch ludologist Johan Huizinga referred to this separated play sphere as the "magic circle of play" (10). Within the magic circle of play, as in the liminal celebration of the carnival, players are free to experiment with becoming others (Turner 24). Alternate rules are in effect, contrasting to the routine norms of everyday life.

Yet such free transformative play is not readily performed in all games. Player turfs have coalesced into genres, such as military shooter games, Tolkienesque role playing games, and real-time battle strategy games. In many games, play follows a rigid script, and ludic stasis is as likely to occur as ludic mutation. With ludic stasis, the emphasis of the ludic is on rule-bound rather than open-ended play.[2] Contrasting to the open-ended, atelic variability and lightness of KiSS doll play, is the much more restricted role playing of fantasy game characters in the "Massively Multiplayer Role Playing Game" (hereafter referred to as a MMORPG). I invoke the MMORPG genre, an escapist fantasy genre that is often assumed to be liberating, so as to draw a more vivid distinction between what I argue is ultimately a fairly constricted form gameplay in comparison to the mutable, unfolding play of KiSS.

In a game like Blizzard's *World of Warcraft* (2004), a player accumulates virtual "loot" (gold and treasures) through exploration and contests, and uses this currency to improve upon and augment his or her game character's magical powers and weaponry. Economist Edward Castronova distills the upward-bound, competitive economic formula of such role playing games into a few sentences: "Define a series of *roles* (such as "scout") for players to assume and use game mechanics (a set of options and consequences) and AI to get

people into them. Establish an *advancement system* to reward certain behaviours (treasures in the cave that allow you to buy better armour). Generate *status* inequality so that rewards matter (most villagers don't have treasure)" (107).

MMORPG games are fiercely hierarchical and players advance through levels. Players occupy tiered positions within their "guilds" (teams), and the guilds are also ranked in comparison to other guilds in the overall game world. Players meet with other guild members at pre-scheduled playing hours, much as an employee is expected to appear at work for certain hours. And like at a real life job, MMORPG players can be "fired" from a guild if their teamwork and player kills against opposing factions and creatures are insufficient. Albeit occurring in Elvin and other fantasy settings, the rewards and punishments of such games mirror the specialized activities and set advancement channels of a modern career. Even more so, they offer the seductive security of a more ordered, play-by-rules progression lacking in an outside of the game career.

In the MMORPG game form, in contrast to KiSS, reputation becomes so important over the years invested in leveling up one game character, that the player loses the liberating opportunity for anonymous identity experimentation with their avatar. For instance, although a male office worker still escapes the supervision of his parent, wife, or boss in "real life" while role playing as a powerful female elven mage, ultimately there is little escape from the worldly pressures replicated in the virtual society of the game world, the pressure from other players on the elven mage character to conform to in-game behavioural norms and from demands to contribute to the game world's extensive in-game economy. As Castronova writes, advocating the "social benefits" of the genre, "MMORPG advancement systems are especially suited to restoring meaning to our activities, because they place our struggles in a context marked by the presence of other people" (112). Yet over time, this intensified, artificially engineered social and economic significance becomes a weight to bear for players,

even sometimes negatively impacting outside the game relationships and work. In contrast to the open-endedness of KiSS play, the economic and social pressures replicated in these massively populated game worlds diminish the available space for unfolding, weightless, anonymous play.

6. THE CONTAGION OF THE DOMESTIC

What is fenced outside the space of free play from a game like KiSS but still infuses the MMORPG type games just described? Arendt's liberating barrier surrounding her Space of Appearance blocks out the "actions of necessity," the economically motivated actions of labour and work which are in her analysis closely bound to the demands and hierarchical roles of the private domestic sphere, at least historically. Arendt's critical approach to the domestic sphere of necessity, and her identification of a transferral of family functions from the household to the modern state and to the national economy, has been more recently taken up in biopolitical critique. One could—perhaps erroneously—imagine that the *Human Condition* was written with a female philosopher's sensitivity to the toils and the vital economic relevance of the domestic—even as Arendt's appropriation of an Aristotlean liberating partition between public and private continues to garner both feminist and Marxist criticism for excluding material and domestic concerns from politics.

The uniqueness of Arendt's analytical trajectory comes to light if we indulge in a brief contrast of Arendt's liberating divide to Jean Baudrillard's oft-cited, dissolved border between public and private. In the *Ecstasy of Communication*, Baudrillard's critique of post-modern information saturation laments a breach of the private sphere. The advertising slogans and communication media of "InfoCapital" enter the home through the glare of the television screen, and an invasive communications apparatus illuminates what was previously

hidden behind “the scene and the mirror,” revealing the private, charmed and “secret” (25). Although the inhabitants of Baudrillard’s once private domesticity of a bygone era remain shadowy (are they mother, father, brother, servants, masters, mistresses?), Baudrillard’s writing is imbued with a nostalgia for a domestic privacy, a longing for comforting repose from the blinding “obscene” light of communication (21).

Writing thirty years earlier, Arendt likewise sketched a broken periphery between the public and the private, yet in contrast to Baudrillard, Arendt’s vector of infection originates from within the private, not from without via modern communications technology (34). Arendt approaches the private domestic scene with a decided lack of romanticism. In her chapter on the private and the public spheres she identifies a specifically “French” enchantment with the private sphere that could apply to Baudrillard’s mood of domestic nostalgia: “Since the decay of their once great and glorious public realm, the French have become masters in the art of being happy among “small things,” within the space of their own four walls, between chest and bed, table and chair, dog and cat and flowerpot” (52).

For Arendt, the household is not what has been invaded but is the original site of contagion, the “oikia” of Pater Familius, of women and of slaves in classic Greek antiquity (33). Over time, the household’s repetitive domestic “natural” rhythms of upkeep, cleaning, eating, reproduction, human survival, and the household economy’s attendant controlled subdivisions of labour, infiltrate what was once a freer, political arena. Over the course of Western history, household business becomes a public managed matter (from feudal household oikia to national economy), and mercantilism pervades the political demos (28). In modernity, states begin to concern themselves with “housekeeping,” nations attempt to act as families, and household managerial logic evolves into an alienating teleocratic “mass society,” as invasive of both the public and private spheres as the blinding glare of Baudrillard's Infocapital. In other words, in contrast to Baudrillard’s longing for a lost

domestic tranquillity, in Arendt analysis, the household of anitquity itself is the origin of a pervasive social control.

7. BACKWARDS TO THE AESTHETIC SPACE OF APPEARANCE

Arendt's account of the public/private border transgression moves hopefully backwards, so that ultimately she vacates politics of "necessity," clearing the way for her agonistic aesthetic political action sphere. The negative critical phase of her project is her Heideggerian deconstruction (Abbau) of "the vita activa," the life of action, travelling back through Marx, Nietzsche, Kant, St. Augustine, Socrates, Plato, Aristotle and others (Villa 114). She underscores an inordinate bias for the still "contemplative life," both in classical philosophy and later in Christianity, over action (14). The tradition of Western philosophy relegates all that is necessary to an inferior realm of action; the mercantile, cycles of tedious labour and upkeep, and the work of Homo Faber, man the maker of "artificial worlds" (136). Having abandoned the life of action, including politics, to makers and workers, Arendt proposes that philosophy is powerless to defend against the rampant instrumentalism of the social; against modernity, bureaucracy and the state's incursions. Yet the life of collective *action* could be otherwise, and thus the suggestive contours of Arendt's aesthetic space of appearance, a space of action—not philosophical contemplation, intended for actions that are neither work actions, nor labouring domestic actions.

Thus after Arendt's negative deconstruction of politics and philosophy, the very lack of positive specificity to her emptied Space of Appearance can be read as an invitation. What is aesthetic open-ended political aesthetic action that is neither work nor labour? These "disclosive tales of the who" could be the unfolding actions of a game (182). Digital dolls and their creators loosen their moorings to identifiable subjects and bodies, to predetermined

barristers of value, and to fixed endings. Released from gravity, players and digital doll makers do not know whom ultimately they will reveal through their unfolding actions and ephemeral, collage-like remakings.

The doll game is shielded from the older offline world of roles and domestic duties—parents, spouses, children and co-workers are generally not whom one engages in anonymous erotic play with on the Internet. The doll games are also insulated from colonizations by online and offline capital and governance—unlike commercial games, KiSS games are not managed by a computer game company—the doll software is costless and designed by players. Unbound from the earthly weight of flesh, digital doll bodies transition between sexual and cultural stereotypes, furry, pawed and antennaed, girlish and manlike, exercising a greater range of transformational freedom than their non-virtual creators are free to exhibit in the workplace, the home, the school, and related social settings.

8. GENDER, IDENTITY PLAY, AND THE ACTIVE DISCLOSURE OF THE WHO

A theorization of transformative, unfolding play also owes a debt to Judith Butler's groundbreaking work on performative gender and identity formation. Butler famously recast gender as a verb, as an active process, rather than a noun or an attribute (33). Gendering is continuously performed through iterative role play, in negotiation with and against the "binary matrices" of gender norms (23). Butler's notion of gender is not predetermined by culture, religion, biology or society at birth. Gendering requires persistent regulation and relearning, repeated lessons, re-enactments, subversions and negotiations between many forces. She writes "*woman* itself is a term in process, a becoming, a constructing, that cannot rightfully said to originate or end" (43). Gender norms have a tendency to impose "regulatory fictions" that naturalize gender as an originary substance of being (44). When subjects act

outside of these naturalized gender norms, (unless they manage to overturn them), their failure to conform to categorical distinctions is construed as monstrous and queer. In *Gender Trouble*, identity takes shape through early acts of gendering.

What is the link between Butler and Arendt? What does gender and identity construction, Butler's theory that evolved from Michel Foucault's juridical investigation of subjection and subjectivity, have to do with Arendt's "disclosure of the who" (Butler 4)? Both Butler and Arendt stress action over normative markers and substances, (the what). For instance, Butler invokes Nietzsche's contention that there is no being behind doing, that the doer is a fiction added to the deed (Butler 33). The who in Arendt's Space of Appearance is also revealed (disclosed) through his actions, his deeds—he does not have an "identity" prior to action (Arendt 179). While both Arendt and Butler argue that identity emerges through an active process rather than existing as a prior essence, Butler's work more directly addresses the back and forth workings between actions and in Arendt's terms, society's pre-existing "rules" for identity and behaviour, what Butler refers to as "regulatory fictions" (Arendt 40; Butler 44).

Butler questions, "What kind of practice of subversive repetition might call into question the regulatory practice of identity itself?" implying that repetition, a tool used in the repeated, performative re-enaction of identity, might also be applied subversively to undo gender-identity regulation (42). We can propose the unfolding game as one possible answer to Butler's question—a repetitious yet at the same time, subversive unravelling of identity unleashed through play. Proceeding in a modular, chain-like, additive fashion, a copy of a KiSS doll body is replicated to each frame of a doll set, and yet this body also mutates in syncopation along with accessories and clothes over the ten standard frames of the viewer.

Prolific dollmaker Glyndon's cross-dressing, gothic, trans-sexual "X" doll is a clear example of such transformative *ludic mutation*, of unfolding gender play. X starts off as a woman in frame set zero but acquires a phallus in frame set one and loses his breasts in frame set two. X's gracefully drawn leather lace and leather garb retrofits to whatever body the doll happens to be wearing. The repetition of doll bodies in conjunction with variations, transform the doll's identity over the frames of the doll set. Some KiSS dolls address other axises, like that of human to animal, in addition to Butler's gendering. Blurring the distinction between human and animal, Kim Galvas' "Furry doll" cycles through outfits, growing or losing a tail, whiskers, and other parts. Normative distinctions and regulatory fictions are unfolded in such games, and the who is unveiled through play.

Fig. 4. X Doll by Glyndon; 1999. KiSS Game Screenshot.

In the ludic Space of Appearance, mutable characters are constructed and remixed with an interstitial subtlety developed over hours of play. In an ethnography of play based on the early online, text-based, role playing game *LamdaMoo* (1990), self-labelled heterosexual Julian Dibbell confesses to a delightful "gauzy" sensation induced by online cross-gender

play, describing a cultivation of a taste for "nothing quite so much as for that of thoroughgoing entanglement itself" (121). In a chapter titled "Samantha Among Others", Dibbell documents his own learning curve in what we might call ludic mutation, beginning with the construction (in words) of his first cross-gender character, an exaggeratedly feminine, cartoon-like, uncomplicated "Samantha" character, whom he eventually tires of playing. His chapter culminates in the disassembly and remixing of increasingly sophisticated, interstitial game characters, who evolve in relation to other players' characters and inspire further ongoing, erotic role play interactions. He writes, "They were playing harder now, inventing new characters and trying out old ones on each other. Niacin was no longer Lisbet only, but sometimes also Giustina, or the virile, bay-rum-scented Ishmael, or the lean old traveller Wattson; exu might be Emory or Xango or the sea-goddess Iemanja or even, on occasion, exu herself, whatever that was" (Dibbell 141).

Like a masked ball, a ludic online Space of Appearance is a liminal, threshold realm of role play that at its most refined, remixes the stereotypical into unexpected and unique recombinations. Reflecting on recombinant play, Turner writes: "it is the analysis of culture into factors and their free or "ludic" recombination in any and every possible pattern, however weird, that is of the essence of liminality, of liminality *par excellence*" (28). Experienced ludic mutators stretch, remix and mutate identity oppositions and categorical distinctions into new poles for further interstitiality.

9. COLLABORATION AND PLURATITY IN AN ONLINE SPACE OF APPEARANCE

In a *collaborative* unfolding game, each piece created by a different player adds up to a dissonant whole. Like the sequential chain of creative play moves of the Surrealists' Exquisite Corpse game played around a cafe table (yet with more of time lapse between each move), in a KiSS doll Jam set like the "David Project," each artist takes a turn to draw a

frame of the set, upon completion emailing the doll to the next artist. The "King in Yellow" (allegedly a woman) orchestrated the David Project, inviting seven female-identifying artists to each contribute a different outfit for a doll figure of Michelangelo's David sculpture. In the resulting doll, David at turns wears a computer-geek Tee-shirt, fishnet stockings, disco bellbottoms, and green lederhosen, resulting in a teasing "dollification" of a renowned, art historical figure.

Obsessions, hobbies and predilections that have induced players to participate in the arena of KiSS include an interest in drawing, in fashion, in Japanese Anime style artwork and characters, in eroticized "Furry" human-animal hybrids, in gender exploration, in drag and trans-gendering, and the desire to strip fetishized doll bodies. A player's gender, age, occupation, and origins map to profiles such as Canadian female college student of Asian immigrant origin, New York cyberartist, middle-aged German male information technology worker, adamantly heterosexual Italian male programmer, and gothic Spanish drag queen.

Yet my project is not to systematically profile KiSS doll players, their desires and proclivities and their humorous and/or erotic virtual doll creations or avatars. I would prefer for these players to remain in the shadows behind their dolls, their unfixed anonymity a source for further experiments in doll ontology. I list these brief profiles in order to underscore the diversity of the KiSS "community." The open, free to make, play and share protocol of the game itself is the primary commonality that binds KiSS players together, evident in the "free to play" logo pasted onto the frames of many dolls. The players of these games are potential players of each other's dolls and potential collaborators, sharing access to Internet protocols that facilitate exchange and interaction, such as passing a game by email to volunteering participants of a collaborative doll set.

Such a collaborative, communal platform that is theoretically open to erotic diversity can veer into a dystopia, when players are luridly misogynist or create disturbingly childlike, pornographic dolls. Both shielding and dangerous, an anonymous virtual space of encounter is an invitation to the shy and the sexually curious to enter performative online agoras. Insulated from the more weighty consequences of flesh to flesh encounters, digital play is immune to physical rape, sexually transmitted diseases, and the normative pressure of biologically-based gender roles and cultural scripts invoked during live encounters. KiSS players often invented email addresses to obfuscate any trails leading back to their official identities, operating under the liberating anonymity of the pseudonym. This virtual freedom, within which the spectre of the child molester lurks, is also the terrain where women can more safely engage in erotic playfulness.

10. THE SENSUAL PLEASURE OF THE DIVIDE

A player looses track of nature's movement of the sun and moon, mesmerized before the screen, her metabolism slowed in a trance, and she only leaves the computer at routine intervals to take a so-called "biobreak" to attend to bodily needs. A divide, the wall consisting of keyboard and screen, separates the player's multiple doll avatars from her static, solitary seated biology. Isolated in the flesh, alone in the bedroom or cubicle, she finds other player's avatars and digital dolls online. Transgender media theorist and one time gamemaker Sandy Stone triangulates the both binding and freeing effects of the virtual in relation to bodies and selves, suggesting that both liberties and new constrictions are afforded with different technologies: "One way to read the history of technology is as a series of complexifications, knots and loosenings of the bonds and tensions between bodies and selves" (Stone 86).

Serial transcendentalists, ludic mutators acquire a taste for queer, digital polymorphous sensuality while cycling through multiple characters in an online unfolding game. Pixelated rain explodes orgasmically on the screen as the player's cursor strokes fetishized digital doll limbs, overlaid with onscreen hot spots that trigger moaning "oohs" in Marco's Italian "Godella" KiSS doll. Dibbel's *Lamdamoo* players indulge in virtual "TinySex," adeptly communicating one-handedly through textual chat. The player inhabits the screen world, his organic bioware hard-wired to the channels of sight, sound, and the touch of keyboard and mouse. Even if the computer game player can be said to be suffering from a state of digitally narrowed, sensual poverty, the divide between virtual and non-virtual affords its own alien, erotic pleasures.

The transcendent divide between a virtual imaginary screen world and a fleshy corporal substrate does have its side-effects. Continental philosophy pathologizes the metaphysical traditions of the West, the doublings and abstractions from Plato, through Christianity, the Enlightenment and onwards to the ethereal planes of the Information Age. Philosophers from Husserl to Heidegger, Merleau-Ponty to Agamben, call for a return to unalienated, existential presence, for immanance in the here and now of the embodied world. Arendt inhabits this tradition, yet here we have transposed her Space of Appearance to a digital arena of virtual screen bodies, albeit following her emphasis on fluid language and action, as well as remaining true to her endorsement of the liberatory effect of a temporary escape from the "world of necessity."

11. BEYOND THE DOLLHOUSE

Although retaining the dressing-up action of paper dolls associated with feminine interests like fashion, digital doll play breaks free from the behaviors and roles of the domestic setting of necessity, from the economic behaviors and the social strictures of the oikia. Similar to the

freedom afforded by the pseudonym or the carnival mask, players are liberated by the partitions between both screen and world and between game and not-game. This emptiness, these gaps at the perimeters of the unfolding game, prevent the intrusion of normative linkages between worlds, opening a space for experimentation with "the who." The light-weight actions of identity and gender play follow the chain-like, additive protocols of the unfolding game, each implementation of the mutable doll game arriving at a different ending.

Despite their departure from the "femininity" of domestic doll play, a visible contingent of KiSS doll makers are women, (or identified as such), and were active on a public platform facilitating a rare blossoming of female-fabricated erotic art and pornography. They shared a "Space of Appearance" with a diverse plurality of varied genders and orientations. "Free to play" was the only truly common protocol shared among these players, who converged in short-lived, constellations of collaborative play, later returning to their behind-the-screen lives.

Not all computer role play games are as hospitable to unfolding gender and identity play as KiSS. Recent game metrics discourage the rapid construction and shifting between characters Dibbell described in his ethnography of the early role playing game of *LamdaMOO*. The danger of artificially reengineering the vital economic structures and social pressures of the oikia in a virtual game world is the loss of a public forum for unfolding tales of the who. As Castronova writes: "it would be a shame if something were to happen at this early stage—say a regulation that no one can use an avatar with a gender different from that of their Earth body" (171). Such binding identificatory regulations are already occasionally enforced for profile photographs on the social software website Facebook, an online social diary forcast as the next frontier of computer gaming (Wagner).

Are unfolding games destined to surface only as a short-lived, avant-garde, generative toy of the Surrealists, and later as a queer, edgy digital folk-art experiment of the early 1990's

Internet, (rough and amateurish, crude and frivolous KiSS dolls)? Or are unfolding games early instances of an evolving play culture of "the Creative Commons," a ready template for other player-made, remixable toys to come?[3] Attempts at forecasting media trends and judgements of artistic quality aside, the KiSS practice remains as evocative evidence of free and weightless ludic mutation.

Notes

[1] And although designed and played just over a decade earlier than the time of this writing, KiSS dolls have already become a relic of media archaeology, viewable only on outdated computer operating systems.

[2] Although generally I will employ "ludic" throughout this writing to encompass both chaotic (paidiaic) and rule-bound play (Callois 28).

[3] The Creative Commons is an online archive of free digital images, sounds, text, software and other items.

Chapter Two: Game Modding: Cross-Over Mutation and Unwelcome Gifts

> "WELL Hey! My name is Kevin Conner, and I play Quake2, Half-life and any good game out there. I am an artist of many mediums; oils, acrylic, watercolour, pen and ink and of course...QUAKE2SKINS!! Here on this page I shall have some links and some skins that I have made as well as an occasional sampling of my traditional art work...I'm sure you'll find my skins very unique... DOWNLOAD THEM! I'd love to see them on others while I am FRAGGING them..eheh thank you and good night!" (Introduction to a Modder Website, 1996)

"Modding" is a term that is used among game players and in the game industry referring to modification or transformation of a computer game by players. The practice of modding as it evolved in the 1990's transformed pre-existing commercial games, primarily of the "FPS" or First Person Shooter genre. Kevin Conner, cited above, modified his own so-called "skins," changing the appearance of the original game's characters, and then delighted in killing off other players' characters wearing his skins. While some modifications intervene in such relatively minor ways, others make something entirely new out of an old game. Yet other alterations break down and critique underlying gamic templates—hacking apart the game becomes artist's play. One objective of this chapter is to unravel different possible approaches that the player as *ludic mutator* (playful transformer) has to modded *play material*, as artist, hacker, as co-designer, as cheater, and as rule-breaker.[1]

The privatized commercial game industry that produces modifiable games is structured as a managed hierarchy of specialized roles within a company, overseen by game publishers and marketing agencies. Modders, on the other hand, are unpaid player-consumers who volunteer their game building efforts. As a self-taught amateur game designer, artist, or advanced tactical player, the modder first purchases (or otherwise downloads), and then modifies a game, thereafter releasing the modified game artefact on online forums and websites. Subsequently, the modder's reconfigurations may influence further commercial game developments, and if so, a feedback loop ensues between the two sets of gamic cultural producers: character types, game play styles, game themes, and level

designs (play material), circulate between the player's hands and a profit-oriented game industry. The cultural production of modding thus transpires between distinct spheres of exchange and reciprocity, between both commercialized and volunteered game producers, a contrast to the previous chapter's sharing of games freely created among player-artists entirely outside of the game industry.

In this chapter I attempt to locate where the player's influence and agency begins with modding and at what points cultural contributions are curtailed or cut off altogether. In other words, one key objective of the chapter is to identify when modded *play material* is incapable of crossing-over and infecting the commercial sphere. And even when the player's modding clearly evidences wide-ranging impact in the game industry, rather than the heroic cultural workers of change, the practitioners of what media theorist Alexander Galloway's imagines as a hypothetical resistant movement of "counter-gaming," I wonder if modders are to a certain extent merely reificatory—co-developers of a culture of gaming at times homophobic, sexist, and militant (125)?

As I enter into these questions of *relations*, I will call upon Michel Serres multi-valent figure of "the Parasite," approaching the practice of modding as parasitism in relation to a host (3). Serres alternately defines the parasite as noise in an informatic system, as a biological infiltration within a larger hosting body, and thirdly, as the anthropomorphic poachers of Aesop's fables of hospitality—one of his recurring parasitic examples in *The Parasite* is the fable of hungry rats gnawing on cheese in a tax collector's well-stocked kitchen (3). At different moments in this chapter, I will draw on these alternate characterizations of parasitism. Like Serres' city rat who opportunistically infests a house, modders infiltrate a more wealthy "host" game system, a sophisticated game engine replete with awe-inspiring special effects, artificially intelligent programs, and detailed game world objects, made available for the amateur game maker's "chewing." The modder takes

advantage of this digital game product at his or her fingertips, a wealth of tools and effects programmed by the game company.

The modder's appropriation or stealing of the pre-existing game is also similar to Michel de Certeau's acts of "poaching" (xii). De Certeau's everyday bricolours make do with remixing the spaces and products of consumer society that they find themselves inhabiting and using, a privatized domain whose ownership is disputable. Rather than passive consumers, (nor implementers of radically new orders—for in de Certeau this role is reserved for a select few "strategists"), ordinary people invent varied subversive tactics for stealing back the given of everyday life (39). De Certeau writes, "Everyday life invents itself by *poaching* in countless ways on the property of others" (xii). Thus, both de Certeau's poaching and Serres' parasitism involve thieving from a wealthier host. In Serres, this parasitic feeding off the largesse of a host transpires without return to said host, who in turn acts as a thieving parasite to a host further up a chain of parasitism, a cascading "flow that goes one way, and never the other" (5).

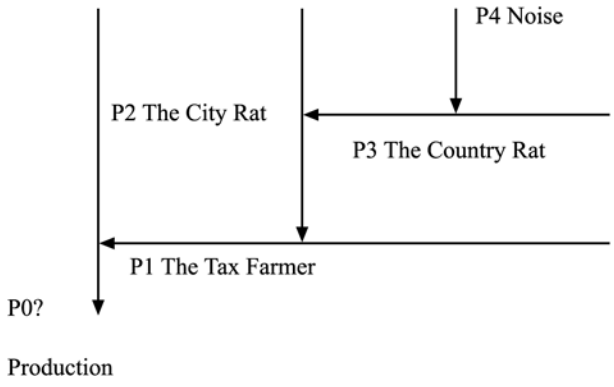

Fig. 1. Michel Serres' diagram of cascading parasitic theft; *The Parasite,* 1980; Print.

At times, rather than this unidirectional theft, a better description of the productive relation between modders and the game industry may be that of a symbiosis, of reciprocal, cultural gift-giving. Theories of mutual reciprocity often adapt some form of anthropologist

Marcel Mauss' theory of the gift economy, a system of obligations incurred by giving and lending that he labels "prestation" (3). In the tribal exchanges of a gift or "potlatch" economy, both the social honour of giving and the unspecified expectation of future reciprocity motivates the gifted circulation of goods.[2] With the advent of the Information Age, theories of gifting have become salient in the Digital Commons movement, Open Source Software Movement, and the Do –It –Yourself Open Licensing movements, transferring notions of gifted reciprocity from the circulation of material goods to the interchange of immaterial digital code, content and knowledge (Raymond).

Yet this so-called "digital potlatch culture" has also garnered critical responses from post-Marxist quarters such as Paulo Virno, and Tiziana Terranova, who underscore the potentially driven and exploitive relations between free "outside" labour and private industry (Virno 191; Terranova 78). In the case of modding, and again unlike the "unfolding" artist games discussed in the previous chapter, the volunteered contributions of players are deeply involucrated with the commerce-oriented productions of the privatized game industry, vendors of playful militaristic conflicts, at least in the First Person Shooter genre, that target young men as their consumer market.

Taking a more magnanimous view of the game industry, the modifiable game can be understood as an added gift to the player (a free piece of cheese so to speak) above and beyond the playable game itself that the player has purchased. The commercial game maker thereby affords the player the power of customization, of leaving their individual mark within their modded version of the sophisticated game software. Should not players therefore be grateful and flattered when the fruit of their voluntary efforts is replicated in subsequent commercial game releases, infecting the body of a corporate host? Or does such corporate feeding off the body of the free labour of the players still ultimately constitute an exploitative, parasitic theft on the part of the game developer? To nail down this chapter's primary

dilemma more concisely, who is the host and who is the parasite? And alternately, if we lean towards symbiosis in our characterization of such relations, when does the game company deem the player's modification an unacceptable gift—too homoerotic, too feminine, too abstract—a gift best ignored or suppressed because to absorb it into its iterative product evolutions would undo prevalent cultural codes of gaming?

1. THE FIRST PERSON SHOOTER AND GAME MODDING

The practice of modding first arose in the 1990's in association with the three-dimensional First Person Shooter (FPS), or simply "shooter" game. As avid players of demon-infused *Dungeons and Dragons* table-top role playing games, early shooter designers and programmers Texas-based John Carmack and John Romero envisioned a similar, yet more adrenaline-infused, immersive, adult (or at least teenage), player experience in computer games, a contrast to the cute, childish arcade and Atari console games of the 1980's (Kushner 76). In the genre-defining shooter game of *Doom* (1993), sinister tunnelling passageways concealed demonic, alien attackers. Controlling the movements of an American "space marine" avatar, the player of *Doom* fired at robotic, artificially intelligent enemies, whereas in later "multiplayer" FPS games, the player's enemies, and also teammates, are controlled by other live human players.

Fig. 2. *Doom* (1993), ID Software; Game Screenshot; Web; 1 August 2011.

Id Software, the makers of early three-dimensional games like *Wolfenstein 3D* (1992), *Spears of Destiny* (1992), and *Doom* (1993), not only established the vividly combative and gory tone of the shooter genre, but inspired by the open source software movement's sharing of code, they allowed a portion of their game to be modified by players in a format known as "wads," an early term for game mods.[3] Other three-dimensional game companies soon followed suit in opening up portions of their proprietary games to player modding and code-savvy players programmed free game editing interfaces to facilitate building game levels. Level-editors such as Quake Radiant and Unreal Editor presented the player with an overview of an architectural blue-print of the game world, facilitating the design of new buildings and levels, and allowing for the player to choose where to position attacking opponents. Modders engrossed themselves in designing their own tunnelling mazes and combat scenarios, inserting their own characters, sounds, images and environments into games. In chaotic "death-matches" against other players, modders reconfigured their weapons, for example increasing the velocity of bullet fire, ammunition reloading, and targeting accuracy.[4]

Some mods diverged thematically from the futuristic, militant, horror setting of the original shooter game. Funny inversions substituted chickens for soldiers and dimly-lit,

sinister tunnels were wallpapered in pink anime textures, channelling players along treasure trails of cupcake-shaped power-ups. Artists modulated game world algorithms like music, fracturing the smooth surfaces of representation with vertiginous swirls of fractured pixels responding to the player's movements. In an early version of the *RC* mod (1999-2000) by Spanish artist Retroyou, cars and other game world objects were released from the mimetic law of gravity, floating into virtual infinity.

