## Game Design Considerations

In previous sections you’ve explored how developing one simple game mechanic from the ground-up can lead in many directions and be applied to a variety of game types. Creative teams in game design studios frequently debate which elements of game design take the lead in the creative process:writers often believe story comes first, while many designers believe that story and everything else must be secondary to gameplay. There’s no right or wrong answer, of course;the creative process is a chaotic system and every team and studio is unique. Some creative directors want to tell a particular story and will search for mechanics and genres that are best suited to supporting specific narratives, while others are gameplay purists and completely devoted to a culture of “gameplay first, next, and last”. The decision often comes down to understanding your audience; if you’re creating competitive multiplayer first person shooter experience, for example, consumers will have specific expectations for many of the core elements of play and it’s usually a smart move to ensure that gameplay drives the design. If you’re creating anadventure game designed to tell a story and provide players with new experiences and unexpected twists, however, story and setting might lead the way.

Many game designers (including seasoned veterans as well as those new to the discipline) begin new projects by designing experiences that are relatively minor variations on existing well-understood mechanics; while there are sound reasons for this approach (as in the case of AAA studios developing content for particularly demanding audiences or a desire to work with mechanics that have proven to be successful across many titles) it tends to significantly limit exploration into new territory and is one reason why many gamers complain about creative stagnation and a lack of gameplay diversity between games within the same genre. Many professional game designers grew up enjoying certain kinds of games and dreamed about creating new experiences based on the mechanics we know and love, and several decades of that culture has focused much of the industry around a comparatively few number of similar mechanics and conventions. That said, a rapidly growing independent and small studio community has boldly begun throwing long-standing genre convention to the wind in recent years and new distribution platforms like mobile app stores and Valve’s Steam have opened opportunities for a wide range of new game mechanics and experiences to flourish.

If you continue exploring game design you’ll realize there are relatively few completely unique core mechanics but endless opportunities for innovating as you build those elemental interactions into more complex causal chains and add unique flavor and texture through elegant integration with the other elements of game design. Some of the most groundbreaking and successful games were created through exercises very much like the mechanic exploration you’ve done in these “Game Design Considerations” sections; Valve’s Portal, for example, is based on the same kind of “escape the room” sandbox you‘ve been exploring and is designed around a similarly simple base mechanic. What made Portal such a breakthrough hit? While many things need to come together to create a hit game, Portal undoubtedly benefitted from a design team that started building the experience from the most basic mechanic and smartly increased complexity as they became increasingly fluent in its unique structure and characteristics, instead of starting at the 10,000-foot level with a codified genre and a pre-determined set of design rules..

Of course, nobody talks about Portal without also mentioning the rogue artificial intelligence character GLaDOS and her Aperture Laboratories playground: setting, narrative, and audiovisual design are as important to the Portal experience as the portal-launching game mechanic and it’s hard to separate the gameplay from the narrative given how skillfully intertwined they are. The projects in this chapter provide a good opportunity to begin similarly situating the game mechanic from the “Game Design Considerations” sections in a unique setting and context:you’ve probably noticed many of the projects throughout this book are building toward a sci-fi visual theme, with a spacesuit-wearing hero character, a variety of flying robots, and now in Chapter 10 the introduction of large-scale parallaxing environments, and while you’re not building a game with the same degree of environment and interaction complexity as Portal that doesn’t mean you don’t have the same opportunity to develop a highly engaging game setting, context, and cast of characters.

The first thing you should notice about the Tiled Objects project is the dramatic impact on environment experience and scale compared to earlier projects. The factors enhancing presence in this project are the three independently moving layers (hero character, moving wall, and stationary wall) and the seamless tiling of the two background layers. Compare the Tiled Objects project to the Shadow Shaders project from Chapter 8 and notice the difference in presence when the environment is broken into multiple layers that appear to move in an analogous (if not physically accurate) way to how you experience movement in the physical world. The sense of presence is further strengthened when you add multiple background layers of parallaxing movement in the Parallax Objects project; as you move through the physical world, the environment appears to move at different speeds, with closer objects seeming to pass-by quickly while objects toward the horizon appear to move slowly. Parallaxing environment objects simulate this effect, adding considerable depth and interest to game environments. The Layer Manager project pulls things together and begins to show the potential for a game setting to immediately engage the imaginations of players. With just a few techniques you’re able to create the impression of a massive environment that might be the interior of an ancient alien machine, the outside of a large space craft, or anything else you might care to create. Try using different kinds of image assets with this technique: exterior landscapes, underwater locations, abstract shapes, and the like would all be interesting to explore. You’ll often find inspiration for game settings by experimenting with just a few basic elements, as you did in Chapter 10.

Pairing environment design (both audio and visual) with interaction design (and occasionally the inclusion of haptic feedback–like controller vibrations) is an approach you can use to create and enhance presence, and the relationship that environments and interactions have with the game mechanic contributes the majority of what players experience in games. Environment design and narrative context create the game setting, and as previously mentioned the most successful and memorable games achieve an excellent harmony between game setting and player experience. At this point, the game mechanic from the “Game Design Considerations” section in Chapter 9 has been intentionally devoid of any game setting context and you’ve only briefly considered the interaction design, leaving you free to explore any setting that captures your interest. In Chapter 11 you’ll further evolve the sci-fi setting and image assets used in the main chapter projects with the unlocking mechanic from the “Game Design Considerations” section to create a fairly advanced 2D platformer game-level prototype.