

# Uses and Subversions of SimCity 2000™

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Ever since beginning my fieldwork on children's use of computer games, I've fluctuated between mild and serious addiction to Maxis Inc's hit computer game, SimCity 2000™, a game that I began playing under the guise of research, but continue to play out of some sort of obsessive attraction to the tiny cities that I have designed and nurtured. In the words of Maxis's marketing department, SimCity 2000™ is the "ultimate city simulator," "If this game were any more realistic, it'd be illegal to turn it off!" (<http://www.maxis.com>).

SimCity 2000™ is both authoring tool and interactive game. It offers an intriguing space of possibility for the user, providing a responsive virtual environment equipped with tools for users to build and administer an entire virtual city. The primary interface window is a grid that can be rotated or zoomed in and out. Starting with a blank landscape dotted with trees, water, and hills, the player chooses different tools from a toolbar running alongside the screen, building, bulldozing, and zoning.

In addition, there are numerous informational windows that report on population, educational levels, pollution, industrial growth, and city budget, among many other factors. The basic progression of the game revolves around building roads, zoning districts, and providing city services such as power, water, schools, parks

and libraries. In addition, the player must make decisions about budgeting: taxes, city ordinances, and allocation of funds. If zoned and administered properly, "Sims" (simulated people) will populate the grid, creating their own buildings and voicing their opinions through the city newspaper.

The user is framed as the mayor of the city, and receives certain rewards for good governance and population growth, such as a mayor's house, a statue, or a spontaneous parade. The design of the system tends to promote a model of expansion and growth by providing rewards around achievement of population levels, but numerous parallel and sub-goal structures exist in the game, including ecological and economic balance, community relations, and aesthetics. Since SimCity 2000™ foregrounds user-authoring, it is less a game driven by a specific goal than a structured space of possibility for the user to explore in a pleasurable way. While the game is based on a consistent fantasy scenario of being a mayor of a virtual city, and is marketed as a realistic simulation, a number of additional features of the game complicate this singular narrative.

Early on in my game play, I discovered a menu of disasters: earthquakes, floods, plane crashes, fires, tornadoes, and most curiously, a huge mechanical space alien that beams destructive rays down onto one's hard-won city. Driven toward increasing the population and prosperity of my city, I turned all my disasters off, and didn't give them a second thought. But as I began to observe kids' use of SimCity 2000™, these seemingly peripheral features became harder and harder to ignore. In scene after scene of kid's play, I have observed them building up exquisite cities, and then exulting in the spectacle of their destruction, calling forth disaster after disaster, wrathful micro-gods wreaking vengeance on a helpless populace.

This paper is motivated in large part by my curiosity at these contradictory moments of game play, at a game that is marketed as a realistic simulation, and yet calls forth an improbable space alien, and at kids that take this in stride and romp freely through this heterogeneous space of possibility. I've found this contradictory heterogeneity challenging both to my own mono-thematic mode of game play, and to certain analytic tendencies in looking at software and commodities as stabilized and simplified black boxes. While SimCity 2000™ is certainly a stabilized technology, bug-free, shrink-wrapped, and internationally

distributed, it is also an extremely unpredictable actor at local sites of consumption. Unlike games and other kinds of stories and representations that propose coherent forms of knowledge or a single pathway through a fantasy scenario, with SimCity 2000™, no two cities are exactly alike, and globally contradictory kinds of functionality and translations co-exist as possible interactional capacities.

To borrow from actor-network terms, I would like to point to SimCity as a technology that is successfully stabilized and widely distributed because of rather than in spite of the leakiness of its black boxes and the reversibility of its translations. Toward this end, I enlist a hybrid framework and languages derived from both mass media and technoscience studies.<sup>1</sup>

How, then, can we understand SimCity 2000™ as a black box and a peculiarly successful commodity form that is mass produced and widely circulated? What is the nature of the relationship between the globally consistent product and local enactments at sites of consumption? In other words, in what senses is SimCity 2000™ both a stabilized and highly malleable technology? These exploratory questions will be approached through a specific case of some children and adults

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<sup>1</sup>I am borrowing rather unfaithfully from a number of different theoretical traditions. A very partial list of theoretical debts would include, from technoscience studies:

Latour and Woolgar 1979; Callon and Latour 1981; Bijker, Hughes et al. 1987; Latour 1987; Star 1991; Fujimura 1992; Jordan and Lynch 1992; Suchman 1994. In mass media studies I borrow from theorists such as: Benjamin 1955/1968; Althusser 1969; Radway 1991; Morley 1992; Hall 1993; Mankekar 1993; Tullock and Jenkins 1995; Ang 1996; de Certeau 1984.

playing SimCity 2000™ in an after-school club in California. After some further description of the game and my fieldsite, I'd like to sketch a scene of game play selected from a corpus of fieldwork video, concluding with some implications for theorizing the nature of new interactive media commodities.

