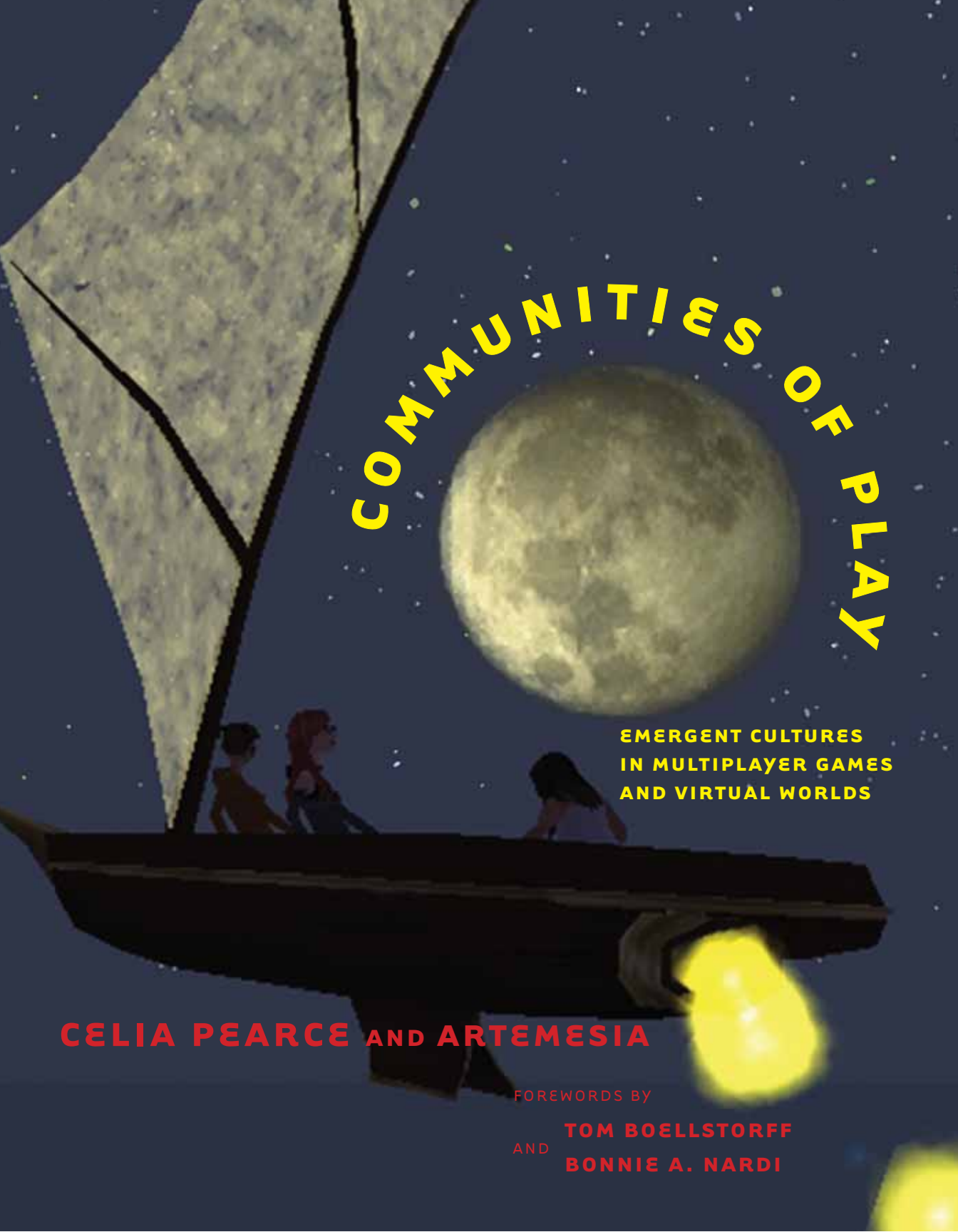

# COMMUNITIES OF PLAY

## EMERGENT CULTURES IN MULTIPLAYER GAMES AND VIRTUAL WORLDS

CELIA PEARCE AND ARTEMESIA

FOREWORDS BY

TOM BOELLSTORFF

AND

BONNIE A. NARDI

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# Methods of Culture

*Tom Boellstorff*

We live at a historical juncture in which virtual worlds and online games stand to reconfigure the very character of "culture." They will do so in a range of ways, yet with some common themes. They will do so individually and also in dialogue with each other, with other technologies ranging from web pages to cellphones, and with those broader sociopolitical changes that are too often hastily glossed as "globalization" or "neoliberalism." The stakes are high, in every sense—cultural, economic, political, and personal. Additionally, it has become blatantly clear that these stakes are pertinent worldwide, for the rich and poor, for the powerful and disempowered, and not just for elite technophiles.

Given these stakes, it is crucial that we develop the broadest possible body of scholarship exploring virtual worlds and online games from a range of methodological and theoretical perspectives. Disciplinary or topical partisanship is anathema, to be avoided at all costs: what is needed is an appreciation for the vibrant possibilities offered by a new research community seeking answers to questions that are at once novel and linked to classic dilemmas of social analysis.

It is in this context that *Communities of Play* may be fruitfully read in three different ways. First, *Communities of Play* is to my knowledge the first book-length exploration of a virtual culture formed at the interstices of multiple virtual worlds and online games. Pearce explores what she terms the "Uru Diaspora"—the movement of an online community to several different virtual worlds and games in the wake of the destruction of their own. Her work here thus usefully complements research focusing on specific virtual worlds and games, as well as work focusing on relationships between virtual worlds and the actual world.

Second, *Communities of Play* is fundamentally concerned with questions of methodology. By charting the challenges and triumphs of her research, Pearce presents to the growing body of scholarship on virtual worlds and online games a useful treatise on ethnographic practice. As an anthropologist who conducts research in the actual

world (Indonesia) and a virtual world (*Second Life*), I find Pearce's ethnographic skills to be equal to any I have yet encountered: her insistence on considering method in the context of theory represents an important intervention.

Third, Pearce's experience as a game designer and her interest in the notion of emergence mean that *Communities of Play* will be valuable to those concerned with game design and virtual-world governance. Pearce shows us how in a sense all culture is emergent, since it is never intelligible solely in terms of individual actions and beliefs. She thus reaches back to classic functionalist and structuralist conceptualizations of culture in terms of an integrated whole. For instance, Ruth Benedict touched upon just this issue when noting in her classic *Patterns of Culture*, first published in 1934, that "Gunpowder is not merely the sum of sulphur and charcoal and saltpeter, and no amount of knowledge even of all three of its elements . . . will demonstrate the nature of gunpowder. . . . Cultures, likewise, are more than the sum of their traits" (p. 47). At the same time, Pearce brings in contemporary interests in reflexivity and an attention to the multiplicity of selfhood in virtual contexts quite unlike anything Benedict ever encountered. It is in this combination of an appreciation for past insights, together with an interest in forging novel tools for novel field sites, that the power of Pearce's contribution lies.

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# | 1 |
# COMMUNITIES OF PLAY AND THE GLOBAL PLAYGROUND

## Communities of Play

Play communities are neither new nor unique to the Internet. They surround us in many forms, from chess and bridge clubs to sports leagues to golf buddies to summer camps; from *Dungeons & Dragons* role-playing on tabletops to outdoor historical re-enactments of renaissance faires or famous Civil War battles. As commonplace as these practices are, with the exception of sports, adult play tends to be marginalized in the U.S. and Europe. As anthropologist Richard Schechner has noted, "In the West, play is a rotten category tainted by unreality, inauthenticity, duplicity, make-believe, looseness, fooling around, and inconsequentiality" (1988).

In spite of this, anthropologists have long noted the deep connection between play and more serious traditional forms of ritual and performance, many of which involve the adoption of alternative roles or personas (van Gennep 1909, Schechner and Schuman 1976, Turner 1982). In contemporary society, this takes the form of ritually sanctioned celebrations such as Mardi Gras and Halloween (Santino 1983), which create allowances for adults to engage in fantasy role-play as part of provisional, short-term, play communities. Mardi Gras also supports a year-round culture of creativity devoted to the crafting of floats, costumes, and other ritual artifacts (Schindler 1997).

Yet in many other contexts, such ongoing play communities tend to be viewed as outside the norm. This is especially true of communities whose play cultures are deeply tied to imagination, fantasy, and the creation of a fictional identity, such as "Trekkies," who engage in role-play around the television series *Star Trek* (Jenkins 1992). Like participants in historical reenactments (Horwitz 1998, Miller 1998), live-action and tabletop role-playing games (Fine 1983), and the Burning Man festival (Gilmore and Van Proyen 2005), these play communities devote a high level of effort and creativity to their play culture, often to the bewilderment of the population at large (figure 1.1).

| **Figure 1.1** |
Participants in the 2004 Burning Man festival. (Image: Jacquelyn Ford Morie)

Nonetheless, social play is a rapidly expanding category in the entertainment landscape. Cosplay, the practice of dressing up in costume, has gained widespread acceptance in Japan (Winge 2007). The Dragon*Con fan convention, which embraces a range of role-playing traditions, including cosplay and other fan practices, attracted over 30,000 participants in 2007, over twenty times the attendees of its inaugural event in 1987 (Dragon*Con 2008). The same year, over 47,000 people attended Burning Man, an annual festival/campout combining art, role-playing, and creative expression in the Nevada desert (Red Rock LLC 2007).

