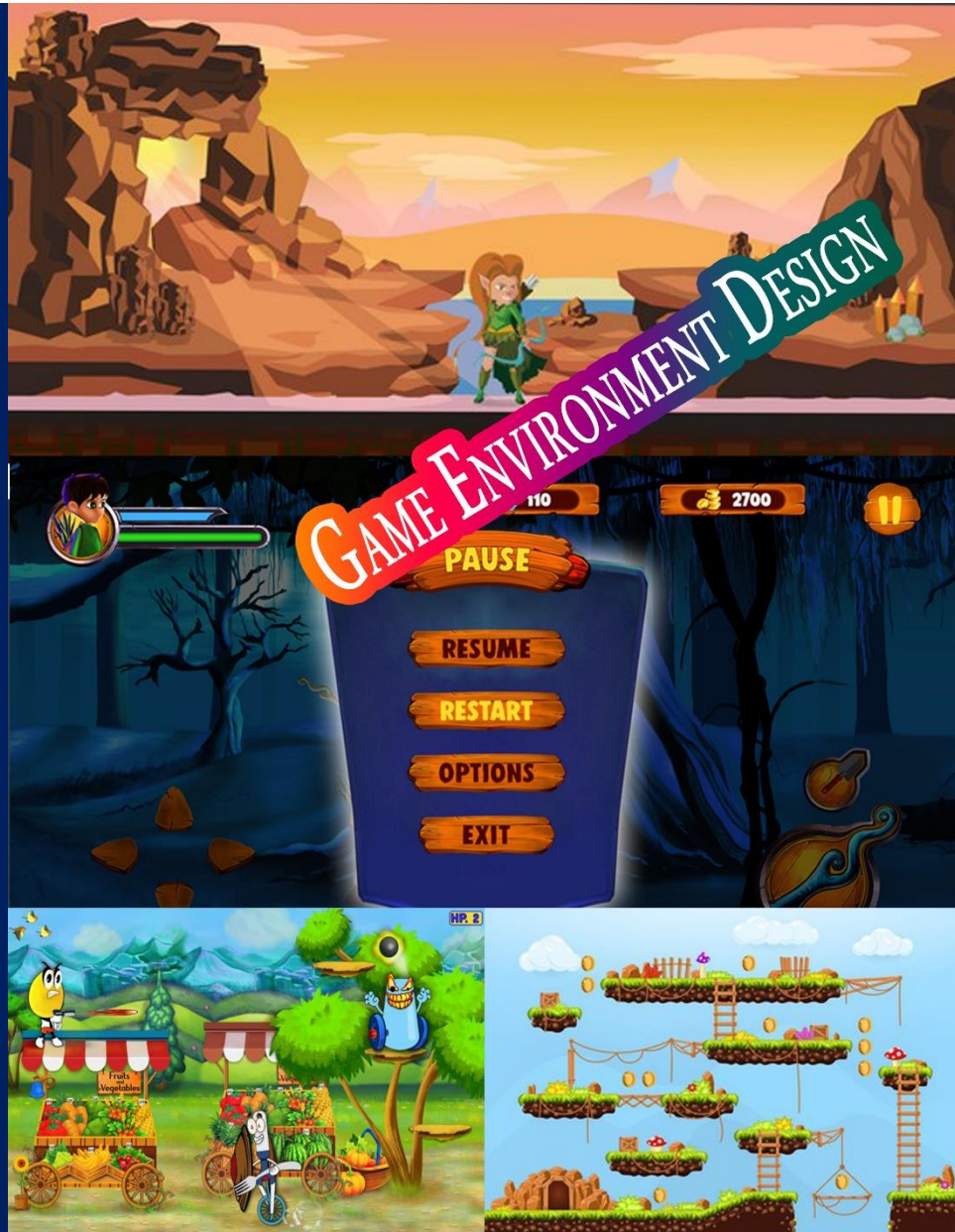


Game Environment Design



Title: Game Environment Design

By: Ali Akbary

Chapter 4 Game World

Learning Outcome

Objectives of this chapter are: -

- Fundamentals of Game design
- What is a Game world?
- Game worlds examples

FUNDAMENTALS OF GAME DESIGN: GAME WORLDS

Game world is creating the environments to tell the story of the game. This chapter defines a game world and introduces the various dimensions that describe a game world, as well as a quality called realism.

Game world is the place where the game will be played. The character of the game will discover the game world.

Games entertain through **gameplay**, but many also entertain by taking the player away to an imaginary place, a game world. In fact, the gameplay in most single-player video games appears to the player as interactions between himself and the game world.