Fig. 3. A hacked and intentionally fragmented looking mod of a car racing game; *RC* mod (1999-2000) by Retroyou (Joan Leandre); Game Screenshot.

At the turn of the millennium, rather than reconfiguring characters, nor architecture and virtual game environments, the portion of the game being modified shifted to game play mechanics, in other words, to the rules and conventions that govern how the game is played. Twenty-first century modders conducted a careful reengineering and balancing of players' roles on opposing teams of virtual commandos. For instance within one team, a sniper role shields from above while a foot-soldier launches a grenade from below in mods like *Team Fortress* (1996) and *Counter-Strike* (1999). Such specializations replaced the undifferentiated killer roles in earlier multi-player shooter games. *The Defence of the Ancients* (DotA) mod, a modification of Southern California developer Blizzard's *Warcraft III* quite popular in Asia, is also primarily a gameplay mod that fuses role playing game mechanics with real time strategy conventions.[5]

2. CUSTOMIZATION, INTERFACE MODS, AND CREATIVE CHEATS

In the upcoming subsections, to initiate my exploration of relations between players and the commercial game industry, I will start by entering with more specificity into the game modder's repertoire of approaches to the transformation of commercial game products, beginning with *customization*. Let's suppose a player decides to project something of herself into a game like Linden Lab's *Second Life* (2003), a three-dimensional social chat universe game. She photographs herself digitally and stretches the image horizontally, intending to wrap it around the head of a pre-existing game character, a type of surface mod commonly referred to as a "skin." Accidently, instead of wrapping naturalistically, the image smears due to an unforeseen design constraint. She decides to exaggerate this unintentional plastic effect, stretching ears and nose across mid-torso. She tops off the new look with the absurd donning of an unwieldy car object as a hat, bumping into doorways whenever she enters a building. Other players ridicule her or mimic her, asking her to share "her" accidental technique that resulted from glitches between the intent to customize and the parameters of the game system.

Thus unlike the game design team that builds a game from a pre-planned, written game design document, where characters are expected to conform to types thematically aligned with the fictional diegetic setting of the game, unified themes such as Science Fiction, Medieval, Asian Mythical, or the Wild West, the modder's customizations insert unforeseen noise into the game's mimetic universe.[6] From the game company's perspective, these disruptions can only be tolerated in multiplayer games where other player-customers will not protest too vociferously when they encounter a walking car character or other rarities.

Unlike the *Second Life* game of the walking car, which has no predetermined thematic universe or game play style, a massively multiplayer role playing game like *World of*

Warcraft (2004) is largely closed off to modification for fear that modding would disrupt the immersion of other players into the medieval fantasy world of the game. MMORPG developers like Blizzard also fear that modding would interfere with play mechanics and unbalance player quests and battles. The only modding permitted in *World of Warcraft* is the customization of the interactive interface of a two-dimensional button layout floating over the surface of the world. Although such personalized interface mods can become quite intricate indeed, affording the player a unique configuration of access to spells, digital artefact inventories and gamic actions, they are viewable only to the player, and do not modify any common aspects of the digital game world.[7] Thus the modder's "parasitic noise," Serres' screeching of rats in the walls, is constrained to a harmless, superficial strata of the game in interface mods, allowing only for customization of the player's personal viewport of the game.

Fig. 4. Customized *World of Warcraft* (2004) button interface; Game Screenshot; Web; 1 August 2011.

"Cheats" are another common form of game world modification. Cheats can be creative or mundane, calculated or accidently discovered. Cheaters invent innovative means to advance beyond and out-manoeuvre other players. For instance, a cheater opportunistically applies camouflaging wall and floor textures to their game character's body. Then from his camouflaged hiding spot he jumps out of a wall into a full scale attack, taking the opponent by surprise. Another trick of multiplayer shooter games is to paste a temporary two-dimensional image on a wall (known as a tag), of what appears to be another player's character. The unsuspecting opponent wastes precious ammunition on the decoy, disclosing his position with the sonic blasts of his weapon. Game world hackers download cheat codes to evaporate gravity, empowering characters with the ability to float over barriers. Cheat-codes convert walls to transparent wireframes and outline enemies in red halos, identifying the player's opponents from afar—all the while the opponent remains ignorant of the cheater's position until his untimely demise.

Depending on how other players and game makers validate such trickery and invested work-around the rules, cheating modification can be understood as an advanced tactical approach to the game orchestrated by masterful players rather than an unlawful, unskilled shortcut. De Certeau writes of "connoisseurs and aesthete" tacticians, like a skilful taxi driver in Rome who masters a "labyrinth of power," taking "pleasure in getting around the rules of a constraining space" (18). Similar to both tax lawyers and troublemaker school children, cheaters are more attentive to rules and world limits than non-cheaters, combing the parameters of the game world for advantageous loopholes, searching for instance for a wall collision glitch that mistakenly opens onto a locked area. Yet even though the cheater has afforded herself an unfair advantage over the other players of the game, (and has pulled off a small reversal of power against the game designer's attempt to impose fair rules for all), her tactical interventions in the game world do not alter the overarching aims of combative

engagement, except perhaps by inspiring the design of future games where all players are endowed with superpowers like flying or seeing through walls.

3. ARTISTIC NOISE IN THE SYSTEM

In contrast to the cheater's transgressive actions that nevertheless still conform to the original goal of the game, artists have taken apart game worlds to the extent that the original game is no longer recognizable, no longer playable as a game. In an exhibit titled "Synworld: Hyperspace" in 1999 at Public Netbase in Vienna's Museumsquartier, Austrian artists divested the *Unreal* game engine of its reputed photorealistic effects, hurtling the player down a virtual well surrounded by semi-transparent walls textured in green on black text. That same year I curated a small online exhibit of artist made mods titled "Cracking the Maze: Game Plugins and Patches as Hacker Art" on the online media art journal *Switch's* website. For this exhibit, I convinced game developer Bungie to donate free copies of the space shooter *Marathon Infinity* (1996) to the participating artists to modify. Since the late 1990's, other artist-made game modifications and art games have been occasionally exhibited in varied international art venues, galleries, museums, festivals, and are often referenced and available to download from the Australian "Select Parks" online archive.

The game mods of Jodi, an artist duo consisting of Dutch Joan Heemskerk and Belgian Dirk Paesmans, are in many ways representative of the artistic hacking approach to the mod. In the late 1990's, Jodi assaulted shooter game engines with the same destructive playfulness that marked their hackerish approach to HTML "net.art" a few years earlier. In *Untitled Game* (1996-2001), a series of nine remakes of the Quake engine, Jodi eliminated representational properties from the game world, flattening the textured surfaces of the original game's space station to shadowless, black and white walls. Standard keyboard controls for jumping and shooting initiate delayed rains of pixelated bullets and spinning

vertigo. A short description of Jodi's *Untitled Game* on the Select Parks online archive of game art mods states: *"Quake* 1 mods, "untitled-game" mutates the semiotics of navigational perception, abstracting original game ontology, controls for mobility, enemy identification, narrative cognition; reward systems, landscape, and gravity are reduced to symbolic fragments" (*Select Parks*).

Fig. 5. *Untitled Game* (1996-2001) by Jodi; Game Screenshot.

This destructive relation that artists like the Jodi collective have developed towards the game seems to fit best within Serres' first instance of the parasite as noise in a system. His parasitic noise arises at any of three points of a triangular communications model of "sending, reception, transmission" (194). But rather than disrupting the back and forth

movement of communication signals, the artist modder inserts noise into the game system, interrupting the playing of the game according to its proper rules and goals.

Noisy parasites are not always welcome, distrusted as invaders from an exterior cultural realm, artists not gamers, or again, failing to properly conform, computer gamers not "real" artists in technophobic regions of the art world. Despite the comprehensive exhibition histories and visibility on the Internet of game mods like Jodi's, such artistic hacks of commercial games have been criticized as ineffectual, both in terms of game play and artistic validity. For instance, in the final pages of *Gaming: Essays on Algorithmic Culture,* Alexander Galloway provocates that Jodi's *Untitled Game* mod ignores "all possibility of gameplay," alleging that their remakings retroactively invoke an outmoded, mid-twentieth century art movement by propelling the game "into fits of abstract modernism" (107). According to Galloway, an as yet unrealized movement of "counter-gaming" would require a more radical approach to artistic modification with more input into the evolution of game play. He writes "Visual imagery is not what makes video games special [...] counter-gaming is an unrealized project" (125-126).

Yet what after-all is gameplay? Galloway criticism of artistic modding's inability to develop a "new grammar" of resistant play seems to assume that play consists of constructive, programmed moves leading towards a goal, a mission. Measured by such criteria, a game without such ordered play mechanics like Jodi's noisy abstract interventions is merely a broken game. In a blog entry entitled "The Anarchy of Paidia," game designer Chris Bateman reflects on rules of play and their counterpart of disorder, drawing from Roger Callois' expansive definition of play developed in Callois' pre-computer game age ludological tract, *Man, Play, Games.* According to Callois, play vacillates between order and chaos (paidia), "from somersaults to scribbling, from squabble to uproar, perfectly clear illustrations are not lacking of the comparable symptoms of movements, colours, noises"

(28). Such colourful, kaleidoscopic descriptions recall the gyrations of the *Untitled Game* mods. Paidiaic players, like children and animals, play in an unstructured, undirected vertiginous mode of paidia with toys or other found objects such as appropriated furniture, tree branches, and cardboard boxes. Paidia can coalesce into an ordered goal-oriented game, only to disintegrate again into chaos. For Callois, paidia is creative variability, its direction, aims, goals and material indeterminate at the outset of play. Even if an objective is formed, paidiaic play is unintegrated into a larger systemic whole constrained by competitive and goal-bound rules. Artistic game modders, while hacking apart and modulating the graphical and aesthetic properties games, have been playing (paidiacally) all along.

Yet to entirely ascribe such noisy game hacks to the childlike, destructive joy of paidia neglects a critical edge of these art practices. In addition to being understood as disorderly play, the parasitic noise that artists are generating in the play system disrupts the expected alignment of features and components customarily found in shooter games. Virtual game worlds have reified into genres where violent play is narrowly replicated in release after release in the game industry, especially in the shooter and action genres, the genres mostly closely associated with modding. Players engage in agonistic violent combat against artificial non-player characters (NPC's) in single-player games and on teams against each other in multiplayer matches. Players learn to handle virtual toy weapons, and in many shooter games since the initiation of the War on Terror, these games are set in live conflicted zones in the Middle East and elsewhere. For instance, in the downloadable shooter game of *America's Army* (2002), a recruitment game developed by the United States Army a year after the 9/11 terrorist attacks, the player-soldier, usually a male soldier, undergoes training in an army boot camp under the supervision of a robotic drill sergeant, before graduating to fight on a counter-terrorist team with and against other players. These militant conflicts are laden with the binary logic of fraternity and solidarity against a common enemy, a macho

militarized play culture reflected in the young men's multi-lingual "trash talk" audible on the "radio" voice channels of First Person Shooter players located across Asia, Europe and North America.

Abstract artistic mods on the other hand, like Alone's Quake 3 mod, Retroyou's *RC* mod and Jodi's *Untitled Game* series, remove all traces of any such representation from their blank walls and abstracted empty corridors, eradicating the means for the player to project themselves mimetically into the world. By erasing the slate, such mods beg the question of what else might be projected into virtual game worlds by the omission of the expected content. *Untitled Game* simultaneously exaggerates and exposes the violent algorithms of the genre, multiplying bullet sprays, amplifying the grunts of monsters, modulating the game system at key operational nodes. Actions and auditory effects disintegrate into aggressive noise when bereft of supporting representational visual content.

Although artists may be atypical players and modders of shooter games, the noisy artistic hack is still a critique launched through the system. Jodi's work explores and mutates the software codes controlling the physics of combat and the algorithms of bullet dispersal. This interior critique takes pleasure in consuming the industrial game product it destroys. Thus unlike Serres emphasis on the parasite as "para" in the sense of *beside* when he writes "To parasite means to eat next to," artistic modders occupy an interior critical position, chewing on the walls of the game engine from the inside (6). To put it another way, as opposed to launching a critique of militarism, sexism, or nationalism in games through exterior means such as censorship, or via the critical media reception theory that resurfaces in the news media whenever disturbed teenage boys gamers engage in real-life violence, the artist modder engages directly with the game engine, noisily destroying the game from within.[8]

Towards the close of *the Parasite*, Serres speculates that the parasite's noise contributes to the first phase of an evolutionary process of mutation and selection, the mutation of "a message written on a base" (184). He writes:

> Part of this message is changed by mutation, by absence, substitution, or difference of elements. It is not entirely a metaphoric expression when we claim that it has to do with intervention of a noise in the message. Noise in the sense of disorder, and thus chance, but also noise in the sense of interception [..] The new order appears by the parasite troubling the message (184).

Similarly, although the artist's hack of the shooter genre retains elements of the original game, such interventions indisputably "trouble the message," rendering the original game almost unplayable.

If we follow Serres in applying Darwinian biological evolutionary concepts to cultural change, this insertion of abstract artistic noise into the game can be viewed as a step towards, intentionally or incidentally on the part of artists, to instigating a change or mutation, clearing the way for a "new order" of play culture to come (whatever that order may be). Whether ultimately the parasite's actions within the game system prove to be a successful mode of cultural intervention and of ludic mutation, is a question that we will pursue in the following subsection with a different set of modding examples.

4. CROSS-OVER MUTATION

Continuing with an evolutionary analogy for changing game culture, I now consider the "selection" phase invoked as somewhat of an afterthought of parasitic intervention by Serres, a question that is really of where a cultural change begins and of its spread or crossing-over between players and the game industry. In this section I will attempt to provide a "concrete"

example of a span of game culture changes that are by their mutable nature difficult to pin down beyond a single intervention or mod.

In 1999 I was invited to participate in the "Alien Intelligence" exhibit at the then newly constructed Kiasma Museum in Helsinki, Finland. As a sort of Internet curator/cultural worker (officially I was considered an artist), I made a small website titled *Mutation.fem* tracing gender transformations of game characters over several commercial game iterations and player interventions (*Mutation.fem*). In early First Person Shooter games, all of the characters upon purchase of the game were men.[9] Unhappy with this one-sided gender limitation, players primarily identifying as men hacked female fighters into games, pasting flat, feminine skins onto the hulking male three-dimensional figures arriving pre-packaged within various titles like *Doom* (1993) and *Marathon* (1994). While engaged in battle on the newly online servers of multi-player *Quake* (1996), a kind of virtual drag ensued with these cross-dressed fighters. At the time, in my write-up for the Mutation.fem exhibit, it seemed apt to refer to these bulky women characters as "frag queens."[10]

Fig. 6. *Quake 1(1996)* Frag Queens; Web; 1999.

In an apparent response to these player-made female characters, Texan game developer Id Software's inserted a female protagonist character option into their sequel game, *Quake 2* (1997). This character was among the first women fighters to appear already pre-

packaged within an industrial shooter game. Although *Quake's* new female fighters sported visible musculature, when viewed alongside *Quake 1's* brawny Frag Queens, *Quake 2's* character's slender curves reflected more conventional, ladylike conceptions of femininity. Thus although gendered play material did seem to jump from the player sphere to the game company, from modded *Quake 1* Frag Queen skins to company-made *Quake 2* female characters, in the crossing over this digital play material underwent a normalization into a more stereotypical conception of femininity. In this sense, *Quake 1's* cross-dressed frag queens remain an interrupted evolutionary offshoot of queer game characters, who have yet to resurface again en masse on the macho gamescape of shooter games, "a gift" from the players that was unacceptable in its original shape to the game industry.

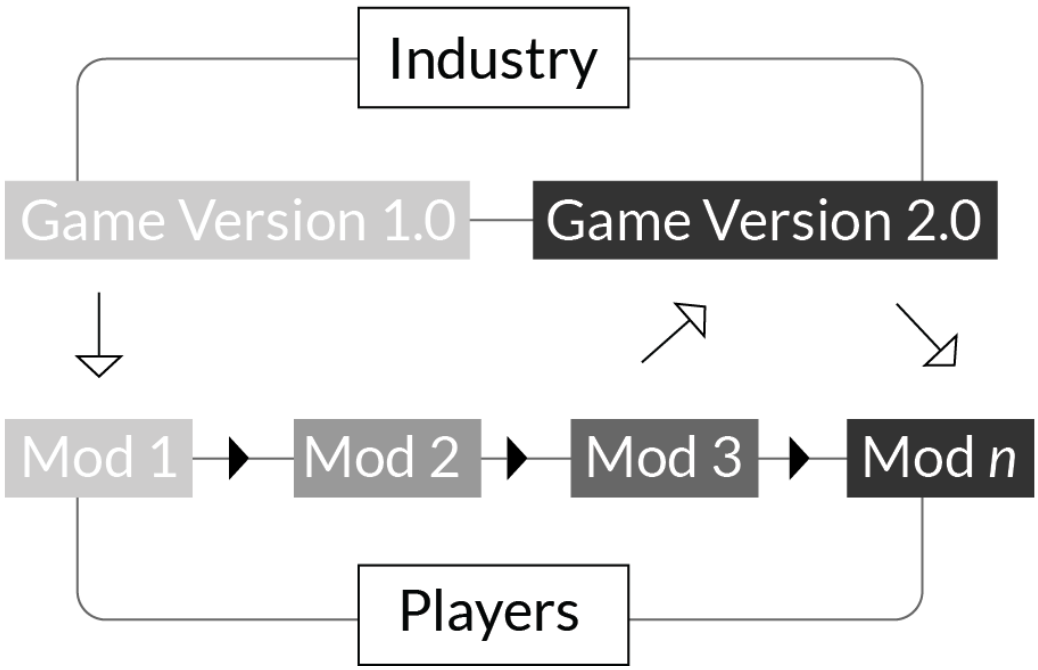

Fig. 7: Iterative Movement of Play Material between Players and Industry.

We now proceed to the next link of the chain of our evolutionary (or de-evolutionary) story of *Mutation.fem*. Interpreting the novel gender equality of characters in the official game of *Quake 2* as an invitation, an invitation that might not of come to pass were it not for the rough customizations of *Quake 1's* frag queens, so-called real life women start to play as

the female characters in the next version of *Quake*, waging battle in groups of six to fifteen players. Sharing their profiles and modifications on the Quake Women's Forum website, bored Australian housewives and mothers, and Canadian female technical professionals gaming on the clock, banded together in so-called "clans" like "Psycho Men Slayers" (P.M.S.) and "Vicious Vixens." In custom designed, player-made skins, P.M.S. clan players branded tattoos of their clan logo onto the small window of flesh visible on the character's back.[11] Thus, the noise generated by the first generation of campy female frag queens in *Quake 1* cleared the way for a new configuration of players and characters in the next commercial iteration of the game, that although adhering more closely to heterosexual stereotypes of gender, was a substantial deviation from the initial insular, boys-only terrain of the shooter game genre.

Fig. 8. PMS Clan's Custom Tattooed *Quake 2* (1997) Skins; Web; 1999.

5. TRANSMISSION OF PLAY MATERIAL

I have been referring to the digital units of modding, the changeable components of a game such as game characters, game levels, sounds, and game play patterns, as *play material*. Ian Bogost similarly describes "unit operations" in games and other digital media, units that are "characteristically succinct, discrete, referential and dynamic" (4). Viewed at a lower level of

intelligibility than Bogost's cultural-digital "unit operations," digital game components can be reduced to a sea of tiny interchangeable binary bits sharing one protocol, a formless atomic digital arche of zeros and ones, and thus the velocity of digital material's transmission over the Internet (Negroponte 14). This speed of online transmission might inspire high hopes for the rapid evolution of an open, online ludic culture shared between player and industry spheres, accessible for input from anyone with Internet connectivity and game purchasing power.

Yet despite this speed of digital transmission, play material is still configured into higher units of cultural data that speaks more compellingly to certain players over others, based on factors such as gender, geography, language, culture or more subjective considerations such as play style. Put simply, play material is not neutral. Like stories, like poetry, like advertising slogans, images and stereotypes, play material comes pre-loaded with the ticklish hum of forgotten nuances and mythologies, both with ancient noise and easily recognizable modern forms. To the extent that play material reiterates persistent patterns, such as gender representations, thematic universes, and game play styles, its transmission is similar to the repetition of a stereotype, such as the comic book-like characters that later appear in computer games in the familiar types of buxom women and brawny men. In *Declining the Stereotype*, Mireille Rosello underscores the iterative transmission of ethnic stereotypes: "Because of their strong iterative force, they travel from mouth to mouth, text to text, from discipline to discipline without losing much of their original shape and strength" (35). Similarly, while replicating across player, artist, and game industry spheres, play material transmits a persistent gendered or ethnic stereotype, or an ancient game form, along with other cultural bits.

Although digital play material is viral and pernicious as it travels through receptive players, it is also may be more open to transformation than Rosello's iterative stereotypes,

which she initially characterizes as unchanging units: "Like a block of cast iron, they form a whole that cannot be dissolved and whose main purpose is to be repeated endlessly" (23).[12] Unlike the locked-in-place configuration of the stereotype, which echoes the inseparable print-block combinations of words and images of the term's etymological nineteenth century origin, digital play material is malleable. Play material is reconfigurable, remixable, and attracts further playful abuse by ludic mutators, "ab-use" understood, following Serres' usage in the *Parasite*, as appropriations of preceding use (80). Serres writes, "Everything passes through his hands, because, more or less, everything is transformed in his hands. The exchanger is also a transformer" (43). When play material is played into the hands of a ludic mutator, a dialogue ensues between the player and the material's embedded play history.

Thus the play material of games is both repeated and transformed as it moves through player modding and game industry spheres via the milieu of the Internet, and the speed of transmission of novel configurations of play material is not impeded so by technical limitations but by cultural and market barriers to acceptance and intelligibility. As we observed with the short life span of the frag queens, a variation of a stereotype is ignored as noise when it threatens an order of heterosexist power relations propagated in gaming culture.[13] Yet even so, this initial introduction of "gender noise" cleared the way for a short-lived influx of women fighters in the First Person Shooter genre.

6. THIEVING PARASITES

The active female modders of *Quake 2* recall in some ways the female television fans of a prior decade described by Henry Jenkins as "textual poachers." Also inspired by de Certeau's poacher of everyday life, Jenkins differentiates his textual poacher from a diminutive conception of the television fan as a "feminized" brainwashed, passive recipient of mainstream media. Jenkins writes of avid television fans who produced small magazines

or "zines" of "photocopied anthologies of short stories, poems and artwork centring on one or more media universes" (157). Writing deviations of television plots such as tales of homoerotic encounters between Captain Kirk and Spock, these cultural poachers, like ludic mutators, actively remixed their own queer variations of popular culture, borrowing characters from Star Trek and other "narrative universes" (186). Here the emphasis of parasitism is on poaching, borrowing and theft, rather than noisemaking. Like the parasite's theft from the tax collector's kitchen in Serres' rendition of the rat fable, poaching is a relation of theft from the wealthy by the impoverished, an act of appropriation of a narrative universe on the part of Star Trek fans whose means of production, (photo-copied, home-made magazines), is limited in scope and impact compared to the reach of a broadcast television series.[14]

Although not as far apart by the same degree of medium and reach as television production and handmade Xeroxed fanzine, commercial game production and player modification belong to distinct spheres. A three dimensional American, European or Asian commercial game is the synchronized product of the 24/7 labour of a team of lead and follower game designers, a coterie of producers and art directors, a branch of programmers and artificial intelligence specialists, and armies of three-dimensional modellers and animators, pressured by deadlines from external game publishers and public relations publicists in the West or internal Japanese managers.[15] Upon public release of a well marketed and anticipated game, players, consumers, potential modifiers, enter the cathedral of the game world in awe, mouths agape, reverently feasting on layers of special effects, shadows, drifting fog and enticing vistas, fluidly responsive character movements, vastly intricate and complex variable statistics, upgrades, and levels. An entertainment "wow effect" is produced in the cubicles of the commercial game developer, a manifestation of the game's organized means of production.

A lone player setting out to modify such a game might initially be intimidated by the host company's vast accomplishments, secretly working alone in the bedroom late at night, testing out his level on a small group of compatriot game geeks. While exploring the game engine, the modder inhabits the host game system like an interloper, breaking and prodding the game at key junctures, erasing files to see what effect their lack produces, changing parameters to discover and isolate their operations. Canadian modder Min Le Gooseman developed *Counter-Strike* (1999) while still a college student in collaboration with a small group of local and long distance gamer cohorts. Their late night volunteered efforts ultimately culminated in a mod with a combat play style approximating contemporary commando teamwork formations in the Middle-East and in other live conflicted urban zones. Upon release, *Counter-Strike* captured the interest of a world-wide majority of (mostly male) team shooter players and, exhibiting extraordinary longevity for a computer game, continues to be played over a decade after its appearance.

Counter-Strike is therefore a rare mod whose popularity eclipsed the original commercial game of *Half Life* (1998), and is also an unusual instance of the hosting game company, Valve, sharing some financial proceeds of the mod with the modder. Publisher/developer Valve continues to absorb amateur makers of popular mods into their corporate body, hiring the makers of popular mods like *Counter-Strike* on development teams. In this instance, the host and the thieving parasite reverse roles, when Valve poaches off the efforts of the modders, even as the corporation to a certain extent rewards the modders.

More commonly, the game company keeps the players within the legal bounds of the game software's user agreement. Such agreements stipulate that no commercial gain is to be made by players for their creative modifications, an exploitive relation of information capitalism that Terranova would most likely consign to the immaterial "free labour" flowing

outside of a company, exterior voluntary labour that ultimately serves in the company's interests. Terranova writes, "Such means of production need to be cultivated by encouraging the worker to participate in a culture of exchange, whose flows are mainly kept within the company but also need to evolve an 'outside,' a contact with the fast-moving world of knowledge in general" (79). Returning to Serres cascading diagram of parasitism from the fable of the rats, the modders would occupy a position similar to the farmers from whom the tax collector parasites his wealth. The tax collector, like the game company, feeds off the labour of others. The host, the game developer, parasites its parasites (the modders) stealing what was remade of the borrowed game during long, sleepless, after-school and after-work nights.

In *the Nights of Labour,* Jacques Ranciere, resisting the usual tendency to portray the self-educated and quasi-literate as class victims, relates the inspiring boot-strapping efforts of self-motivated 19th century labourers who taught themselves to read and write long past the daylight hours of their day jobs at factories and other "low-class" illiterate employments. These workers wrote poetry and published their own journals. Similarly stretching themselves in their off-time from employment and schoolwork, amateur modders, untrained as programmers, as game designers, nor as artists, comb Internet forums, searching for the heuristic tricks and secrets to unravelling the arcane techniques of game remixing.[16]

More recently, the expertise of modders, their specialized contribution to gaming, relies on their experience of countless hours of gameplay. A mod such as *DotA* (Defense of the Ancients), does not substantially change visuals, game world themes, nor invest intensive production time in the building nor the programming of artificially intelligent characters and new scenarios. What such more recent mods do instead, quite economically, is to modify the *game form*, simply reusing much of the play material already available in the original game of *Warcraft III*.[17] In the *DoTA* mod, compared to the original Warcraft III game, rounds are

of a shorter duration and players centre their attention on advancing a “hero” character instead of attending to resource management. With a few notable exceptions, such as the innovative and experimental three-dimensional puzzle mod *Portal* (2007), we find a somewhat unsatisfactory answer to Galloway’s wish for future modders to contribute more to gameplay in these minor refinements of the original game’s rules and form.

7. A COMMON SPHERE OF GIFTED GAMES

Upon successful reception of a mod among other players and the subsequent adaption of innovative play material from the mod in a commercial release, the modder might be flattered by the mimicry of the game industry, even without financial recompense. Many analyses, such as Eric Raymond’s varied applications of gift economies to open source software writing, attribute the motivation behind the sharing of free software and other digital objects like game modifications to honour. Renown among other players may seem sufficient reward for voluntarily creating and sharing a digital game mod. In a subsection of a larger essay entitled “The Hacker Milieu as Gift Culture” Raymond writes, “it is quite clear that the society of open-source hackers is in fact a gift culture. Within it, there is no serious shortage of the `survival necessities'—disk space, network bandwidth, computing power. Software is freely shared. This abundance creates a situation in which the only available measure of competitive success is reputation among one's peers” (“Homesteading the Noosphere”).

Even at a time of widespread privatization of culture, amidst the parsimonious colonization of knowledge down to the level of genes, various models of freely shared content are available to Internet users. Open source software code is available on SourceForge, and the Creative Commons data archive makes available freely usable images and sounds. And in the previous chapter, we have already seen the isolated example of freely

unfolding doll games. A more widely used, common recourse might also be proposed for other genres of modifiable games such as three dimensional action games, although certain practicalities of development, (the specialized production forces employed in such productions), may be inhibiting to amateur gamemakers.