What do we mean when we say "play community"? As a pervasive element of diverse human cultures, anthropologists have long had a fascination with play and its social function, some devoting much of their oeuvre to the subject (Schechner and Schuman 1976, Turner 1982, Sutton-Smith 1981). Johan Huizinga, considered

the father of "ludology" (a term used to describe the study of digital games), defines play as

> a free activity standing quite consciously outside "ordinary" life as being "not serious," but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means. ([1938] 1950, 13)

What type of groupings, and what do we mean by "community"? Pioneering German sociologist Ferdinand Tönnies described community (Gemeinschaft) as an association of individuals with a collective will that is enacted through individual effort. Communities take varying forms, from religious sects to neighborhoods, and are characterized by affiliations around a group identity that includes shared customs, folkways, and social mores. Typically, the will of individuals within a community is, to a certain extent, subjugated to the greater good (Tönnies [1887] 1988, 209).

I've adopted the term "communities of play" as a deliberate counterpoint to "communities of practice," a term originated in anthropology and widely adopted in Internet studies and computer-mediated communication. A community of practice is defined as a group of individuals who engage in a process of collective learning and maintain a common identity defined by a shared domain of interest or activity (Lave and Wenger 1991). The types of communities that fall under this definition tend to convene around forms of work or folk practice. Obviously, communities of practice and communities of play share much in common, and one could even argue that play is a type of practice; however, the adoption of a new term suggests that play practices warrant their own understanding of how communities form and are maintained, a subject that becomes particularly pertinent in the context of technologically mediated play.

With the emergence of digital networks, whole new varieties of adult play communities have begun to appear, enabled by desktop computers and pervasive global networks whose advanced graphical and transmission capabilities were once confined to university research labs. Some of these are extensions of nondigital forms of play, while others offer entirely new experiences and playscapes. Networks amplify the scale, progression, and geographical reach of play communities, allowing them to grow much larger much faster then their offline counterparts. These phenomena

give rise to new creative playgrounds, not only within discrete networked play spaces, but also through real-world interventions, such as "alternate reality" and "big games," which take place across multiple media and in the physical world; "smart mobs," large group interactions enabled by mobile technologies; and other emerging forms of play that blur the boundaries between real and virtual, everyday life and imagination, work and play.

Marshall McLuhan coined the term "global village" to describe the shared storytelling space of television (1964). He noted that large, dispersed groups could convene over this new "electronic hearth" to engage in an intimate, simultaneous experience that was once restricted to geographic co-presence. In a similar way, networked games have created a kind of participatory "global playground" where people can now interact dynamically in real time and build new and increasingly complex play communities that traverse geographical and temporal boundaries.

This book is primarily concerned with the emerging genre of massively multiplayer online worlds, variously known as MMOGs, MMOWs, virtual worlds, and metaverses. The most common of these new global playgrounds is the MMORPG, or massively multiplayer online role-playing game, in which players develop roles derived from fantasy literature to engage in epic fictions. Alongside this genre is the open-ended Web 2.0 "sandbox"-style environment, MMOW (massively multiplayer online world), virtual world, or metaverse, whose denizens play a part in actually shaping the world. These two genres encompass a vast landscape of networked playgrounds in which a variety of play communities and emergent social phenomena develop.

Within these pages, we will explore the ways in which play communities are formed and sustained, and the intersection between their emergent behavior and the design of the global playgrounds they inhabit. Who is attracted to different types of digital playgrounds, and therefore what initial preferences and play patterns do they bring? What is it about play environments themselves that encourages certain types of communities to form? How do their design, governance, and ongoing management affect emergent cultures of play? How do players both leverage and subvert these playgrounds to their own ends? And what happens when the powers that be decide a playground is no longer financially sustainable? What if a play community's commitment to each other and to its collective identity transcends the individual worlds they inhabit? What if they carry the culture of one virtual world into another?

At the heart of this book is the story of one specific play community, members of the Uru Diaspora, a group of players cast out of an online game to become refugees. It is the story of the bonds they formed in spite of—indeed *because* of—this shared trauma, and about their tenacious determination to remain together and to reclaim

and reconfigure their own unique group identity and culture. It is a story about the power of play to coalesce a community beyond the boundaries of the game in which it formed, and into the real world itself.

Along the way we shall also look at some key concepts used to analyze these phenomena. In book I, we shall take a brief tour of the history of multiplayer games, starting with the first recorded examples of games played in 3500 BCE, up to the advent of the digital game. We shall briefly look at the history of online playgrounds, their context and origins in analog games, in order to frame both the core audiences and the design conventions of these games. We shall provide an overview of virtual worlds—"ecosystems of play," as I term them—and their unique properties that create a context for emergent behavior and cultures. We shall define the key concepts "emergence" and "culture" and describe criteria for their study. Book I closes with an in-depth discussion of theoretical and methodological frameworks used in the study, drawing from contemporary anthropology and sociology.

Book II chronicles the history of the Uru Diaspora and its migration to other worlds, focusing on an eighteen-month ethnography conducted during 2004 and 2005. This section is presented in the style of a traditional anthropological monograph, including a narrative of the group's history, followed by an analysis of its patterns of emergent culture. The narrative focuses on The Gathering of Uru and its journey into and around *There.com* in search of a homeland, and looks secondarily at productive play within the Uru community in *Second Life*.

Book III details the methodology used to conduct the research and also discusses the way the methodology was refined and adapted over the course of the research. This section will be of particular interest to ethnographers and game scholars who are interested in venturing into this research domain. Book IV provides a more intimate look at the day-to-day experience of playing and performing ethnography, including its stumbles and epiphanies, also of utility to ethnographers and researchers. Book V includes a coda on events that took place *after* the core study was conducted. It also provides concluding thoughts and discusses the broader implications of the study on game design and community management, as well as current trends in the global playground that will make the subject of play communities increasingly relevant in the future.

## Multiplayer Games from 3500 BCE to the Twenty-First Century

While massively multiplayer online games (MMOGs) are lauded as the newest and fastest-growing genre of computer games, they could as much be viewed as a return to the natural order of things. The advent of single-player genres as the central paradigm

for games is an historical aberration of digital technology (Pearce 1997, Herz 1997). Prior to the introduction of the computer as a game-playing platform, the majority of games played by hundreds of cultures for thousands of years, with few exceptions, were multiplayer. From their first evidence, such as the Egyptian Senet, the Mesopotamian Ur, and the ancient African game of mancala, to the traditional Chinese games of Go and Mah Jongg, to chess, whose multicultural odyssey spanned India and the Middle East to become a European perennial (Yalom 2004), games were predominately multiplayer.

The advent of mass production enabled new forms of single-player game, such as the puzzle, but even board games of the industrial age and playing cards, which have some single-player variants, continued primarily in this multiplayer tradition. With the rise of the middle class during the Industrial Revolution, board games became a centerpiece of the American and European parlor, joined in the mid-twentieth century by the television (Hofer 2003, Orbanes 2003).

The earliest computer games continued this multiplayer trajectory. *Tennis for Two*, a *Pong*-like demo developed in 1958 on an oscilloscope, and the 1969 classic *Spacewar!* were both multiplayer games. The first video game console, the Magnavox Odyssey, released in 1972, merged multiplayer board game conventions with the emerging medium of television to create a new form of family entertainment. Japanese console pioneer Nintendo started out as a card game company, and introduced its Famicom, later called the Nintendo Entertainment System, with a similar social orientation. Atari's 1972 arcade classic *Pong* is a highly social game, often appearing in two- or even four-player tabletop versions in pizza parlors.

The reasons a cultural practice that was definitively social for thousands of years transformed into a predominately solo activity are complex. The industrial-age arcade paradigm of player versus machine, the capability to create an automated opponent, the paradigm of personal computing, the technical constraints of platforms, and the limited availability of networks were all contributing factors. It was not until the introduction of widely available computer networks that we began to see a return to the dominant historical paradigm of the multiplayer game.

From the moment that networks began to appear in labs on college campuses, people tried to play on them. Today's massively multiplayer online games descend from the same college hacker tradition that spawned *Spacewar!*. While a complete history of MMOGs and MMOWs is beyond the scope of this book, understanding something about their origins will help to unpack fundamental questions about the complex relationship between designer and player: in what contexts are these games created, and by whom? What are their underlying values and cultures? What types

of players do designers anticipate will play these games? What types do they actually attract? And what sorts of emergent behaviors are these players likely to exhibit when their play styles come into contact with the affordances of the game software?