WHAT IS A GAME WORLD?

A game world is an artificial universe, an imaginary place in which the events of the game occur. When the player enters the magic circle and pretends to be somewhere else, the game world is the place she pretends to be.

Not all games have a game world.

- A **football** game takes place in a real location, not an imaginary one. Playing football still requires pretending because the players assign an artificial importance to otherwise trivial actions, but the pretending does not create a game world.
- Many abstract games, such as **tic-tac-toe**, have a board but not a world—there is no imaginary element in playing the game.
- **Chess** has only a hint of a world; although the board and the moves are abstract, the names of the pieces suggest a medieval court with its king and queen, knights, and bishops.



Figure 1 Football game

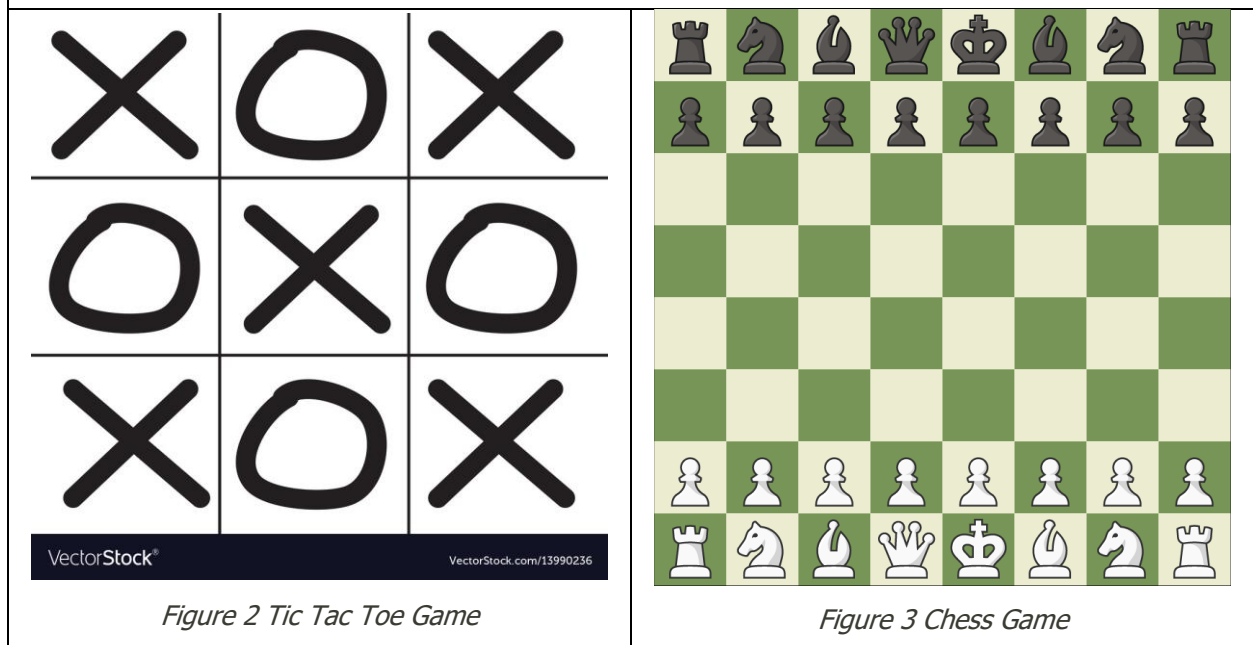


Figure 2 Tic Tac Toe Game

Figure 3 Chess Game

There is always a need for great environments. Every game, every cartoon, every story needs great worldbuilding and in the art world that takes the form of environment art. With this type of work, you will find all kinds of paintings and 3D renderings of landscapes, interiors, you name it.

And in this gallery, I want to celebrate some of the best environment artists out there today. This artwork not only illustrates what great environment work looks like, but also goes to show just how far you can take concept art with a bit of imagination.

Here are some game world examples.

