
*Pilgrim* begins as Sudnow discovers the game *Missile Command* at a colleague's party. Intrigued, he purchases an Atari 2600 system and the game *Breakout*, at the recommendation of the salesperson, and unpacks the game at his home. Sudnow, a sociologist and accomplished pianist, attempts to deconstruct the game, analyze its parts, and become proficient at playing. Throughout the book, Sudnow describes *Breakout* as a simultaneous electric acid trip, mathematical dream world, and interactive puzzle meant to be mastered like a musical instrument.

For the uninitiated, *Breakout* is an early arcade game, first published by Atari in 1976. The game was conceptualized by Atari's founder, Nolan Bushnell, as a single player variant of the Atari classic, *Pong*. *Breakout* consists of several brick layers lined across the top third of the game's screen. At the bottom, the player moves a paddle back and forth to reflect a bouncing ball. If the ball touches a brick at the top of the screen, the brick is removed from play. If the player fails to reflect a ball at the bottom of the screen, the ball is removed from play. The purpose of the game is to remove all bricks from the top of the game screen before the player's supply of balls is depleted.

Sudnow becomes obsessed with mastering *Breakout* by learning to play 'the perfect game'. Sudnow decides that *Breakout* is a teaching machine, and its players align themselves with 'good play' as they become more
experienced. He settles on the idea that there is a perfect strategy, a set of exact steps that constitute an optimal game of *Breakout*, and that it is the player's job to identify and execute those steps, just as a piano student might learn and master a piece of music. However, Sudnow never achieves his goal and eventually becomes frustrated with the system, deciding that his method of play was never intended by the designers at Atari.

Sudnow's story is interesting, because he places an additional constraint on top of what already constitutes an optimal game of *Breakout*. As far as the underlying *Breakout* system is concerned, an optimal game is one where the player removes all bricks from the screen without losing a single game ball. Sudnow, however, further constrains himself to executing the exact sequence of 'correct moves' that constitute the optimal strategy for clearing the screen. For example, if Sudnow clears the incorrect brick on his third shot, he considers this similar to an incorrect musical note, and restarts the game. From the system's perspective, Sudnow is playing a perfect game because he has not lost a ball. From Sudnow's perspective, he has lost the game because he deviated from his defined sequence of 'optimal moves'.

By limiting his play to 'optimal moves', Sudnow plays a metagame. Wikipedia defines a metagame as “any strategy, action or method used in a game which transcends a prescribed ruleset, uses external factors to affect the game, or goes beyond the supposed limits or environment set by the game.” Examples of metagaming can be found in games from chess and poker, where knowing habits of other players can affect strategy, to role-playing games, where knowledge of governing statistical systems can affect behavior, to Magic: The Gathering and Super Smash Bros., where the choice of cards in a deck or choice of playable characters before the game begins can affect play and outcome. In fact, competitive examples of metagames similar to Sudnow's have become popular along with the Internet.
A few years ago, I decided to teach myself to beat *Contra*, a game for the Nintendo Entertainment System. *Contra* is a side-scrolling platformer/shooter hybrid, notorious for its difficulty. After a few weeks of training, I was able to finish the game without losing a single life. Impressed by my own performance, I searched the Internet for others who could finish the game. What I found was humbling: not only were there others who could finish *Contra* without making a mistake, there was an entire Internet community devoted to finishing *Contra* in the shortest amount of time possible. In order to complete the game quickly, the community had developed time-saving techniques that allowed players to progress quickly through the game, but also required greater skill and luck to perform than normal gameplay.

This Internet-fed metagame, called speedrunning, inspires new and innovative gameplay strategies and is a variation of Sudnow's central theme, learning the 'optimal game' of *Breakout* like a piece on a musical instrument. In fact, even people who compete for high scores in classical arcade games such as Billy Mitchell, the first person to play a perfect game of *Pac-Man*, or Steve Wiebe, whose contest with Billy Mitchell over the high score in *Donkey Kong* was chronicled in the 2007 documentary *The King of Kong*, seem to be implicit proponents of Sudnow's philosophy: viewing video games as a performance to be mastered instead of a game to be played.

Modern games are much more complex than *Breakout*, so it may be hard to find Sudnow's 'optimal path' through the latest *Zelda* title... but someone on the Internet is probably trying to beat the game as quickly as possible without using a sword or collecting heart containers (or some other zany metagame that inspires innovative play). Whatever the case, I think Sudnow is right: video games are teachers, and the high scorers, the free thinkers, and the experimenters are her best students.