The fantasy role-playing genre epitomized by games such as *Ultima Online*, *EverQuest*, and *World of Warcraft* has its roots in early text-based MUDs (multiuser dungeons or domains), which in turn derive their underlying mechanics from tabletop role-playing games such as *Dungeons & Dragons* (D&D). D&D in turn arose out of a long-standing tradition of tabletop strategy games. These can be traced even further back to eighteenth- and nineteenth-century army miniatures, revived in the twentieth century by science fiction author H. G. Wells's classic volume of war gaming rules: *Little Wars: A Game for Boys from Twelve Years of Age to One Hundred and Fifty and for That More Intelligent Sort of Girl Who Likes Boys' Games and Books* (1913). Wells's title summarizes both the ethos and intended audience of games in this tradition.

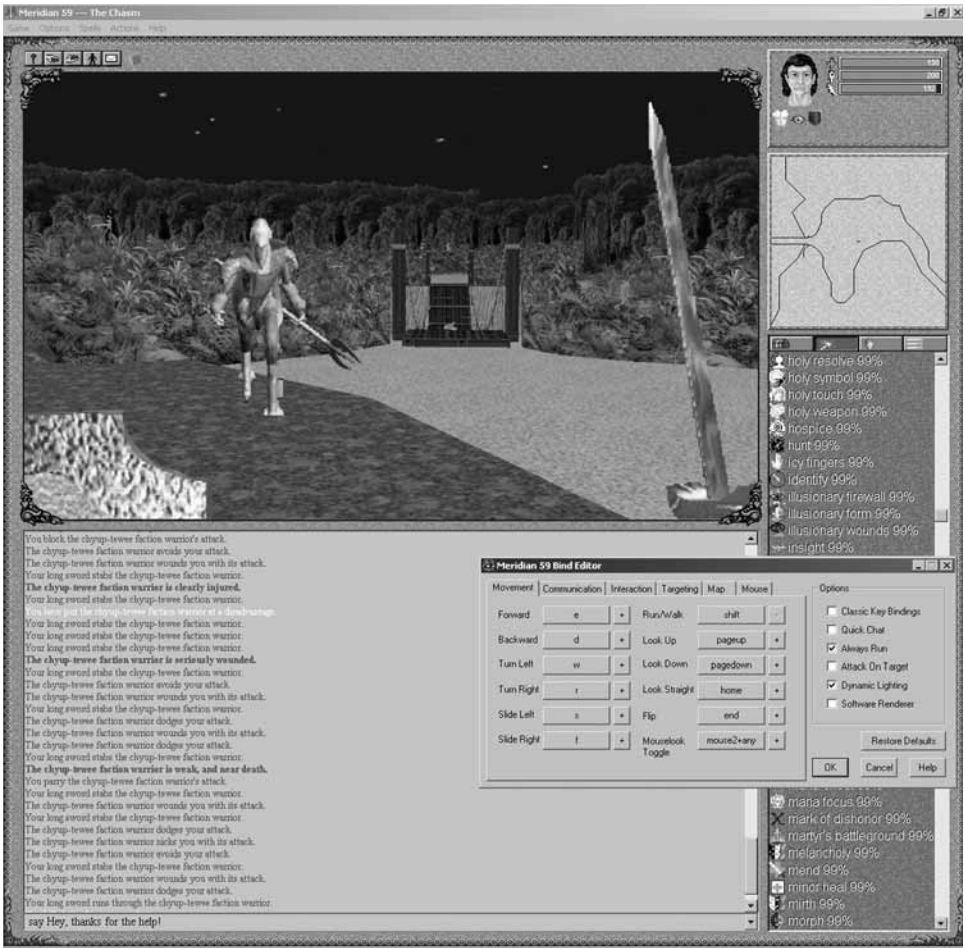
Tabletop role-playing games such as *Dungeons & Dragons*, which built their narratives around high fantasy literature, including J. R. R. Tolkien's *The Lord of the Rings* trilogy (1954, 1954, 1955), Robert E. Howard's *The Conan Chronicles* ([1932–1969] 1989), and others, were extremely popular on college campuses during the 1970s and 1980s. This was also the period and context in which computer networks were beginning to appear throughout the United States and Europe. That these two emerging trends would converge in the minds of (mostly male) computer science students seems almost inevitable, and the result was the text-based *MUD*, a networked, computationally enabled adaptation of the core mechanics of D&D-style games. More followed and soon the conventions of the genre, still confined to the ivory towers of college computer labs, became codified. These games are also tied to the development of text-based single-player adventure games that were concurrently being distributed via ARPANET, the progenitor of the modern Internet.

This lineage has deep implications for the design of contemporary MMOGs and the specific audiences they attract. Although the role-playing genre did expand this audience to a minimal extent, these games have their roots in a fantasy militaristic gameplay that, as Wells's title suggests, is almost exclusively male. The tabletop gaming tradition revolves around elaborate rules that involve dice with as many as twenty sides. In the case of role-playing games like D&D, player characters and their actions are proceduralized through a blend of statistics and die rolls that typically determine the outcome of scenarios. These can vary from combat to spell-casting to tasks such as picking a lock or obtaining information. One of the pleasures of these games is the shared imagination space generated collectively by players. Player creativity has long been a component of tabletop game culture, with players not only contributing to the

| **Figure 1.2** |
*Dungeons & Dragons* player character fan art. (Images: The_Brave [left] and comethime [right])

storytelling process, but also creating drawings or three-dimensional figures of their characters.

The MUDs spawned by tabletop role-playing sustained a small cult following for a decade and a half, until the mid-1990s, when they were joined by a new generation of games integrating graphics with the other conventions of the genre and targeted to a mass audience. Since then, MMOGs have emerged as the fastest-growing sector of the video game industry. Each new generation of MMOG brings new refinements that include interface improvements, more sophisticated graphics, and increasingly vast worlds, yet their range remains surprisingly narrow. Games like *Meridian 59* (the first graphical game in this genre; see figure 1.3), *Ultima Online*, *EverQuest*, *Dark Ages of Camelot*, *Asheron's Call*, *Diablo* and Blizzard's second MMOG offering, *World of Warcraft* (which had 10 million subscribers as of this writing), and more recently, *The*




| **Figure 1.3** |

The re-release version of *Meridian 59*, launched in 1996, predated *Ultima Online*, which often mistakenly is credited as the first. (Image: Brian "Psychochild" Green, Near Death Studios)


| **Figure 1.4** |
Lucasfilm *Habitat*, developed for Quantum Link, a precursor to AOL, and later by Fujitsu. (Image: ©1986 LucasArts Entertainment)

*Lord of the Rings Online* and *Dungeons & Dragons Online*, embody this role-playing, D&D-derived, Tolkienesque fantasy genre. Variants from Korea, such as *Lineage*, *Ragnarok Online*, and *MapleStory* (the world's largest such game, with over 72 million players, and the second-best-selling content card at Target stores as of this writing) (Haro 2007), provide more accessible variants aimed at a younger audience. These are joined by science fiction-themed games such as *Star Wars: Galaxies*, *Planetside*, and *Anarchy Online*, and others with themes such as pirates, superheros, and horror, many of which build on similar conventions and focus thematically on combat and power fantasies.

Their nongame counterpart, MMOWs, have progressed, perhaps a bit more quietly, alongside MMOGs, and have arguably begun to surpass their gaming cousins in popularity among some demographics. Growing out of the budding game scene, corporate research labs, and the nascent online services industry, graphical social worlds—starting with Lucasfilm's *Habitat* in 1986—predated graphical MMOGs by almost a decade (Morabito 1986, Farmer and Morningstar 1991) (figure 1.4). Admittedly more

low-tech, the earliest virtual worlds were 2-D and provided limited affordances for player creativity. *LambdaMOO*, a text-based environment created in 1991 as an experiment at Xerox PARC (the birthplace of the graphical user interface), introduced the notion of a user-created world that players could extend and expand in seemingly unlimited directions using only words on a screen (Curtis 1992). *LambdaMOO*, still in operation, is the most written-about text-based world; with journalistic, academic, and designer accounts, it has become a bellwether for studies of emergent behavior in virtual worlds (Curtis 1992; Mnookin 1996; Dibbell 1995, 1998; Schiano 1999).

As MMOGs were coming into the mainstream, virtual worlds were also experiencing a boom. Inspired by Neal Stephenson's 1992 cyberpunk classic *Snow Crash*, in the age of what Federal Bank then-chairman Alan Greenspan described as "irrational exuberance," dozens of companies were formed to either create or service the emerging virtual worlds industry. Many of these were based within a few miles of where *Second Life*'s Linden Lab stands today. *Active Worlds*, a graphical virtual world launched in 1995, was the first to follow *LambdaMOO*'s model of user-created content, and remains the longest continuously running entirely user-created virtual world. *Active Worlds* was followed by *OnLive!* in 1996, which is now available as *DigitalSpace Traveler*. Many other virtual worlds opened and closed during this period, including the 2-D chat environment *The Palace* and 3-D worlds *Cybertown* and *Blaxxun* (Damer 1997). Adobe Atmosphere, referenced later in this book, is one of the few world-building tools that survived this period, although it was eventually abandoned by Adobe in 2004.