One evocative model that has been proposed for open cultural and scientific development, similar in some ways my adaptation of Arendtian action in the previous chapter to unfolding games, is Paulo Virno's coalition between Hannah Arendt's "Action" and "Intellect" (190).[18] To counteract Arendt's alleged solitary Intellect of the contemplative philosopher's tradition, Virno suggests that General Intellect, derived from Marx's notion of science and communal knowledge embodied in machines, should be elaborated expansively to "a faculty that makes possible all composition" through communal "virtuoso scores" (190). Although Virno does not provide specific examples of virtuoso performances, generally speaking, the General Intellect, when not "inhibited and distorted" by "Work," takes as its starting point common participation in an action arena inspired by Arendt's "Space of Appearance."

It is tempting to apply this radical postulation of General Intellect as a non-state and non-commercial sphere of commonly shared scores to the present and future Internet, and to digital media like games. As an alternative to the disparities and unequal relations between Information Age parasites and hosts, a more unilaterally common digital online resource of gifted play material might be preferable. A free distribution of common play material made entirely by the modders might eliminate the parasitic, exploitative "class" of commercial game developers, and would do away with the unequal poaching relations between players and industry. Such a non-commercial development process might also foster a greater diversity of gamic producers of varied gender's, ethnicities, proclivities, and of game types.

8. REJECTED GIFTS

While interesting to consider as an alternate configuration of player-driven evolutionary game culture, actual modding of computer games is not an equal relation of partners who share game "scores" back and forth in free-flowing symbiosis. In the practice of modding commercial shooter games, we have observed distinctions between hosts and parasites. Parasites could be anyone with the means to acquire a copy of a game, legally or through piracy. Alternately, the game company poaches off the voluntary labour of players. Exchange of play material between the market-driven and the volunteers is impure, an uneven jungle of propriety hosts and stealing parasites.

Unabsorbed by capitalism's appropriation of a subversion, a queer play practice remains as an excess, a forgotten, troublesome, or noisy gift from the perspective of the host, unexploited by commercial interests. De Certeau writes, "The loss that was voluntary in the gift economy is transformed into a transgression in a profit economy: it appears an excess (a waste), a challenge (a rejection of profit), or a crime (an attack on property)" (27). Similarly, Mauss references a period in Roman law when an attempt was made to curb the exchanges of the gift economy, which were viewed as harmful to evolving the market: "By a venerable revolution they passed beyond that antiquated and dangerous gift economy, encumbered by personal considerations, incompatible with the evolution of the market, trade and productivity—which was in word uneconomic" (52). The Infocapitalist market is similarly averse to any obligation to take on the risks presented by the gift economy, yet seems in the case of modding to enjoy the prerogative to also profit on occasion from the the parasite's gifts. Most computer game developers deftly evade any uncomfortable "debts" incurred from their paying customers voluntary efforts by either turning a blind eye, or pointing to the stipulations laid out in the software user agreement.

The host, in the grip of an impulse to channel ludic eroticism into a heterosexual norm, following North American, European or Japanese game industry standards, and subject to market pressure from his game publisher to release yet another sellable sequence of action-packed missions, ignores opportunities to parasite the parasites, the ludic mutators and frag queens. Although cynics of "digital potlatch culture" imply that the products of free labour are easily stolen by commercial interests, only certain play material leaps from parasite to host, such as the numerous titles released in the United States and Europe during the beginning of the War on Terror, games that unabashedly replicate the binary counter-terrorist teamwork formations developed in the *Counter-Strike* mod. These new configurations are not necessarily progressive evolutionary movements of game culture. Attesting to the unknowability of the evolutionary and progressive capacities of the system, Serres writes "in the black box we don't know what belongs to the system, is against the system...not sure whether diagram of the rats (country and city rats) is generative or corrupting" (16). Indeed, the most infectious offerings of modders may contribute more to an enclosure of game culture than the product secretions of the game industry itself.

I have touched on customization, interface mods, masterful cheating, paidiaic noise, and artistic game hacks as approaches within a non-exhaustive repertoire of ludic mutations undertaken by modders. Modders, untrained game makers and everyday players, infiltrated the interior of the sophisticated game system with noise, appropriating the game's objects and leaving their mark on the game world. In turn, some of their voluntary labours are poached by game companies, who absorb modded material into their products and then release them in serial commercial excretions. Yet if the mod deviates too far from accepted cultural codes, game forms, representational codes and stereotypes, play material encounters resistance and normalizing barriers in transit that inhibit its "crossing over" to the industrial host. Serres

observes of the host that "he overvalues the message and undervalues the noise if he belongs to functioning of the system" (68).

We can imagine tracking units of play material as if they were viruses, a cultural scientist visualizing lively mutations, spectacular dead ends and straight plodding lines. Frag queens to female fighters are but one branching among other past and future chains and forks of iterative, modular mutation of play material. Unlike Serres' uni-directional cascade of parasitism that only flows in one direction, the play material of modding ricochets back and forth between common and proprietary game spheres, both poached and gifted as it passed through the hands of modders (ludic mutators) and game developers. Thus, in addition to appropriation, the parasite is also capable of symbiosis when the opportunity is ripe. On a more optimistic note, even the parasite's disruptive noisemaking, although often suppressed or ignored, may clear the stage for a new configuration of play material. The contrarian wish arises, for the sake of game culture, that industry would exploit more of the unusual "outside" gifts offered by past and future modders and ludic mutators.

Notes

[1] I define play material in this chapter as any aspect of a game that can be modified or changed.

[2] Northwest Coast Native American tribes hosted spectacular potlatch celebrations where abundant goods, blankets, tools, and jewellery, given away with the expectation of future reciprocal festivals, however unspecified. Mauss anthropological treatise compares the potlatch economy of these Native American tribes to similar systems in Polynesia and among the Maori. He contrasts the gift economy to the calculated exchanges of a Western economy founded on private property where producers are more alienated from their products, as well as from any social bonds to the recipients of their goods once their merchandise has been sold (42).

[3] A few years after the commercial game release, Id Software also gave away the entire source code of Doom on the Internet.

[4] A death-match is a round of chaotic slaying of all other players.

[5] In a Real Time Strategy game, players gather resources and build military bases, placing units of miniature toy warriors in strategic locations on the synthetic terrain. The DoTA mod offered players a variation on RTS (Real Time Strategy) rules, introducing a more powerful "hero" character and allowing for shorter matches of an hour in length than the original game's potentially day-long battles. The DoTA mod is an accumulation of many smaller alterations on the gameplay rules of the original Warcraft III game and it is difficult to pinpoint one modder who is responsible for the final resulting mod.

[6] A Game Design Document is a standardized written document in the game industry specifying the characters, levels and challenges of a new game.

[7] Modders of *World of Warcraft* interfaces do share screenshots of their layouts with each other on gaming forums and websites outside the actual game itself.

[8] For instance, in 2011, Norwegian Anders Behring Breivik's habits of game play were tied in media reports to his cold-blooded fatal shooting of eighty teenagers in an island summer camp meeting of the Swedish Labor party.

[9] I am not referring to the princess type character offered as trophy in games like Legend of Zelda but to the active male "protagonist" avatars controlled and "worn" by the player.

[10] To "frag" is slang for killing in the game of Quake.

[11] Some female *Quake* clans like PMS also permitted male members to join—as long as they were willing to play as "towel boys"—male avatars wearing nothing but clan designed towels.

[12] Rosello does later proposes a theory of stereotype "recycling" in *Declining the Stereotype*.

[13] These deviations can also be understood, as we will come to further on, as unacceptable gifts.

[14] Seen from a longer historical view, the player's appropriation of a commercial game is a taking back what was stolen fairly recently by the private game industry from ancient game forms. Unravelling a chain of borrowed, thieved, received and given play material back to pre-computer game history, we enter a more unilaterally common play domain, when games were not commercially owned property but were passed on through school playgrounds, across the ball courts of Aztec and Mayan empires, played by Egyptian queens of backgammon, by Sanskrit and Chinese military strategists of chess, bored sailors, and Go playing courtesans—the names of the inventors of classic games lost to the history of common cultural artefacts.

[15] The one person programmer/game designer of the 1980's resurfaces only as an independent designer of casual games, Indie games and art games.

[16] And only recently is it even possible to learn to be formally educated in the making of games—many professionals in the industry began as amateur modders.

[17] What I refer to as the *game form* is the rules and objectives of play which in a computer game are programmed into the limits on the actions that the player can and cannot do in the game world, as opposed to an external written list of rules like those of a board game.

[18] Contrasting to his coalition between Action and Intellect, Virno characterizes Action's "coalition" with Work as capitalism's proprietary corruption of the open evolution of knowledge and culture.

Chapter Three: Clockwork Worlds: Activist Games, Harrowing Missions, and Broken Toys

Toy trains circle through a 1:25 scale model of traditional Dutch buildings and landmarks in the miniature city of Madurodam. Miniature cargo ships float along canals and toy delivery trucks loop around a peripheral freeway. These vehicle circulations follow a reliable daily schedule ever since the tourist attraction was constructed in 1952 as a memorial to George Maduro, a young Jewish member of the Dutch Nazi resistance. On travel blogs, visitors remark on the "punctuality" of the miniature city's transportation, recalling their childhood fascination with the "moving parts" of Madurodam's toy vehicles. Despite the vacant artificiality of the setting, the frozen-in-place postures of Madurodam's doll-citizens, and the peculiar conglomeration of national landmarks in one Disney-like city, young and old delight in the liveliness of the toy city.[1]

With similar interlocking, repetitious movements, like the hypnotic circuitous loops of a model train set, miniature computer game worlds draw the player into convincing abstractions of everyday operations. The hum of movement within a computer game, the automated circlings of artificially alive "non-player" characters, the scheduled passages of toy-like trains and vehicles and the passage of sun and clouds, synchronize with outside-the-game spheres of operations, convincing the player of the parallel efficacy of the clockwork model. Bespelled by these motions, the player believes in the model regardless of whether game characters appear in photorealistic detail or are capable of a convincingly human, artificially intelligent conversation. Moving interlocking parts conform to a functional, rational diagram of a rhythmic clockwork universe where all is running as it should.

Similar to the application of simulation in the field of computer science, all manner of lively processes from the world are modelled into game worlds, from gardening to crowd

fluxuations.[2] For instance, in the classic simulation genre game, designer Will Wright's the *Sims* (2000), the domestic life of a suburban North American family is simulated in a doll-house-like game where vivacious Sims people eat, walk, urinate, socialize, and speak in "Simlish," a pseudo-language of emoticons. In this chapter I will in particular draw on a stream of game investigation conducted over the last twenty years on simulation and the "procedural" logic of games, the lively processes and movements that unfold each time a game is played. Much of this theorization comes out of a post-graduate study program directed by Janet Murray, who initially proposed that a computer game is a cultural work produced by a "procedural author" (153).

Although my argument in this chapter will be informed by the substantial inroads that these game simulation researchers like Ian Bogost and Gonzalo Frasca have wrought theorizing the dynamic "procedural rhetoric" of games, what has been somewhat overlooked is a deeper questioning of procedurality itself (Bogost "Rhetoric of Video Games" 125). In particular, I am interested in the impact of these gamic procedures and simulations on political or social critique in so-called "serious games." Serious games is a grab-bag appellation for diverse educational, training, and activist games which in this chapter I will primarily limit to the analysis of "activist simulation games," games with explicit political and/or persuasive ambitions on the part of their makers. These activist gamemakers attempt to make use of mimetic algorithms in the game to present a persuasive argument in motion, to lodge an activist critique, or to open a political question. Therefore in my definition, an "activist simulation game" is both a. motivated by an activist or political intention on the part of the gamemaker, and b. attempts to harness simulation or procedurality in the game to carry the maker's political critique or message to the player.[3]

A definition relying partially on the author's intention does encounter inherent contradictions, as when for example games not intended explicitly to be politically persuasive, such as entertaining war games, can easily be read as propaganda. But the desire on the part of the gamemaker to use games as a form of political argumentation, both when it succeeds and when it fails as it is countermanded by aspects of the game, is a tension that I hope to explore in this chapter. Referring to this difficulty in designing serious games Mary Flanagan writes, "These play spaces must retain all the elements that make a game enjoyable while effectively communicating their message" (249).

In an activist simulation game, a play move is not just a well-timed step and a jump but also carries great weight, for instance a member of an endangered species of Malaysian elephant attempting to reach the cover of diminishing rainforest. And yet despite this added worldly weight and consequentiality within the toy world of the game, it is often difficult to take serious games seriously, (I mean seriously). Although game makers set out to shock players with a moving diagram of harmful and tragic operations, players conversely succumb to the enchantment of lively, toy-like, mechanical processes within the miniature, abstracted clockwork game world, no matter how damaging the operations in the exterior world, regardless of how many dolphins are killed or how many tracts of the rainforest are depleted. The game asks to be played and mastered, inviting the player to enter into its cause and effect mechanical loops, regardless of the consequences—for it is only a game after all.

The toyness of the world of the game, the abstraction of the model that announces itself as game, not life, may then contribute to this nullification of the game's critical impact.[4] But moreover, I will argue that the operational movements running inside the game induce a complacency akin to what Martin Heidegger referred to as "everyday sight," a way of "Being-in-the-World" already familiar to us from procedural interactions in the world outside

the game (*Being and Time* 107). So as to better understand the effect of the procedurality of the game on the player, I will therefore draw on what may seem an unlikely and acontemporous source from outside of game studies and computer science, and even from outside of what is often considered political or social critique.[5] In *Being and Time*, his primary philosophical work devoted to forwarding a temporal, embodied phenomenological understanding of human existence, Heidegger theorized a common, everyday mode of being (ontology) and a mental framework that he understood as a submersion within the everyday circulations and procedures of the work-a-day, social world (*Being and Time* 78). This practical view on the workings of the world is what he refers to alternately as "everyday sight" and "circumspection" (*Philosophical and Political Writings* 107). A railway line transports workers from suburbs to the city, the suburban train stopping to let a passenger alight at an inner-city station, guarded by a vigilant conductor who steps in a back and forth pattern on the station platform. Such an interlocking set of functional workings, which we also see running compellingly in the toy city of Madurodam, is supplementary to Heidegger's "Dasein in the They," an immersed everyday orientation within the common world (*Being and Time* 167). We seldom question or "disclose" our place or the place of others in such work-a-day utilitarian operations, for to do so continuously would impede our ability to plug into the "equipmental workshops" we use to take care of daily business (*Being and Time* 105).

The dilemma that confronts the activist simulation gamemaker is that the very procedural logic of the simulation game that he or she hopes to harness for a provocative critique has a bespelling effect on the player, comparable to Heidegger's state of fascinated absorption in the practical workings of the world (*Being and Time* 107). Examples of equipment in *Being and Time*, of clocks, hammers, planes, and needles, speak of a more rhythmic, mechanical, Industrial Age, but almost a century later, well into the Information

Age, much of our world is still composed of functional, instrumental relations, on and off the screen (*Being and Time* 99). Circuitous operationality has found yet another abode in the weightless, abstract toy workings of computer games.

And yet there are exceptions to the "rule" of the genre. In a certain type of activist game that I refer to as a *harrowing mission*, the player finds his or her character cast adrift inside the world, encompassed within a crisis. Although the player of a harrowing mission is permitted very few choices over the course of the game, (he or she can only run, hide or die), the player's bid for survival, if well-crafted by the game designer, engenders genuine empathy for the plight and suffering of another outside the game.

Additionally, there are ways to break out of the bespelling circle of toy operationality. A rupture in the game may catapult the player outside the comforting and rewarding operational sphere of the clockwork game world and induce him or her to critical reflection, contestation, or action. I will argue that the player's shift from fascinated immersion in moving game world operations to a disturbed confrontation with a malfunction of play mirrors Heidegger's anxious illuminations of the operational clockwork loops of the world that might arise when a tool, like his oft invoked hammer, is broken or missing (*Being and Time* 102). A break in the smooth functionality of the game discloses its operational logic in greater "totality" (*Being and Time* 105). For Heidegger, a "clearing" of everyday sight uncovers the disquieting temporality of "the who's" existence, as well as illuminating his possibilities (*Being and Time* 167).[6] Yet, in the hands of the activist or political agitator, this unsettling pause or stop, this interruption of the game's workings, can also be a moment ripe for the critical reflection and evaluation that precedes political action.[7]

1. OVERSEERS OF TOY WORLD OPERATIONS

Let's enter into a closer comparison of toy world operations at work in two widely-played activist simulation games. The player of Uruguayan Gonzalo Frasca's airstrike simulator game, *September 12* (2003) assumes a "god" or "birds eye" position overlooking a Middle-Eastern city from above, similar to the perspective on Will Wright's classic *Sim City* (1989) where the player as city planner constructs and manages a city from above. In fact, many simulation games position the player as a distant overseer of automated, minutely-scaled, toy world workings.

This miniature toy world inspires magical delight in the player, stimulating a "philosophy of the imagination" as Gaston Bachelard describes it in his ruminations on doll-houses and toys in the *Poetics of Space* (149). In Bachelard, childlike wonder and giddy delight are also more rarely accompanied with a darker joy, a "philosophy of domination" surrounding the miniature: "From the top of his tower, a philosopher of domination sees the universe in miniature" (173). In his "belfry daydream," individual lives are rendered at the scale of "flies" and greater cumulative patterns become visible from the belfry tower. Similarly floating far above the ground plane, Michel de Certeau begins a chapter on "Walking the City" with a view from the top of the former World Trade Center in New York. The elevation of Certeau's walker from street level to the 110th floor "transforms the world by which one was possessed into a text that lies before one's eyes. It allows one to read it, to be a solar Eye, looking down like god" (92). Certeau's great Eye recalls the late 1990's practice in the game industry and among players of referring to simulation genre games with an overview perspective alternately as "god games." In *September 12*, this powerful, omniscient perspective over the Middle-Eastern city corresponds succinctly with the United States and its allies' capacity for warfare from above by means of remote satellite

surveillance and airstrikes.[8] The gazer from on high exercises a mastery and control of the visual plane, while patterns and circulations become discernable to the overseeing player.

Fig. 1. *September 12*(2003) by Gonzalo Frasca; Game Screenshot.

The goal at the outset of *September 12*, similar to many commercial war games released after the terrorist attacks in the United States on September 11, 2001, appears to be to eliminate terrorists from the streets of a Middle Eastern city, identifiable by their gray robes and machine guns.[9] But as the game proceeds, the player apprehends that the more frequently he launches missiles on the terrorists in the city, the more neighbouring civilians, including women and children, are converted into terrorists. Forging a rational feedback loop between the player's actions and visible outcomes in the game environment, *September 12* simulates an escalating cycle of conflict exasperated by the War on Terror. This interactive, escalation between player and game becomes a dynamic, interactive argument for "violence begets violence." Thus, the game makes a case for peace via the interactive simulation of strife between the terrorists and the player—who is cast in the role of air force striker.

But here we may be slightly misled in applying Frasca's own belief in the rhetorical power of simulation to the analysis of the game ("Simulation 101" 6). The cycle of violence

escalation largely becomes illuminated in a critical light because the game does not work properly as a game—the only way to "win" the game would be to abstain from playing, from interacting with the game! [10] On the flip side of the "positive" simulation of a damaging cycle of violent escalation, lies a negative argument for non-intervention, for non-engagement, a "no play imperative" at neither war nor games. Paradoxically, can the simulation of a harmful process only become visible (disclosed) to the player, and thereby leveraged as critique, if the game is made unplayable? Before we return to this question, let's take a few moments to consider how procedurality and simulation has been understood in game scholarship thus far.

Murray was one of the first to call attention to the procedurality of games and electronic media. According to Murray, "Procedural authorship means writing the rules by which the texts appear as well as writing the texts themselves. It means writing the rules for the interactor's involvement, that is, the conditions under which things will happen in response to the participant's actions. It means establishing the properties of the objects and potential objects in the virtual world and the formulas for how they will relate to one another" (152). Bogost refers to the impact of such gamic procedural mechanisms on the player as "procedural rhetoric": "I suggest the name procedural rhetoric for the practices of using processes persuasively, just as verbal rhetoric is the practice of using oratory persuasively and visual rhetoric is the practice of using images persuasively" ("Rhetoric of Video Games" 125). Similarly, according to Frasca, a game designer or "Simauthor" (simulation author) communicates via the rules, logical processes and algorithms in the game that model the trajectory of outside the game workings and outcomes: "Whoever designs a strike simulator that is extremely hard to play is describing his beliefs regarding social mechanics through the game's rules rather than through events. [...] They are not only able to state if social change is

possible or not, but they have the chance of expressing how likely they think it may be" ("Simulation 101" 6).

The activist game maker therefore believes it is possible to harness the procedures of the game to mimic the probable outcome of a military assault, and to thereby communicate a particular belief about the working of the world to the player. Simulation games deliberately encourage the forging of correspondences from inside-the-game actions, procedures running within Johan Huizinga's "magic circle" of play, to external spheres of action, so as to provoke a confusion that Bogost dubs as "simulation fever": "But for the magic circle to couple with the world, it must not be hermetic; it must have a breach through which the game world and real world spill over into one another. The residue of this interaction infects both spheres, causing what I earlier called simulation fever, the nervous discomfort caused by the interaction of the game's unit-operational representations of a segment of the real world and the player's subjective understanding of that representation" (*Unit Operations* 136).

The simulation game's "procedural argument" intentionally blurs the fence between game and world, but there are important differences between the operations running on either side of this fence or *ludic border*. Although all games have dynamic, time-based procedures, not all of these play moves make much sense outside the game—in other words, to state the rather obvious, not all games are simulation games. For example, the hopping moves of checkers do not correlate to any specific action undertaken in the world outside the game, and the falling, colourful squares of *Tetris* (1984) are just that, falling colourful squares. Signifying purely as play moves, actions in such abstract games procedurally advance the game forward towards a goal (or multiple goals) triggering wins and losses. By contrast, in the simulation game, actions and processes signify doubly as both gamic procedures and as metaphoric actions.[11]

The ludic border often manifests quite literally as the edge of the game world. So in addition to the game's rules, the shape of the environment itself, its simulated "ludaform," sculpts the likely scope of potential actions, serving as a pre-programmed both delimiter and afforder of actions, influencing what is possible inside the game.[12] For instance, a computer game player walks a character to the edge of the game where a virtual architectural barrier—a wall, a cliff, or a voice over command, or other programmed limitation, constrains the range of potential play action. Jasper Juul writes: "The level design of a game world can present a fictional world and determine what players can and cannot do at the same time" (163). Play over time reveals prohibitions and action possibilities initially concealed within the game world, for as Murray writes, over time the simulated "presentation of the world would make clear the limits of our powers" (178).[13] The ludic border of the game, in whatever form it takes, as spatial virtual borders, as spoken, remembered, or written rules, gives shape to in-game actions. Thus the simulation of exterior worldly processes is superimposed on the game's own gamic procedurality and ludaform.

And yet even if the overall effect of the mixture of both procedural spheres on the player is Bogost's "simulation fever" that confuses the operations of reality and game, this does not mean that the player takes much critical notice of the simulated operation in activist games, as will become apparent in the following example. By way of comparison to *September 12*, lets now consider Molleindustria's farcical *Macdonald's Game* (2006), another widely played, free for download, activist simulation game affording the player an overview of a miniature toy world. Similar to *September 12*, Milanese Paulo Pedercini's (Molleindustria) *Macdonald's Game* simulates a harmful operation. Structured as a managerial simulation game, and implementing a slick graphical user interface button panel reminiscent of *The Sims*, the player alternates between managing four distinct production cycles: a. the overseeing of farm production, b. administering to a cattle feedlot, c. managing

a chain of hamburger-griller workers, and d. negotiating policies and marketing campaigns in "corporate headquarters." The challenge of the game is to effectively multitask, manage, and maintain the production routines in all four areas without letting one slip. As the player's skill improves, outcomes of actions in one sphere of operations have ramifications elsewhere in the game. For instance, if not enough cattle are raised, negative consequences arise further up the supply chain, ultimately effecting the Macdonald's Corporation's bottom-line. Although *Macdonald's Game* periodically discloses snippets of textual information about fast food industry practices, it is this simulation of lively processes that imparts a convincing overview of interlocking cycles of fast food bio-production, from deforestation to public relations campaigns.[14]

Fig. 2. *Macdonald's Game* (2006) by Molleindustria; Game Screenshot.

The movement of this lively cooperation of interlocking workings in *Macdonald's Game* exerts the enchantment of what Chaim Gingold refers to as a "miniature garden," a reduced, abstracted world like a Japanese garden, model train set, or a doll house. Over the course of his Master's thesis, Gingold expands on the term he encountered in an interview

translated from Japanese with Shigero Miyamoto, the influential game designer of Nintendo computer games ("Miniature Gardens and Magic Crayons"). Gingold writes, "a garden has an inner life of its own; it is a world in flux which grows and changes. A garden's internal behaviours, and how we understand those rules, help us to wrap our heads and hands around the garden. [...] Gardens, like games, are compact, self-sustained worlds we can immerse ourselves in" ("Miniature Gardens and Magic Crayons"). The reduction in scale and in complexity in a Japanese garden, the scaling down from forest to tree, from lake to pond, serve in a game as a cognitive aid for the player's apprehension of the systematic clockwork world, a miniature sphere of operations. Each abstracted component of the miniature world appears to be placed just where it belongs, for "nothing is missing, and nothing can be taken away" (Gingold).

Gingold's miniature, garden-like game is a *lively* system. Growth follows its own animated trajectories, enhancing the magical vivacity of the toy world, but also demands that the player intervene and maintain inputs and outputs, growing soy and fattening cattle, processing them into hamburgers and selling them to customers. The player in *Macdonald's Game* assumes the position of a great gardener, planting, producing, and pruning, nurturing and administering to the game-system.[15] This more production-oriented, managerial role in *Macdonald's Game* contrasts to the player's airstrike view over the village in *September 12*. Yet in both games, the player still performs as an overseer of miniature toy world operations. The assumed goal of many such simulation games is the continued survival of the artificial system itself—the toy world's motions should never stop.

Thus despite recurrent dips into bankruptcy, *Macdonald's Game* operates so well as managerial training software for the maintenance of a toy-like, cheerful cow and hamburger world that the ironic subtext of unethical business practices passes by unremarked by players. When my game design students in Singapore played *Macdonald's Game*, they seemed

largely unconcerned about the detrimental side effects of hamburger production on workers, animals, consumers, or the environment. They were willing to undertake the necessary to keep the game system alive and the Macdonald's corporation above the bottom line, even adding diseased cows to the food chain. The motions of the toy world of *Macdonald's Game* become an argument for fast food production, countermanding the subversive, critical agenda of the game maker.[16]

Another much earlier example of an activist simulation game that similarly fails to convey the gamemaker's intended critique of a "harmful operation" is the American Quaker Elizabeth Maggie's *Landlord's Game* (1904). Maggie designed the board game to criticize the accumulative greed of landlords towards their tenants. But later the *Landlord's Game* evolved into the game Parker Brothers trademarked and marketed as *Monopoly*. The enchantment of playing at simulated gamic operations such as acquiring properties ultimately subsumed Maggie's critique of tenancy practices. Bogost's contention that games persuade with procedural logic about "how things work," understood in light of the pure efficacy of gamic procedurality itself, could be reworded as games persuade no matter what is working ("The Rhetoric of Videogames" 125).

In sum, simulation games persuade with operational models of how things work outside the magic circle of play, forging linkages across the ludic border between gamic operations and worldly operations. The enchantment of a game is enhanced by the interweaving of these operational algorithms into a lively abstracted whole, Gingold's miniature. This contained, integrated, diegetic clockwork world is reduced from a greater complexity—from forest to miniature garden, from neighbourhood to dollhouse. *September 12* more successfully fosters a critical withdrawal from the game's operational sphere, a sphere that in addition to simulating war against the Middle East includes specifically gamic procedures, such as the expectation to win by eliminating toy opponents. Frasca disappoints

these aspirations in the player, puncturing the hermetic seal around the neat play mechanisms of the toy world. When the game's equipment is thus derailed, the simulation's logic is exposed to the light, uncovered from the enchantment of the toy world.

2. THE ENCHANTING ORDINARINESS OF TOY WORLD EQUIPMENT

The player interacts with the game via its "equipment," through keyboard strokes, touches, buttons, and controls that are often organized into an instrumental "dashboard" at the edge of the screen. The equipment also refers, if we apply an extended Heideggerian interpretation, to the larger operations ("workshops") that these buttons trigger or manipulate (*Being and Time* 100). *September 12* presents the player with a weapon for targeting and shooting the terrorists; *Macdonald's Game* offers the player a colourful toy like button-interface of slaughterhouse machinery to convert livestock first into hamburgers, and then a different range of equipment for converting hamburgers into dollars. In a chapter of *Being and Time* entitled "The Worldhood of the World," Heidegger describes the equipment required for his everyday operational view of "Being- in-the-World": "In our dealings we come across equipment for writing, sewing, working, transportation, measurement. [...] A totality of equipment is constituted by various ways of the 'in-order-to', such as serviceability, conduciveness, usability, manipulability" (*Being and Time* 97).

These equipmental operations of what I have been referring to as the clockwork world seem to come from a realm of everyday, common-sense. Referring to the simulation of a natural cycle in a clock, Heidegger writes, "In a clock, account is taken of some definite constellation in the world system" (*Philosophical and Political Writings* 72), and further on he writes, "When we make use of the clock-equipment, which is proximally and inconspicuously ready-to-hand, the environing Nature is ready-to-hand along with it" (*Philosophical and Political Writings* 101). In other words, those earthly relations that are

simulated or brought along into equipment, such as the movement of the sun from day to night being replicated in the clock, are easily "discovered" and naturalized in the "clock-equipment."

