How Theme Park Rides Adapted the Shooting Gallery

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EXTENDED ABSTRACT

In 1998, Walt Disney Imagineering unveiled a new ride for Tomorrowland in the Magic Kingdom park in Orlando, Florida—one that introduced a new form of interactivity previously unseen in their parks. Buzz Lightyear Space Ranger Spin was a hybrid attraction: part dark ride, part shooting gallery. Riders boarded Omnimover vehicles armed with two blaster guns mounted to the dashboard that could be aimed with a limited range of motion to defeat the Emperor Zurg. An LCD screen tallied the score as passengers spun their vehicles to position themselves to shoot at "Z" marked targets throughout the blacklight neon ride. With the creation of this attraction and, most recently the opening of the *Star Wars* Millennium Falcon: Smuggler's Run, the dark ride has seemingly adopted the values of videogame interactivity. Yet, while a comparison to videogames seems obvious, this transition did not happen overnight and was, in fact, part of a long tradition of target shooting forms of play.

The shooting gallery has always been a perennial entertainment form seen in fairs, carnivals, and amusement parks across the globe (Adams 1991). Emerging out of military and marksmanship traditions, these games emulate the practice of real target shooting in which a marksman stands at one end of a booth or range while shooting pellets at stationary or moving targets (Tucker and Tucker 2014). Played for prizes or bragging right, the simple act of aiming and pulling a trigger has undergone technological adaptations to automate the process, place it into new venues, and create new feedback loops that construct new player experiences intended for social interaction. Numerous histories have been written that trace the mechanical shooting gallery's influence on early videogames and how those translated into light-gun games and videogame shooting genres that persist today (Wolf 2012, Therrien 2015, DeLeon 2014, Huhtamo 2011). However, little has been written that connects this through-line back into public amusement venues. Michael Cowan's history of the early 20th century cinematic shooting gallery (2018) helps fill in a missing piece of the early development by detailing venues in which participants fired at moving film projections—a practice that would be revisited decades later.

Mark J.P. Wolf (2012) followed the history of shooting in electromechanical amusement games from the turn of the 20th century into the 1970s. These games, like many of their other electromechanical brethren, adapted existing recreation and competition in a physical unit much like a pinball machine that housed the shooting mechanism and automatically supplied the pellets. Wolf also followed another thread in the shooting gallery story of a technology that evolved alongside these games with physical ammo: light-gun games. Beginning with William Gent's *Electric Rifle* game

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in 1920, these games more closely resembled their carnival counterpart. Light gun (and similar peripheral style games) have remained popular since the 1970s. Today, elaborate cabinets such as Namco's *Deadstorm Pirates* (2009) ship and Raw Thrill's 8-foot tall cooperative *Space Invaders Frenzy* (2017) populate arcades from boardwalks to the chain of Dave & Busters' amusement restaurants.

New innovations in arcade technology, coupled with a small number of "virtual theme park" style amusement centers, brought the shooting game into motion. In 1994, Sega debuted *Ghost Hunters* at Joypolis Yokohama—a Sega-owned amusement center (Sega Retro 2016). Players boarded a two-seater dark ride vehicle with a large cockpit and two mounted guns in front of a glass cockpit on which ghost-like creatures were projected. *Rail Chase: The Ride* combined a moving coaster-like ride with practical sets and multimedia screens with limited interactivity (Ibbertson 2018). Though the riders were not interacting with the physical environment of the ride, it would not be long before the digital technology of the videogame encountered the traditions of the fairground style shooting gallery.

Yet, with the exception of large amusement centers, most video and pinball arcades were not equipped with the physical space needed for a stall-based shooting game and could instead be found in the same places they began: midway/carnival games at fairs, boardwalks, and amusement parks. Disneyland is an example of the shooting gallery's persistence. When the park opened in 1955, Walt Disney declared a moratorium on the midway-style of game common to amusement parks, yet permitted the Main Street Shooting Gallery in the entrance corridor (Strodder 2017). The popularity of this attraction led to new shooting galleries in Frontierland and Adventureland. Over the decades, however, the cost of upkeep and refurbishment outpaced the popularity of these shooting galleries and today only the Frontierland Shootin' Arcade (which was converted to light gun technology) remains. The light gun technology that supported both modern shooting galleries and arcade games was destined to find a new use in the ever-developing dark ride.

It is unclear as to how (or even if) the virtual park style shooting rides had a direct influence on the Disney Imagineers working on Buzz Lightyear's Space Ranger Spin, though the work done by Pausch et. al (1996) shows Disney's interest in VR-based similar to those at Joypolis. Yet even early than this, as evidenced by concept art, designers at Disney had considered the possibility of a shooting ride. During the 1970s, when presented with the opportunity to replace the second story of the Carousel of Progress building with a new attraction, Imagineers conjured what is referred to as "The UFO Show" in which the audience could fire airguns at aliens (Hill 2000). The closest progenitor to Space Ranger Spin was the never-built Dick Tracy's Crime-stoppers, conceived and promoted alongside the 1990 *Dick Tracy* film but ultimately shelved due to poor box office returns. The idea, however, persisted.

The hybrid form of the shooting gallery dark ride parallels the sensibilities of videogame interactivity and can be seen at major parks across the globe. Other versions of Space Ranger Spin opened in their California and Tokyo parks and the genre quickly made its way to neighboring Universal Studios in the form of Men in Black: Alien Attack. Ride companies such as Sally Corporation began developing (or, in some cases retrofitting) dark rides around the globe for parks like Six Flags, the Cedar Fair parks, Alton Towers, and LEGOLAND. The genre is even evolving into other amusement experiences such as TrioTech's Team Battle interactive theater that will allow large groups of people to play an Ubisoft *Rabbids*-themed game together. This media archaeology approach to the history of shooting play demonstrates the importance at looking at the convergence of midway games, arcade games, and the theme park to explicate the popularity of interactive shooting dark rides.

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