A decade later, both MMOGs and MMOWs are experiencing another period of phenomenal growth. This has been fueled in part by significant advances in on-board graphics technologies for personal computers and the widespread adoption of broadband Internet, two prerequisites that impeded widespread adoption of early virtual worlds and MMOGs.

On the MMOG side, in addition to mainstream titles in the fantasy and sci-fi genres, smaller independent companies are also flourishing with games that could be described as category challengers. Among these are the popular casual MMOG *Puzzle Pirates*, which has added 4 million registered users since it launched in 2003, and New Medeon's *Whyville*, a science learning MMOG for tweens, which had 3.4 registered users, 60 percent of whom are female, at the time of this writing. Even *EVE Online*, a popular science fiction world with a sophisticated economy and political system, is considered highly successful and self-sustaining with as few as 250,000 active subscribers.

The MMOW space also continues to expand in a number of different directions. *Second Life* and *There.com* both opened in 2003, and while the former has taken off

as, if not the most popular, at least the most publicized virtual world, the latter has managed to sustain itself through several business transitions. Newer offerings such as *Kaneva* and *Gaia Online* have expanded the range of social worlds. Simpler virtual worlds targeted to kids, which usually have free subscriptions and a virtual items-based economy, are eclipsing even the most popular of their high-end counterparts. *Habbo Hotel*, targeted to tweens, is poised to be the first virtual world to log 100 million subscriptions, albeit not all of them active. These figures, and the imminent release of Sony's *Home*, the first console-based virtual world for the Playstation 3, suggests that virtual worlds may indeed be here to stay. At this writing Google was also throwing its hat into the ring and China had just released its first MMOW, *HiPiHi*.

With all the real and imagined success of MMOGs and MMOWs, there is another more somber side to this narrative: what happens when virtual worlds fail? When new games are released, online games have been known lose audiences in a mass exodus, and the closure of MMOGs and MMOWs is a common occurrence. The very first fantasy-themed graphical MMOG, *Meridian 59*, originally published by 3DO in 1996, closed soon afterward and eventually reinvented itself as a self-sustaining indie enterprise in 2002. Another well-known closure is Microsoft's *Asheron's Call*. We know as little about why multiplayer online games fail as we do about why they succeed. The size of their publishers may be a factor but is no guarantee of success. Why did *World of Warcraft* become a smash hit, but *Star Wars: Galaxies*, built on a perennial, mainstream franchise, turn out to be a weak cult favorite at best? Should sheer quantity of players be the only metric of success? Should we count as successful the smaller, self-sustaining games, like *Meridian 59*? And why do the mid-range games and worlds, such as *Puzzle Pirates*, *Whyville*, *There.com*, and even Disney's groundbreaking but only moderately successful *Toontown*, continue to be overlooked? Even MMOGs backed by big media behemoths, such as Electronic Arts' *The Sims Online*, based on the world's most popular single-player game franchise, re-launched as *EA-Land*, and Disney's *Virtual Magic Kingdom*, were joining the death march to the MMOG graveyard at this writing, even as those same companies were in the midst of launching new products. Since corporations prefer to keep the sources of their failures under wraps, often even couching them as successes, and since there is very little follow-up research on players once they have *left* a game, it is nearly impossible to conduct postmortem analyses of why MMOGs fail.

Among the most-lamented MMOG "failures" is *Uru: Ages Beyond Myst*, the subject of this study. Based on and set in the world of the popular single-player *Myst* series, *Uru* departed from many of the traditional conventions of the fantasy-based, D&D-derived MMOGs described earlier by transporting its complex puzzles and

unique style of spatial storytelling into a cooperative, multiplayer game. *Uru* had no fighting, no killing, no levels, and no point system. Players worked together to solve interconnected, brain-twisting puzzles, many of which required a familiarity with the elaborate history, cosmology, characters, story line, and even language of the *Myst* series. This included not only knowledge of the world's mythos and back story, but also facility with its arcane technologies, many of which are instrumental in the puzzle-solving mechanics.

As with the *Sims Online*, it would seem that an MMOG based on a top-selling single-player franchise should have been a sure hit. But in spite of its ardent fan base, two successive attempts at launching the game failed to draw the requisite revenue to ensure its ongoing operation. What *Uru* did succeed in doing, however, was to give rise to a small, devoted, resourceful, and tenacious play community with a distinctive play style that set them apart from players of more popular combat-based games such as *EverQuest* and *World of Warcraft*. Although the Uru community is dwarfed in scale by virtually all of the MMOGs mentioned earlier, its fanbase has exhibited endurance over the long term in the face of trials and tribulations. The phenomenon of the Uru Diaspora has outlived both commercial releases of *Uru* combined. Thus, while *Uru* was not a numerical success, I would argue that it was successful in a number of other significant aspects that will emerge as we delve into the narrative of the Uru Diaspora in more depth.

The expulsion and mass exodus of Uruvians from their "game of origin" at the precise moment when the third wave of virtual worlds was coming online created a powerful confluence of culture, technology, timing, and opportunity. Because Uru and Myst players are particularly tenacious and industrious, perhaps in part because of their decade-long encounter with the "Mensa-level" puzzles of *Myst* games (Carroll 1994), they were poised to display a unique form of emergent behavior.

As we will learn, Uru players migrated into other virtual worlds, created their own *Uru*-based cultural artifacts, and in some cases created entire facsimiles of areas in *Uru*. They created Uru mods in other game engines, including original levels for the game, and they even instigated a network of player-run *Uru* servers to allow players to run the game after its initial closure. This emergent culture, which traversed both games and virtual worlds, provides us with rich insight into the many facets of the interplay between networked play communities and the virtual worlds they inhabit.

# | 2 |
# VIRTUAL WORLDS, PLAY ECOSYSTEMS, AND THE LUDISPHERE

## Virtual Worlds and Their Inhabitants

Virtual worlds share much in common with other media and even other game and digital play genres. But they have a number of distinctive characteristics that lend themselves to particular types of emergent behaviors. As the previous chapter highlights, there are a variety of different world types, each with its own conventions. Media conventions, such as the *D&D*-based frameworks of MUDs and fantasy role-playing games, can be particularly useful to designers, especially in a context where the underlying technologies and standards are changing at such a rapid pace. Note that even as cinema is making a dramatic transformation from film to digital projection, the core conventions of feature films provide a consistent set of guidelines that have changed little since they were initially established in the first half of the twentieth century. Meanwhile, new technologies such as sound, color, and computer special effects have kept filmmakers innovating, even within these constraints.

Similarly, virtual worlds of all genres share a set of conventions that have been proven over time to enhance player experiences and reinforce what Murray calls the "active creation of belief" (1997, 110). In the case of virtual worlds, we might further characterize this as the "collective creation of belief," since virtual worlds are, by definition, social constructions. These qualities also support the formation of what some call "virtual communities" (Rheingold 1993), but I would argue that, although the worlds may be virtual, the communities formed within them are as real as any that form in proximal space (Hyatt-Milton 2005). In this chapter, we shall investigate the core conventions that make up a virtual world and that together create a believable environment that possesses the elusive quality of "worldness."

Lisbeth Klastrup, who has written extensively on the poetics of virtual worlds, defines a virtual world as "a persistent online representation which contains the possibility of synchronous communication between users and between user and world within a framework of space designed as a navigable universe" (2003b, 27). This

succinct summary provides us with a starting point from which to build. What are the defining characteristics of these worlds? What conventions do they share, regardless of whether they are MMOGs (games) or MMOWs (metaverses), and irrespective of platform, technology, resolution, or even mode of representation? Drawing from the examples given in chapter 1, as well as synthesizing the work of other authors who have tackled facets of these definitions (Damer 1997; Aarseth 2000; Klastrup 2003a, 2003b; Castronova 2005; Bartle 2003; Mulligan and Patrovsky 2003; Taylor 2006), the following list outlines the principle characteristics of virtual worlds:

- *Spatial* Virtual worlds are at their core spatial. Some would include the requirement that their spatiality must be represented graphically, but I would argue that while they are essentially spatial in nature, they do not necessarily have to be visual. Whether they are represented textually or graphically, in real time 3-D, isometric, or even 2-D graphics, is less relevant than the fact that they define a spatial construct of some kind. This inclusive definition embraces textual, graphical, and even hybrid representations of virtual space.
- *Contiguous* A virtual world is typically geographically contiguous, possessing a sense of spatial continuity or a reasonable premise for breaking that continuity. In some worlds, areas can be conceptually contiguous through a fictional construct, such as the linking books in *Myst* games, or interplanetary travel in science fiction worlds. They may also be contiguous through scale shifts, such as the tiny room a player built inside a television in *LambdaMOO*. Even in worlds such as *Second Life* or *There.com*, in which teleporting exists without a fictional construct, there is still a pervading sense of the geospatial adjacencies within the world. Put another way, most virtual worlds are mappable.
- *Explorable* The contiguous space of virtual worlds makes them inherently explorable; players may go wherever they want, although their movements may be constrained by their level or status in the world, or by available transportation modes (Klastrup 2003a, 2003b). Traversing the world can sometimes be challenging or involve complex mechanisms, and typically takes place in real time, although some foreshortening can occur, such as on a long boat ride. Transportation modes can also be used to make exploration both more challenging, more efficient, or merely more scenic. Interestingly, the vast majority of virtual worlds are built with pedestrian mobility as their baselines, augmenting this with vehicular or air travel, which in games often function as a reward for completed goals. In previous writing, I have argued that, like theme parks, virtual worlds seem to express a longing for a return

to the pedestrian community (Pearce 2007). Exploration is one of the primary pleasures of virtual worlds, as exemplified by the Explorer type in the Bartle player typology (Bartle 1996). In open-ended MMOWs or metaverses, exploration is a central activity in its own right, while in MMOGs, which have a clear goal, exploration is often a means to an end. Bartle has characterized this distinction as "Alice" (open-ended nonlinear) versus "Dorothy" (goal-oriented, result-oriented) exploration styles. (Bartle, forthcoming).

