influence as a key source of Miyamoto's design philosophies. She outlines each of these points in the introduction and develops them further in subsequent chapters focusing on Miyamoto's world building, narrative structure, open playground-like design philosophy, and interest in casual and welcoming design. The book concludes with a transcript of his 1999 Game Developers Conference keynote speech, a chapter exploring the designer's legacy, and a gameography that spells out his role on each project.

The book explores themes and styles of play through Miyamoto's catalog rather than looking at them chronologically. Still, deWinter notes and outlines some meaningful changes in his style of design. Miyamoto begins with a story-focused game, Donkey Kong, followed by opening up the play space with games such as Zelda to encourage exploration. Later, his design goals focus on the kinds of experiences that made Mario Kart (which doesn't attempt to simulate actual cart racing) and Wii Music (which created a improvisational experience unlike the more gamelike Guitar Hero) popular and innovative games. The final essay discusses the Nintendo Wii and the intention to create more welcoming and inclusive styles of play, which offer a small structure to encourage willing playfulness from any age or gender demographic. All of these concepts bring the reader back to Miyamoto's childhood love of exploring caves and his recent love of gardening.

The challenge of the book's narrative is that it doesn't serve strictly as a biography of Miyamoto. The essays and analysis illuminate the work almost more than the man. DeWinter expertly uses past interviews and speeches to analyze Miyamoto's games, but the study lacks any original interview or discussion with the game designer. This is likely because Miyamoto seldom gives interviews, but having an additional discussion with the designer would have made the book even stronger. The text also could have provided more historical context or meaning, and it doesn't touch on Miyamoto's contribution to the larger game industry. The book assumes readers have knowledge of the more linear eras of video game history.

Ultimately, the book is effective in discussing the context and styles of Miyamoto's influential work as a game designer. It serves as a great beginning text to explore a designer's games through a biographical lens. And at 184 pages, the relatively brief study should be accessible to scholars and nonscholars alike who are curious about game development.

— Alexander Bevier, *Independent Scholar*, *New York*, *NY* 

## **Tempest: Geometries of Play**

*Judd Ethan Ruggill and Ken McAllister* Ann Arbor, MI: University of Michigan Press, 2015. List of figures, introduction, appendixes, notes, works cited, and index. 168 pp. \$29.95. ISBN: 9780472052691

Judd Ruggill and Ken A. McAllister's *Tempest: Geometries of Play* presents a booklength study of the titular Atari arcade game *Tempest*, a 1981 3-D vector graphic shooter. Ruggill and McAllister provide both a close reading of *Tempest* and a wide sweep of its cultural context. *Geometries of* 

*Play* is an essential book for anyone interested in *Tempest* and a useful contribution to the underdeveloped history of video games prior to the Nintendo Entertainment System era. If the book has a failing, it sometimes overreaches on its claims to the game's influence, but this overreach is always tempered by the authors' emphasis on historic milieu over direct inspiration and an extension of the discussion into fruitful directions.

As the authors explain early on, the book is telescopic in nature, expanding outwards in four parts: an in-depth examination of the game; its genre influences and influence; its cultural contexts in the late 1970s and early 1980s; and its future in the form of remakes, sequels, and other adaptations. The study of the game details its creation by Dave Theurer and introduces its basic play for unfamiliar readers. Ruggill and McAllister place particular emphasis on its minimalist vector perspective, a "skill-step system" or level select that encouraged players to push their skills to their limits, and an Operator-Information Display that they argue is a predecessor for modern metadata collection. These traits are then extended in the second section to discuss the game's hybrid nature of abstract and shooter and its subsequent influence on genre, that the game points to future video game features such as multiple perspectives, narratives of progression, and the illusion of open world gaming.

In the third section, the authors position *Tempest* in context with contemporary developments, in terms of not just Theurer's game designs and the arcade industry, but the popular culture and national and global history of the period. If any section overreaches, it may be this one, but Ruggill and McAllister state that they are not claiming direct ties but historical resonance, to make the point that *Tempest* emerged out of a period of Cold War anxieties, a pervading interest in space travel, and new computer technology.

The fourth section explores the game's more direct connections through its various spin-offs and descendents, though the discussion of its fan culture is disappointingly brief given the significance the authors place on it. A proportionately lengthy introduction and conclusion summarize the main body, while also providing context for the book in terms of game studies and the practice of game preservation.

Though only the latter is addressed directly in the book, there are two immediate academic contexts that come to mind for Geometries of Play: the authors' previous collaboration, Gaming Matters: Art Science, Magic, and the Computer Game Medium and the current title's place as the fourth book in the Landmark Video Games series. In Gaming Matters, Ruggill and McAllister argue that the computer game medium is fundamentally paradoxical and impossible to define, constantly shifting between past and future. It is relatively easy to view Geometries of Play as a more specific instantiation of these conclusions, because a chief appeal of Tempest is its minimal design that pushes to an abstract futurism while rooting it in its original period.

Geometries of Play's relation to the Landmark Video Games series is more complex. I would be hard pressed to afford *Tempest* the same level of recognition enjoyed by the other games featured in the series: *Myst, DOOM*, and *Silent Hill.* Yet Ruggill and McAllister work equally hard, if not harder, to establish *Tempest's* place not just in the history of video games, but in history full stop, as a landmark in the cultural moments of the 1980s and beyond.

Granted, a few of their arguments gave me pause, but even the ones I ultimately rejected pointed me in a new direction. It may be a stretch to say that the radial spin controller echoes the future open worlds of the Grand Theft Auto franchise, but the argument raised for me the connection between haptics (or the science of applying touch and control to computer interaction) to a feeling of player freedom. It also may be a stretch to say that Tempest's Skill-Step feature echoes the sociocultural patterns of the period when game design made progress with multiplied and amplified conflict, but when I considered the proposition seriously, I began thinking about how fundamental aspects of game design correspond to wider cultural events.

And because all of my disagreements

with the text lead to such fruitful contemplation, I find it hard to hold these disagreements against it.

The book's greatest accomplishment may be that it serves as a proof for Ruggill and McAllister's concept of game archivism. As they state in the book's conclusion and introduction, they promote a game preservation that encourages the memories produced by that use. In that sense, the book itself is not just game history but game preservation of a sort that will become more common as we move away from the materiality of older video games.

The book's somewhat obscure and dated subject matter may lead some to dismiss this work. But as someone born too late to experience *Tempest* in its original context, this book has afforded me access to a game I never would have known otherwise. In that way, the *Geometries of Play* succeeds in the authors' goal of preservation and propagation.

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