



# Depth of Field

By **Gavin Craig**



Even in the best of cases, genre is a slippery thing: easy to recognize, difficult to define. Science fiction, for example, takes place in the future, right? Except for *Star Wars*, at least. That takes place “A long time ago, in a galaxy far, far away.”

Shakespeare’s *The Merchant of Venice* is a comedy, right? There are disguises and mistaken identities, and at the end Portia and Bassanio are together, all obstacles overcome. But then what to make of the way the figure of Shylock overwhelms everything else in the play, to the point where many viewers assume that he (and not Antonio) is the Venetian merchant referred to in the title? Is *The Merchant of Venice* not in fact a tragedy in which a flawed but deeply human individual reaches beyond his grasp and ends up losing everything?

We tend to use genre as shorthand to describe what sort of story a given piece of media is likely to tell – is a film an action movie or a romantic comedy? Is a book a romance novel or a murder mystery? But genre (especially, but not only, in videogames) is also a description of the architecture used to shape the form and experience of media independent of its content.

Tens of millions of first-person shooters have been sold in which players storm beaches or charge through hallways, destroying hordes of enemies using a weapon poking out of the lower right-hand corner of the screen. In the past few years, however, a number of developers have used FPS designs to create narrative and open-world games in which the mechanic of shooting as the primary mode of interaction is reimaged or eliminated entirely.

Take Giant Sparrow’s *The Unfinished Swan*, originally released in late 2012, which frames itself as a coming-of-age fairy tale. Monroe, a young man recently orphaned and in possession of a silver paintbrush, discovers that he is a child from a magical world imperfectly drawn into being by an impulsive, impetuous king.

When Monroe first enters the fairy tale world, it is an inscrutable, undifferentiated mass of unvarying white. In order to find his way, in fact, in order to be able to tell whether he is moving at all, Monroe must splatter his surroundings with black paint. The shape of these inkblots, their contours, gaps, and edges, reveal the shape of the world.

As an architectural plan for creating digital environments, the primary purpose of the FPS model is to simulate and create a means for navigating a

three-dimensional space on a two-dimensional screen. For those of us who have been playing 3D games for decades, this can seem to be something of a *fait accompli* – running through an FPS environment feels nearly as natural as walking through the real world. In fact, first-person games use a shared and established set of visual conventions to replace visual information that we use to read actual three-dimensional environments.

The foremost of these visual cues, binocular vision, is simply unavailable on most screens, despite many corporate attempts to convince large consumer bases to put on 3D glasses to watch or play something. (The jury is probably still out on VR.) Instead, we typically have to make do with monocular visual information, which doesn't necessarily seem to be an insurmountable obstacle to recognizing a 3D environment. After all, viewers have been making sense of two-dimensional films for a century, still photography for a century and a half, and representational artwork for at least a few thousand years.

Maybe a greater challenge can be found in the way that most digital environments flatten spaces by representing all elements in perfect focus regardless of the intended depth of field. In most FPSes, no matter how long the hallway, faraway objects are just as sharply focused as elements immediately at hand (though they may be smaller).

The challenge is not so much recognizing that an environment is intended to exist in three dimensions, but in creating the ability to navigate a simulated three-dimensional space. When we enter a videogame world, it is in fact as flat as the blank space in front of Monroe, and all it can do is throw color at us.

While *The Unfinished Swan* puts a paintbrush in Monroe's hand in order to play with a reversal of his paint splattering, it also points with a bit more subtlety toward the most important tool FPSes use to create 3D visual information. As Monroe spreads splotches of black across his blank white surroundings, discontinuities provide an initial sense of the edges and corners of the world but adding color is an incomplete solution. In fact, if Monroe paints indiscriminately, his surroundings can become as unreadable in unvarying black as they were in white.

By moving around, the player can discover whether a break in a paint splatter is a corner or a hallway. If Monroe looks back, the player can see the messy, ad hoc corridor they've created. In the story of *The Unfinished Swan*, the king's

subjects aren't satisfied with a world of absolute white. They bump into objects they can't see and lose track of their houses.

The king, unhappily, solves the problem by eventually painting shadows, using light sources as a point of reference between the navigator and the object. Monroe and the player do the same thing, casting shadows in paint and peeking behind the object to see its image in negative, white outlined in black.

Thus if moving through a simulated 3D virtual world is the problem, FPS architecture is successful not just because players like shooting things, but because it uses a single directed viewpoint and movement to replace visual cues not available on a 2D screen. While two-dimensional art frequently uses two-point and three-point perspectives to create a sense of depth, FPSes normally operates as a forced one-point perspective, but with a mobile point of focus.

The distance between the player and the screen creates a sort of an invisible hallway, a tunnel with a virtual world on the other end. By allowing players to look around, and thus to direct this tunnel independently of actually moving, FPSes create a visual grammar for reading the world as well as a system to traverse it.

Like *The Unfinished Swan*, a number of games have been created in recent years that utilize FPS systems to make games that might appeal to audiences beyond experienced shooter fans. (2012's *Dear Esther* and 2013's *Gone Home* both create worlds intended primarily to convey narrative with minimal interaction in their environments, for example.) In the same vein, 2011's *Portal 2* uses a "gun" as a means to manipulate the spatial environment rather than to interact with "enemy" non-player characters.

*Minecraft*, recently acquired by Microsoft for \$2.5 billion, offers players a world that can be built and rebuilt, with axes and shovels in the corner of the screen in place of a firearm. Each of these games lets players view the world directly through the eyes of their avatar, and places a reticle in the middle of the screen both as a focus and point of contact with the environment. Each of these games has been critically praised, and suggested as rewarding jumping-in points for people who don't often play videogames.

And yet, only *Minecraft* might really have fulfilled the role of introducing large numbers of new players to videogames. FPS architecture provides a powerful tool for creating a wide variety of experiences in virtual 3D worlds,

but the learning curve of its particular visual grammar and the movement tools necessary to make sense of it still act as a barrier to novice players.

This is true even when other gameplay elements – puzzles, character death, and other fail-states – are removed. It isn't that the FPS learning curve is impossible, but it isn't any more natural than any other form of reading, a skill that has to be learned. Digital guns and representations of violence aren't the only things standing between FPS games and new players.

Reaching new players, especially for those of us invested in sharing the stories and experiences that we've loved, will involve finding new ways of teaching and sharing play as well as creating games that stretch the boundaries of dominant genres. Writing about *Gone Home*, novelist Robin Sloan suggests directed play parties might work for certain games, not unlike a movie night or getting together to watch sports.

The idea would require as large a screen as possible, as well as a “3D pilot,” someone familiar with FPS controls. The 3D pilot acts as a sort of reticle for the group, a point of contact with the game. But as much as possible, it would be the group itself that “plays” the game, shouting directions, essentially using the player as the controller.

Genre is, after all, a tool for telling us how to read. It is richest when it slips. But in order for genre to be slippery, in order for it to expand into the new and unexpected, we have to be willing to slip a bit ourselves out of our standard ways of reading – our entrenched modes of playing. We must make the movement necessary to make sense of the world. 🇺