Equipment, or the "ready-to-hand" is easy to see, contrasting to Heidegger's "presence-at-hand," the term he uses to refer to the sounds and colours of perceived but not yet differentiated "reality," such as a rumble of noise that upon reaching the ear does not quite resolve into the screech of a passing motorbike (*Being and Time* 228).[17] Unlike the confusion that an intrusion of "present-at-hand" reality might occasion, the equipmental operations of the ready-to-hand world are easily apprehended, made sense of, or "discovered." The equipment's functionality seems obvious, running smoothly in plain sight, in the common sense realm of "the They." Naturally, the player would want to use the available buttons to operate the machinery to farm and produce hamburgers.[18] Simulation games thus simulate alleged processes from an outside the game sphere in plain view, invoking the everyday sight of how things work, the operations of fast food production, or of the efficient airstrike machine.

Although ready-to-hand equipment is easily discoverable, it also is in another sense hidden. The familiarity of everyday sight or circumspection, conceals "the totality" of a clockwork operation, the in-order-to relations that it is connected to, including objects and persons at a distance (*Being and Time* 105).[19] Immersion in the clockwork world's operations is a state of "concernful" absorption that is to a certain extent blind and alienated, not only to its own existence, but to the larger repercussions of the operation (*Being and Time* 101). The game's movement compels the player to accept its operations as ordinary, as unquestionable cycles of everyday life, unfolding within plain view or, to be more precise in relation to simulation genre games, within the elevated plain view of the great overseer of toy world operations. The challenge that then confronts the activist game maker is that no matter

what these simulated operations are, as they run with evocative mimicry within miniature toy worlds, they acquire everyday currency and uncritical acceptance among players via the motion of their interlocking, toy-like workings.

3. PLAYER VS. GAME

But do the toy world's mimetic procedures really subsume the player to such an extent? Is the operational functionality of the game truly so bespelling? Furthermore, an allegation could be made that Bogost's rhetorical transmission of procedural game logic from the sender (the game maker or "Simauthor") to receiver (the player) is limited by a communications model of sending and receiving. The player in this analysis, even while interacting with the game, becomes a passive recipient of rhetoric in motion. In his Master's thesis titled, "The Videogames of the Oppressed," Frasca proposes that players, not only game makers, potentially impact the ultimate rhetorical "outcome" of a game by channelling the course of play into directions unimagined by the gamemaker. Frasca calls upon Brazilian theatre director Augusto Boal's "Theater of the Oppressed" as a model for how a game can depart from "Aristotlean narrative closure" ("The Videogames of the Oppressed" 7). Frasca writes "one of [Boal's] most popular techniques, re-enacts the same play several times by allowing different audience members to get into the stage and take the protagonist's role," resulting in unforeseen outcomes ("The Videogames of the Oppressed" 7).

Such player-directed outcomes are also evident in variations of *the Sims*. Proper gameplay of *the Sims* would consist of following a blueprint for breeding a miniature Sims people family in a doll-like digital house. Sims people can marry, reproduce, acquire furniture, decorate, and enlarge their family's house and income—and yet some players diverge from this "script." Distributed through the Internet YouTube video-database, spectacular demises of Sim life are documented in a dark genre of game videos known as

"Disaster Sims." In a chapter entitled "Playing House," Mary Flanagan characterizes these "macabre" Sims games as the contemporary equivalent of Victorian dollhouse re-enactments of funerals and crime scenes: "Victorian practices of doll funerals have been translated to macabre Sims rituals where virtual dolls suffer, become malnourished or burned within the normative suburban environment" (58). In a Disaster Sim, the maintenance of the Sims family, of their belongings or of their home breaks down, such as in the birth of twin Sim babies in a burning kitchen. In the Sims 2 Video, *Episode 6: Death*, a final episode by "someone7272," all the human Smith family burn to death in their mansion, except for two adult dogs, Lulu and Charlie, and their two surviving puppies, (evidently many of these macabre Disaster Sims makers are children). With the morbid, broken toys of "Disaster Sims," we return via a different path, following the player's initiative rather than the gamemaker's, to derailed game equipment.[20]

On the other hand, when the toy is not broken, when the system is running without interruption, as when the player engages with the productive fast food mechanizations of *Macdonald's Game*, the player remains blind to its workings even as he plugs into its persuasive everyday sight. Losing track of time, the player immerses herself in a sequence of game challenges that if designed well, alternates rewards (points, bonuses, and additional tools), with escalating peaks of difficulty, oscillating within what psychologist Mihaly Czikszentmihalyi refers to as a pleasurable "flow state" between challenge and skill (74). The flow state may be experienced while engaging in any absorbing activity like work, music-making or gameplay. Thus contrary to Frasca's notion that the player directs the game as his interactions and decision-making alter the course of the game "script," the player's fascinated state of absorption suggests a loss of agency to the game.

Similarly, from the realm of philosophy, Hans-Georg Gadamer makes the inverse proposal that the game plays the player rather than the player the game. Gadamer, a former

student of Heidegger's, conducted an inquiry into aesthetics and art that brought him to the phenomenology of play. Gadamer's player gives up his will to the game while performing the reflexive moves demanded by a game: "The structure of play absorbs the player into itself, and thus frees him from the burden of taking the initiative, which constitutes the actual strain of existence" (105). The player merges with game, entering into an ongoing interactive, reflexive feedback loop: "What happens to us in the experience of art, Gadamer suggests, is very much like what happens to us in play: we lose ourselves" (Weinsheimer 102). Unless the player is forced to reflect upon correspondences reaching beyond the game, the player's critical and reflective capacity, political or otherwise, is easily bespelled amidst the movement of game actions. Reacting with neither doubt, nor on the contrary, belief, the player flows with the game's operational allegations about how the world works.

Only when the model is broken, by the player or through a sabotage installed by the gamemaker, do the toy world's algorithms and workings become visible. Heidegger writes, "When something ready-to-hand is found missing, though its everyday presence [Zugegensein] has been so obvious that we have never taken any notice of it, this makes a *break* in those referential contexts which circumspection discovers. Our circumspection comes up against emptiness, and now sees for the first time what the missing article was ready-to-hand *with*, and what it was ready-to-hand *for*" (*Being and Time* 105). Yes, the Disaster Sim is a player directed "rhetorical" outcome of *the Sims* but is also is a broken toy, the destruction of the original playscript of *the Sims*, and thereby illuminates the game's operative agenda to breed a suburban family. Similarly, Frasca's *September 12* catapults the player outside the cosy assumptions of the clockwork game world and the comfortable correlations between rewarding player proficiency with toy weapons and "how things work." The brokenness of *September 12* manifests in that playing well delivers loss, subverting the expectation of the player to master a rewarding challenge of eliminating terrorists. In

Macdonald's Game, on the other hand, the very operationality of the model of fast food production cycles transmitted to the player overcomes the game's critical impact. Beautiful toys that run too well are always enchanting, no matter how ugly the outcome of their workings. The player is lost to the game.

4. HARROWING MISSIONS

In Susanna Ruiz's *Darfur of Dying* (2006) the player controls a young Sudanese refugee character on a mission to forage for water for a refugee camp. The goal of reaching the well is accomplished by running and alternately hiding behind rocks in the desert each time a militia jeep passes. If the militia kill a character, (and it is inferred rape), another child or male or female adult character must undertake the mission to survive. In *Darfur is Dying*, unlike most computer games, regeneration of the same character is not possible, except by using up the lives of the eight characters from the camp. Once water has been foraged, the player returns to the camp, waters the garden, and mixes water with mud to form bricks for rebuilding. If water levels drop too low, someone must venture again from the relative safety of the camp to replenish at the well.

Like *Macdonald's Game*, the village portion of *Darfur of Dying* simulates overseeing the operation of a lively system, a refugee village camp demanding continuous maintenance and upkeep labour on the part of the player. The player must monitor the water level icon for the village well and attend to the icon indicating the level of the overall health of the camp. Yet this simulation portion of the game is continually interrupted by text messages attempting to redirect the player to a charity donation site, as if to actually derive pleasure from playing the game too long, a game referencing a tragic situation suffered by real persons, would be a moral affront. Thus in the village portion of *Darfur is Dying*, like in *September 12*, the activist gamemaker attempts to catapult the player from bespellment within the game's

clockwork world. But rather than merely articulating the logic of an anti-war stance and leaving it up to the player how this is to be acted upon (or not acted upon) outside the game, *Darfur is Dying's* repeated interruptions attempt, somewhat irritatingly, to direct to the player to undertake a specific to action outside the game, namely to make a donation to a Sudanese refugee charity website.

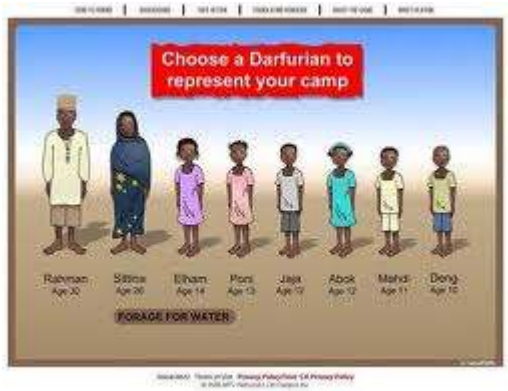

Fig. 3. *Darfur is Dying (2006)* by Susanna Ruiz; Game Screenshot.

In contrast to this interrupted simulation of the village camp, the first water mission portion of *Darfur is Dying* is an example of what I refer to as a harrowing mission, an addictive game challenge that generates empathy for the Sudanese refugees' plight by depositing the player into a narrowly crafted predicament. From the great overseerer's view of the toyworld in activist simulation games, we zoom into a more interior play position in the clockwork world inhabited by the player in a first person perspective harrowing mission game. Empathetic awareness of the dimensions of a tragically problematic situation, correspondences that echo current events, are conveyed by confronting the player with a limited set of challenging play actions, a sculpted "ethical" branch of possibilities. On the way to the well, the player must carefully time the decision of when to run and hind behind the next rock, risking being overtaken by a rampaging militia truck. Action choices consist only of running through the desert and hiding behind rocks, and thus the agency of the player

is constrained to a limited set of timed decisions, correlated to a purported challenge faced by the inhabitants of Darfur. The gamemakers, a group of students led by Masters student Ruiz from University of Southern California's School of Cinematic Arts, successfully converted "stealth" style gameplay into a first person survival challenge confronted by Sudanese villagers.[21]

Like the harrowing mission portion of *Darfur is Dying*, the game *Under Ash* (2001), developed by Syrian studio Akfar Media, begins with a constrained course of action available to the main character. Ahmad is a young Palestinian adolescent attempting to survive in the conflicted Gaza strip. The impressively rendered, three-dimensional game launches with Ahmad attending a peaceful demonstration in a plaza in Jerusalem under attack by Israeli soldiers. His first challenge is to make his way uninjured to a mosque for shelter. Later he acquires a weapon, goes underground and joins the resistance movement. Although at the very initiation of the game Ahmad participates in a non-violent demonstration in a plaza, he quickly finds it necessary to resort to defending himself with rocks. The executive manager of Afkar Media, Radwan Kasmiya, relates that many players have been brought to tears while playing *Under Ash* (Sisler).

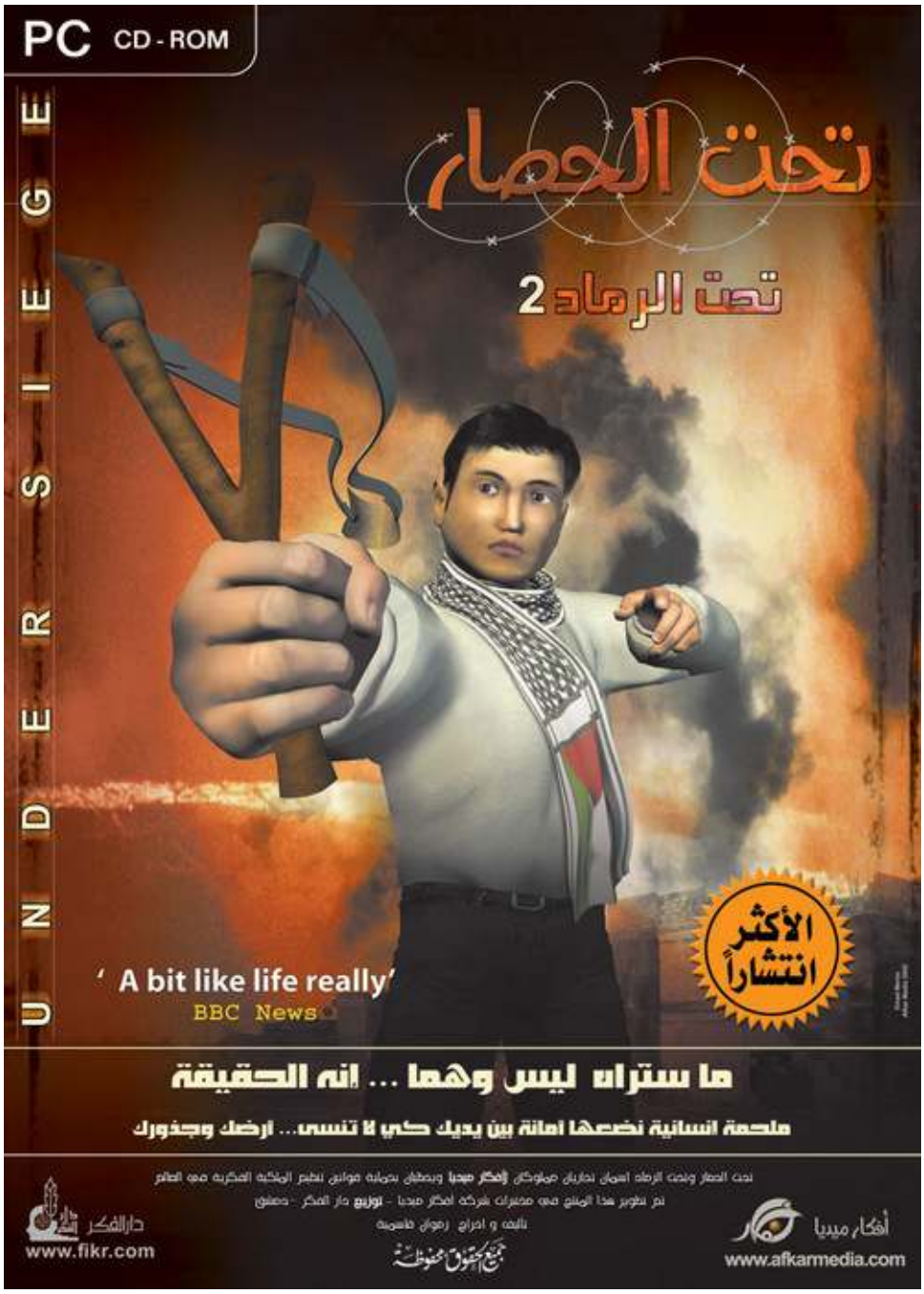

Fig. 4. *Under Ash* (2001) *Afkar Media; Web; 1 August 2011.*

The harrowing mission's level design, its ludaform, narrowly constrains the player's course of action. In *Under Ash*, the walls of Jerusalem and other obstacles sculpt the path of the player's actions within a limited range of likely variations and movements as the player gravitates towards the mission objective. Similar to the missions of solo player action games, such channelled play and narrow missions invoke a linearity of experience with sculpted

dramatic ebbs and peaks (when opponents and challenges appear), approaching the authorial predestination of narrative, while at the same time affording the player limited interactivity and an illusion of agency.[22]

If we can consider such narrow action channels within games ethics, they are an ethics designed to generate empathy for others facing a harrowing predicament, through a game challenge to be superseded. Freer, wider branching choices could be afforded the player than the tightly controlled channels of action through the games in *Darfur is Dying* and *Under Ash*.[23] Yet a game of wide-ranging game choices and possible outcomes would not always reliably transport the player into a certain other's purported position, that of the refugee of a particular war or the sufferer of an oppressive occupation at a certain time and place. Harrowing missions generate empathy for a very particular plight faced on the ground by somebody outside the game. In order to pass on this experience to the player, the harrowing mission is designed with a narrow range of player choices and possible outcomes.

From the perspective of the designer of a harrowing mission, the world's tragedies and problems are a cornucopia of design inspiration. The game designer considers how to frame a problematic situation as a sequence of game play challenges and ultimately a suffering subject position is inscribed into the game. The player follows a preset path through a difficult and constrained situation, acquiring empathy for the sufferers of said position. Yet even though the player encounters the problem in the game, the problem is not for the player to solve nor to reflect too deeply upon. The player's mission is to experience and survive the mission, in the hopes that this experience leaves a very particular empathetic mark even after the game.

Although the harrowing mission in-of-itself is not a "broken toy," and in fact encloses the player quite narrowly within the game's persuasive rhetoric, such games still counter the Western subject position usually inscribed into the action or stealth game genre, and are in

this sense a resistant form of play. Although Akbar Studio's Syrian produced games have been exhibited and analysed as "activist games" in the West, Kasmiya explains them as entertainment media that speaks more positively to youth of their own culture than the Middle-Eastern enemies common in Western action games (Sisler).

5. BROKEN TOYS AND THE NO TOY IMPERATIVE

The operational logic of the game takes hold. A player's action inspires a resulting reaction on the part of the game. The game, in turn, compels the player to further reflexive play moves and if the game is designed well, the player loses herself, losing even a sense of the passage of hours and days, within the game, absorbed into the game's workings, immersed in a feedback loop, Gadamer's aesthetic union of player and game. The player performs a role among other processes running within the clockwork world through interaction with the game machine and the management of its simulated processes. Like the imprint of a popular tune that demands to be liked through its repeated exposure to the ears, players unreflectively absorb the logic of military operations, internalize the production cycle of hamburgers, flow with the hum of tractors. How satisfying when at least the toy world is operating as it should.

In activist simulation games, primary play moves correspond to parallel, exterior to the game operations occurring across the ludic border between game and world. Critical rhetorical claims of "procedural logic" inside the toy world reference harmful occurrences in the outside world. Yet the very operationality of the game's mechanics, the hum and whir of cause and effect and other lively automated and interactive processes potentially obscures the critical impact of such a game. The activist game must fight not only that it is after all only a fictional game, so obviously a miniature, brightly coloured toy world, devoid of painful consequentially, but also that the mechanical, instrumental actions that players commonly undertake in the game, invoke the obscuring ordinariness of everyday sight. In the rational,

operational spheres of games, as in the instrumental spheres of life, everyday sight turns away from suffering and the consequences of damaging human operations. Most feel powerless to disengage from, halt, or redirect the harmful goings-on that are naturalized in everyday sight. We flee mortality to the artificial circulations of ageless clockwork, toy worlds. In this sense, Madurodam's endless ship and train circulations are an unusually soothing and forgetful memorial to the untimely demise of young George Maduro.

Breaking the game equipment is a resistant gesture against the game's enchantment. A tactical recipe for the activist simulation game would consist then of two steps, first a positive, then a negative: first to constructively program a simulation of a harmful operation from the world into the game, followed up by an interruption or sabotage of the game that breaks the spell of the game's movement, illuminating it's operationality in a critical light. Absorption in the everyday world of "equipmental" dealings and transactions is broken at this rift of "in-order-to" relations among entities, things and persons. Through a sabotage installed by the designer, or a break initiated by the player, the player is ejected outside the comforting, interlocking operationality of the game world, the string of bonuses, rewards and addictive challenges. Induced to a discomforting re-evaluation and analysis of the games' operational logic, the player performs a critical diagnosis of the wrongness or rightness of the broken equipment. After being subjected to such a critique, a harmful operation's common sense, everyday claim on existence comes into dispute.

In contrast to the way the "derailed" simulation game's representation of the world's workings is open to dispute and critical analysis once it has been exposed to the light, the harrowing mission is an impassioned call to empathy for an enclosed, indisputable predicament. The enclosure of the toy world is leveraged to the harrowing mission's advantage, and this very entrapment could also be read as a political and rhetorical closure around the player. But even the harrowing mission's call for empathy has a certain subversive

disputability, if only because such games often favour an under-represented subject position counter to the implicit Western male, imperial soldier of commercial first-person stealth action games, the very genre otherwise most similar in form to the harrowing mission.

Returning to the activist simulation game, what is paradoxical with the broken toy tactic is that game and political critique remain in the last instance incompatible—only by interrupting or ejecting the player from the game, the no play imperative, is a critique illuminated and a political questioning made possible. Moreover, the intended effect of such games is not just a break in the game but also the possibility of a stop in the destructive worldly procedure that is simulated. The no play imperative extends beyond the game to the refusal to be a "player" in the harmfull processes of the world, a refusal to play at war, a refusal to play at exploitation of the environment in the productions and consumptions of fast food operations. Thus the most earnest mixture of politics and games seems to be delivered in games that do not believe in playing per se but in the impossibility to separate world and game, to separate procedurality in one realm or the other on either side of the ludic border. The activist game attempts to catapult the player from absorption in the clockwork toy world, to a universe of politics that he or she is otherwise quite busy avoiding.

Notes

[1] On a weekday visit to Madurodam in June of 2011 the aging toy city seemed somewhat forgotten by the Dutch, although it was still attended by busloads of Indian and Chinese tourists.

[2] The term "simulation" also invokes post-modern philosopher Jean Baudrillard's theories of simulation and "simulacra," especially in reference to Disneyland and suburbia. Yet Baudrillard's interest in simulation seems primarily bound up with describing the artificiality of a post-modern capitalist condition that has replaced authentic experience, a mourning for a loss of authenticity. Simulation in computer games, on the other hand, like in computer science, takes the artificiality of the model as a given without moral qualms —even as such models attempt to improve their fidelity to real life processes assumed to still be running outside the game.

[3] The activist simulation game contrasts to another common variant of serious games where a "normal" entertaining game is interspersed with packets of "serious" or pedagogic information that the player swallows like cans of vegetables in between courses of fun.

[4] Yet what is especially convenient about the bright-colored and cartoon-like toy aesthetic favored by many activist gamemakers is that this so-called "casual game" look demands considerably less time to produce than a "photorealistic" game, making independent, non-industrial games more feasible to produce.

[5] Heidegger is often considered an apolitical philosopher, or judged for his Nazi era actions as a university administrator in Freiburg, and therefore might seem distant from political critique or philosophy. Even so, his deconstructive philosophical method (Abbau) was highly influential for critical theory in the latter half of the 20th century, and informed, for instance, the deconstructive methodology of Jaques Derrida. Also, Heidegger's phenomenological framework impacted continental political philosophers like Hannah Arendt and Georgio Agamben.

[6] In addition to uncannily bringing to the fore "the who's" mortality and temporal existence, the clearing illuminates the operations of everyday life, and allows for the projection of possible future actions upon return to everyday life's operations (*Being and Time* 185).

[7] Here I take cues from Hannah Arendt's adaptation of Heidegger's critical "clearing" views of daily life at the same time as she eschewed his somewhat disparaging "philosophical" attitude towards the collective world and the "idle talk" of "the They." In the *Human Condition*, Arendt instead proposes a more nuanced framework for understanding the collective world's actions.

[8] A confidential and disturbing military video recording released by the organization Wikileaks in 2011 revealed a "solar Eye" view from above of United States air force pilots targeting missiles at civilians on an Iraqi street, as if the Iraqis were characters in a computer game. The jaded ennuei of the pilots is momentarily alleviated by the remote excitement of a few kills of the minute, ant-sized Iraqi citizens.

[9] I will discuss entertaining war games in the following chapter at greater length.

[10] Frasca seems aware of this tension—the introduction to *September 12* provocates, "This is not a game, this is a simulation."

[11] And although all games are clearly not simulation games, a certain degree of simulation in the game often confuses the distinction. For instance, many computer games simulate the peripheral motions that breathe life into the game without directly impacting "core play," such as weather fluxuations and movements of urban transportation. In his analysis of the "algorithmic culture" of games, Alexander Galloway refers to these peripheral simulations as "ambience acts" (10).

[12]Operating as productive constraints, the ludic border or rule space of a game is not a mere enclosure, but is also, to borrow a design term, an affordance. Delimitations and rules not only constrain negatively but give shape to action possibilities, to possible moves.

[13] Unlike the written rules read at the onset of a board game, in a computer game, the rules or action possibilities are often hidden initially from the player.

[14] *Macdonald's Game*, in addition to simulating a harmful cycle, parcels out information and factual text-bytes as do many other more educational style serious games.

[15] The player performs virtually as both Arendt's "HomoLaborius"(man the maintainer of life) and her "HomoFaber"(man the maker), attending to the economic, nurturing and administrative activities of the "world of necessity" she refers to generally as housekeeping.

[16] Paolo Pedercini revealed in interview that he purposely designed the game to be impossible to win in order to discourage sustained play, yet in my observation this difficulty only spurs on skilled players to continue playing the game.

[17] Heidegger's corporal terminology of the ready-to-hand and the presence-at-hand is true to his phenomenological methodology that privileges embodied existence in the world, (and opposes metaphysics and philosophical abstractions). Worldly phenomena are filtered and perceived through hands, eyes and ears—corporal, sensory points of contact with the world.

[18] This everyday view of equipment is parcel to the normative "falleness" of the They, who flee from the awareness of solitary temporal existence into the turbulence of everyday life. For Heidegger, a mass society of newspaper's, public opinion and "idle talk" is especially a realm of the They (*Being and Time* 219).

[19] Although Heidegger does point out that in modernity, technologies like the radio bring the components of the "workshop" into closer proximity (*Being and Time* 140). The workshop is a functional, dynamic relation between disparate components and places (latch, door, hallway, street) that erases the spaces inbetween these components, dividing contiguous Cartesian mathematical "space" up into disperate, singular "places."

[20] Such broken toys also recall the noisy disruption of games discussed in the previous chapter among a repertoire of approaches available to the player for modifying a game.

[21] In stealth computer games like *Thief* (1998) or *Metal Gear Solid* (1998), in contrast to the typical shooter game's more outright violent confrontations against the enemy, the player hides and sneaks through a mission.

[22] A further ethical limit imposed on game play and upon its sequel, *Under Siege*, purchasable in both English and Arabic, is that the character immediately perishes if he shoots an Israeli civilian (rather than an Israeli soldier).

[23] For example, in designer Peter Molyneux' fantasy games, open-ended choices gravitate towards multiple goals, with varied outcomes. In Moleyneux' *Black and White* (2001), the

player's treatment of a demi-god "creature," the choice of slaps or caresses, beating, incarceration, or flattery, ultimately tempers the creature's resulting character and the happiness of the villagers under his dominion.

Chapter Four: City as Military Playground: Contested Urban Terrain

This chapter is a tale of contested terrain, a contrast of two approaches to repurposing the city as a playground articulated in distinct, yet at times tactically similar camps. The mid-twentieth century exploits of Situationist artists and architects in Paris, taking the form of "derives" and other exploratory games, are evidence of the emergence of playful, *artistic* approaches to circumventing the everyday life of the city (Debord, "Theory of the Derive"). Information Age artists later adopt similar interventionist, "hackerish" ludic tactics, creating disruptions in the operations of the Internet, in the virtual alleyways of online computer games, and again on the actual street (Schleiner 149). These so-called culture jammers and hacktivists (hacking plus activism), take on activist agendas, even though their actions are often initiated with loose "artistic" spontaneity, and lack long-term fidelity to an organized political cause.

On the other side of what I shall pose as an unbalanced contest for the urban civilian sphere waged between artist-activists and military game makers, the "big players" develop sophisticated photo-realistic, three-dimensional computer games with military and educational resources. These high-end productions are often virtual cities constructed as military playgrounds for combat training and rescue operations. A window on a high floor serves as an ideal perch for a sniper to position himself, a parked car in a shell-shocked alleyway offers an opportune hideaway to crouch behind. Although virtual, the locus of military control manoeuvres and humanitarian efforts in so-called M.O.U.T. games (Military Operations in Urban Terrain) often explicitly corresponds to military interventions in Fallujah, Mogadishu and other cities of unrest. Playing the game closely mirrors, or purports to mirror, the movements of small-scale, military units in live, contested urban zones where civilian life has been superseded to combat and control operations. Thus the virtual game city

becomes a testing ground for twentieth and twenty-first century military theories such as asymmetrical warfare, anti-terrorist control in populated areas, and the so-called "Revolution in Military Affairs" (RMA) a recent technological upgrade of the armed forces in the United States and elsewhere.

In these diverse appropriations of the *city as a playground*, both those of "Situationist style" artist-activists and those of military strategists, the city's everyday flows of traffic, civilians, commerce etc. are diverted for the sake of a game. In the militant ludic diversion, virtual and paved streets are mapped and occupied, and humanitarian operations of population management, of refugee transport and of disaster relief, of *biocontrol,* are conducted virtually in preparation for missions in actual cities.[1] In response to this tightening grid of military control in former centres of civilian life, loose-knit clusters of playful, artistic resistance break out. The stakes of these games are who, what manner of players, will claim urban population centres in the imagination and on the ground in the near future.

1. MILITARY PLAYGROUNDS

Roger Stahl defines a cultural object of "militainment," such as a game or a film, as "state violence translated into an object of pleasurable consumption," and as a melding of "the mercurial and the martial" (6). He tracks a shift from passive reception of war propaganda and war "spectacle" via films, television, and radio, that is from uni-directional, top-down broadcast media, to what he refers to as "the interactive war," whereby civilians are invited to "play at war" in a game (4).[2] Once a limited military historical subgenre among other computer game world themes, since the September 11, 2001 terrorist attacks in the United States, First Person Shooter (FPS) games increasingly blurred the boundary between entertaining play and contemporary military conflicts. Typically, North American "good

guy" characters combat Arabic speaking enemies in games such as the *Delta Force* series of ten games (1999-2010), *Kuma War's* one hundred and twenty missions (2002 to the 2011 assignation of Osama Bin Laden), and *Call of Duty: Modern Warfare* (2007). The player's mission is to secure an enemies' base, defuse a bomb, assassinate players on the opposing team, or to rescue hostages. These missions are either undertaken alone, in collaboration with artificially intelligent NPC's (non-player characters), or with and against other human team members in so-called multi-player matches.

