showcases the manifestation of playfulness under different guises within scientific, business, and education workplace settings. This leads to the final and most ambitious section, "Being in the World," which focuses on transformational potential by arguing that basing the world on collectively imagined constructs and systems provides us all with the power to reimagine such systems if we so wish. The section provides examples of how ecological and moral issues may be addressed through collective reimagining. As a result, a transferable playful framework for collective reimagining can be formed by the reader with a little imagination. The book closes with "a lack of conclusion," a poignant reflection on a life dedicated to play.

The Infinite Playground is fundamentally about playing in the world together and how playfulness can shed light on our social selves and communities, the systems we collectively coproduce to govern and shape our society, and how these can be reimagined through play. The core ideas complement James P. Carse's *Finite and Infinite Games* (2013) and Miguel Sicart's *Play Matters* (2014) and make a valuable contribution by promoting ambition in the use of play and imagination within a range of contexts while providing guidelines for enlivening this ambition. The text will interest students, academics, and practitioners in play, games studies and game design, performing arts, business, and social sciences, and it is an ideal introduction to the work of De Koven and other leading practitioners in play and game design.

The book is part game studies text, part game design manual, part "something to play," and part love letter to the work of its author. It reaches out its hand, whispers Prui, and invites you to join the play community.

—Lynn Love, *Abertay University, Dundee, United Kingdom*

Making Games: The Politics and Poetics of Game Creation Tools
Stefan Werning
Cambridge, MA: The MIT Press, 2021. Introduction, notes, references, and index. 158 pp. $25 hardcover. ISBN: 9780262044837

The assumption behind The MIT Press Playful Thinking series is "video games are such a flourishing medium that any new perspective on them is likely to show us something unseen or forgotten" (p. vii). As a part of the series, *Making Games: The Politics and Poetics of Game Creation Tools* by Stefan Werning provides such a new perspective.

The goal of the book is to "make sense of the increasing abundance of game-making tools and to conceptualize their influence on both the politics and aesthetics of digital games" (p. 6). Werning goes on to explain that game creation is a dialogue among the game designer, the development tools she uses, and the broader social context in which she designs. This "sociotechnical system" (p. 5) view of game creation provides much of the fodder for the new perspective found in the book. From this view, tool use is not just a creative practice but also "a cultural and communicative practice" (p. ix).

The first chapter, "Making Sense of Tools," highlights a major theme: making

games and playing games are two sides of the same coin, similar to the way that reading and writing are two sides of literacy. The chapter articulates the start of an extended definition of tools by listing the common characteristics: Tools are important in every aspect of game creation, not just production; Tools are objects that can be shared and manipulated; Tools exist in the boundaries between stakeholders and provide the structure for the relationships between them; And tools frame the purpose for which they are intended by providing particular affordances for the tool user (which follows along with the old adage "If the only tool you have is a hammer, you treat everything as a nail").

The chapter continues with a discussion of the importance of bricolage, or "using only the tools at hand," as a mechanism for creating games. The chapter next presents a variety of ways to understand and categorize tools, with sections on tool ontologies, tools as platforms, and tool communities. The chapter ends with a discussion of operational aesthetics of games through which players focus on how a game is implemented rather than what happens in the game. This focus leads players to understand the tools that were used to create the game. Werning argues that operational aesthetics bridge the gap between game creators and game players, thus once again showing that making and playing are two sides of the same coin.

The second chapter contains a series of short "tool essays" in which Werning "expounds on how tools, much like games themselves, should be interpreted as designed objects with a 'procedural rhetoric'" (p. 42). Procedural rhetoric views using game creation tools not unlike the

way we use the Socratic method, in which the tool presents a decision that the user must make (asking a kind of question), the user inputs a response, and the tool replies with a response to that input. Each tool essay examines a different way of thinking about the procedural rhetoric of game creation tools. The topics of these essays include control in planning tools, the ways that tools bridge the gap between amateur and professional game creators, tool fandoms, playful appropriation of tools for purposes other than those intended, how tools shape ontologies of game worlds, the role of defaults and templates in character customization tools, game creation workflows as feedback loops, developing tools that work more like humans do, and acknowledging the evolution of tool features as part of our understanding of the tool.

The final chapter calls for to developing tools that focus on "distinctly human aspects of tools-as-objects" (p. 85). Werning asks that we think about game creation from five different human perspectives and consider what our tools will look like if we prioritize each perspective. First, he suggests that we think of game creation as a playful process, as game-like in itself. Werning points to self-imposed constraints (bricolage, for example) and mimicry as playful characteristics that are often part of the game creation process. Second, he suggests that we think of game creation as a performative process and points to game devlogs and other methods for recording the development process (screencasts, for example) as tools that game creators use to perform their game creator identities. Third, Werning suggests that we think of game creation as a narra-

tive process. Using the notion of the *auteur* in filmmaking, he points to the role that the mythologies built up around certain game creators have played in the cultural imaginary surrounding game creation. Fourth, he suggests that we think of game creation as an analytical process in which the game creator conceives of and tests hypotheses about how a tool's affordances will implement game ideas. Werning calls for tools that incentivize experimentation with the affordances of the tool to inspire the imagination. Finally, Werning suggests that we think of game creation as a communicative process in which game creators are in dialogue with their development tools and through which game creators can communicate novel ideas to game players. The last section of the chapter identifies game distribution methods as an area for future cultural studies research.

If you are looking for a book with practical instruction, tips, and advice about game creation, this probably is not the book for you (although there are many useful game creation tools described, which had me constantly looking things up). On the other hand, as a cultural studies text, *Making Games* is thought provoking, and the focus on tool use will get you thinking about game creation in new ways.

—Cathie LeBlanc, *Plymouth State University, Plymouth, NH*

How Pac-Man Eats, *Software Studies*

Noah Wardrip-Fruin
Cambridge, MA: The MIT Press, 2020. Series foreword, preface, acknowledgments, introduction, notes, bibliography and index. 384 pp. $35, paper. ISBN 9780262044653

Exploring the connections between the development and design of video games and their cultural capital within a world that often considers them merely as entertainment is a growing area of game studies research. This is the focus of Noah Wardrip-Fruin's *How Pac-Man Eats*. The overall argument in *How Pac-Man Eats* is to name and explore the foundational elements of video games as meaning-producing structures on which other aspects of video games are built. Wardrip-Fruin argues that to have a richer understanding of how video games produce meaning for players, we must focus on how video games are designed at a basic level, which he defines as operational logics. These operational logics enable the act of play to commence by providing the ground on which playable models, aesthetics, and potential narratives are built. Operational logics are the elements of a game space in which both the system of the game and the communication function of the game work together. It is the relationship and negotiation between the two that form the foundations of the play experience.

The book is laid out into two parts, each part focusing on differing but complementary aspects. Part 1 focuses on defining operational logics and associated playable models. Wardrip-Fruin explores these logics and models via a number of examples ranging from larger AAA games to small indie and art game examples. Part 2 focuses on using operational logics as the framework thinking about play and making meaning from a game experi-