Castle Painting



Figure 4 Created by Jonathan Dufresne

Temple Painting



Figure 5 Created by Jonathan Dufresne

Environment



Figure 6 Created by Jonathan Dufresne

A New Beginning



Figure 7 Created by Gavin O'Donnell

Potion Master's House



Figure 8 Created by Jennifer Chamberlain

Desert LowPoly



Figure 9 Created by Lucian Stroiny

Absolver – Downfall & Masks

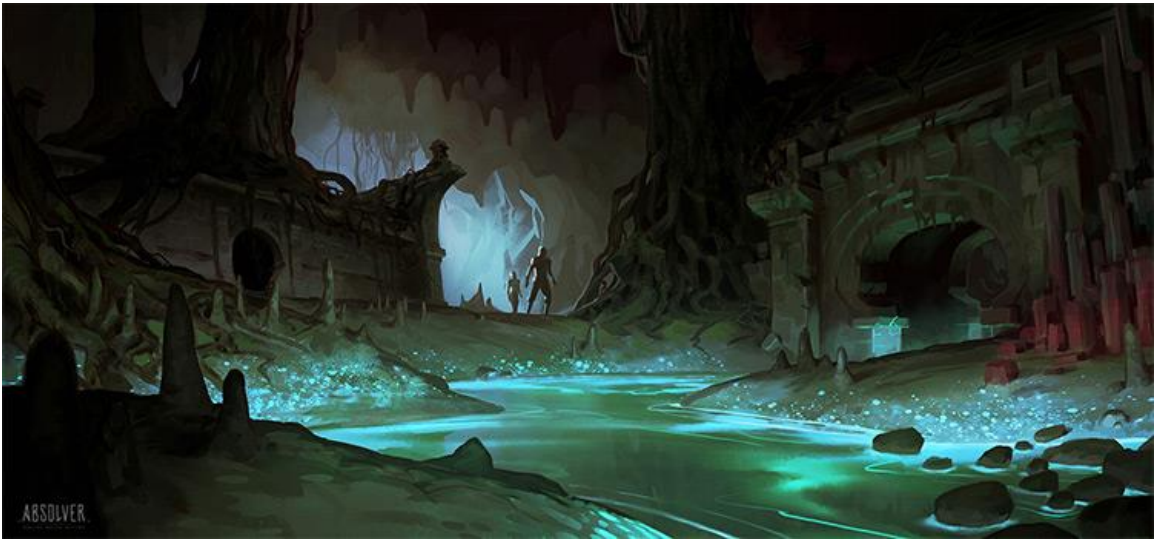


Figure 10 Created by Michel Donze

Forest of Liars

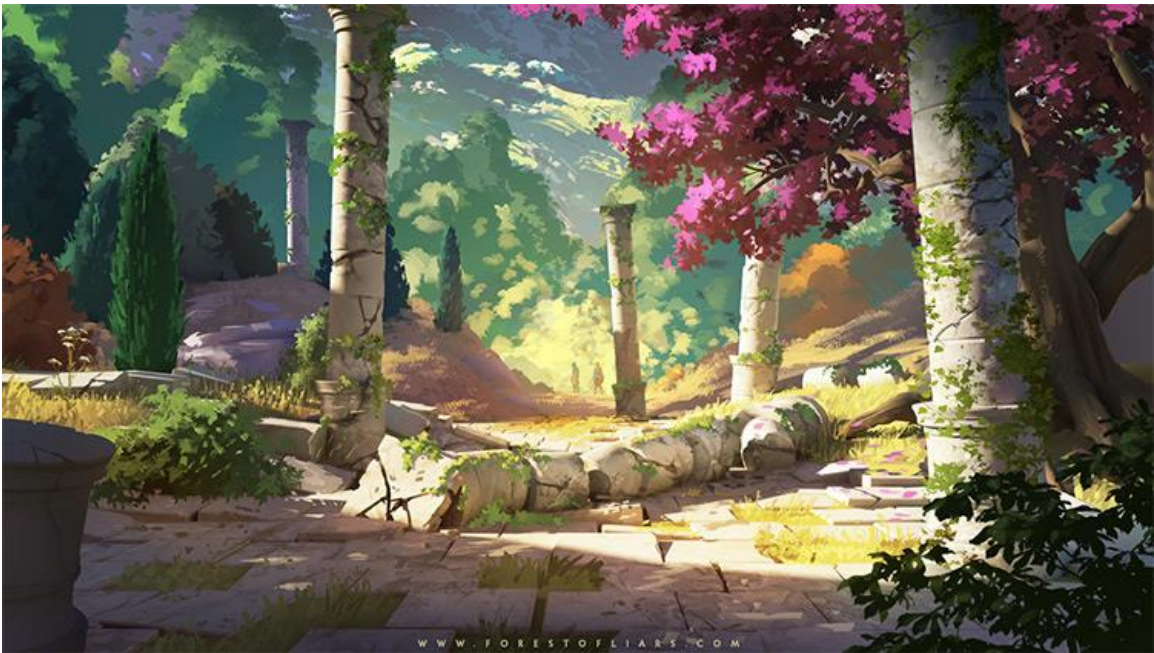


Figure 11 Created by Sylvain Sarrailh

Cove Environment Art



Figure 12 Created by Sahil Trivedi

Island Castle



Figure 13 Created by Sergey Musin

Japan



Figure 14 Created by David Lesperance

The Tavern Owner



Figure 15 Created by Bryant Koshu

Teleport Room

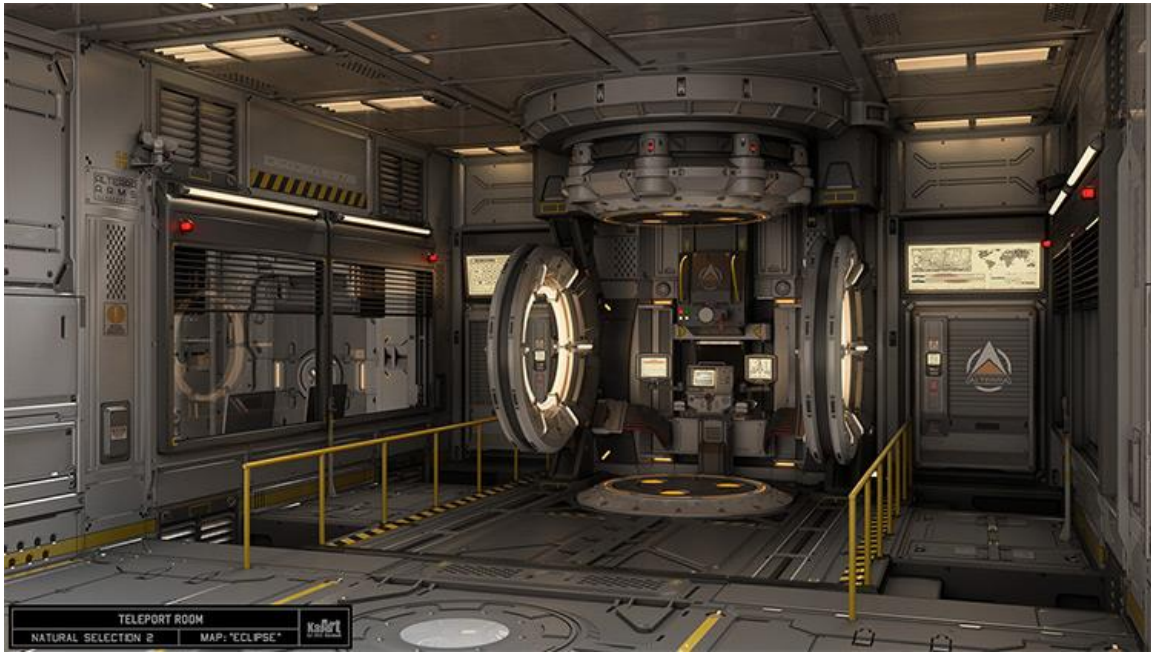


Figure 16 Created by Alexey Pyatov

Underwater Forest



Figure 17 Created by Paweł Latkowski

Fable Legends: History Lessons



Figure 18 Created by Rachel Noy

Project Bananas



Figure 19 Created by Corey Hill

Color Key Environment



Figure 20 Created by Jamil Dar

Abandoned Factory Alley



Figure 21 Created by Jeff Severson