Fig. 1. *America's Army*; Suburbia Map, 2007; Web; 1 August 2011.

Before attending to the military concepts embedded in games of urban conflict, lets recall in greater detail how such a game is typically played. In a 2007 map of the *America's Army* game titled "Suburbia," one team of players endeavour to make their way to a corner of a dusty Middle-Eastern city quadrant on a mission of obtaining an "intelligence briefcase."[3] En route to their destination, they sneak through shadowed alleyways and dart across open plazas, intent upon avoiding snipers from the other team perched on rooftops.

At the beginning of a round, the game software automatically positions the players of the other team defending the briefcase at a remote distance from the first team, affording them a few seconds to select strategic positions. The briefcase attackers flush out the defending team members from hiding, slaughtering them in close quarters with knives or pistols, or taking them down with machine guns or exploding grenades at longer-range. Experienced players keep the appropriate weapon at hand, and efficiently monitor their ammunition count, indicated via the "HUD" (Heads Up Display information) at the edge of the computer screen, all the while remaining in close, coordinated communication with their team members.

The Suburbia level described above is one of many maps of the *America's Army* game, a game describing itself as a "recruitment game" designed to inspire volunteers to join the United States' mercenary army. The primary thrust of the game is entertainment rather than rigorous combat training. Other militarized playgrounds that we shall come to later in this chapter make more explicit claims towards preparing the player for real life soldiering through simulated battle exercises, even as they borrow entertaining and unrealistic play routines from the First Person Shooter genre that have little to do with military actions and procedures in actual conflicts.[4] And yet regardless of the level of fidelity to actual military deployment scenarios, in many of these games, the city is a favoured site of conflict. This preference for urban combat terrain attests to a multifaceted militarization of formerly civilian turf.

2. MILITARY THEORIES OF CIVILIAN OCCUPATION

A military theory embedded in much of post-911 militainment cinema and television series, as well as in games, is that of asymmetrical warfare. Asymmetrical warfare refers on the one hand to the ability of a relatively small number of technologically augmented soldiers to

maintain control at a populated sites of "unrest," and on the other hand to the capability of a small number of terrorists to cause great damage at a site of population density. In a departure from his earlier Cold War theories of military logic, Paul Virilio posits that twenty-first century warfare has essentially shifted its "theatre of operations" from the battlefield to the city: "Asymmetrical war, the terrorist disequilibrium has erased the theatre of external operations (battlefields used to be called "theatres of external operations") in favour of metropolitan concentrations" (Virilio and Lotringer 9). No longer about contests of nations against nations, nor of blocs against blocs, asymmetrical warfare is concerned with the maintenance (or imposition) of a particular global world order at key populated nodes, either in response to or waged via terrorism.

The city configured as a warzone is not only a recent phenomenon resulting from the September 11 terrorist attacks in the United States. Some urbanists have traced the origin of the city to the defensive walls of the medieval castle, to the fortifications of Troy and further back in human history (Virilio and Lotringer 19).[5] Yet in the era of asymmetrical warfare, the populace is no longer protected a defensive shell like the fortified exterior walls and moat of a castle. The city's very population density makes it vulnerable to a small number of attackers who can cause a large amount of damage. For instance, during World War II, a relatively small number of enlisted aviators perished while large scale destruction and loss of civilian lives ensued when cities like Hiroshima, London, and Dresden were bombed from above.

The "Revolution in Military Affairs," a post-cold war United States military overhaul and upgrade endorsed by former United States Secretary of Defence Donald Rumsfeld, is intended to further minimize the "asymmetrical" mortality rate of military servicemen. Innovative gear and gadgetry protect small units of soldiers deployed in urban terrain who conduct sophisticated military operations (Hardt and Negri 42). According to Michael Hardt

and Antoni Negri, “These new strategies and new technologies are thought to make war practically risk free for U.S. soldiers, protecting them from the threats of any adversary” and elsewhere they write, “The humans on the battlefield, in the air at sea have become prostheses of the machine, or better, internal elements of the complex mechanical and electronic apparatus” (42; 44). Virilio also writes that in recent times humans “disappear” into the war apparatus as they are replaced by technological components of “the war-machine” (Virilio and Lotringer 25).

As equipment, remote controlled aircraft and communication technology increase in technological sophistication, supplemented by the three CCC’s of the modern military—command, control, and communication—the number of soldiers deployed on the ground proportionately decreases. Leveraging the capacity of remote satellite communication, a U.S. soldier’s sits behind a computer screen at a desk at a military base in the California desert and operates a remote-controlled aircraft drone over the Middle East. The operator’s body is securely distant from the site of battle, his weapons’ interface in appearance similar to the viewport of a flight simulation game. Again, in asymmetric warfare, “War no longer needs masses of soldiers who are massacred in the trenches” (Hardt and Negri 44).

Or to put the battle back into game terms, the war no longer requires a vast grid of pawns distributed equidistantly across mountains and empty fields, a mass of foot soldiers backed up by elephants, cavalry and chariots as in the ancient Sanskrit predecessor to chess played by Indian war generals. Specialized, technologically enhanced units of five to ten soldiers correspond in scale and function to the “urban ops” commando teams deployed in game cities, roughly the same amount of soldiers as on a team roving the fictional middle-eastern city of Suburbia. When the war is viewed through the optic of the most pertinent games of the moment, the regenerative re-spawning of the computer game soldier after each

deadly round of combat mirrors the alleged invulnerability of the elite, well-equipped combatant.

The post-911 expansion of the state and military apparatus is accompanied by a "full spectrum" of blurrings of civilian, entertainment, and educational spheres once considered outside the purview of the military, at least on the first world nation's home territory.[6] In 2009 Rita Raley writes, "The distinction between 'civilian' and 'military' may disappear. Running war games for this new battlespace requires a massive industrial investment in simulations and computer based training systems, (as of this writing the annual sim budget alone is estimated to be 4-6 billion)" (Raley 69). Describing a similar shift in military purview to civilian life, Virilio marks a turn from "exo-colonization" to "endo-colonization of one's own population," what he describes as "a society of national security" where the armed forces turn against their own populations (Virilio and Lotringer 107). And as living urban population centres across the globe are subjected to increased vigilance and scrutiny, these biocontrol manoeuvres and anti-terrorist operations are played out in practice runs by civilian players in virtual game cities.

According to Stahl, the confluence of entertainment and war in commodity forms such as computer games goes beyond the top-down push of the term United States President Eisenhower coined in 1961 as "the military industrial complex" (Stahl 11). In Stahl's "interactive war," ordinary civilians eagerly volunteer to play war, an active involvement on the part of consumers that converges with militant objectives (Stahl 4).[7] Indeed, as noted in Chapter Two in relation to player-made game modding of commercial games, one of the most popular and longest played game mods in the military simulation genre is *Counter-Strike*, created in 1999 by a loose network across North America of volunteering college students. In Counter-Strike, the attention to fidelity in weapons and gear and urban battleground settings in the Middle East and other hot-spots, (replacing Half-life's previous

science fiction theme), as well as its team-based play dynamics, forged the template for later multiplayer FPS games to come like *Americas' Army*. Although the motives of the volunteer makers of Counter-Strike and those of the military developers of America's Army differ significantly, ultimately such relationships and alliances between players, commercial game developers, and the military, contribute towards a militarization of formerly civilian terrain.[8]

3. THE LUDAFORM OF URBAN TERRAIN

" hyper-terrorism only knows one battlefield: the city. Whether Madrid, New York, or London, the battlefield is the city. Why? That's where you find a maximum of population and a maximum of damage can be done with a minimum of weaponry" (Virilio and Lotringer 9)

As a promotion for the *America's Army* game during the annual E3 Game Industry Conference in Los Angeles in 2003, the United States army catapulted soldiers from a helicopter down between the skyscrapers of downtown Hollywood, California. Passers-by on the street were confused, indifferent or frightened by the publicity stunt, oblivious to the intended entertainment effect. By the time the *Kuma War* franchise started releasing episodic game missions tied to military affronts in Fallujah and other cities in Iraq, other serious military games began to train officers and civilian players in the art of M.O. U. T., a military acronym for Military Operations in Urban Terrain.[9] The military imagination empties the streets of the game of civilian game characters, turning over the city to the conflict between terrorists and counter-terrorists. Only an architectural shell of shop fronts remains of the former everyday activities of the city's softer inhabitants, hinting of a happier, more peaceful time. This civilian ghost town enhances the player's immersion in the game world, for who would deny that it is more stimulating to play in even an empty, abandoned city, perhaps set in an exotic, distant land, than in a barren, country field? [10]

A playground of military operations, the city contours are retrofitted as tactical terrain. According to game level designers, the underlying ludaform of a multi-player game is

a heart with looping, arterial tunnels that always return players to centralized open conflict zones (Blezinski). In a well-designed, pleasure-inducing map, the open plazas and snaking passageways of the digital game city (such as the *America's Army* Suburbia map) conform to this arterial blueprint. Building dead end alleyways and streets is discouraged, for a player might hide in seclusion for the entire round. The urban plan is designed to encourage balanced confrontations between players. Level designers craft urban architecture for sniping from tall buildings, for flanking of multiple players that converge surreptitiously through dark alleyways, and to facilitate team-work operations. The occupied streets of the militarized ghost town are woven into a grid for the practice of thrilling urban combat operations.

Fig. 2. View of game terrain from above; *America's Army*; Suburbia Map, 2007; Web; 1 August 2011.

4. FROM DEADLY PLAY TO ADMINISTRATORS OF LIFE

Underneath the glossy novelty of simulated online combat in digital cities, the confluence of soldiering, warfare, and play echoes Johan Huizinga's distant historical examples of deadly serious play, such as archaic Arabic contests played for the settling of property disputes that predate the court of law (108). Huizinga also underscores the potentially fatal consequence for the player who fails to solve a Hindu or Greek riddle: "In its mythological or ritual context it is nearly always what German philologists know as the Halsraetzel or "capital riddle," which you either solve or forfeit your head. The player's life is at stake" (69). The

deadly contests of gladiators waged in Roman stadiums evolved from ancient Greek and Etruscan funerary games played against captured enemy warriors at the pyres of fallen comrades of war (Grant 9). On the other side of the Atlantic, ritual play might take a deadly sacrificial turn in the grand stone ball courts of the Mayans. From elevated bleachers, Mesoamerican aristocrats viewed the spectacle of "the great ball game," a rubber ball game played in variations (deadly and non-deadly) across Mesoamerica for over three thousand years. Mesoamerican archaeologists attribute the greater number of ball courts in conflicted regions to games played as proxy warfare to resolve boundary disputes. For instance, Taladoire and Colsenet write, "We suggest that the ballgame was used as a substitute and a symbol for war," and Susan Gillespie contends that the ballgame was "a boundary maintenance mechanism between polities" (Taladoire and Colsenet 174; Gillespie 340).

The simulation of battle in contemporary computer games of both entertainment and military training (in other words of militainment), attests to the persistence of a relationship between warfare and games in the present age, albeit undertaken with a different set of 21st century military and play preoccupations. Parcel to the asymmetrical imposition of order in urban hot spots, the military's role has expanded from the full-scale destruction of war to global policing in so-called "peacekeeping" operations. For instance, a United States Delta Force Peacekeeping force was sent to aid United Nations forces against Islamic terrorists in Mogadishu, Somalia, and is replayable in the game *Delta Force: Black Hawk Down* (2003). A "biopolitical" transformation is occurring within the military itself, once considered a mere death arm of the state. Describing a modern inversion from sovereignty to "biopower," from the king's ancient right to demand the death of his subjects to the control of life processes, Michel Foucault writes, "This formidable power of death [...] now exerts itself as the counterpart of a power that exerts a positive influence on life, that endeavours to administer, optimize and multiply, subjecting it to precise controls and comprehensive regulations"

(Foucault 259). Over the transition to modernity, life-supporting governmental institutions arise such as hospitals, prisons, and educational institutions.

Now it is not just the state, but the military that is diversifying into new spheres of "life supporting" influence. International policing, medical aid and disaster relief are presently considered within a military scope of operations, at least for the larger forces of the United States and other Northern nations. Well-funded, immersive, three-dimensional military games reflecting this diversified military scope are prominent at Serious Game conferences and competitions. For instance, at the 2008 Serious Games Showcase and Challenge, three of four winners were military games on the topics of "geo-location, military procedures of the Canadian army, and medical treatment of burn victims" (*Serious Games Challenge*). The following introductory text screen is a telling synopsis of some of the urban "humanitarian" peace-keeping and rescue missions entrusted to the player who takes on the role of a service member in the game of *Full Spectrum Warrior* (2004):

> In one moment in time
> our service members
> will be feeding and clothing
> displaced refugees-Providing
> humanitarian assistance
>
> In the next moment,
> they will be holding
> two warring tribes apart-
> Conducting peacekeeping operations
>
> Finally, they will be fighting
> a highly lethal mid-intensity battle
> All on the same day,
> all in the same...three city blocks.
>
> It will be what we call
> the 'Three Blocks War'
> -General Charles Krulack

In this game of *Full Spectrum Warrior*, players apprehend the tactical and operational leadership skills of urban combat within a three block radius of the fictional Middle Eastern

city of "Zekistan." Of accord with the three "moments" described in *Full Spectrum Warrior's* poetic written introduction, game players discover an eerie mass grave, conduct peacekeeping and humanitarian assistance of refugees, and engage in "high intensity enemy combat," both sustainers of life and administrators of death. The game was developed at the Institute for Creative Technologies (ICT), a United States army funded research centre of the University of Southern California.[11] The website mission statement of the ICT research centre states "ICT's goals are the advancement of the state-of-the-art in artificial intelligence, graphics, and immersive environment with the creative talents of Hollywood and the video game industry." At ICT, academia, the military, and Hollywood channel their disparate resources of knowledge, talent and funding into a militainment alliance.[12]

Full Spectrum Warrior players are both civilian customers who can purchase the game worldwide, and United States officers in training. Not just about mindless killing, players activate their "brain instead of brawn" while learning to operate devices like a handheld GPS (Global Positioning System) in order to trace a route for the player's unit to "outflank the enemy." In the role of a commanding officer, the player controls a small unit of soldiers, hiding them behind parked cars and rubbish bins as he moves them through sequential checkpoints in Zekistan. A training video for the game recorded by an army officer warns players to be wary of civilians like local children and other suspicious, automated non-player civilian characters, who are potentially terrorists in the service of the enemy. In the militarized urban playgrounds of asymmetrical warfare, civilians, including children, are suspect until proven harmless.

In a curious circuitous loop, this same game of *Full Spectrum Warrior* designed for preparing soldiers to be deployed in the Middle East is also repurposed after deployment in the so-called "Virtual Iraq Treatment." Upon return to the United States, a traumatized war veteran overreacts to environmental noises on the streets of his hometown, plagued by

insomnia and panic attacks. Travis Boyd, a marine who witnessed the annihilation of his entire unit one day in Iraq, relates that when he returned to the United States, "I'd have my wife drive me if I had to go off the base. A few times, I thought I saw a mortar in the road and reached for the steering wheel" (Halpern). To treat Boyd's trauma, a military therapist immersed Boyd in a simulation of combat memories in the *Full Spectrum Warrior* game, embellishing with additional sensory effects like a vibrating platform and the odour of diesel fuel (Halpern). She repeated this gamic treatment in multiple sessions until Boyd's trauma subsided.

The din of the battle pursues a traumatized marine from a hot spot of strife to the domestic city at peace, where finally the repeated playing of the same game used in combat training exercises treats the marine's post-traumatic stress disorder. These diverse applications of the game before and after the battle, in training simulation and later in treatment of memories of flesh-ripping mortar, are symptomatic of a militant society at war on multiple fronts at home and abroad. Like in the White House mission of *Call of Duty: Modern Warfare 2* (2009), where the player happens upon the bloody aftermath of a terrorist attack, a seemingly secure city is converted into a battle zone, far from recognized sites of war. The asymmetric war on terror potentially reaches into many population centres.

5. THE ARTIST'S INTERVENTION AS SITUATIONIST GAME

"Written descriptions can be no more than passwords to this great game" (Debord, "Theory of the Derive").

Through urban battle games, the theories of asymmetric conflict, full spectrum dominance, and varied military operations of urban terrain infiltrate the civilian sphere. Although such games speak of a formidable militarization of everyday life, we now turn to other tactics of

ludic occupation for hope of resistance. As Laura Biagori, curator of the travelling digital art exhibit entitled "Game as Critic as Art," once commented at a conference panel in Bilbao, if major interests are projecting serious concerns into games, why shouldn't activists and artists as well (Juego como Estrategia)?

The "artistic" Situationist repurposing of the city preceded the military "gamification" of urban space by half a century, although its initial duration and scope was limited and seems to have found heirs in artistic approach only relatively recently.[13] Although I will not trace direct lines of influence or mentorship between individuals, I will in this chapter attempt to link the interventionism of these early mid-twentieth century artist games to the ludic tactics of later, Information Age "hactivist" collectives (Schleiner 149). Early Situationist play provided an inspirational template for later artistic and mediatic interventionism, especially in relation to the city.

Prior to the immobilizing, alienating trance that "the spectacle" casts over passive members of capitalist society in later Situationist thought, in earlier issues of the Situationist International Journal, members like Guy Debord and the architect Gilles Evian developed a skeletal program for active, ludic interventions within the city fabric.[14] At this youthful, more optimistic phase of their career, the Situationists proposed a joyful, transgressive ludic agenda for resisting "stale bourgeois culture" with interventionist games and spontaneous pranks. Debord writes, "The first of these means is undoubtedly the systematic provocative dissemination of a host of proposals tending to turn the whole of life into an exciting game, combined with the constant depreciation of all current diversions (to the extent, of course, that these latter cannot be detourned to serve in constructions of more interesting ambiances)" ("Introduction to a Critique of Urban Geography"). Thus these games were initially conceived as a broad-scale ludic assault on everyday life, a disruption and *détournement* of daily tasks, as well as intervention within pre-existing diversions.

In preliminary issues of the Situationist International, Debord describes exploits like "slipping by night into houses undergoing demolition, hitchhiking nonstop and without destination through Paris during a transportation strike in the name of adding to the confusion, wandering in subterranean catacombs forbidden to the public" ("Theory of the Derive"). These brief accounts of the Situationists early urban exploits lend a more illicit, risqué tenor to the oft cited Situationist "derive" than merely drifting about city sidewalks in an atelic, directionless flâneur's stroll.

An open-endedness to the derive is observable in that the player sets aside the will, the drive to accomplish daily necessities, and instead dedicates a portion of the day to the game, submitting to the "currents" and "vortexes" of the city. Debord writes, "from a derive point of view cities have psychogeographical contours, with constant currents, fixed points and vortexes that strongly discourage entry into or exit from certain zones" ("The Theory of the Derive"). Yet the drifting "letting go" motion of the derive is also constrained by "calculated" possibilities: "But the derive includes both this letting-go and its necessary contradiction: the domination of psychogeographical variations by the knowledge and calculation of their possibilities" (Debord, "Theory of the Derive"). Indeed we might not venture to call such unpredictable activities games if they contained no parameters or constraints whatsoever. A derive's calculated objectives include a "possible rendezvous" with an unsuspecting stranger, drawing a "psychogeographic" or emotional map of a designated region of the city, and tracing a trajectory of rapid movement through varied urban ambiences and systems, such as the proposed exploration of a closed-off subway tunnel.

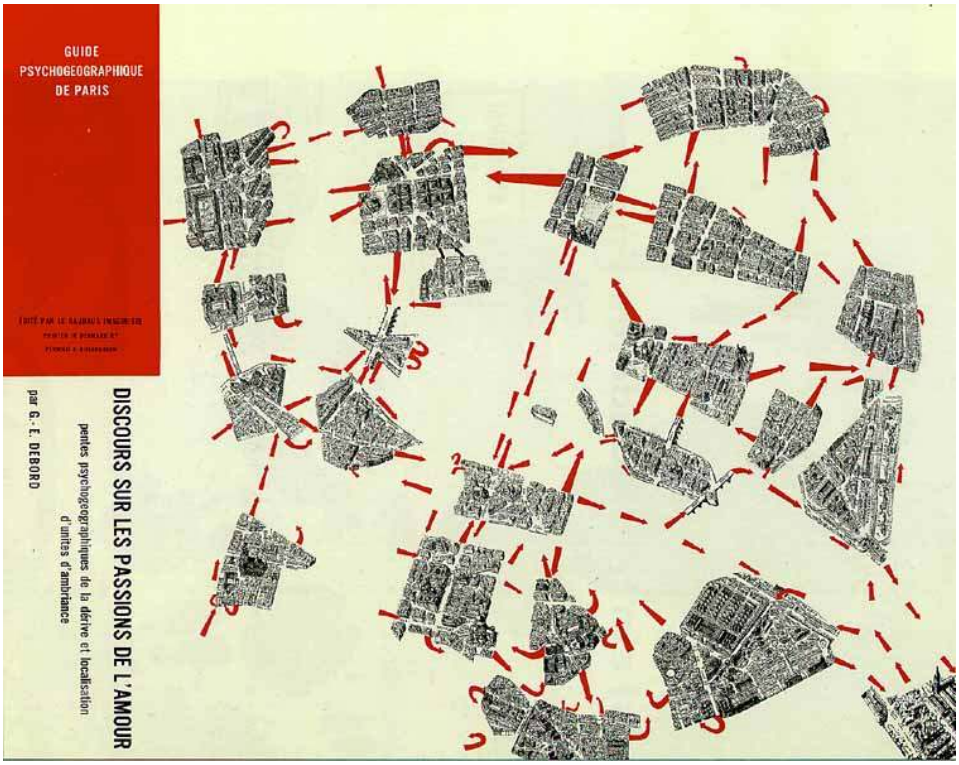

Fig. 3. Mapping of a derive; Guy Debord. Psychogeographic guide of Paris; imaginarymuseum.org; 1957. Web; 1 March 2012.

Situationist players, three or four being the recommended amount for a derive, do not know when or where exactly they will conclude their game, although a game has a prearranged start time. Debord mentions an exceptional derive of two months duration, yet he advises an optimal duration of play of one day: "a derive rarely occurs in its pure form: it is difficult for the participants to avoid setting aside an hour or two at the beginning or end of the day for taking care of banal tasks; and toward the end of the day fatigue tends to encourage such an abandonment" ("Theory of the Derive"). Thus true to Huizinga's definition of play as occurring in a "magic circle" separated from the everyday, a Situationist game separates playing time out from the time of attending to daily necessities.

On the other hand, Situationist play is not *spatially* relegated to the magic circle. Such games deliberately transgress the ludic border, crossing the fence from the playground or sports field into the exterior city. Like the computer games of the militarized playground, the

derive infiltrates and repurposes the space generally dedicated to everyday pursuits within the city itself, appropriating the liveliness of the urban habitat into the very experience of the game. Expressing a preference for the delights of the city over empty fields that brings to mind the favoured urban setting of the military playground, Debord recounts the errors of an earlier, derive-like, artistic walk. In Debord's cautionary tale, four sadly misguided Surrealist artists mistakenly selected the tedious and "depressing" countryside as their game setting ("Theory of the Derive").[15] Rather than the countryside, the preferable playground of the Situationist game was the existent urban terrain of Paris, a space of others, a public and private terrain grown of ad hoc alliances of vital necessities, slums, markets, statist structures, of private properties, and segments of the map imposed upon and repatterned by urban planners.

The Situationist player adopts what can be described as a *tactical* approach to this richly suggestive and lively urban habitat, exploring the passageways and circuits of the city. A temporary tactical intervention in the space of others, the ephemeral passage of a Situationist game fades from the city streets and buildings once it has been played, persisting only in the memory of players and accidental spectators. Michel de Certeau contends that "a tactic insinuates itself into the other's space, fragmentarily, without taking it over entirely" (xix). De Certeau distinguishes between a strategy's separate "base" of its own from which to oversee and impose upon space, "whereas tactics can only use, manipulate and divert these spaces" (30). For De Certeau, a tactical position is that of the underdog, borrowing space from the other provisionally like a renter of an apartment, "whatever it wins it does not keep" (xix).

6. HACKING THE CITY

> Your Intervention section borders on game breaking. Many people (myself included) paid $50 for a copy of Half-Life, Tribes 2, and Counter-Strike, and what you're telling people to do will ruin the 'experience' for all who play and pay for the game...And although Counter-Strike glorifies war, it is the time that we live in, and it is also an extremely enjoyable game (Critic of *Velvet-Strike* project).

Yet despite the lack of crystallized city structures resulting from such short-lived, transient games, the expressed greater aim of a Situationist game is to transform everyday life and behaviour patterns with ludic tactics.[16] Thus the interventionism of Situationist style play could portend a more active threat than de Certeau's surreptitious tactics of "making do from within" that reaps no permanent damage or change (25). For instance, city officials lament that a non-violent, city-wide transportation strike reaps fiscal damage by intervening in the flow of the city's daily business. And given sufficient repetition over time, ephemeral passages leave their mark on space, as urban circuits of people, traffic and goods forge lanes. In the words of Manual Castells, "space is crystallized time" (441). With the advent of the digital Information Age in the 1990's, the immaterial circulation of labour and capital comes to assume even greater relevance. The Situationist repurposing of pre-existent urban channels (subway tunnels and streets), and the uninvited transgression of players into everyday life spheres of operation (train stations and public squares), seems to anticipate the immaterial tactical interventions of hacktivism, a convergence of art, activism, and hacking undertaken by media artists and activists at the turn of the millennium.

In 1993 Critical Art Ensemble declared: "Nomadic power must be resisted in cyberspace rather than in physical space" (25). The virtual stage of the Internet is where hactivism first played out in the performative actions of groups like the Electronic Disturbance Theatre, a "hacktivist" artist collective composed of the United States citizens Brett Stalbaum, Carmen Krarasic and former Critical Art Ensemble member, Ricardo Dominguez. In June of 1998 Electronic Disturbance Theatre (E.D.T.) initiated the Floodnet

project, a series of digital hactivist actions in support of the indigenous Zapatistas of the Mexican region of Chiapas. A temporary blockage of the Mexican government's website traffic transpired by inviting virtual protesters to click a button on the EDT website to "ping" the government website.[17] The EDT ping attacks stalled the government server traffic, impacting accessibility to the website. Rather than irrevocably damaging the website nor penetrating its server, this action was likened by the hacktivists themselves to the way that bodies in a strike disrupt the flow of traffic on the plaza outside of a public building.

This playful, performative interventionism, activating metaphors of street protests and public political actions, also recalls the earlier disruptive and humorous pranks of the Situationists. Can we equate Situationist-style interventionism with artistic, activist hacking? Let's take a moment to consider the "hacking" component of hacktivism at greater length. Steven Levy situates the origins of hacking in the proclivities of an early generation of male geeks in the 1950's with a predilection for tinkering with toy railroads and ham radios, a fascination with electronic gadgetry predating computers and the Internet (21). The computer hacking culture that developed among these youth later branches into both the destructiveness of "script kiddies" and virus writers, and yet also evolves into the more mature "gift culture" of free software and Linux operating system coders. Among many hackers and hacktivists, a credo of "freedom of information" takes precedence over other "activist" concerns. Paul Taylor and Tim Jordon describe such information friendly hackers as "digitally correct hacktivists" (91). Unlike the disruptive, theatrical blockages of hactivist artists like Electronic Disturbance Theater, Taylor and Jordon's digitally correct hactivists write programs to support the unblocked dissemination of information in nations like China where Internet usage is constricted by government censorship.

In a chapter entitled "Hackers: Loving the Machine for Itself," Sherry Turkle isolates prominent criteria of a purportedly male hacker culture such as agonistic striving for

technical mastery, and an aesthetic appreciation of complexity in machines, which she alleges is accompanied by a preference for simplicity in human relationships (183-218). In their chapter titled "Men in the Matrix," Jordan and Taylor concur with Turkle's assessment of hacking as a competitive domain of masculine technical wizardry, and furthermore contend that despite the hacker's rebellious reputation, hacking ultimately validates the system (162). Jordan and Taylor write, "Hackers overidentification with technical means over political ends and their parasitic relationship to various technological systems means that although they are at the heart of the exercises of power, they remain in an ultimately powerless dependent relationship" (162). Jordan and Taylor posit that hactivism, on the other hand, is not prey to the same myopic, geeky focus on operationality as just plain hacking because hactivism uses technical means to service activist political ends (144).

Jordon and Taylor's problematic relegates the means of hacking to the operational strata of computer systems, (which are identified with power), while activist ends float elsewhere as abstract, fixed social values. Yet are the powerful workings of a system and ethical ends or values so easily separated from one another? Following in the wake of Manuel Castells and others work on metropolitan centres and globalization, not to mention the dynamic, operative models put forth by many thinkers from the humanities like Foucault, Deleuze, and Virilio, a more generative understanding of the social effects of technology expands "the system" to include workings beyond the electronic, to consider the technology of cities, for instance, or the workings of biological and governmental apparatuses. As the novelty of the Information Age fades, computerized and material operations come to seem less divided from one another. Viewed with the eyes of both the hacker and the urban planner, the city shifts from an ossified, crystallized solidity, a sedentarized place, to a more fluid constellation of overlapping circulations. Virilio writes, "The city has always been a

box full of speeds, a kind of gearshift. The organization of the city is the streets. What are the streets? Rushes" (77).[18]

Like the hacker's invasion of a government server, the Situationists' explorations of urban systems and maps of urban psychogeography are an uninvited, reverse-engineering of the urban layout. Hacking the city apprehends the workings of a system that has been set in place by others, (the municipal authorities, merchants, city administrators, and public officials). Such hacks carry the threat of a power reversal should the hacker divert the system's originally planned operations. Unlike the engineer with his strategic blueprint overview of the system, the hacker initiates her approach as a curious interloper. The identity of the system, of the city or the game, fluctuates as it is poked, prodded, tested and broken.