- *Persistent* Persistence is frequently cited as a defining characteristic of virtual worlds. This means that the world remains "on" at all times, and that actions taken within it are cumulative, allowing players to maintain and develop a character from one visit to the next. This contrasts with first-person shooters, in which the world is temporarily constructed for short-term, simultaneous play, but has no affordances for ongoing character development.
- *Embodied Persistent Identities* All virtual worlds include player representations, also known as avatars, another feature that distinguishes them from first-person shooters. In virtual worlds, players have bodies over which they have some creative control and that are also persistent and evolve over time through play. This is distinct from immersive virtual reality, which tends to view embodiment in terms of full sensory input with a first-person viewpoint.
- *Inhabitable* The world is inhabitable and participatory (Damer et al. 1999; Klastrup 2003a, 2003b), meaning one may enter the world and live inside it, actively contributing to its culture. Having an identity or a role is a precursor to inhabitation. Marie-Laure Ryan points out that this is the primary characteristic that differentiates virtual worlds from literature, film, and most other media (2001). In these forms, while one can be immersed in a fictional world, one cannot inhabit it as a participant in its culture.
- *Consequential Participation* The outcome of inhabitation is the consequential participation of the player in the world itself. This means is that your presence is actually a *part* of the world and of other players' experiences of it. In a novel, your absence is not detectable by the characters; in a virtual world, it is. This also distinguishes virtual worlds from traditional immersive virtual environments, which are typically geared to a single-user experience.
- *Populous* A virtual world is by definition a social world. This is what distinguishes it from single-player worlds, including "God Games" such as *Age of Empires* and *Civilization*, and explorable single-player games such as the recent sequence in the *Grand Theft Auto* series. While the population does not have to be *massive* in all

virtual worlds, those with the extra *M*, such as *M*MOGs and *M*MOWs, are, by definition, populated by large numbers of people, typically in the tens to hundreds of thousands or even millions. In reality, however, these figures are deceptive: since most MMOGs (less so MMOWs) have multiple segregated servers, or "shards," they are seldom inhabitable by more than a few thousand concurrent players in a given instantiation.

- *Worldness* "Worldness" is perhaps the most elusive quality of virtual worlds. This term is used to express a sense of coherence, completeness, and consistency within the world's environment, aesthetics, and rules. To maintain a sense of worldness, a virtual world must create an aesthetic—in Klastrup's terms, a poetics (2003a)—a syntax, a vocabulary, and a framework that is extensible, sustainable, and robust. Every accessible location in the world must be accounted for in order to create the sense of contiguous, explorable space. Indeed, the very mechanisms of exploration are elements of worldness. One would not, for instance, expect to explore a Tolkien-inspired world in a futuristic spaceship any more than one would expect to see an elf in a pirate world. Worldness can, of course, be expressed in virtually any medium, and in more linear, narrative media, such as films or novels, is treated as a subset of storytelling, what J. R. R. Tolkien termed "sub-creation" (Tolkien 1983, Konzack 2006). Worldness can be gauged in terms of the "collective creation of belief," which becomes a coconspiracy between designers and players. This is a similar challenge to that faced by theme park designers. Theming, like worldness, falls apart when the world and its rationale fail to convince, or when parts of the world are in some way broken or inconsistent.

Murray has identified spatiality as one of the four expressive properties of digital media (1997, 71). In previous writings, I have argued that games are primarily a spatial medium because spatial navigation and organization has become their dominant interaction metaphor (Pearce 1997, 2002c, 2008a). Because spatiality is the unifying principle tying together these characteristic properties of virtual worlds, it becomes particularly relevant in observing patterns of emergent behavior. Players in virtual worlds are essentially playing *in* and *with* space, and, in many respects, the space is also playing *with* them. Thus, inhabiting virtual worlds requires what I term "spatial literacy" (Pearce 2008a). I define spatial literacy, like other forms of media literacy, as the ability to both "read" and "write" in the language of spatial communication and spatial narrative. Different games and virtual worlds utilize different conventions of spatial communication and meaning-making, and as we will see from the *Uru* case, it is often the situated knowledge of the language and syntax of a specific game space that gives rise

to emergent behavior. In the case of Uru players, this spatial literacy guided players' understandings of the spaces and stories in *Myst* games, particularly *Uru*, and also enabled them to subsequently re-create and interpret those spaces in other game worlds (Pearce 2008a).

## Playing with Identity: The Rise of the Avatar

Central to the discussion of how players inhabit virtual space is the quality of embodiment, which is accomplished through the use of an avatar. The word "avatar," originally a Sanskrit term meaning a god's embodiment on Earth, has been adopted universally in English to describe a player's representation in a virtual world, and increasingly, in online games. Originally coined by Chip Morningstar to describe player representations in the 2-D graphical online community *Habitat* (Morabito 1986, Farmer and Morningstar 1991), the term was later reintroduced independently by science fiction author Neal Stephenson in his influential cyberspace novel *Snow Crash* (1992). Initially, "avatar" was used exclusively to describe player characters in MMOWs, but it has also been adopted in MMOGs, along with "player character," "PC," or, more recently, "toon" (short for cartoon), used primarily in *World of Warcraft*. In games, nonplayer autonomous characters, also known as "bots" (for robots) or "mobs" (for mobiles), are broadly referred to as "NPCs." Some NPCs are enemies (autonomous characters that players do battle with), while others serve as helper-characters that send players on quests or serve as merchants selling gear. Although the term "avatar" (sometimes shortened to "avie" or "avi") can also be used to refer to characters in a text-based MUD or MOO (usually represented only as a text description), it is more commonly used to describe a graphical representation of the player in a two- or three-dimensional virtual world.

One of the unusual properties of avatars is that they are, as T. L. Taylor puts it, "intentional bodies," whose representation and aesthetics are defined by designers and then adopted by players. Players "wear" avatars offered to them by designers, but they sometimes do so grudgingly. In fantasy-themed MMOGs, for instance, Taylor notes "the impoverished view of online embodiment most designers seem to be operating with" (2003). Depending on character "race" (e.g., elf, orc, gnome) and "class" (mage, warlock, warrior), female armor in fantasy games typically has significantly less surface area than its male counterparts, which has prompted me to refer to it as "kombat lingerie" (Fron et al. 2007a). Embodiment can also provide clues to player motivations. In role-playing games of this sort, over half the female characters are generally believed to be operated by male players (Koster 2001; Yee 2001; Seay et al. 2004, 2001–2008). Male players frequently report playing female characters because they prefer

the appearance of female avatars, especially from behind (Yee 2003). Conversely, Taylor notes that in the fantasy genre female players are often forced to bracket or ignore their discomfort with their own virtual embodiment (Taylor 2003).

Nongame MMOWs typically provide players with more options and less-hypergendered representations, but they still reveal the designers' intentions. Some older female players in *There.com* like the Disney retro aesthetic and more reasonable proportions of their *There.com* avatars, but frequently complain that they are perpetually 22 years old. *There.com*'s designers went to great lengths to make its female avatars appealing to female players, but failed to consider the possibility that older players might wish to present as such.

*Uru* avatar creation has affordances for wrinkles, gray hair, and even male-pattern baldness, popular features with both male and female Uru players, the majority of whom are baby boomers. *Second Life* provides a number of different adjustments for breast size and orientation, providing more options for women, but also increasing the possibility for hypergendered representations. There is a popular folk theory in *Second Life* that female avatars with oversized bosoms are likely to be inhabited by male players.