SimCity 2000™ is a game born of the historical nexus of the early nineties, when the user base of multimedia home computers was finally large enough to support a million dollar game development effort. Significantly, 1993, the year that SimCity 2000™ was released, was also the year when the computer game industry leapfrogged the movie industry in revenue by millions (Battelle and Johnstone 1993). SimCity 2000™ also capitalized on an existing user base forged by its 1984 hit game, the original SimCity™, incorporating suggestions from hundreds of SimCity™ fans. While SimCity™ broke new ground by presenting an innovative model for a computer game based on world-building simulation, SimCity 2000™ pushes the envelope on complexity and multimedia capabilities, incorporating 3D graphics and animation, advanced music and sound effects, new public transit systems, a water system, hospitals, schools, and a complex new economic system (Dargahi and Bremer 1995: 396). Both SimCity™ and SimCity 2000™ are hit products in the competitive computer game field, continuing to earn Maxis millions in revenue (Darlin 1994). The games have spawned an entire subculture, with Usenet newsgroups, competitions, numerous publications, and even networked versions initiated by a loyal user community.

The algorithms underlying SimCity 2000™ rely on cellular automata techniques derived from Artificial Life research, creating an impression of lively growth, interactivity, and change -- a sense of the city as a living entity. The graphics and sound in SimCity were designed by teams of professional designers and musicians, resulting in a compelling series of effects that are visually and aurally pleasurable. Combined with the unpredictable responsiveness of the growth algorithms, SimCity 2000™'s effects result in an engaging virtual environment with an ongoing series of visual, auditory, and interactional surprises. Construction sites change to small buildings, which are in turn torn down to make space for a large shopping mall or a stunning skyscraper. As the population and transportation network of the city grows, ant-like cars start flowing frenetically across highways and roadways, and planes and traffic helicopters fly across the

cityscape, occasionally crashing into a tall building and maybe even starting a fire.

Will Wright and Jeff Braun, founders of Maxis, deliberately avoided the label "educational software" for SimCity™, believing that "people have a low opinion of educational software" (Wright in Barol 1989: 1989) . The SimCity 2000™ sourcebook bills the game as "entertainment/educational software" (Dargahi and Bremer 1995: 4) . The game spans the boundary between the explicitly educational children's market, and the entertainment market, competing with the dominant paradigm of combat games. The SimCity™ games are rare crossover hits, enlisting a heterogeneous use community, winning rave reviews from educators (Eisler 1991; Paul 1991; Jacobson 1992; Tanner 1993; Peirce 1994) as well as attracting a wide following among the computer gaming community as a whole.

For the past two years, I've been a participant and fieldworker at a network of afterschool clubs around the country, where kids work with undergraduate tutors in computer activities, including SimCity 2000™. In the California site that I will be looking at here, SimCity 2000™ has emerged as a particularly attractive object at the site. It was introduced during a special party with fanfare as a game reserved for the "young wizards assistants," the kids who had mastered most of the games at the site. It soon became a favorite of many of the older kids, among whom game play was meted out into fifteen or thirty minute turns observed with interest by numerous onlookers.

One child in particular, a nine year old boy whom I shall call Ian, formed a special attachment to the game, quickly becoming an expert, cajoling his parents into buying a copy at home, and refusing to play any other game at site. This behavior soon emerged as a problem at the club, as he was neglecting his duties as a young wizard's assistant to help other kids and test out new games. In other words, Ian is a SimCity™ fan, interpellated and enlisted into the meanings and networks proposed by the game. For this discussion, what is particularly interesting about Ian is both his expertise in the game and his ability to stretch the parameters of game functionality. One instance of his play, which we have captured on videotape, is particularly illustrative.

The scene opens with Ian sitting in front of the computer, interacting with a well-developed city marked by an enormous airport and a layers of waterfalls in a pyramid formation.

There is another boy sitting next to him, observing his play and making occasional suggestions, as well as an audience of other club participants including the videotaper, undergraduates, and other kids and adults walking in and out of the scene. He busily makes a railroad system, water pipes, buildings and a power plant, and worries about such things as whether his people are getting enough water, or whether power plants need to be replaced. After about 20 minutes, he is interrupted by the director of the club and asked to teach a new undergraduate how to play the game. "I'm not kidding either," the director stresses, "her grade depends on what you teach her, so she'd better do a good job, okay?" After a few moments, another boy suggests, "Show her a disaster. Do an airplane crash." Ian responds with enthusiasm, saves his city, and announces, "Ha ha ha disaster time!!"

Disaster time involves an escalating series of special effects in which the city is first invaded by a space alien, then flooded, set on fire and subjected to an earthquake and plane crashes. After the city is in flames, Ian begins to build large buildings within burning areas, to induce more and more spectacular explosions. He turns from blowing up the most expensive of the possible buildings to blowing up colleges, fusion plants, gas power plants, and microwave power plants. His final achievement is to blow up a row of fusion plants lined up in domino formation. Despite interventions by multiple adults, trying to get him to teach the undergraduate how to build a city, Ian persists for over 20 minutes in disaster mode.