Thus an initial phase of the hack is exploration and discovery of a system—in a word, troublemaking. The systematic looping or nodal structure of the sites of the Situationists' pranks, the train station, the closed off catacombs, the streets during the transportation strike, recall the circuitry and branches of a network, the miniature topography of the computer circuit board. The hacker is drawn to the alluring complexity of an electronic "city" he or she does not own. Eventually, the hacker approaches Turkle's masterful "male" dominion of means, and might then elect for complicity with "the system," at which point the hacker is hired as a system administrator who programs secure, protective firewalls on an Internet server, or elects to take on a public post as an official urban planner. Similarly "switching sides," twenty years after writing "The Theory of the Derive," Debord designed a Napoleonic board game titled "The Game of War." But the modes of hacking and hacktivism that pertain to the ludic artistic approach to the city are neither mastery and dominion, nor "digitally correct hactivisim," nor hacking that sacrifices means toward social ends. The hacking style

that prefigures ludic activism is uninvited exploration, play and disturbance, playful intervention within both electronic and material systems.

7. CONTESTING THE TERRAIN

A more chronological ordering of the playful urban occupations described in this chapter would begin with the Situationists' playful interventions in the bourgeois capitalist mercantile city in the 1950's. Then jumping forward fifty years, military entertainers detourned the civilian-commercial city both virtually in battle simulation games and at key sites of asymmetrical urban unrest. In the early twenty-first century, in response and resistance to the proliferation of militarized urban playgrounds, hacktivist game artists, (and I included myself among their number at one time), shifted their targeted nodes of intervention from websites to hacking digital game cities.

Reminding players of the potentially fatal consequences of present day military combat, even for the most well-equipped soldiers of the Revolution in Military Affairs, American artist Joseph Delappe's performative ludic intervention, *Dead in Iraq* (2007), memorialises the names of fallen United States service members in the game of *America's Army*.[19] Delappe diligently typed the names of the fatally wounded American soldiers in Iraq into the chat channels that overlay the player's view of the game city, distracting players who complained that Delappe was "taking the fun out of the game" (*Returning Fire Documentary*). On the *Dead in Iraq* website Delappe writes: "As of 6/15/09, I have input 4042 names. I intend to keep doing so until the end of this war. As of this date there have been 4313 American service persons killed in Iraq" (*Dead in Iraq*).

Stahl refers to the Iraq War as a "sanitized war," a war with restricted media coverage (25). According to Stahl, the controlled media coverage in effect since the Gulf War

eliminated the more unsightly and disturbing elements of war from public view, hiding the carnage that so disturbed American television viewers during the Vietnam War (Stahl 25). Delappe's *Dead in Iraq* intervention works against this cleanliness, inserting the unsettling data on servicemen mortalities into the sanitized ludic battlefield.[20] Playing at war is no longer as entertaining, nor even as easy to play, when lists of young servicemen and servicewomen fatalities clutter the game's viewport.

In 2002, a little earlier on in the United States initiated War on Terror, I also developed a series of anti-war interventions within a game, in collaboration with two other primary collaborators, and including the contributed actions and "digital graffiti" of many other participants. On the same day that the United States began dropping bombs in Afghanistan, I began to conduct a game modification workshop in Barcelona, Spain. The echoing gunshots from multiple installations of a WWII themed game within the cement chamber of the workshop cement chamber took on alarming contemporary overtones, and inspired a conversation about making an anti-war game with Joan Leandre, another artist presenting at the workshop. A few months later in San Diego, California, I met the artist Brody Condon who suggested intervening in the game *Counter-Strike*. We decided to make anti-military "digital graffiti" to spray on the walls, floors and building surfaces of *Counter-Strike* maps. Condon contributed a homo-erotic image series titled "Love-In" depicting embracing terrorist and soldier combatants. We launched a farcical mirror website mimicking the graphical design of the official *Counter-Strike* website and posted an open call for protesters of war and of the militarization of computer game culture to contribute anti-war digital graffiti to the Velvet-Strike initiative. I also posted "intervention recipes," formulas for players to intervene in "game play as usual," such as a list of instructions for befriending an enemy in an open game server.

Fig. 4. The *Velvet-Strike* website design mirrored the design of the official *Counter-Strike* website; 2002; Web. 1 March 2012. http://www.opensorcery.net/velvet-strike/

Soon after the inception of *Velvet-Strike*, angry emails arrived, accusing us of misunderstanding that "the game is a merely game." Other players demanded that we return to the kitchen and go back to playing with dolls, claiming such games as exclusively male turf. Joan (John in the Catalan language of the Cataluña region of Spain), was the target of hate mails addressed to Miss Joan Leandre from players worldwide regarding his "feminist nonsense." American players accused us of unpatriotism and a New York based player pleaded with us not to obstruct Counter-Strike matches: "CS was my way out after 9/11. I played a lot of CS after that, in order to take out my anger against those nineteen bastards who caused the destruction of the WTC. Please, do not ruin my game" (*Velvet-Strike*).

Other players welcomed the intrusion into their game as an entertaining diversion from the existing game, "more entertaining than the original gameplay itself" in the words of activist Pierre Rahola, who, along with his French cohorts, was simultaneously conducting similar anti-war digital graffiti activities inside a different First Person Shooter game modification, *Team Fortress* (1996) ("Personal Interview Pierre Rahola"). Portland, Oregon based Chris Birke, who bears the distinctive credential of being one of the texture makers of the original *Counter-Strike* mod, contributed anti-war sprays to the *Velvet-Strike* initiative aimed at hardcore game geeks, such as a graffiti displaying a script to reprogram the left

mouse button, customarily used for shooting, to instead drop the player's weapon. British player "Ian" shared an extensive list of his own *Counter-strike* exploits:

> I've actually already cooked up most of the intervention recipes on your *Velvet-Strike* site [...] One can at least minimise the killing by finding obscure hiding places on maps and then sitting very still for the entire round where nobody can find one. This generally means each round is three minutes of bloodshed and twelve minutes of trying to find the last bloody player who's crawled into a lift shaft and refuses to move. Hiding is also an excellent time to be very chatty and tell everyone you're scared and you've become a pacifist and beg them to leave you alone. Hopefully you'll shame them into peace! (*Velvet-Strike*)

The trickster, the creative prankster behind the screen, the spoilsport provocateur, cultivates creative frictions and deliberate misunderstandings, playing with the border region between the game and the war, further enhancing the realism of the virtual city with activist graffiti and the insertion of passively resistant, virtual non-combatant "civilian" bodies. These ludic hacks inject life's noise into the ghost town previously overrun with militant play operations, impeding the smooth operation of the game. As stated in one flaming critique of *Velvet-Strike*, the intervention actions bordered on "game breaking," a Dadaist dose of negativity that Debord projects as a necessary component of future political movements: "any future constructive position must include a Dadaist-type negative aspect, as long as the social conditions that impose the repetition of rotten superstructures [..] have not been wiped out by force" ("Report"). The critical "negative" unmaking of one game makes another game, as the ludic border between game and world becomes poetic and humorous play material for artists and ludic mutators to manipulate. Hacking the virtual city became artists' play.

8. FUNNY RESISTANCE

Ludic anti-war hactivism, more entertaining than the game itself, playing another game within the game while sowing controversy and dissention, seems to mock the seriousness of war, undermining the gravity of death and destruction, its entertainment effect bordering on complicity with the militainment apparatus it purports to resist. Should game players dare to grapple with activist concerns, or would it be wiser to leave such occupations to experienced activists and revolutionaries, as advised by one of the few flaming emails our *Velvet-Strike* initiative received from the left: "I know real revolutionaries and your video game is a joke. No offence, but civil war and freedom fighting is not some little game in your precious little suburban world. It's a pity that people like you are so uninformed about politics, agit prop art, propaganda, etc." (*Velvet-Strike).*

Yet resistant actions were never consistently so serious. The American anarchist Hakim Bey underscores the festive atmosphere of the uprising before it settles into a more ordinary state: "Like festivals, uprisings cannot happen every day—otherwise they would not be "nonordinary" ("The Temporary Autonomous Zone"). Bey's "TAZ" is a temporary autonomous zone free of state control, an uprising at variable scales, from a dinner party to "a pirate utopia" of eighteenth century escaped slaves, prostitutes, and corsairs, "remote hideouts where ships could be watered and provisioned, booty traded for luxuries and necessities [...] whole mini-societies living consciously outside the law and determined to keep it up, even if only for a short but merry life" ("Temporary Autonomous Zone").

Brian Holmes takes note of a performative, artistic turn within late twentieth and early twenty-first century protest movements, commenting on the playful practices of puppetry and conceptual performance art in anti-globalization street demonstrations leading up to the WTO (World Trade Organization) protests in Seattle in 1999. Holmes reflects that "these kinds of actions are about as far as one could imagine from a museum, yet when you

approach them, you feel something distinctly artistic" (347). Jordon and Taylor, while tracing the evolution of the anti-globalization movement, describe an action in London with similar patently artistic, theatrical and playful overtones:

> On June 18 1999 a global carnival against capital was held. [...] The demonstration in London involved four gigantic puppet heads each of which played music. Masks were handed out in four colours, that matched colours associated with each head and on which were quoted reasons for the demonstration and a quote from an unnamed guerrilla (who was in fact Subcommandante Marcos). The playing of the theme from Mission Impossible signalled those of each mask colour to follow their head. Eluding and confusing police, they met up again at the London Financial Futures and Options Exchange (59).

Thus while hactivist artists are infiltrating digital game cities with graffiti and performative actions, activists orchestrate playful "artistic" interventions and events on hard pavement. Resistance goes ludic on both digital and material streets.

9. POINTS OF DETOURNEMENT

Whether the militarized city is a return to an originary military urban function (no longer the protective garrison of the castle-fort but a co-extensive military playground), or whether the primary function of the city as a sedentary "crystallization" of merchant exchanges is being diverted to militarization, we leave as a matter of debate to schools of urbanists (Virilio 19). What seems evident is that as the military operations of play run through the city, a playful assault is being waged upon the city as a site of commercial exchange and a global metropolitan node, the city as refuge from the poverty or the conservatism of the countryside, the city as artistic or cultural haven, or any number of other more "civilian" possible configurations of city.

The military, in alliance with education, the game industry, and players themselves, is the prime developmental motor of militainment games of serious soldier play. Games train for "urban operations" not only of death but for life's upkeep and administration in the militarized civilian sphere. The virtual game city becomes a testing ground for play tactics that are later transposed to military manoeuvres in live, conflicted urban zones. Enforcers rove the increasingly ludic terrain of the city, practicing anti-terrorist teamwork formations of biocontrol in former civilian turf. This militarized reterritorialization of city can lead to a pathological confusion of place. A traumatized Iraqi war veteran goes into alert mode in the wrong city long after he was expected to have put aside the battle operations of the urban playground.

I turned to the twentieth century's transgressive games of the Situationists for antecedents for an alternate approach to the city as playground. A Situationist play tactic repurposes urban space, the space of others, for the game of derive. Drawing on the illicit, interventionist character of early Situationist exploits, the derive's appropriation of existing channels and urban networks, tunnels, streets, and transportation systems, become the play material of "seriously seductive" games (Debord, "Critique of Urban Cartography"). While leaving negligible marks on the physical terrain, Situationist play prefigures the immaterial interventionism of hacking. Systems are explored, diverted and potentially disrupted at a certain key juncture, a vulnerable point within a web of relations that Eugene Thacker and Alexander Galloway refer as the "Schwerpunkt" (14). Both 21st century activist art affronts and military entertainment cultivate a sensitivity to these key nodes in the game/city system that are ripe for playful intervention and occupation. A prominently placed wall provides a canvas for protest graffiti; a rooftop serves as a convenient sniper perch. The *playground* of the activist play artist, like that of the military entertainer, is the hackable city.

Notes

[1] In this chapter I will limit my interest in "biocontrol" of the city to its military applications—in the following chapter I will discuss more civilian types of digitally augmented urban biocontrol.

[2] Drawing on Benjamin, Arendt and Habermas, Stahl describes a depoliticization of "the imperial subject" who is distracted by playing war games from engaging in a public, democratic debate on war (12). He suggests that at the same time as this withdrawal from public decision-making occurs, the invitation to take up virtual arms, (and here Stahl seems to assume a North American player), ironically exhibits the nostalgic appeal of the citizen-soldier's right to bear arms written into the United States constitution. Implicit in his argument is that the appeal of taking up arms as a constitutional right is a nostalgic rebellious gesture since guns no longer exert a significant power check on a military-state apparatus containing arsenals of nuclear weapons. (12).

[3] An isolated urban locale for play combat in a computer game, like a town, neighbourhood or a bridge, is referred to as a "map." The title of the Suburbia map oddly conjures American suburbia, quite a far cry from the Middle-Eastern city quadrant represented in the game.

[4] In Chapter Two I described the beginnings of the FPS, First Person Shooter Game genre, games where the player runs through dark, maze-like passageways concealing demons and aliens.

[5] While other urbanists, in an ongoing debate referred to by Virilio, hold that the ancient city was largely founded on commerce and Mesopotamian agriculture. Illustrative of this more agricultural, commercial camp, Lewis Mumford proposes that a Neolithic "women's village" of pottery, grain containers, and sacred womb-like "enclosures" preceded the man's city of more sophisticated tools and aggressive male war gods (15-17, 27). Virilio on the other hand sides with those maintaining that the city has military, rather than agricultural or commercial beginnings.

[6] The 20th century military theory of "Full-Spectrum Dominance" refers to a "gray strategy" merging civilian and military components, supposedly successfully implemented by the U.S. in Nicaragua and El Salvador, and a failure in Vietnam (Hardt and Negri 53).

[7] Stahl argument contends that consumers are also democratic citizens with potential influence on the conduction of United States backed war efforts. Thus their choice to engage with military entertainment is parcel to a political stance.

[8] The makers of *America's Army* happened upon a convenient pre-existing game form in *Counter-Strike* for generating recruits to the post-911 military build-up in the States, yet *Counter-Strike* is not identical to *America's Army*. For instance, one obvious distinction is that in *Counter-Strike*, the player can select to play on the side of the terrorists' team, to set the bomb, to take hostages etc, whereas in *America's Army*, no matter which of the two teams the player selects, the player takes on the role of an American "imperial" counter-terrorist

enforcer. While I agree with Stahl that "the interactive war" can "hardwire an imperial subject" into a battle-ready and pro-war configuration, we still need to take care to be attuned to the differences between civilian and military gamemakers of battle games (Stahl 4).

[9] More recently the military has shortened the term to just "Urban Operations."

[10] These digital civilian ghost towns also curiously recall Mumford's contention that prior to the human city, the first cities were constructed as memorials to the dead (7).

[11] This is the same university with a respected game design program where *Darfur is Dying*, the serious game discussed in the previous chapter, was designed by students in the School of Cinema.

[12] Such alliances are not unique to the United States—serious military games have been developed in research collaborations between educational institutions and military and government agencies in Europe and Asia as well.

[13] Gamification refers to the making into a game of any area of life previously considered not a game, from a gamified shopping list that rewards the player each time they check off an item, to gamified medical training software in conducting surgery.

[14] The passive consumer of Debord's *Society of the Spectacle* is entranced with diversions of the escapist commodity "spectacle." A combination of advertising, entertainment, and consumerism purportedly diverts the inhabitant of a capitalist system from taking on a more active role in society and culture. Individuals are alienated from each other by such media, through social relations "mediated by image" (2).

[15] The Situationists often differentiated themselves against the much larger art movement of Surrealism preceding Situationism.

[16] Attesting to the transformative potential of such games, with youthful fervor Debord writes, "Our action on behaviour, linked with other desirable aspects of a revolution in mores, can be briefly defined as the invention of games of an essentially new type" ("Report").

[17] To ping is a common preliminary to a hacker attack but the ping itself does not penetrate the server—the ping is comparable to a "knock on the door" of the server's ports.

[18] To consider another instance of the city as fluid system, as the computer system administrator implements firewalls and virus protection software to protect from hackers, the urban planner designs the layout of city streets to protect against corporal threats to security, such as the renovations on the medieval street layout of Paris following the French Revolution to control and impede the formation of street mobs. This example of authoritarian urban planning is mentioned in Parisian tourist manuals.

[19] *America's Army* is the same urban operations game I discussed earlier while describing how to play a typical round of the "Suburbia" map.

[20] Delappe's sustained and tragic memorial garnered vicious emails from both players and indignant American family members of soldiers who understood the project as disrespectful of their loved ones' sacrifices. Even so, "Dead in Iraq" is a war memorial that "asymmetrically" valorises the lives of certain war casualties over others, those of U.S. combatants, while excluding the names of deceased Iraqi civilian casualties and enemy combatants. Delappe also organized a project titled "The Iraq Memorial" where he invited artists to design proposals for memorials for the uncounted Iraqi civilian fatalities.

Chapter Five: Toys of Biopolis

"Why do I repeatedly dream of the number 4-4-2-3" (Yuko Yasako Okonogi)?

A jagged patch of pixels on a brick wall phases in and out, revealing a hidden alleyway beneath a veneer of concealing data. Three children race along a sidewalk, leaping across private fences in search of glimmering "meta rocks." Young lady agents working for master hacker Granny's cyber-detective agency pursue lost virtual pets who have wandered into perilous, illegal "obsolete space." These cute and quirky virtual pets are under the constant threat of elimination by toy-robot, anti-piracy enforcers. Yuko Yasako Okonogi, a mild-mannered young newcomer to Daikoku City, wages epic hacker battles and pursues deadly serious ludic quests with and against her new classmates, on the streets, at school, in a hospital, and in an abandoned bus depot. In Daikoku City, digital representations of walls and buildings blend indistinguishably with solid architecture while fantastic creatures and beings float through the city. Artificial life, organic life, and concrete habitations overlap, the infosphere enmeshing the biosphere.

Fig. 1. Kumi and Yuko chased by a digital toy police enforcer (a "Saatchi"); *Dennou Coil,* 2007; Television.

This near future, Japanese city is sketched out across the twenty-six animated film episodes of *Dennou Coil: A Circle of Children* (2007), conceived, directed, and drawn by artist Mitsuo Iso.[1] In this last chapter, rather than analysing the playing of actual games, I will analyse an animated science fiction television series recounting the playing of fictional toys and games. To Western eyes, Japanese animations might seem childish cartoons, yet such animations trace their lineage back to graphic novels (Manga) intended for both adult and child readers. Even those series' with young characters like *Dennou Coil's* "Circle of Children" often explore difficult themes that speak to an adult viewership.[2]

In the city of Daikoku, according to the back story conveyed in the first half hour episode, the corporation Megamass has distributed costless, light-weight augmented reality glasses to the city dwellers. The entire city's population, including its children, are integrated into a live field experiment in augmented reality, the overlaying of digital graphics and information onto physical spaces, viewable and navigable via electronic glasses. These lightweight gadgets offer their users an enticing array of powerful features, converging the functions of both "older" technologies like phones and laptop computers with newer "mixed reality" effects. Although some of the more fanciful applications of Iso's imagined gadgets may never be adopted, such technologies are not so far-fetched, for we already are beginning to use mixed reality applications in present day, smart mobile phones. For example, when a phone camera is pointed in the direction of a neighbourhood, the application Google Android's Places overlays the live video image with iconic data, indicating the location of restaurants, restaurant reviews, post offices, and other landmarks. And the player of the 2011 Japanese Nintendo 3DS portable console sees game characters and a playing field projected onto a live camera view of the player's physical surroundings.

In this chapter's science fiction tale, Yuko and the other child-characters of Dennoi Coil use their mixed reality gadgets to play games on the streets of Daikoku City. They create

magical artificial creatures who roam the city sidewalks. They retrace data trails marked onto alleyways and roads by other players. They program and trade illegal hacker software with one another so as to elude the electronic toy police. Meanwhile, the adult characters of Daikoku City seem entirely absorbed in the more mundane affairs of daily life—working, running errands, and preparing meals for the children. So in one sense, although not of age to assume the voting rights of citizens nor participate in a formal political system, the children of Daikoku City are a free and influential segment of this Asian city's population, for they have been afforded the power of "playing the city." Their innovative toys and games warp the very fabric and appearance of the everyday urban habitat, beyond the uses imagined and legally permitted by the corporation that manufactures the glasses-gadgets.

And yet even though these glasses afford their users powerful, reprogrammable tools and features, players are still are subject to external control through these very same devices. Entities such as corporation, family and municipal government, whom in this chapter I shall refer to as "biocontrollers," exploit the monitoring capabilities embedded within the gadgets to track, study, and control their users. Occupying a mediating position between the biosphere and the infosphere, Dennou Coil's mixed reality glasses are a conduit for lines of control and power that flow through the city populace. The actions of every city dweller are visible and recorded to "data clouds" via their mobile gadgets, wireless information clusters that are accessible to various degrees to the biocontrollers.[3] This vision of a hyper-controllable, information-infused future city follows through on Paul Virilio's prediction that today's infosphere is "gearing up to rule tomorrow's biosphere" (Virilio Reader 193).

The primary objective of this chapter is to explore the apparent contradiction that the glasses both track and control their users, thereby inhibiting their freedom, and yet at the same time are powerful, liberating toys. Toys, unlike games, do not have preset objectives, for toys can be repurposed towards different ends. My comparison in this chapter of toys vs.

games will pick up on the discussion of Roger Callois' notion of chaotic paidia and open-ended play broached in Chapter Two. The toy apparatus, following the open-ended definition of a toy, can be played in ways unforeseen by the makers of the gadget, rewired to redirect or block social control. In this chapter I question how these high-tech toys may be deployed to resist the control effect of the apparatus. Do technological toys confer a kind of public freedom to Daikoku City's children analogous to that once exercised by the ancient Greek "polis"?[4] And yet to what extent are these urban toy-gadget users a technologically subjugated populace?

The site where these mixed reality games and toys are played is the city. In the preceding chapter, we witnessed the military and policing biocontrol operations of an "asymmetric war on terror" infiltrating the civilian sphere of the city via urban battle games. In this chapter, I read Iso's imagined biopolis as a portent of a possible near future when more "civilian" interests claim a stake in implementing biocontrol within population centres. Resisting this overarching web of municipal surveillance and control, Daikoku City's children's games reconfigure the mixed reality urban milieu, tearing holes into the city's augmented habitat. A street can be repurposed from the utilitarian circulation of merchandise and workers to a passageway for ludic contests, or a segment of the sidewalk can be chalked off with hacker tools into a dark zone of so-called "obsolete space" that eludes the anti-piracy vigilance of the toy police. The children also play exploratory urban games with more serious objectives, retracing risky paths that uncover abuses by the fabricators of the glasses, the Megamass Corporation.

Which faction of characters does this science fiction narrative side with in these power struggles over electronic and physical turf—is Iso entirely sympathetic to what we might call the ludic resistant youth and its female hacker leaders? The leveraging of popular science fiction as a platform for social and political critique has varied precedents in the West

and the East. The *Dennou Coil* series is heir to a critical science fiction tradition rooted in wartime history and the rapid modernization of Japan. The series' vision of a future, electronically augmented biocontrol society echoes an apocalyptic distrust of technology prevalent in 20th century Japanese Manga Comic Books and Animation Series like *Ghost in the Shell* (1995), *Appleseed* (2004), and *Neon Genisus Evangelium* (1995), a wariness about the benevolence of scientific and technological advancements not easily abandoned since the nuclear fallout of Hiroshima and Nagasaki. In a similar, although less apocalyptic vein, at certain moments, Iso's series questions the benefits of the mixed reality that many predict will soon be the next iteration of the Information Age.

From the outset of the series, Dennoi Coil also draws on a disparate strand of science fictional social critique, the rebellious, anti-corporate, hacker figure of Cyberpunk science fiction. North American novelists of 1980's and 1990's fabricated scenarios that departed from contemporary social conditions on earth by smaller degrees than the escapist, intergalactic, space adventures of older science fiction. The dystopian novels of William Gibson, Philip K. Dick, and Pat Cadigan predicted increasing economic disparity, globalization, and branded privatization. In Cyberpunk's near futures, the hacker is the anti-hero or heroine who resists the manipulative corporation, deploying the corporation's innovative tools against it. Similarly, in *Dennou Coil*, hackers investigate tales of unethical corporate experiments, using the Megamass company's own glasses to conduct these exploratory games.[5]

Yet Iso's tale is not as one-sided, nor as damning a critique of globalization and the corporation that is put forth, for instance, in the film *Bladerunner*(1982), where a corporation conducts blatantly exploitative, profiteering ventures with humanoid "replicant" slaves.[6] Ultimately, as I will show over the course of the chapter, Dennou Coil's child-hacker characters' ludic resistance to invasive control falls prey to the capitulatory message that at

some point one must grow up and contribute to the survival rhythms and well-being of the biopolis. The storyline suggests that many instances of apparently sinister control and disciplinary action, such as Megamass experiments on hospitalized children, are ultimately justified for the good of the bios. Megamass corporation employs local family members, and in what may resonate with an especially Japanese sensibility, in latter episodes, as I will discuss later in the chapter, corporation and family will become one.

Nevertheless, Iso's tale, whether intended on his part as a nuanced social critique or merely as a risque coming of age story, exposes what can be understood as more insidious control mechanisms than those harbingers of invasive scientific and technical control articulated in Western science fiction counterparts. Control and scientific manipulation for the sake of the economic vitality, the health, or the security of the populace, which in this chapter I will argue is the essence of the biopolitical rationale, makes these control apparatuses, like the Megamass mobile gadget experiments on the populace, especially difficult to refute. And although present-day, technologically advanced Asian cities may well serve as incubators for a kind of biocontrol similar to that implemented in fictional Daikoku City, such economic and societal-technical developments are by no means limited to Japan nor to the Asian region.

1. BIOPOLITICS, APPARATUS, GADGET

In this section I aim to theorize the underpinnings of population control within Daikoku City, eventually narrowing my analysis down to a discussion of the control effect of mobile apparatuses like Dennoi Coil's glasses-gadgets. I will begin by rehearsing varied formulations of modern biopolitics in Michel Foucault, Giorgio Agamben and Hannah Arendt. I will then analyse the control function of the mixed reality gadgets in Daikoku City,

drawing on Agamben's reinterpretation of the Foucaultian apparatus as a gadget like a mobile phone in his essay "What is Apparatus?" In the subsequent section I invoke Gilles Deleuze's notion of the mobile, networked "control society." Finally, towards the end of the chapter, I counter this oppressive picture of a future city dominated by various "biocontrollers" and control technologies, with hope for resistance to be found in ludic sidewalk games played with these very same toy-gadgets.

Although there are crucial distinctions among the primary theorists of the biopolitical, the term evokes an attention to relations between life and power, and inscribes a tension between bios and politics, however differently the two terms are defined.[7] In Foucault, this tension is constituted as the bios (populace) subjugated and shaped by "disciplinary" state institutions. In the Foucaultian analysis, the biopoliltical arises at a key inversion from life to death, when during the 17th to 19th centuries in Europe, the king's spectacular symbolic "sovereign" power of death over subjects gave way to a disciplinary state-society of life-supporting governmental institutions, from public schools, to hospitals, medical practices, and prisons. Foucault's lectures delivered at the College de France in the late 1970's cover the production of "subjects" and "populations" in relation to these historical transformations of governance, and in his view are followed in the twentieth century by the market-driven, economic forces of "biopower" (*Security, Population, Territory*; *the Birth of Biopolitics*).[8]

Alternately, Georgio Agamben describes an opposition in biopolitics rooted in the classical distinction between bios, (the Aristotlean proper life of the citizen including his participation in the "polis"—the political life of the city) vs. zoe (life stripped of citizenship and biography) (*HomoSacer* 1). He points to an originary biopolitical figure, "Homo Sacer," from ancient Roman legal texts. From a juridical point of view, Homo Sacer was a non-citizen who was not legally murdered when he was killed, for his demise was considered similar to the putting to death of an animal or a slave.[9] Agamben argues that in modernity

and beyond, the state retains the prerogative to invoke a "sovereign" decision to reduce civilian status and political personhood to a condition of "bare life," similar to the vulnerable legal status of ancient Homo Sacer.

The state enacts emergency suspensions of a subject's legal status, allegedly in order to protect an assumed vital, biological whole—a nation, a people, or an urban population, from infection by an alleged security threat from within, whether it be terrorists, hackers, or other alleged undesirables, such as a targeted ethnicity, gays, illegal immigrants, illegal software, or a pandemic disease.[10] As discussed in the previous chapter, Virilio refers to the war waged within against civilians in more recent times as "endo-colonization," as governments turn against their own populations (107). A population understood as a vital whole in need of nurturing care and the occasional harsh discipline also resonates with Arendt's assessment that in modernity, governments took over disciplinary "housekeeping" responsibilities from the feudal household, acting as if entire populations were families (33). In Arendt's view, this historical transformation diminishes the possibility for modern political exercise, as well as being a key factor of totalitarianism. Arendt's argues for a kind of return to the Aristotlean opposition between a public political life ("bios politikos") and the survival-oriented "sphere of necessity" (24). As discussed in Chapter One, she locates this distinction ideally in the separation of household economic governance (the oikia) from politics (the polis) in the ancient Greek city-state (13).[11]

These varied accounts of the biopolitical seem to be in agreement that at some point in modernity, the bios, the human population, became infused with control logic due to a convergence of the practical and the hierarchical, the economic and the domestic, leading to a relation of social control to a population.[12] Those authoritarian entities whom I shall later refer to as biocontrollers, such as government, corporation, military, or police, leverage and abuse the rhetoric of necessity in bids for more power. Caring for the population borders on

fearing for the population, and may serve as a cover for persecuting demographics viewed as degenerate, unhealthy or alien to the prime body. Thus even in allegedly free, modern democracies, the logic of the bios, through invocations to economic vitality, population health, or security—often comes to take precedence over the exercise of political agency and other freedoms. What distinguishes such a biopolitical analysis, and is also a source of potential criticism from both the left and the right, is that neither the state nor exploitative economic factors are privileged as a prime societal malady. The biopolitical understanding refuses to choose between either a. a critique of the current phase of capitalism, or b. a critique of state oppression. Contemporary biopolitics instead takes apart the ways governance, globalization, among other potent forces such as technological, scientific and medical research, gain a hold over a population through the rhetoric and logic of life.