As we've seen and will explore further, in both MMOGs and MMOWs cross-gender play seldom correlates to real-world cross-dressing or transgender activity. Game designer Raph Koster plays female characters in both MMOGs and MMOWs because he prefers the quality of interaction between women. He also enjoys fashion design, which requires that he have a female avatar to test his creations (Pearce 2005). Some male players in *There.com* have female avatars primarily for the purpose of engaging in dress-up play. Conversely, I have heard *Second Life* players complain about the comparative lack of fashion options for male avatars, a problem that is more indicative of the cultural limits of emergence than of the designers' intentions. At the opposite extreme, *There.com*'s virtual fashion industry operated for its first two or three years without affordances for the creation of skirts. This precipitated among the world's predominately female fashion designers a range of emergent behaviors around faking skirt and dress-like garments, including the hoop skirt hoverpack (Fron et al. 2007a).

The relationship between players and their avatars is a complex subject that we are only beginning to understand. As suggested by its original Hindu meaning, research has repeatedly revealed that players often perceive their avatars as a medium through which one's soul, one's deep inner persona, is expressed, even though the avatar's personality may be quite distinct from that of the person controlling its agency. Again and again, both researchers and designers are finding that inhabiting an avatar can often be perceived by players as a transformational inner journey (Turkle 1984, 1995;

Heim 1993; Bartle 2003; Damer 1997; DiPaola 1997–2005, 2008; Taylor 1999, 2002a; Boellstorff 2008; Liatowitsch 2002; Turner, Mancini, and Harrison 2003; Pearce and Artemesia 2007; Bourdreau 2007).

Among participants of the study described in this book, the terms "avatar" and "player" were used somewhat interchangeably, although "avatar" was sometimes used to distinguish things happening to the virtual body of the avatar itself. It is important to note that there is always a player is in command of an avatar's agency, meaning that avatars do not make decisions on their own. (A common misconception conflates avatars and autonomous agents, or NPCs; however, avatars are always human-controlled.) However, as we shall see, the distinction between the player and his or her avatar is somewhat blurry, and players will speak about their avatars in both the first and third person, even describing their corporeal body in physical space as their "real-life avatar." As this suggests, players tended to make a distinction between the body, whether it be virtual or real, and the person or persona who was channeled through one or the other of those bodies. As Taylor has pointed out, this does not mean that an individual's persona is disembodied, but rather that it is expressed through multiple bodies (2003).

Most players in this study felt that their avatars were expressions of their "true" selves as much if not more than were their "real-life avatars." Players who had met each other in real life were able to hold multiple conceptions of each other's identities in their minds, encapsulating the personas as expressed in both the "real-life avie" as well as the avatar in virtual space. This multiplicity of identities is quite commonplace among people living online lifestyles who, in addition to perceiving their own multiple bodies/personas, learn to recognize other members of their play community as also having multiple bodies/personas. (Turkle 1995, Markham 1998, Dibbell 1998, Taylor 1999). It is sometimes difficult for those unaccustomed to virtual worlds to understand these phenomena as anything more than a form of technologically enabled (or even precipitated) multiple personality disorder. However, sociologists have long observed how people adopt or "put on" different personalities or personas in their different real-life roles: worker, parent, friend, and so on. "Performing" different personas in different contexts is a standard part of how we adapt to social situations. In fact, as Goffman has shown, the *inability* to perform appropriately in social contexts is often an indicator of psychological disorders (1963). In virtual worlds, what is viewed as appropriate behavior is often significantly different from what might be considered appropriate within real-life situations or occasions. Just as with real-world games and fantasy play, the play frame sets new constraints that enable one to take liberties with the social expectations and frameworks of ordinary life.

Taking liberties with social transactions within a play frame paves the way for communities to form emotional and social bonds unique to play. Players befriend individuals they might not otherwise have occasion to interact with. Intimacies form around shared imagination and facets of identity that are foregrounded through play. Because play is ultimately a form of expression, whether experienced in a structured game world or an open-ended metaverse, it opens up avenues for personal and social development that provide alternatives to real-life roles. In such an environment, and fueled by networks, bonds can form that are viewed by players as equally authentic, if not more so, than bonds that form in their offline, everyday lives.

## Play Ecosystems

The central argument of this book is that emergent behavior in games and virtual worlds arises out of a complex interaction between players and the affordances of the play space they inhabit. This book concerns itself specifically with the genus of play space known as virtual worlds, spanning categories that include games and open-ended play environments of metaverses. The core text provides an analysis of this intersection between lived practices of play and virtual worlds through an ethnographic study of the emergent cultures of a specific play community, the Uru Diaspora. Earlier we identified networked play environments as participatory global playgrounds, in contrast with McLuhan's notion of the global village created by the electronic medium of television. We then identified the properties of virtual worlds. Now we must develop a language for talking about the relationships between these worlds and the emergent cultures they host.

Borrowing from complexity theory, which will be covered in more detail in chapter 3, we might characterize such environments as "play ecosystems." Because these software environments are designed to facilitate networked play, they have specific features and affordances that differ significantly from software we typically associate with other functions, such as work, or even social networking. Until recently, these "serious" functions of networks tended to be privileged over play, with a few exceptions (Danet 2001, Dourish 1998), perhaps because of the marginalization of play in Western culture, as noted earlier via Schechner.

Yet in spite of its marginalized status, well before the advent of digital games, play captured the attention of predigital scholars whose fields range from anthropology to behavioral psychology to philosophy, and who have examined the role of play in culture and human development. Commonly referenced in digital game studies are the canonical works of Huizinga, *Homo Ludens (*meaning "Man the Player"*)* ([1938] 1950), and Caillois, *Man*, *Play and Games* (1961), but these two are by no

means alone. Pioneering educator Maria Montessori ([1900] 1964) invented an entire system of "Didactic Material for Sensory Education" based on the observation that play and experimentation were integral parts of learning (Montessori [1917] 1964). Developmental psychologists Jean Piaget (1962) and Donald Winnicott (1971) both studied children's play at different ages and its impact on learning and behavioral development. Sociologists Iona and Peter Opie (1969) conducted a nationwide survey of street games in the UK. Gregory Bateson observed the astonishing ability, also noted by Piaget (1962, 110–111), of both animals and humans to distinguish between real and play fighting (1972). Anthropologist Brian Sutton-Smith's *The Ambiguity of Play*, a foundational text of digital game studies (1997), is only one of a number of books he authored on the topic ( Sutton-Smith 1981, Sutton-Smith and Avedon 1971, Sutton-Smith and Pellegrini 1995). The academic journal *Play & Culture*, which he also cofounded, includes contributions from Schechner (1988), Bateson (1988), and many others. Philosopher Ludwig Wittgenstein also investigated the nature of games and their rules, especially with respect to language (1953). Bernard Suits's philosophical study of games is considered a classic in game studies (1978). Games and play have also been also an integral part of a number of social, political, and art movements, including Dada and Fluxus (Pearce 2006a), the Situationists (Plant 1992), Boal's Theater of the Oppressed (1985, 1992), and New Games (Brand 1972, Fluegelman 1976, DeKoven 1978). The New Games movement also has ties to activist and digital community practices. Cofounder Stewart Brand also founded the *Whole Earth Catalog* and, later, the WELL, one of the oldest continuously running online communities in the United States. Andrew Fluegelman is credited as the inventor of the shareware business model for software marketing.

What do we mean when we say "play" and "game"? This has been one of the principal questions explored and debated by game and play scholars. Caillois, building on Huizinga ([1938]1950), describes the essential characteristics of play as

1) free (not obligatory);
2) separate (circumscribed within the limits of time and space);
3) uncertain (outcomes are not determined in advance);
4) unproductive;
5) regulated (governed by rules); and
6) fictive, make-believe (a "second reality" or "free unreality") (1961, 43).

This definition presents us with two problematics. First is the question of circumscription. Huizinga introduced the term "magic circle" ([1938] 1950) to describe the play

frame in which participants mutually agree to suspend everyday rules and social contracts and abide by a alternative set of rules or constraints. This magic circle, which resembles what Turner termed the "liminal" space of ritual (1982), can take a number of different forms: it can be an abstract construct, as adopted by children in street play; a formal ritual context, such as Halloween; an activity defined by a "boundary object" (Star and Griesemer 1989), such as a ball or a game board; a physical space, such as a sports field or arena; or a mediated environment, such as a digital game or a virtual world. There is a tendency to think of the magic circle as impermeable, but as this study shows, and as corroborated by others, while the magic circle may be sacrosanct in theory (Castronova 2004), in practice, for a variety of reasons, it is highly porous (Castronova 2005).

The second problem is the assertion, common to many definitions, that play is inherently unproductive. We have already touched on a number of contexts in which play inspires creative activities, such as *Dungeons & Dragons* figurines, costume design at fan conventions and renaissance faires, and ritual events such as Mardi Gras and Burning Man. As we shall see with the case of the Uru Diaspora, play can become an engine for a high level of creativity and innovation, which can take a variety of forms, through both leveraging and subverting software affordances (Pearce 2006b).

Taking into account the foregoing two caveats, Caillois's definition is thus serviceable, but it leaves unanswered one question of particular importance to our discussion of MMOGs and MMOWs. This is the question of distinguishing a *game* from other forms of play.