What I find interesting about this techno-virtuosity is not only Ian's ability to subvert many of the dominant encodings of the game and move fluidly between different modes of play, but also how he is able to do this while remaining fully engaged with the fantasy of the game. His talk while playing is punctuated by pronouncements that suture him into different modes of imagining. While he is in construction mode, he balks at the idea of making a plane crash when another kid suggests it. "Now why would I want to do \*that\* to my trusty people?" he asks, sounding like the mayor of Gotham City. While in destruction mode, he cackles in

delight like an evil warlord, "Wooooo! I don't like the looks of that!" as he prepares to blow up a microwave power plant. His multiplicity of subject positions is not born out of detachment, but rather out of deeply contradictory investments in the game.

What does it mean, here, to consider Ian's game play in relation to the stabilized technology of SimCity, and its network of enlisted buyers and users? Within the context of the afterschool program, blowing up buildings is a subversive activity, going against the educational goals of the club, as well as the educational goals of SimCity as it has been widely marketed. Yet, clearly the opportunities for destruction have been anticipated by the designers and marketers of SimCity, and coded into the functionality of the game, harkening to well-established idioms of action gaming. Behind the backs of the educators of the afterschool program, the game designers have mobilized a powerful counter-narrative, a kind of secret handshake that enlists computer savvy kids at site.

The plot thickens.

After Ian is finally displaced from his city at an adult's insistence, he starts a new city for the undergrad, and they work on it, together with another kid, for the remaining 40 minutes on tape. During this period, Ian returns to construction mode, building buildings, power plants, the mayor's house, a railroad, and a subway system. Significantly, however, he begins this new city by typing in a secret code that gives the player unlimited funds and opens access to all of the special rewards such as space-age buildings, the mayor's house, and all of the high tech power plants. By typing in the secret code, he can circumvent the game parameters that demand attention to fiscal responsibility and gradual urban growth. The game is transformed from an urban planning exercise to a palette for the free construction of any desired elements.

This backdoor code, otherwise known as an "easter egg," is a well-known feature to true fans of SimCity 2000™. A quick search through the world wide web pulls up dozens of pages of hints, tips, and "cheats." An easter egg, in contrast to other forms of cheats, is defined on one SimCity web page as "a pre-programmed, hidden and undocumented feature inserted by the programmer for their own enjoyment." In the world of computer game fandom, undocumented is clearly

relative, and this particular easter egg is featured on even the official Maxis web page, albeit with a disclaimer:

We do not advocate the use of cheat codes, as playing legitimately will lead to a far more stable and enjoyable city building experience. We are providing these cheat codes solely as a service to you. We will not discuss these codes further on the phone. We do not guarantee that they will work for you. We will not discuss problems with any city in which you have used a code-- once you use a code, all bets are off, and you're on your own! (<http://www.maxis.com>)

This final twist to our scene of SimCity 2000™ use, juxtaposed with Maxis's creatively double-talking web page, is particularly suggestive of some of the ways in which new interactive media are reshaping the nature of the commodity form. Where studies of technology use and mass media reception have increasingly recognized local and heterogeneous contexts of consumption (i.e. Suchman 1987; Mercer 1991; Penley 1991; Radway 1991; Jenkins 1992; Bambara 1993; Hall 1993; Mankekar 1993; Tullock and Jenkins 1995), firms like Maxis are demonstrating the capacity to capitalize on the flexibility of computer technology in catering to these heterogeneous users and use situations. While the dominant marketing pitch is one of a constructive and educational simulation, the designers have successfully smuggled in a myriad of alternative readings, including special effects of destruction and easter eggs that allow free form play. Coupled with a large fan community that actively communicates over computer networks, SimCity 2000™ mobilizes a lively and diverse citational network, a resilient but heterogeneous set of linkages tied together through strategic contradiction, ambiguity, double-talk, and destabilization. In fact, just this summer, Maxis has released a networked version of SimCity 2000™ that enables users to play with each other over the Internet, no doubt further complicating and extending the possible uses and subversions of the software package.

Additionally, players can buy the SimCity 2000™ Urban Renewal Kit, or SKURK for short, which is a plug-in feature that allows players to go behind the scenes of SimCity 2000™, designing their own buildings, scenarios, and circumventing other game limitations. These SKURK creations are published and distributed on hundreds of web pages on the Internet, including Maxis's own.

SimCity 2000™ and Ian both point to the potent effects of boundary crossings between production and use and between different modes of play and meaning-making. Whether we consider Ian's game play as a negotiated reading of a cultural text, the opening or destabilization of a black box, or an example of situated technology use, it seems clear that the design of the game affords and partially encourages these reshaping in ways unique to the particular computational medium. While the age of mechanical reproduction might have been characterized by relentlessly stabilized images emanating from centers of production, digital reproduction can enable user level tinkering and remodeling, not only at the layer of interpretation and reading/viewing strategies, but also at the layer of code. As video aficionados might edit, pause, or fast-forward through tape, and skillful readers can selectively skim and reconfigure text, computer gamers are growing increasingly savvy about engaging with and reshaping technical layers, moving seamlessly from the level of code to the level of fantasy content. Maxis has capitalized on strategic mutabilities and partial connections between consumption and production by incorporating diverse user groups, multiple and contradictory functions and meanings, and different layers of user engagement. The relation between SimCity 2000™ fans, secret codes, web sites, designers, and plug-ins point to some of the mediating networks that complicate the distinction between production and use, in ways unique to late capitalist computational media.

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