How does mixed reality mobile technology figure into this alleged biopolitical predicament in a near future city like Daikoku City? In contrast to the larger, historically sweeping dialectics of the bios vs. the political, the way I use the term "biocontrol" in this chapter is narrower, referring to the control of the urban bios, of living city dwellers via apparatuses and gadgets. The mobile glasses-gadgets are key to the experiment conducted on the populace of Daikoku City. In the remainder of this section I discuss the control effect of these apparatuses and gadgets.

The "apparatus" or "dispositif" is a crucial construct of Foucault's work on power and subjectivity and he has built the concept up through varied theoretical frameworks and historical objects of analysis in his publications, lectures, and interviews. In earlier books such as *Discipline and Punish* and the *History of Sexuality*, the apparatus refers to institutional systems, (including factors like a hospital or prison's architectural layout and lines of sight), practices like medical treatments and photographic archiving, as well as to discourses and social relations. The cumulative effect of these diverse factors, in other

words, is the apparatus. The apparatus produces a certain type of pre-modern or modern subject, such as a mental patient, a Victorian hysteric, or a criminal.

Over the course of his studies of governmental forms and power mechanisms, Foucault's apparatus dematerializes as he distances the notion from any specific institution, practice or everyday technology. Even his allusions to the networkable, "capillary" characteristics of the apparatus, as "the system of relations that can be established between these elements, heterogeneous ensembles of discourses, institutions, architectural forms, the said and the unsaid," (in comparison to older forms of divisionary control within more rigid institutions like the church or military), do not refer directly to a digital network, or genetic research, for example (*Power/Knowledge* 194).

Contrasting to Foucault's abstraction of the apparatus, in an uncharacteristically blunt gesture, Agamben returns the apparatus to its colloquial understanding as a technical gadget like a mobile phone or a machinic tool. In "What is Apparatus?" this move is undertaken in concert with a phenomenological critique of the Foucaultian apparatus. While Agamben retains the broader, Foucaultian tying notion of apparatus as the social "practices and knowledge [..] measures and institutions" in place to support the use of a gadget, the mobile gadget itself in Agamben's essay is understood as a key form of apparatus. He proposes that apparatuses, like mobile phones, are certain technologies that historically aim to govern and control "living beings" and "substances" (13).[13]

Agamben hypothesizes that over the course of human history, an ongoing struggle persists between two classes, that of organic beings vs. apparatuses, and that this struggle gives birth to a third class: subjects. One human individual or biological organic "substance" can be tied to multiple "subjectivities," at once a "user of cellular phones, the web surfer, the writer of stores, the tango aficionado" (14). The subject is "that which results from [...] the

relentless fight between living beings and apparatuses" (14). The apparatus affords a positivity, leading to unique actions and behaviours, that come into being through the apparatus. This positivity is true to Foucault's understanding of the apparatus, for instance in response to an interview probing his depiction of power in *Discipline and Punish* and other prior works, Foucault inverts the negative, delimiting view of power, instead stressing its positive, generative effects: "In defining the effects of power as repression, one adopts a purely juridical conception of such power; one identifies power with law that says no; power is above all taken as the force of a prohibition... [Rather one should say power also] transverses and produces things, it induces pleasures, forms of knowledge, discourse" (*Power/Knowledge* 119).

Yet for Agamben, this positivity is over-determined by the apparatuses' side of the struggle, leading to a constellation of human behaviour and beliefs that is a shallow "larval desubjectivity" in the "current phase of capitalism" (20). The apparatus thus plays a villainous part within Agamben's reverse Marxist de-evolution of human subjectivity. As apparatuses spawn ever more "larval" desubjectivies, humans move towards increasing metaphysical abstraction, away from the phenomenologist's originary quest for unified embodiment. As the title of *Dennou Coil* alludes to, a great portion of the visible world viewed through the mixed reality glasses is "dennoi," the term the series uses to designate any artificial life form or digital object that lacks tangible, material existence.

Returning finally to the central thread of our science fiction tale, *Dennou Coil* centres on the coming of age of a young girl as she masters the multiple applications and complications of her mixed reality gadget-toy. Yuko first arrives in Daikoku City as a hesitant, timid and stuttering newcomer. She gradually increases her proficiency in manipulating her glasses, cleverly evading the authorities and hacking the system to her benefit. Like the coming into her own of a sorcerer- princess who unlocks hidden inherent

powers under duress, Yuko intuitively triggers glasses commands to escape from entrapment spells set by other glasses "players." Over a series of epic battles, she learns to identify and navigate illegal "obsolete space" (illegal uncontrolled space) more adeptly than her peers.[14] Sprinting through alleyways, private gardens, and private property walls, chased by angry adults and virtual security enforcer creatures, Yuko and her friends elude the grasp of the "dennou" (virtual) toy police.

Like an enchanted seed or pebble from a fairytale, the gadget holds the secret of powerful, spell-like features whose commands the user has only to master and release over time. The path to power of the hacker, the reprogrammable gadget also promises of yet-to-be configured and invented capabilities, given sufficient programming skill. But at the same time, the mobile device is prone to exterior control, regardless of the user's conviction of her own empowerment. Agamben writes, "He who lets himself be captured by the cellular phone apparatus, whatever the intensity of the desire that has driven him—cannot acquire a new subjectivity, but only a number through which he can, eventually, be controlled" (21). Yuko's epic adventures traversing Daikoku City with her glasses, her emotional attachment to her cyber-pet dog, and her growing proficiency at eluding the electronic authorities, would in Agamben's analysis at the end of the day be effaced by the overriding biocontrol function of the apparatus, reducible to the number haunting Yuko's dreams since early childhood when her grandfather gave her the glasses: 4-4-2-3.

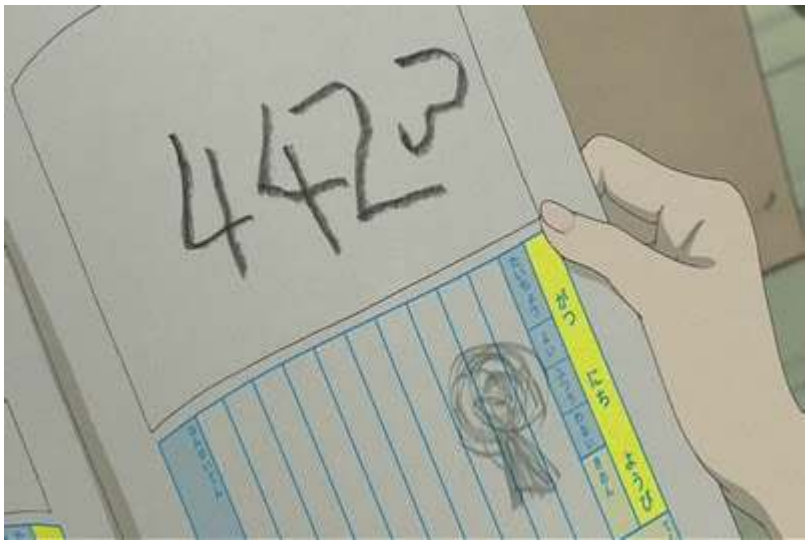

Fig. 2. A schoolbook page from Yuko's early childhood; *Dennou Coil,* 2007; Television.

True to the phenomenological tradition he claims, Agamben faults the apparatus with abstractions of what were once more embodied, multi-sensory relations: "I live in Italy, a country that has been reshaped from top to toe by the cellular [...] I have developed an implacable hatred for this apparatus, which has made the relations between people all the more abstract" (15). The mobile phone projects the speaker to a social plane that is neither here nor there, as the speaker communicates with a geographically distant listener. From the abstracted domain forged by the early invention of the "apparatus of language," to the eons later separation from location occasioned by the mobile phone, the mobile apparatuses of augmented reality, in league with the digital, the virtual, the genetic, and the network, splinter off transcendent realms from the biosphere, drawing the subject into even more "spectral" planes of mixed reality (14).

A phenomenological dismissal of an inauthentic state of being fostered by mobile apparatuses does not seem to do justice to life and world-forming mediated experience, not even when speaking of the spectral escapades of animated science fiction characters. I would hesitate to characterize the majority of Yuko's mediated adventures with her mixed reality

glasses as conducive of the "larval desubjectivities" of Agamben's mobile apparatus users. And yet in one sense, his reactionary take on the mobile apparatus rings quite true. Every datazation or abstraction provides an opportunity for an external agent to profit from the divided, mediated relation. A number, a tag attached to the apparatus user wherever she goes, that is laid across every street and object that she encounters, leaves a trailing cloud of data, constituting a tempting invitation for external biocontrol.

2. THE BIOCONTROL SOCIETY

In Iso's near future city, objects, places and persons are tagged within a networked, wireless grid floating over the urban street plan. Mixed reality blurs the former division between the physical, embodied world and the informatic sphere. As the glasses accompany the wearer on her daily business, an embedded recording device persistently transmits data to the city's wireless digital network. Each city dweller's actions and information is thereby archived and visible to various degrees to municipal, educational, and government authorities, to security enforcers, socially to other players and citizens, to parents, to co-workers and managers, to marketers and to corporate researchers, whether or not they choose to act on the information. As Yuko puts it succinctly, "Our actions have come back to haunt us" (ep. 14).

This flexible grid of electronic control, surveillance, and data collection is described in Gilles Deleuze's notion of the "control society." In an evocative, brief essay, Deleuze uses the term to account for the society that results from the dissolving of partitions between separate domains like the home and the factory in the wake of networked mobilization. Although citizens are more mobile and free to move about between work, home, and leisure spaces, conversely in an information infused society, actions are also more traceable at all times and locations. He proposes that the divisions and enclosures of Foucault's

"disciplinary societies" are in the process of transformation into more diffuse and mobile forms of control. For instance, rather than being incarcerated and immobilized in a prison cell, the violator of a minor criminal offense is released to the general public wearing an electronic collar or an ankle bracelet. As Alexander Galloway writes, honing in on the novel "organization principle" of Deleuze's control society: "control societies are characterized by the networks of genetic science and computers, but also by much more conventional network forms. In each case, though, Deleuze points out how the principle of organization has shifted away from confinement and enclosure to a seemingly infinite extension of controlled mobility" (*Gaming* 87). Such networked control is pernicious yet almost imperceptible until its consequences are felt. The mobile ties of the control society are elastic, yet seldom release their hold.

Such an apprehensive depiction of a monitored, information and gadget infused control society might come across as a paranoid, overly-individualist Western agenda being misapplied in this chapter to an Asian cultural object, the Japanimation city. In contemporary Asian cities, we might expect to find greater value placed in fulfilling communal and family obligations than in the West, and could therefore hypothesize broader acceptance of communication technologies that infringe on privacy. But ascribing a regional Asian complicity with the control effects of mobile technology and augmented reality devices may fall prey to a post-colonial, "techno-orientalist" construction of Asians as robotic, technology aficionados. As Toshiya Ueno rightly points out in his critique of a "techno-orientalist" bias among Westerners in much of the analysis of futurist Japanimation series, many technological innovations proceed in step with global economic shifts that reach beyond the East-West dialectic. He writes, "If the Orient was invented by the West, then the Techno-Orient also was invented by the world of information capitalism" ("Japanimation and Techno-Orientalism").

At times Iso does indeed celebrate the future innovations to come in the mixed reality city. The series indulges its viewership with a profusion of imaginative and spectacular applications of the augmented reality glasses that would inspire delight in the Japanese "otaku" or techno-fetishist. Even so, at other moments, Iso's tales of invasive spying, electronic policing, and unethical corporate biotechnological research highlight the gadget's vulnerability to abuses of control, a matter of relevance in varied global contexts that reaches beyond an allegedly Japanese or "techno-oriental" blind faith in technical innovation.

One such manipulative controller in Daikoku City is the Megamass Corporation, who monitor the children's games and activities via their glasses. The corporation employs sinister toy-like, gamified security enforcers called "Searchamotrons" (usually shortened to Saatchi's), monstrous, red and white oval creatures with detachable floating surveillance globes encapsulated within their two-story tall corpuses. These Saatchi police continuously patrol for illegal software and tools, approaching at a rapid pace whenever they spot illegal objects or actions, such as a virtual fishing rod angling in dark and unstable obsolete space.

In Daikoku City, the modern role of policing as property vigilance extends in scope to the vigilance of information-infused mixed reality. Additionally, the police, and even the municipal government, entities traditionally supported by public tax income, no longer take precedence over private sector services. The Megamass Corporation, similar to a Cyberpunk vision of a privatised future, has appropriated responsibilities such as health care and policing from the state and the municipal authorities. For instance, the Megamass Corporation tends to hospitalized children, and in a later episode, the children's public school and the corporation take up a shared residence in a newly-erected skyscraper. This move has alarming implications for the children, who are made vulnerable to the connivings of a rogue Megamass researcher lurking in the building's dim basement.

In addition to the biocontrollers of corporation, police, and municipality, as might be expected in a series following the escapades and contests of a group of children, another frequently alluded to external controller is the family. Yuko and her friends are teased by a pesky younger brother who records spy videos of their private moments via the glasses, and on one occasion Yuko's mother chastises her daughter when her glasses malfunction and the mother is no longer able to track her daughter's location. Domestic supervision extends its traditional scope of vigilance from the home and garden to city streets, relying on the unobtrusive tracking capabilities of Dennoi Coil's mobile glasses-gadgets, much the way today's parents keep track of their children via mobile phones. This expansion of the domestic sphere like an umbrella over the entire city resonates with Arendt's allegation that modern society is an outgrowth of the private household sphere (33). Subjects of unobtrusive surveillance, Daikoku City's children are not as wild as they first appear in the earlier episodes following their urban exploits.

In the final stages of Dennoi Coil, the import of family comes to the fore when a web of kinship between employees of the allegedly abusive Megamass corporation and the hacker dissident children is revealed. We learn that Yuko's soft-spoken father holds a managerial security position at Megamass. Harakan's teenage programmer aunt, who in her youth was a Cyberpunk hacker like the children, later made a conversion (or betrayal) from hacker to Megamass security enforcer and her immediate supervisor is Yuko's father. And Yuko's grandfather had initiated a psychiatric medical experiment on the children, creating the "therapeutic" illusion through the glasses that the older Yuko's brother was in a coma being experimented on by Megamass, while in actuality he had perished in a car accident years ago.

In light of these revelations, the suspected corporate abuses investigated in earlier episodes evaporate into childish fantasies fostered by the adults' well-meaning therapeutic fictions. Unlike the cyberpunk hackers vs. the corporation, or the polis vs. the police, or

other potentially more clearly drawn confrontations, ultimately in Iso's tale, the divisions are not clear between the dissidents and the perpetrators of biocontrol, positions and stances that become discomfortingly muddled and indistinct over the latter episodes of the series. A biopolitical rationale emerges for invasive controlling actions and deceptions that are ultimately justified for the mental and physical well-being of the corporation's own relatives and children.

The convergence of the economic and family spheres in the corporation echoes the medieval household economy that prefigures Arendt's modern state society (33). Arendt writes, "necessity is primarily a prepolitical phenomenon, characteristic of the private household organization, and [...] force and violence are justified in this sphere because they are the only means to master necessity" (31). In the future biocontrolled city, a biopolitical rationale justifies manipulative control acts and experiments, (and the threat of force implied by the toy police). These measures are imposed for the sake of the vitality and economic benefit of the overall populace, which is treated, for the good and for the bad, as a technologically advanced variation of a feudal family economic unit. Embedded within the electro-organic bios of Dennoi Coil is kinship; one city, one corporation, one family, a narrative thread that began with Yuko's grandfather's invention of the glasses.

The resurgence of family, which outside of our tale may manifest as a more symbolic than literal discovery of kinship amidst the populace, marks the disappearance of politics into the dictates of the bios, a biopolitical conclusion to a story that began as a Cyberpunk conflict. Although in a certain sense cosy, this finale feels like a deception and betrayal of the young ludic resistance, an anti-climatic biopolitical excuse for earlier plot tensions. Can it really be that one rogue researcher was the root of all evil and all other suspected power abuses were acts of caring? Maybe Iso intends that his viewership not entirely believe in this

final wrap up that absorbs the rebellious games and investigations of its hacker youth in earlier episodes into the benevolent, domesticating folds of the biocontrol society.

3. MIXED URBAN REALITY AND PAIDIAIC TOYS

The city itself gathers the populace in its grip, thanks to the soft touch of the city's mobile wireless infrastructure, regardless of who is the control agent of the moment, literally the family, or the Megamass Corporation, the police, the municipal authority or some other contingent. The series title, Dennoi Coil, recalling Hamlet's unbearable mortal coil, refers to a twisting, inescapable "coil" consisting of "dennoi," the mixed reality "electronic brain" technology diffused throughout the municipal grid. And yet this electronic augmentation of the city also allows for those other than the central authorities to tweak its strings and fire its municipal neurons. Daikoku City's children remix the augmented urban features of the urban habitat into varied ad-hoc games of their own invention. Players both reconfigure, and deftly elude the urban control apparatus, temporarily escaping from the city's hold.

First of all, these mixed reality games are ludic mutations of the city's everyday reality. In their appropriation of the contours of the urban milieu, these games are similar to spontaneous, non-digital children's play, such as a game of skipping over lines on a sidewalk. The rules of "sidewalk play" are under continual revision by players in response to the habitat, as the pre-existing patterns of the city are reworked into the game's ad hoc structure. As walkways, streets, and school building are redeployed in the game, ordinary spaces and the utilitarian objects of the everyday world become *play material*, similar to the way sticks and stones were once incorporated into a game of sidewalk hopscotch chalked onto a 20th century street.

Yet in contrast to these older urban games, mixed reality urban games also make use of the layer of digital information that has been laid across the city. In the mixed reality city configured as game, everyday objects shimmer with the potential of becoming toys, challenges and ludic obstacles. Daikoku City's children program magical properties into ordinary objects, investing pebbles, a fishing rod, and a hidden alleyway with "meta" powers, a halo of digital augmentation. Red, wooden doorframes of Buddhist shrines provide welcome safe havens from the Saatchi police, portals to an ancient past free of electronic jurisdiction. Yuko learns from an older hacker girl that she can also chalk an "instant shrine" on the sidewalk in an emergency. As the city's layout is thus reconfigured into danger zones dotted with safe havens, eluding the toy-like police becomes part of the game, a somewhat sinister "gamification" of the urban milieu. Thus, although risking punitive consequences for the players, these chases between children and authority figures assume the shape of a game.[15]

In addition to the power of these mixed reality games to modify and augment the urban terrain, another key characteristic of Daikoku City's children's games is their open-endedness and flexibility, similar to that of the toy. Many toys, unlike games, do not have clear objectives. A toy like a doll, stuffed-animal or set of Lego bricks, can be played in myriad ways, and in this sense the toy is similar to the multipurpose gadget. A toy that is repeatedly played following the same steps towards the same objective, coalesces into a game. Roger Callois designates free-form interactions with a found object, like the chaotic banging of rock, or an exuberant leap, as "paidiaic" play: "The first manifestations of paidia have no name and could not have any [...] But as soon as conventions, techniques and utensils emerge, the first games as such arise with them: eg. leap-frog, hide and seek, kite-flying, teetotum, sliding, blind-man's bluff and doll-play" (29). Unidentifiable, unnameable acts of paidiaic chaos and destruction transform into recognizable toys, and finally into rule-bound

games. In Daikoku City, there are no games official and persistent enough to even carry names. The children's games are spontaneous, temporal, and subject to shifts in rules and objectives set by the players.

These spontaneous, player-driven, toy-like games are more easily exited than a commercial game's careful, pre-programmed seduction of the player into an immersive sequence of rewards and punishments moving towards a preset goal. With the exception of the glasses apparatus initially provided by the Megamass Corporation to the populace, a private game industry is not overtly involved in the production of the children's games. Free from market pressures, such toy-like games can afford to risk shorter, less addictive holding power, engrossing for a few days, and then abandoned for the next game, approaching the open-ended, fluidity that Arendt designates as a characteristic of aesthetic, performative, political action in her Space of Appearance discussed in Chapter One (199).[16]

In the children's hands, the glasses gadget becomes a fabricator of fantastic cyber-creatures that are programmed onto the streets of the city. Repurposed for this toy making, the glasses apparatus is thus diverted from the utilitarian applications commonly demanded of smart mobile phones, from more useful purposes like communication and mapping. Toys are unbound from the practical everyday functionality of the world, the utilitarian relation between latch, door and hallway that Heidegger refers to as an "equipmental workshop" (98). Unlike the clockwork toy worlds discussed in Chapter Three, which aim to model a convincing, everyday operation, the toys in Dennoi Coil respond to a less predetermined, more paidiaic calling. For instance, if Heidegger's street is "equipment for walking," a toy street could be equipment for hopping, for sliding, or for rolling (141).

Even before sophisticated mixed reality gadgets, play was capable of disrupting the city, testament to the chaotic force of the toy. In Pieter Brueghel the Elder's painting of

medieval “Children’s Games”(1560), a tumultuous crowd of players romp through a Flemish townsquare, rolling hoops, spinning oversized teetotums (dreidel-like tops), and forming snaking leap-frog chains.[17] In Daikoku City, Megamass continuously monitors the children’s games as their paidiaic force often verges on disrupting the order of the work-a-day city. For instance, when an illegal cyberpet guppy grows into a whale occupying an entire block, overlapping with the domestic routines of the neighbours, Megamass responds by dispatching Saatchi police to control the situation. Even when lacking in subversive or hackerish intent, toys undercut the authoritative hold of the city.

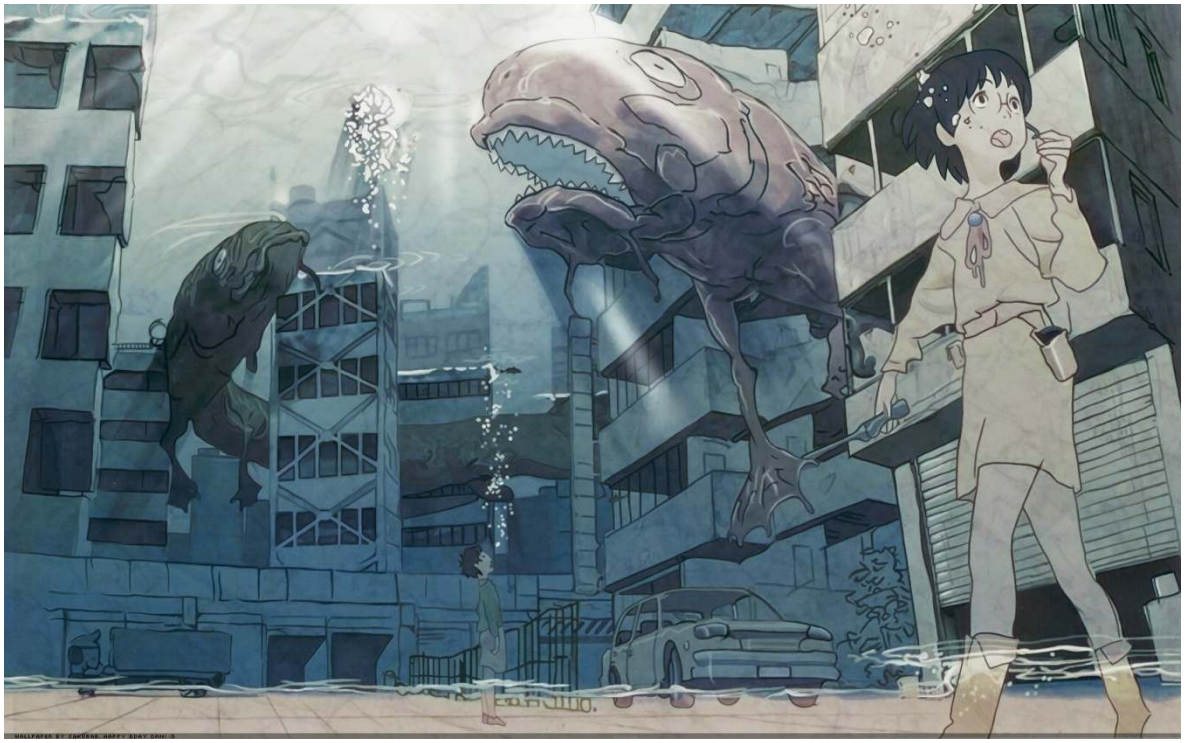

Fig. 3. When a boy overfeeds a minute artificial guppy, the guppy expands into a whale-sized illegal monster. Saatchi enforcers are dispatched to control the outbreak of overgrown, mismatched augmented reality; *Dennou Coil,* 2007; Television.

As the series progresses, the children pursue more serious objectives in their games. “I’m not playing at all,” Yuko replies to her younger sister’s entreaty to play with the older kids in an episode entitled “Kanna’s Diary.” Yuko and her friends tiptoe through dark alleyways and dart across traffic-congested streets, retracing a route retained in an electronic

diary discovered in the glasses of Harakan's deceased girlfriend. Kanna's death is rumoured to be the result of a fatal failure of the glasses' traffic mapping function. A mysterious figure on a motorcycle (a Megamass security officer), spys on the children during this "game," for it would seem that the corporation wishes to prevent sensitive information being revealed through this re-enactment of a young girl's last recorded walk through Daikoku City.

Trailing behind each city dweller in Daikoku City is a cloud of information recorded by the glasses, a stream of data like that retained in Kanna's diary. This cloud is a divisible and profitably minable data profile of surveyable information, income, eating habits, age, gender, genetic illness, criminal histories, education, demographic patterns. In the Infocapitalist control society, "Individuals have become *'dividuals,'* their information available as samples, data, markets, or *'banks'"* (Deleuze).

Fig. 4. Perilous Paths through the City; *Dennou Coil,* 2007; Television.

Can there be any freedom of movement in such a monitored existence? How does the average city dweller exercise power and freedom in the future biocontrol society? As Foucault explains power, contrary to a political science understanding of power residing in the formation of a particular political system, that is regardless of whether Daikoku City is a

constitutional democracy or otherwise, power flows at a "microphysic" and "capillary" level amidst the body of the population (Foucault *Power/Knowledge* 96). Power is channelled through a society along diffuse, branching, and circuitous channels. Even in tightly controlled society, power is not exclusively owned by a ruling class, nor by an elite within the population, for "power is exercised rather than possessed, it is not 'the privilege,' acquired or preserved, of the dominant class, but the overall effect of its strategic positions" (*Foucault Reader* 174).

Although agreed, power is fluid, it flows along the paths, the "strategic positions" that have been laid out in the apparatus, however circuitous. In other words, power runs and pools along channels and control strings that have often been designed and positioned by "the powerful," those whom I have described as the "biocontrollers." And yet even the tightly bound pull back on their strings. In the investigative game of following the path in Kanna's diary, the lingering data cloud from the girl's final day among the living serves in the interest of the apparatus' users rather than the Megamass Corporation, reversing the customary control relation between corporation and gadget user. Slipping from the biocontroller's hands, the data cloud is deployed against the corporation.

Furthermore, although powerful, the biocontroller is not free. Even those I have designated as powerful agents of biocontrol, like the Megamass corporation or the toy police, are in some sense bound to those they control, occupying an ensnared position at the pinnacle of multiple strings. Freedom is neither control and power over others, nor is it to be controlled, and therefore neither the biocontrolled nor the biocontrollers of Daikoku City, exercise the same amount of freedom that we might imagine (with Arendt) was enjoyed by a classical age member of the polis.[18] A mere break with controlling strings is also a kind of exercise of freeing power, and in this sense a toy-like game opens a pocket of chaotic freedom in the municipal web.

4. A CHILDREN'S BIOPOLIS

Instead of a populace subject to the controlled experiments of a corrupt corporate-mafia, an idyllic, future biocontrol city might be a hyper-rational, sustainable green metropolis with efficient waste management, a well-supported arts and culture sector, offering gainful employment at corporations that develop ethical products and services. What I have suggested through a biopolitical analysis of the example of Daikoku City, is that technologically enhanced social control itself is a probable near future formulation of population governance, no matter how and by whom. Conditions in technologically advanced Asian metropolises like Tokyo, Hong Kong, Shanghai, Singapore, Kuala Lumpur, and Jakarta, are ripe for the imposition of a net of biocontrol upon urban life. Regional variations on the biopolitical control and power factors that I have addressed in the fictional example of Daikoku City, are also in evidence in London, in San Paulo, and in Rotterdam.

If life as a member of a population ruled by technologically augmented biopolitical logic is on the horizon, in an attempt to reclaim some breathing room, resistant tactics in areas outside of what has been traditionally considered political exercise of the proper rights of citizenship become meaningful. In the modern era such democratic notions, once available as a recourse in many nations if a bit tedious and inaccessible in their formal, legislative implementation, may well be on their way to biopolitical extinction, or mere superfluity. To what extent do basic human rights matter, when the bios' needs speak with greater urgency?