The formal characteristics of games have been a matter of particular interest to digital games scholars, and as a result, when we begin to look at formulating a clear description of "game," we find numerous variant, and sometimes conflicting, definitions. (For a comparative analysis of game definitions, see Salen and Zimmerman 2004, 71–84). While resolving this question is not the purview of this book, it warrants some attention because virtual worlds of both types are covered within this research.

Building a hybrid derived from the most widely accepted definitions, most games researchers would agree that a game is a formal system for structured play constrained by a set of rules that prescribe the means of achieving a specified goal (Suits 1967, 1978; DeKoven 1978; Pearce 1997; Salen and Zimmerman 2004; Fullerton, Swain, and Hoffman 2004; Juul 2005). Bernard Suits humorously but accurately characterizes this paradox as the deliberate contrivance of the most inefficient means of accomplishing a task (1967, 22). From here, debate takes over. Must a game's goal be definitive? Must there be a finite win/lose state that represents success or failure to accomplish

the goal? Must a game's goal or even its rules be articulated at the start of play, or can they be discovered through the process of gameplay itself?

These questions become particularly contentious in the context of MMOGs, most of which do not explicitly state their goals and rules up front. Moreover, the goals of such games are typically based on the open-ended, though linear, objective of "leveling," constructed through a series of provisional micro-win/lose states associated with specified quests or tasks. Once the maximum level is reached, the gameplay actually shifts to a different mode, rather than concluding as do traditional board games or even single-player video games. In fact, losing, or even winning, is anathema to most MMOGs. Because they are subscription-based, they rely on an economic formula that precludes the closure typically associated with winning or losing in traditional games. MMOGs can also contain individual goals that differ from the main goals—player-, role- or group-specific goals, as well as missions or quests. Players can and often do augment the prescribed goals with metagoals of their own, such as becoming a successful merchant or creating an überguild. These metagoals can be categorized as forms of emergence. Other forms of emergence can occur when players do not strictly follow the teleological trajectory of the game's goals, instead "playing around," or engaging in a more exploratory, non-goal-focused way.

MMOWs add another order of complexity to the problem. While these are clearly not games, they tend to have significant elements of gameness. Most MMOWs actually contain games within them, as well as rules of various kinds, and some even contain forms of skills leveling. Players will also construct their own metagoals, such as becoming a successful fashion designer or nightclub operator. Player content-creation also introduces affordances for players to design their own games within an open-ended play space. Some environments, such as *There.com* and *The Sims Online*, provide more complex mechanisms for social networking, as well as specific point rewards for socializing, typically absent from the majority of MMOGs.

The friction between games and nongames has also been deeply embedded in discourses among game designers, reviewers, and scholars, who tend to valorize those play experiences defined as "games" over those which are characterized as open-ended play spaces or sandboxes. These arguments are deeply entrenched in power structures, market economics, and highly gendered industry rhetorics of gaming and gamers that result in entertainment software products that appeal to women often being marginalized as "not games" (Fron et al. 2007b). Even entertainment titles as popular as the best-selling franchise *The Sims*, which has sold 100 million copies worldwide, are often trivialized on this basis. Will Wright, designer of *The Sims*, *Sim City*, and *Spore*

has described himself as "not a game maker" (Suellentrop 2007), and has characterized his titles as "possibility spaces" (Pearce 2002b).

## Ludic versus Paidiaic Worlds

While the game/not game argument may seem academic in the pejorative sense, it does have some bearing on our analysis here, especially because we will be describing a case where the boundaries of each are transgressed. As Tom Boellstorff has pointed out, "crossing a boundary can strengthen the distinctiveness of the two domains it demarcates" (2008, 23). In the case of intergame or interworld immigration, it both does and doesn't, in ways we shall explore further in book II.

The game bias is deeply embedded in the discourses of technoculture and digital media, as epitomized by the very naming of the discipline "game studies," as opposed its anthropologic antecedent, "play studies." Huizinga, for instance, tended to conflate play and games and seemed to privilege more "agonistic" (or competitive) play forms that involve, in his words, "virility" ([1938] 1950, 64), "frenzied megalomania" (101), and competition for superiority. Clearly this language is highly androcentric and both Huizinga and Caillois, men of their eras, repeatedly trivialize girls' play, addressing it minimally and characterizing it as "rehearsal for motherhood" (Caillois 1961, 62). Nonetheless, Caillois begins to address our game/not game dilemma by introducing into the discourse a differentiation between games, which he characterizes as "ludus," and open-ended, creative play, which he characterizes as "paidia" (1961, 13). These two play forms exist on a spectrum and share a number of qualities in common, but also have unique properties that distinguish them from one another.

Clarifying these distinctions can help us understand both the designers' intentions and play practices within what might be characterized as ludic versus paidiaic worlds. While both styles of play occur in both types of virtual worlds, ludic game worlds and paidiaic nongame virtual worlds have distinct design goals and constraints that differentiate them in significant ways. The primary distinction is that ludic worlds present the player with a prescribed overarching goal while paidiaic worlds do not. Ludic worlds have a formal structure of objectives and a set of constraints that dictate how those objectives might be met, whereas paidiaic worlds provide players with a range of activities and options for social interaction.

Often called metaverses or social worlds, non-goal-based, paidiaic virtual worlds are characterized more as sandboxes, in which players engage in open-ended, unstructured, creative play, although they typically allow for more structured play to emerge at players' discretion. Because they generally include affordances for user-created content, such MMOW sandboxes often include more formal games within their larger open-

play framework; however, because of the absence of an overarching goal, these worlds cannot be considered games in the formal sense. While the world type may guide player activity, providing a context and motivation for one type of play over another, players in either type of world frequently engage in the opposing play styles. MMOG players often engage in paidiaic play alongside, around, or in some cases, against the prescribed rules of the game; MMOW players often construct their own form of game or structured, goal-oriented play. We also see a game-within-a-game form of emergent play where players invent different games than prescribed by the software. One example of this is the Dn'i Olympics, a player-created sporting event in *Uru* that overlaid a metagame on top of, but distinct from, the existing game environment and its rules.

All virtual worlds, whether ludic or paidiaic, have rules. World rules take the form of player constraints, as well as the world's properties—its physics; its cosmology, or world view and values; its "karma system," or causal structure; its feedback systems, including rewards and penalties; its communication mechanisms and interfaces; its economic structure and transaction mechanisms; even its allowable modes of transportation. World rules constrain the ways in which players can interact with the world and each other, and the ways in which they may contribute to constructing the world, if at all.

World rules are important in our discussion of emergent behavior because they embody the affordances through which emergent behavior materializes. World rules include:

- Communication protocols—does the system allow for synchronous or asynchronous communication such as in-world email or forums? Must I be in the presence of another player or may I communicate with them in real time remotely? Can I communicate with players individually or must all communication be within a group? Do I communicate primarily with speech, text, or a combination of the two?
- Group formation protocols—how are groups formed? Can I belong to more than one group? What is the basis of group affiliation? What are the benefits or affordances of group membership? Can I send messages to my group members? Can I invite my entire group to events I plan?
- Economics—can I "own" things? Are there currencies or mechanisms for synchronous or asynchronous trading, such as an in-game auction feature? Do I have to physically go somewhere to buy/sell/trade, or may I do so remotely? Do I have to be in-world to buy things, or can I do so via a web site or other means? If I do have belongings, how are they protected?

- Land/home ownership—may I own land or a home? If so, what rights do I have there? What rights can I give others? How much control do I have over the design/décor? Can I restrict access? Can I share my home with my group or my friends?
- Avatar creation/progression—what are the constraints of avatar construction? Must I choose a race, such as an elf or orc? How much customization and control do I have over appearance, such as skin color, hair, or facial and body features, as well as attire? Is avatar clothing instrumental to gameplay or merely aesthetic? What other sorts of attributes does my character have? How might these progress over time? Can my avatar die? If so, for how long? What are the requirements for resurrection? Are there penalties involved?
- Geography/terrain/transportation—what are the features of the geography and the allowable modes of transportation? Are there mounts or vehicles? Can I fly (autonomously or via mount or vehicle)? Can I swim, or travel by boat?

While both MMOGs and MMOWs have world rules that describe the world and its properties and some constraints of player actions, MMOGs alone possess overarching goals and embedded rules that prescribe what players are to do and how they are to accomplish given goals or tasks.

It should also be noted that, in general, players in this study did not make a cultural distinction between a virtual world and a game, although they clearly understood the difference between an open-ended play environment and one with a clear goal. In practice, all of the environments explored in this study were referred to colloquially among the study participants as games, regardless of whether they met the qualifications described earlier.

## Imaginations at Play: Fixed Synthetic and Co-created Worlds

Because the study of the Uru Diaspora spanned several virtual worlds of different varieties, including MMOGs and MMOWs, it became evident that, while not irrelevant, the binary distinction of game/not-game was limited in providing deeper insight into emergent behavior within online games and virtual worlds. More important than the game/not game question are the underlying architectures that support these ludic and paidiaic play forms. When we look at these architectures beyond the abstract and perhaps theological arguments about their game-like qualities, we discover much more salient and subtle properties embedded within their structures that have significant ramifications concerning emergent behavior.

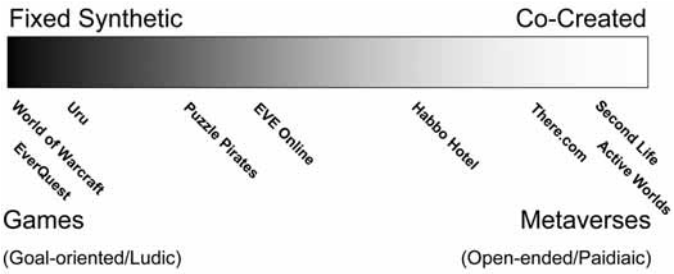
Bernard DeKoven describes games as "social fictions" that exist "only as they are continuously created. They are not intended to replace reality to but suspend consequences" (1978, 1). In Monopoly, for instance, landing on the "Go To Jail" square does not result in real-life incarceration. The notion of a social fiction can be applied to both ludic and paidiaic worlds, and of particular relevance to our concerns here will be the question of whose social fiction, precisely, it is.

Game design has been described by Salen and Zimmerman as a form of "second-order design." They point out that, "As a game designer, you can never directly design play. You can only design the rules that give rise to it" (2004, 168). Thus, how do you design for meaningful play when the play itself is unpredictable, essentially out of your control? The social fiction of virtual worlds can thus be viewed as a confluence of imagination: that of the designer and that of the players. Therefore the job of the game designer is to imagine what the player might *imagine* and what he or she might *do*. In some cases, particularly in more formal games, players may also try to imagine what the designer had in mind. Each is therefore trying to create a mental model of the other's imagination. The paradox that the game designer can never entirely anticipate the player's imagination is the very essence of emergence.

As starting point, borrowing from complexity theory (which shall be explored in more depth in chapter 3), we might characterize virtual worlds as play ecosystems along a spectrum that parallels ludic/paidiaic play forms, and also helps to define the dynamics of imagination between designer and player. At one end of this spectrum is the "fixed synthetic" world, which foregrounds the designer's imagination; at the other is the "co-created world," which foregrounds the imaginations of players (figure 2.1).

This distinction is useful for two reasons. One is that the apparent ambiguity and overlap between paidiaic virtual worlds and ludic online games can create confusion and mire arguments in the question of whether something is or is not a game. Second, the relationship between MMOGs and MMOWs is in the process of shifting due in part to interworld immigration patterns that cross the game/not game threshold, such as those explored in this study. Thus placement of various worlds along this fixed synthetic/co-created worlds spectrum shifts the binary framing of the problem and allows us to understand the way underlying software architectures and designer intentions influence emergent behaviors.

Fixed synthetic worlds tend to be ludic environments more typically defined as games. These worlds, while extensible and modifiable, are defined primarily by the world's designers, who have absolute control over narratives, game mechanics, rewards and penalties, world rules, and geographical and architectural design. They tend to have strong themes and an overarching story line that comprises smaller subnarratives,




| **Figure 2.1** |
Examples of different virtual worlds positioned on the spectrum of fixed synthetic vs. co-created worlds. (Image: Pearce)

as well as a metagoal comprised of smaller, relatively fixed goals. Avatar characters are usually developed instrumentally from a kit of parts defined by the designer, along a fairly prescribed trajectory of gameplay.

At the extreme, these worlds cannot be modified by players in any sanctioned way, although some do allow for limited modifications that influence the player's individual play experience, but seldom change the world as a whole. Examples of fixed synthetic worlds include such popular games as *EverQuest*, *World of Warcraft*, and, to a lesser degree, *Uru: Ages Beyond Myst*, the primary subject of this study (figure 2.2).

At the opposite end of this spectrum is the co-created world, an open-ended paidiaic environment designed for spontaneous play and creative contribution; in other words, productive play. These usually include affordances for the customization of avatars and environments, and can also contain characteristic Web 2.0 features allowing players to engage in content creation within the parameters of the world's design. At its extreme, virtually all in-world items and activities are created by players, and one could argue that all aspects of such worlds are emergent. These worlds typically do not have a set theme or story line, although they often have a unifying metaphor and/or aesthetic direction, such as *Habbo Hotel's* use of a hotel metaphor and its bitmapped, isometric visual style, or *OnLive!*'s social metaphor of a cocktail party (DiPaola and Collins 2003).

Co-created worlds typically have affordances for creativity and allow players to build their own spaces, create their own artifacts, and vary their avatars or clothing based on aesthetic or expressive, rather than instrumental, considerations. At a more moderate level, players may be able to purchase furnishings and clothing and decorate their space or avatar. At a higher level they may be able to introduce original artifacts, alter terrain, or create animations and code. *LambdaMOO*, the text-based world

| **Figure 2.2** |
*World of Warcraft* is a fixed synthetic world. (Image: Pearce)

created by Pavel Curtis in 1991, is the primordial co-created world and *Second Life* is perhaps its ultimate graphical instantiation to date. Other examples include Lucasfilm's *Habitat* (later Fujitsu's *WorldsAway*), *Active Worlds*, and *OnLive!*, each of which offered players varying degrees of freedom for social and creative play. Worlds and technologies that follow constructionist learning theory (Papert and Harel 1991), such as Papert's LEGO Mindstorms project (Papert 1993) or Bruckman's MOOSE Crossing (Bruckman 1997), are also examples of these types of experiences (figure 2.3).

One observation we can make is quite simply that emergence happens, regardless of where the world falls along the fixed synthetic/co-created, ludic/paidiaic spectrum. However, the types of emergence that occur are directly connected to these underlying architectures. The study also shows that emergence can and does migrate *between* both types of worlds, between other forms of mediated communication, as well as into the real world. Each of these worlds can be viewed as its own play ecosystem with its own unique characteristics. As play communities migrate between these ecosystems, traversing magic circles, they adapt to accommodate the ecosystem, and the ecosystem also adapts and mutates to accommodate them. The larger sphere of virtual worlds and supporting technologies (forums, chat, voice over IP, etc.) between which players migrate can also be viewed as a kind of metaecosystem, a web of complex relationships

| **Figure 2.3** |
Virtual worlds *There.com* (left) and *Second Life* (right) are co-created worlds. (Images: Celia Pearce and Jacquelyn Ford Morie)

between these more bounded networked play spaces. I characterize this network of play ecosystems and supporting technologies as the "ludisphere."

There is often a misconception that player creativity in co-created worlds is entirely unconstrained, but the claim that a world like *Second Life* is limited only by the player's imagination is spurious. It is just as limited, if not more so, by the imaginations of its designers. While *Second Life* may place very little restriction on what players can create, the world comes heavily laden with an embedded set of libertarian, free-market, free-speech values coupled with a creation mechanism that places significant constraints on content creation. Beneath this ideological patina lies a more hegemonic governance framework in which edicts are handed down from high (Au 2008). The outcome is an implicit policy that in practice translates as: "You can do anything you want, unless we decide you can't."

*Second Life*'s authoring environment takes place primarily in-world, thus allowing for a high level of collaboration, and also for instant gratification. Yet it falls into the classic game design ideal of being easy to learn, but challenging to master. As a result, there is a high quantity of user-created content in the world, much of which is of marginal quality; on the other hand, those who have developed mastery of *Second Life*'s cumbersome authoring system are able to create remarkably beautiful and expressive artifacts. This has resulted in the emergence of a system of economic and social status based on technical proficiency.

In a more controlled co-created world, such as *There.com*, player creation of artifacts takes place primarily out-of-world and no new player-created content can be introduced without official approval from the company's management. Thus, there is less content, but artifacts are of higher quality and more congruent with the world's overall look and feel, maintaining a more consistent aesthetic that reinforces immersion and believability. Other co-created worlds, particularly those targeted to children,

such as *Habbo Hotel*, are even more constrained; thus we should not assume that players in co-created worlds have unlimited creative freedom.

Conversely, we should not regard fixed synthetic worlds as less creative or less prone to emergence than their co-created counterparts. Indeed, emergence in these worlds can be, in some respects, far more creative precisely because it is more constrained. The ways in which players appropriate and subvert the environment to their own ends can be extremely creative, and players' inventiveness in subverting game affordances can be a source of pride, respect, and social status. Part of the skill of subversion lies in a thorough understanding of the game world's deep structure—its rules and affordances, as well as its defects. Flaws in games are as much material for emergence as features, as we shall see in our case study.

Our main concern therefore will be, in what way do the design affordances of these worlds lay the groundwork for emergent behavior? The narrative of the Uru Diaspora will provide one detailed scenario of precisely these interrelationships. It will reveal the ways in which constraints and affordances, as dictated by the world's designers, serve as the raw materials for large-scale emergent behavior.