Although she arrived in the city as a stranger from afar, ultimately Daikoku City enmeshes Yuko in sticky biopolitical ties to relatives and Megamass corporate employees, who materialize from the shadows of Yuko's prior adventures. Urban neural sensors and populated city streets are connected to the "electronic brain" of Dennoi Coil through which

bodies, power and electrons flow. Flickering on the verge of self-awareness, the city does not quite arrive at the science fiction nightmare of an eradication of political and individual agency for the greater good of the bios. Even so, as a living, interwoven biomass connected by ties of corporation and family, the populace is subjected to the vigilance of biocontrol enforcers who tighten their hold as subjects mature. When the series closes, Yuko seems on the verge of assuming a woman's obligations and burdens after an epic, childhood stint as an ingenious female hacker and urban explorer, leaving the toys behind to the next generation of players. Maybe this is what it will mean to come of age in a future East Asian city, where only children are afforded the relatively, unencumbered freedom and power of playing the city.

Yet the impact of Iso's biopolitical conclusion, Yuko's growing up into a woman's apolitical societal obligations, is diminished by the more lasting impression left by the children's games and toys so convincingly imagined earlier in the animated series. Agamben and Virilio may well be correct in their predictions that the ultimate destination of the apparatus' relation to the biosphere is control. Yet digital apparatuses, unlike older gadgets like televisions and radios, are two-way, toy-like tools whose objectives are continuously redefined by their more skilled users. Everyday objects may be augmented with virtual properties to aid a consumer in locating the post office or global fast food outlet, and that assist a boss in managing his offsite employees, or they might glimmer with a different potential, cyberpets with human hands for ears, fishing poles with lines disappearing into buildings. Rather than a reduction of her life to the serial number 4-4-2-3 appearing in Yuko's dreams, a remnant of an intrusive research experiment conducted on her as a young child by her own grandfather, this number can be reinterpreted as a password to other possibilities. A potential for misalignment or elusion, a repurposing of state and corporate interests, lurks within the everyday, technologically augmented reality of the city.

This chapter's toys and games are a tactical form of subterranean resistance and elusion enacted outside the formulations of proper political systems. Approaching the entire city as a toy box, the children of Daikoku City repurpose the sidewalks and walls, invent and program fabulous creatures, uncover concealed corporate and municipal data, risking non-sanctioned exploration of the biopolis' information infused passageways. Even under a soft regime of near future biocontrol, we find echoes of the ancient city's freedom within the self-directed, unsanctioned, open-ended play of children.

Notes

[1] This Japanimation series, ten years in the making, was Mitsuo Iso's television debut, although beforehand he had contributed to scenes of other well-received animation series like *Gundam* (1985) and *Ghost in the Shell* (1995).

[2] And presumably, even children are also capable of responding to the more serious topics explored in the series.

[3] Outside of science fiction, a preliminary implementation of similar wireless urban infrastructure can be observed in present day developments such as cloud computing, wireless mobile devices, and mixed reality applications. Industry and research are presently developing the requisite server infrastructure in pursuit of the fabrication of persistent, wireless accessible data clouds that "augment" mobile users with online information wherever their location. Despite this user-empowering rhetoric, the information contained in the cloud is also already being mined by corporations, marketers, and government agencies.

[4] The polis is the politically active body of democratic citizens in the ancient Greek city-state. In my analysis of Iso's near future city, in addition to invoking the term's political connotation, I underscore the polis' setting of the city.

[5] Interestingly, Iso's most skilled hackers are girls, (and a cunning Granny character), possibly an archetype adapted from feminist Cyberpunk. Yet unlike most of their Western counterparts, these hackers wax the youthful, feminine appeal of the "kawaii" or cute in Japanese.

[6] *Bladerunner* is based on the science fiction novel *Do Android's Dream of Electronic Sheep?* by Phillip K. Dick.

[7] These differences in themselves have provided a rich topic for exploration, such as Nikolas Rose and Paul Rabinow's essay "Biopower Today." Rather than ascribing the major distinction between Foucault and Agamben's biopolitics, as they do, to historical vs.

philosophical methodology, I would argue that their major divergence is in the Zeitgeist of sovereignty or state intervention in biopolitics. In Foucault, it is during the early modern era that the state's disciplinary governmental institutions come to shape bodies and subjects, replacing the prior sovereign ruler. Later for Foucault, the state recedes from influence, taken over by market driven, biopowered more "capillary" power operations. Agamben on the other hand underscores the persistence of the state's decisive hold over life as endemic to the modern era and onward to today, observable in practices like the prison camp of Guantanamo Bay.

[8] At the end of Foucault's lectures on populations, territories, and biopolitics, society and economy merge into a quasi-organism with life-like properties to be tracked and predicted by staticians and sociologists, followers and forecasters of the ebbs and flows of biopower. Biopower here includes the life-like properties of systems beyond the strictly human bios. Statistical data provides fuel for research and market developments, as well as guiding the state in planning its strategic operations.

[9] And contrary to the misleading name, Agamben's originary Homer Sacer of the modern biopoltical is also not sacrifiable to the gods. Agamben's "sovereign exception" doubly excludes Homo Sacer from either more elevated life statuses, that of a sacrificial candidate or of a citizen, for "This violence—the unsanctionable killing that, in his case, anyone may commit—is classifiable neither as sacrifice nor as homicide.." (*Homo Sacer* 83).

[10] Agamben's biopolitical analysis also draws heavily from Nazi era political theorist Carl Schmitt's "state of exception." During the Weimar Republic, the possibility for an emergency suspension of legal rights of citizens was written into the law. The Nazi regime later exploited this clause to strip Jews, Gypsies, and homosexuals, of citizenship.

[11] Arendt's critique is somewhat similar to Foucault's subjection by disciplinary governmental institutions in that it similarly marks a transition from feudal economy to modern state mentioned in Foucault's later lectures on biopolitics, (although Foucault never references Arendt).

[12] The notion of a population in itself, as Foucault points out in his late lectures, is a modern phenomenon.

[13] Agamben's essay neglects to mention the wireless network infrastructure supporting the use of the mobile phone, what we might think of as the mobile gadget's invisible partner in "apparatus crime." In Daikoku City, the mobile glasses would be useless without wireless access to the tags of information wrapped around the urban topography.

[14] The series designates the term "obsolete space" for off-the-grid, uncontrolled space. When obsolete space is no longer properly aligned with everyday physical reality, it is outside the control of Megamass Corporation. Obsolete space, in its lack of correlation to the everyday world of objects and places, in its imaginative departure from the rules, temporality, parameters, and scale of physical reality, seems to offer a corollary to the freedom of the early Internet, an escape to freer virtual zones divorced from the "sphere of necessity," the

demands and purview of commercial interests, family and work, a line of argument I explored in Chapter One.

[15] Universally feared by all of the glasses-wearing children's factions, if the Saatchis capture a cherished cyber-pet contaminated with illegal software, they will erase the artificial life-form to extinction.

[16] Also, since these games are often abandoned before any sort of definitive ending is reached, this may another reason, rather than capitulation to a biopolitical agenda, why many plot threads in the series that follow the children's ludic hacker escapades, including the investigations of power abuse and conspiracies I will soon discuss, never arrive at proper resolutions.

[17] Some of the medieval "children" of Pieter Brueghel's painting are curiously depicted with the stature and stooped backs of adults, suggestive of a more serious urban mayhem.

[18]As Arendt points out, although the despotic city tyrant sits in an empowered position over his subjects, he will never be as free as an ordinary citizen of the polis of the ancient Greek city-state, for the binds go both ways; "To be free meant both not to be subject to the necessity of life or to the command of another *and* not to be in command oneself. It meant neither to rule nor to be ruled" (32).

Conclusion

1. TWO TACTICS OF LUDIC MUTATION

Time and again across my analysis, I oscillated between two tactical orientations for the player in relation to the game. The first is playful change whose condition of possibility is a "positive" escape from societal strictures into an empty, free zone of play. The second tactic is playful change that negatively mutates, hacks, or resists from an interior position within "the system," whether it be from inside a game, a simulated model of the world, or an actual city. Over time, a productive, dialectic relation may evolve between these two ludic tactics.

Why refer to ludic tactics rather than to ludic politics? Have I not invoked political concepts such as the Space of Appearance, the polis, and biopolitics in relation to games? Although not invested in a firm line between politics and tactics, as well as being open to flexible definitions of political action, the play actions of ludic mutation are often more of subterranean power grabs than political moves aimed at reaching definitive objectives. Instead of working towards a democratic consensus on a new law, such tactical maneuvers may only achieve a temporary shift in the game for a limited amount of players.

In her analysis of tactical media art and games, Rita Raley distinguishes between improvisational, incomplete acts of tactical resistance, and totalizing programs of politics, writing: "Absolute victory is neither a desirable or truly attainable object for tactical media, which is why it will be possible for me to trace parallels between guerrilla warfare and systems disruption" (10). Her "tactical media" stance is closer to my negative tactic of ludic resistance from within the corridors of the game. This interior stance is also similar to the noisy systemic disruption of Serres' "Parasite," as well as to the Situationist détournement of the municipal plan. Whereas my other tactical maneuver of elusion is more like a liberating

furlough in the Space of Appearance, or a brief inhalation of freedom in a Temporary Autonomous Zone (Bey).

These two tactical movements of resistance and elusion will loosely frame this conclusion as I contrast and synthesize the key arguments put forth across my investigation into the player's power to change the game. I will then close with a reflection on methodology, from my cultural objects (game remakings), to the disciplines and theoretical fields that inform their analysis.

I began with an analysis of an example from the more positive escapist tactical pole, of a digital folk art experiment of the early Internet in identity play, what I called an *unfolding game*. What is unfolded in such open-ended games is an experiment in the who. Digital dolls were removed from the typical domestic, dollhouse setting of women's and children's dolls. Untethered from social and gender roles, they mutated freely and queerly between poles such as man, woman, animal, human, and machine over the ten iterative frames of the digital "dollset." The remixable variability of the unfolding game, although not unique to digital media and preceded by other experimental artists' games, is aided by a digital anonymity on the Internet that separates the player's "real life identity" from his doll-avatar.

I drew an analogy between the ludic mutation of digital dolls to the political actions that unfold in Hannah Arendt's Space of Appearance (206). The Space of Appearance, a place for the disclosure of the who, is a more aesthetic, open-ended and performative political gathering than what is usually understood as the political exercise of the demos (178). According to Arendt, the prime conditions that facilitate the coming into being of the Space of Appearance is for people to gather and temporarily shed the roles of necessity, the hierarchical relations, both dominations and subordinations, of the practical household

"survival" sphere of "the oikia" (33). Similarly, I proposed that the separation between the anonymous digital game and the player's real life identity is a conducive condition for free and unfolding identity play.

Arendt contends that during the transition to modernity, the logic of the household hierarchy, the oikia, spread from the feudal household to state-society, impinging on the possibility for the political exercise as was once enjoyed (at least by free male citizenry), in the ancient Greek city-state. She thus distinguishes her unique, classical-era inspired notion of political action from modern notions of politics which also lay claim to similar classical origins, such as representational democracy, policymaking, or legislature. She likens these more modern, practical notions of politics to the "housekeeping" of the oikia at a grander public scale (28).

Leaving this "world of necessity" behind, players of unfolding doll games shed societal dictates and domestic roles to discover who else they might be. And unlike other multiplayer digital games on social platforms like Facebook or massively multiplayer online role playing games, such digital dolls games are free of social monitoring and competitive ranking systems, the gamic mechanisms that replicate the socio-economic realm of necessity in the virtual world. Thus it became evident that not all games, but only certain types of games, such as the unfolding game, facilitate liberatory play.

In other examples of playful change, rather than escaping the everyday world into a player-made utopia of egalitarian dollmakers, players find opportune ways to appropriate, mutate and destroy dominating game forms from within "the belly of the beast." Relations between players and highly developed commercial game products have a more impure, involucrated and hierarchically-nested character than unfolding games of identity play. Michel Serres' figure of the Parasite was key to understanding a variety of game changing

tactics initiated by players who volunteer their efforts in the "modding" or modification of commercially produced First Person Shooter Games.

Like Serres' rats who invade the well-stocked kitchen of a wealthy tax collector, the game modder chews on a technically sophisticated game engine, replete with three-dimensional effects and powerful pre-programmed movements (3). The commercial game, comparable in its polish and production value to a Hollywood film, is the product of a professional division of labor at the game development house among game designers, producers, programmers, three-dimensional modelers, animators, quality assurance testers and visual artists. The players, who volunteer their self-taught skills to remaking the game, leave a mark on this industrial product, customizing characters and interfaces, as well as remaking entire levels and virtual worlds. I referred to the mutated characters, game levels and play styles, the digital-cultural units of the game that circulate between the commercial industry and the player's (modders) hands, as *play material*.

Such relations can be understood as parasitic, when play material is "stolen" from either the commercial game or alternately from innovative mods. At other times, rather than parasitic theft, symbiosis better describes the reciprocal "gifting" of play material. Mods are shared among modders themselves and also cross over into iterative commercial game releases, such as the variations on the gender of characters that passed between sequential versions of Quake 1-3 and its player mods. And yet not all gifts of play material are readily absorbed in their original shape into subsequent commercial game releases. Game modifications that are too homoerotic, feminine, or radically novel in game form compared to what came before become "unwelcome gifts."

And so ultimately, even though critics of Information Age digital "potluck culture" might charge that the voluntary efforts of modders are being exploited by the immaterial

circulations of information capitalism, I conclude in relation to modding, somewhat contrarily, that not enough voluntary player gifts are exploited, and in fact mods and customizations are quite often deliberately ignored. If an open "evolution" of gaming culture is desirable, open to a variety of players and game styles, then player customization of games should be encouraged and closer relations between players and companies should be fostered, like Valve Software's practice of absorbing entire teams of amateur modders, even if such relations of information capitalism are intrinsically compromised and unequal.

Taking a longer, evolutionary view on changes within gaming culture, I also articulated a role that chaotic mods contribute to such progressions, despite their seeming negation of the game. Artists have radically taken apart First Person Shooter games so that they are no longer even playable as games, reducing them to abstract surges of pixels and noise. Although such mods have been criticized for a lack of meaningful contribution to gameplay, these "paidiaic" hacks clear the slate of the genre for further evolutions of games to come. Thus, ludic mutation oscillates between negative and positive poles, destroying, customizing, borrowing, and stealing—as well as remaking the game.

Midway through my project I moved from the relatively insular realm of computer gaming culture, to conducting an analysis of activist critiques of the world's problems leveraged through games. No longer just a form of mere entertainment, increasingly, the game is spilling outside the borders of Huizinga's "magic circle of play" into everyday life, into training exercises, education, propaganda, persuasive political campaigns, and other regions. War gaming, ludic activism, and urban mobile games are all instances of a tendency for aspects of the world to become game that I discussed in my Introduction. The first instance of such gamification that I considered was the confluence of activism and play in a genre of serious games I referred to as the "activist simulation game."

Through a comparison of two similar such activist games, a simulation of an exploitative business operation and a gamic depiction of a cycle of violence, I concluded that modeling an allegedly harmful operation in the game risks nullifying the critique of said operation. I drew on Heidegger's "everyday sight" to describe the way that functionality, no matter how ethically problematic, is easily accepted into a common sense, necessary view of the world's workings (107). When such dynamic operations are modeled in the abstracted, miniature sphere of the toy world, they are even further removed from critique.

At this point in my analysis, rather than emphasizing the player's power to change the game, I focused more on instances of when the game overpowers the player, either rhetorically or enchantingly. Gadamer's notion of the game that plays the player, which he originally invokes as a metaphor for an art viewer's aesthetic union with the artwork, was applied to the analysis of player and game (105). I proposed that in order to break this spell of the game over the player, the game must be sabotaged, either by the player, or by a "time bomb" installed into the game by its maker, such as the pre-programmed interruptions that solicit charity donations in Susanna Ruiz's *Darfur is Dying*.

Therefore, what seems to work best in the activist simulation game is that the gamemaker effectively sabotages his or her own game. For instance, Frasca's *September 12* forces the player to lose when he tries to win at eliminating the terrorists. Against the expectation of the player, the game's air striker "equipment" generates more terrorists when the player is skillful at eliminating the initial terrorists. Dislodged from the certainty that the game can ever be mastered, no matter how well he plays, the player really "sees" the process that Frasca is trying to bring to light, an escalation of violence exasperated by the War on Terror. A break in the game's logic of rewards and punishments is necessary to bring the message home, and to cut through the obscuring ordinariness of "everyday sight."

The toy world's artificial operationality is soothing, consisting of an ongoing sphere of interlocking circulations and functions like a model train set. Breaks in the game's flow are unsettling, they discomfortingly remind the player of other immanent stops and unfinished endings. And yet such breaks can also lead to a deeper questioning and evaluation of the wrongness or rightness of the broken toy. Therefore the negative, critical power of when things break down is especially important with such activist games, and uncovers a methodological blind spot that can easily be missed by the "positive" structuralism of game studies. Furthermore, an underlying *no play imperative* is evident in such self-sabotaged games, a stance of disengagement and refusal to participate in a harmful operation of the exterior world.

Artists' hacks of commercial shooter games, activist simulation games of the "no play imperative," and the Situationist's playful détournement of the city, all call upon the negative, resistant tactical approach to ludic mutation. In Debord's build up to his initial conceptualization of the Situationist game, he highlights "Dadaist negativity" as an essential component of future avant-garde artistic and political movements: "The dadaist spirit has nevertheless influenced all the movements that have come after it; and any future constructive position must include a dadaist-type negative aspect, as long as the social conditions that impose the repetition of rotten superstructures—conditions that have intellectually already been definitively condemned—have not been wiped out by force" (Report). Such "avant-garde" ludic critical resistance, the destruction of and negativity to what came before, may open a space for a later more "positive" constructive game. As only become clearer to me as a structural possibility midway through the project, what initially seemed a messy contradiction between liberating escapist and critically resistant tactics, takes on the appearance of a generative process, as playful change (ludic mutation) oscillates between positive and negative poles.

The hacktivist protesters who detourn militant game cities, staging obstructionist virtual anti-war protests on digital streets, are also tactical heirs to the more "negative" culture jamming template proposed by Debord. And although more of occupiers than resistors, military game developers and players also tactically repurpose urban space via play, transforming cities into urban battlefields. The latter portion of my project thus shifted the setting for the analysis of playful change to the city, an important locus of contemporary gamification.

Both the original Situationist artists' intervention and the military game are ludic interventions within the everyday mercantile flows of the city. In the military takeover, the tactical maneuvers of urban warfare and counter-terrorist exercises are practiced on the digital streets of the game. Snipers search out opportune vantage points from rooftops, and foot soldiers hide behind abandoned cars, repurposing what was once civilian terrain. In the Situationist style game, the everyday flows of the city are also detourned at key nodes, and the systems set in place by the municipal authorities, such as subway systems and other urban circuits, are mapped, explored and momentarily diverted. As players adopt a hacking, resistant, or parasitic relation to the dominant game or encompassing system at hand, the city starts to seem more a fluid, hackable technology than a concrete solidity.

According to level designers, the underlying ludaform of the multiplayer computer game's architecture, when weighted more towards entertainment than combat training, is a heart composed of looping arterial alleyways. Streets are designed to pump players into central plazas of adrenaline-pumping conflict and civilian architecture is reformatted into a tactical ludic terrain carefully balancing between the advantages and disadvantages afforded to each specialized team. The logic of asymmetrical warfare, the war of either a few terrorists

or of a small team of imperial commandos, amidst a larger civilian population, is prevalent in such ludic military takeovers of the city.

In preparation for actual deployment in key urban hot spots, more serious military games train players in saving hostages and refugees, among other so-called "military operations in urban terrain" practiced in the gamic city. And the objectives of such missions move beyond that of mere battle, from death to life, as modern military purview expands to life support, global policing, combat trauma therapy, and biocontrol. Symptomatic of an imperial, militant society at war abroad and amidst its own population, military play reaches into the arteries and pulses of population centers, virtually and on the ground.

My exploration of playing the city concluded with an analysis of fictional games played by child-characters in Mitsuo Iso's Japanimation series of *Dennou Coil*. Urban play in this last example became acts of resistance against and elusion to civilian rather than military *biocontrol* (population control). In a science-fictional, near future Japanimation city, Iso envisions a soft net of total control imposed upon urban space through gadgets and mixed reality infrastructure. As I analyzed the games played by the children of Daikoku City, I again found myself oscillating between negative and positive tactical poles of ludic mutation. First of all, the child-characters play games that escape the surveillance of the augmented urban grid, hiding behind protected, constructive barriers, recalling Arendt's notion of free political exercise that can only unfold behind a protective shield or fence. In the protected anonymity of this "obsolete space," players are (sometimes dangerously) free to experiment with playing games and constructing artificial life forms, shielded from the intrusive, controlling touch of their guardians, the insidious Megamass corporation, and the municipal-corporate toy police who roam the city.

In other games of Daikoku City, the player's power of ludic mutation manifests as a more negative, critical "hacking" of the dominant system at hand, a game played by children against the biopolitical city or the corporation, similar to the interventionism from within of Situationist play. The child-hacker characters unearth troubling rumors of unethical biotechnological practices, following electronic trails through Daikoku City's streets and alleyways to hospitalized human experiments. And through information retained in an electronic diary application, they discover the site of a fatal traffic accident caused by a malfunction of the corporation's technology. The children thus turn the same apparatus that was put in place to control the populace, against the Megamass Corporation itself.

The *biocontrol* function of the mobile apparatus that filters and manipulates daily urban living in fictional Daikoku City correlates to the smart mobile devices that increasingly track members of present day informatic society. As I will again touch on in the upcoming section, such technologically enhanced population control follows the rationale behind a biopolitical relinquishment of everyday freedoms and political agency to the urgent needs of the bios—needs such as population security, health, and economic vitality. Yet despite the convincing cases made by Deleuze and Agamben for the control effect of networked communication technology and mobile apparatuses on a population, I suggested that the gadget may be reconfigured into a freeing toy of biopolis. As Callois points out, toys, unlike the fixed objectives of most games, are amenable to fluxuating uses determined by their players.

2. METHODOLOGY: FROM OBJECT TO THEORY

Over the course of this writing, I approach my underlying research question, that of ludic transformation and power, through the analysis of a few select games in each chapter. The

methodological strategy of this work, although it touches on philosophical, theoretical, political, and artistic questions, therefore always returns to the games and gamic artworks that anchor each chapter. In the terminology of the cultural analyst, these games constitute "the objects" of this analysis. Many of the salient works I selected are well-publicized on the Internet, through exhibits, art catalogues, and other written critiques, and games made as little as a few years ago may already seem exhausted from the rapid pace of media exhibits and festivals. Even more quickly, obsolescence sets in only a few months after a commercial game is released to market. But my approach has been that even "ancient" computer games, even those played over a year or longer than a decade ago, have more to tell.

My own practice of art and gamemaking, as well as opportunities that I have had to meet and collaborate with other artists, gamemakers and activists active in the field, has informed this project. In an earlier phase of the Internet in the 1990's, I curated exhibits of Internet art at the interstices of fine art, popular art, and commercial games. I have taught game design, art, and play theory at universities and in artist workshops. Although this multi-faceted engagement with "my object" sometimes leads to a peculiar shift in view, for instance when in the fourth chapter I analyze my own ludic anti-war activism, many of the research questions for these chapters arose, at least initially, from a hands on immersion in digital art practice.

Bridging the vertiginous gap between theory and cultural object has been for me the most formidable challenge of "cultural analysis." At times I have forgone an overlong detour into theory, so as to ground my thinking more firmly in the reality of the object. In the first and last chapters, I devote more pages to unravelling theoretical and philosophical threads, yet throughout all the chapters, theory and object are interwoven. When a closer reading of playing the game resists my original line of argument, I have still attempted to give voice to the object even at the risk of theoretical friction. In other words, my intent is not to impose a

total, airtight theory of ludic mutation and ludic power on the selected examples of games and artworks, but to shed light on phenomena in such a way that is of potential research value in various disciplinary contexts.

Depending on the game or artwork at hand, my project brought diverse thinkers and disciplines to bear on the power of players and games. I discovered much that was useful in the theorizations of play of early "ludologists" and play researchers like Huizinga and Callois. More recent ludology, through its attempt to define itself as a unique discipline against narrative forms such as cinema, has made important advances in theorizing the structure of interactive computer games. But such gamic analysis also tend to implement an operational, engineer's optic that erases worldly consequentiality from the game, relegating cultural theory, and the analysis of power and gender, to a superfluous stratum of visual representation. What matters in such a ludological "nuts and bolts" analysis is often the underlying game function, regardless of who the players are, and regardless of the power effects of playing the game. Additionally, the pursuit of the game's structural qualities may miss the importance of when the game breaks down.

But I do think that an analysis of games should be informed by actually playing games and a grasp of game structures, and when possible I invoke the insights of more recent game analysts. A more interdisciplinary line of game scholarship informs my argument regarding the effect of the activist's game's operationality on the player, where I made use of Ian Bogost's proposition that games persuade with "procedural rhetoric" by showing "how things work" (125). Also, in relation to activist games, I discuss Frasca's argument that player-driven outcomes afford the player rhetorical liberation from the game designer's "script." Interactive games, although in certain ways similar to other cultural forms, are unique and game scholarship aids in illuminating these distinctions.

Some game analysis that I reference takes an even wider view of its object. Mckenzie Wark's theorization of the agonistic capitalist logic of "gamespace" moves from Plato's allegory of the Cave to a Marxist critique of information capitalism. Claus Pias' *Computer Game Worlds* underscores illuminating parallels between digital play and Industrial Age labor. Mary Flanagan puts forth a theory of "critical play" derived from the under-analyzed feminine, domestic sphere of toys and games, from Victorian dollhouses to "digital dollhouse" games of the Sims. Rita Raley analyses games and artworks under the rubric of "tactical media," emphasizing the performative "virtuosity" of such digital works, and their symbolic resistance to immaterial sign systems.

My project is similar in breadth to these writers' cultural optic, yet I bring somewhat different sets of thinkers to bear on game analysis. So as to better understand the power reversals of the player against the game, I referenced the tactical approaches to everyday life and culture theorized among continental writers like Michel Serres, Michel de Certeau and Gaston Bachelard. I applied the gender and subjectification theories of Judith Butler to the analysis of unfolding games of gender and identity experimentation, and throughout the project I found much that was useful in Michel Foucault's prolific work on power apparatuses and flows. I also relied on Paul Virilio's military theorization, the early interventionist urban play theories of the Parisian Situationist artists and architects, and I discovered provocative material among a set of Italian political authors writing on the Information Age cultural commons.

At various turns, my project is informed by a stream of political thinking rooted in phenomenology. At first glance, this philosophical tradition's opposition to abstraction and metaphysical transcendence, to "alienation" from the world and the body, may seem at odds with the analysis of ephemeral, digital games (Arendt 209). Computer games are often played with disembodied avatars in transcendent online virtual spaces. And yet I find the

phenomenologist philosopher's attention to the driven and freeing aspects of engaging in worldly actions applicable even to virtual gamic actions. Running back through Agamben, Arendt, Gadamer, and Heidegger, is a theorization of action in "the world"–even when formulated as a critique of a lack of freedom. I similarly critique the extent of freedom and open-endedness in the actions of the player.

Towards the conclusion of my project, in relation to the control effects hypothesized in Iso's near future Japanimation city, I invoked a field of political theory increasingly categorized under the heading of biopolitics. Although by no means uniform among its primary thinkers, biopolitics is useful for explaining an increased tightening of population control in the 21st century. Drawing from the theorizations of Foucault, Agamben and Arendt, I understood this erasure of political space as a mounting tension between the alleged dictates of the living "bios," such as economic and security concerns vs. citizens' rights and everyday freedoms. The first component of the compound term overtakes the second, for the dictates of "the bios" subsume political exercise and freedom in most biopolitical formulations. Furthermore, the biopolitical critique does not privilege one force of oppression from the realm of the bios. Regardless of who is the controlling agent—for instance corporation, state, or society— the danger of what I referred to as the *biocontrol society* lies in the easily exploitable control apparatus itself that has been wired into the city, programmed to track the motions of each city dweller.

And yet even as a biopolitical future city treats its entire populace as children in need of guidance and control, freedom is exercised through children's play. The circuitry of the apparatus of control is reprogrammable, and the playing of toys, unlike most games, is open to shifts in objectives. Thus at the close of the project, through the analysis of fictional ludic acts of power waged in a science fictional city, I picked up on a thread that was broached at

the project outset in relation to unfolding games with Arendt, which is in what way is the polis, the city populace's political freedom constituted.

Ludic mutation oscillates between positive and negative tactics, moving between constructive play in separate free zones, to critical "negative" hacking from within the game system. Although political formulations such as the polis and the Space of Appearance were relevant to my understanding of these exercises of the player's power, for the most part, game changing belongs more to the gestural, cultural realm of tactics rather than to the instrumental activities customarily associated with the formal sphere of politics. Although waging resistance, exercising freedom, staging ludic protests, and propagating persuasive arguments through transformative play, ludic mutation is distinct from political activities such as legislative debate and public policy making.

Thus, the ludic mutation of unfolding doll games, activist games, and ludic affronts, as well as urban play within the polis, for the most part unfurl below politics' radar. In certain situations, this obscurity may work to ludic mutation's advantage, for under a tightened implementation of technologically enhanced biocontrol, and as we are subject to the incursions of Infocapitalist gamespace, such ludic tactics may be among the few responses available to us—and certainly are among the more entertaining. And even when not substituting for politics, the player's ability to change the game is in itself a powerful move.

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