The Untold Story of Bernadette



Figure 22 Created by Giselle Valenzuela

Snowy Peaks



Figure 23 Created by Sergio Suarez

Skull Coast



Figure 24 Created by Mohammad Qureshi

Titans Fall



Figure 25 Created by Khairizal Anwar

Elven Inn



Figure 26 Created by Manuel Fuentes

Quytal



Figure 27 Created by Weston T Jones

Environments



Figure 28 Created by Lucas Leger

Killzone Shadow Fall



Figure 29 Created by Richard Dumont

Stylized Medieval Village



Figure 30 Created by Emilie V.F

Gotham



Figure 31 Created by Nuno Nobre(@capitan__nuno)

The Sporelight Marsh



Figure 32 Created by *Cherlin Mao*

Super Mario World



Figure 33 Created by *Rotann Colyn*

Gods of Rome



Figure 34 Created by Robin Olausson

Corsair Environment



Figure 35 Created by [Martin H. Matthes](#)

City at Night



Figure 36 Created by *Davey Baker*

Ardorian Temple



Figure 37 Created by *Benjamin Giletti*

Daydreams



Figure 38 Created by *Devin Yang*

Lesser City Marketplace



Figure 39 Created by *Aishwarya Chandramohan*

House on a Lake



Figure 40 Created by *Hayden Nichols*

Visual Development



Figure 41 Created by *Thiago Baltar*

Random Island

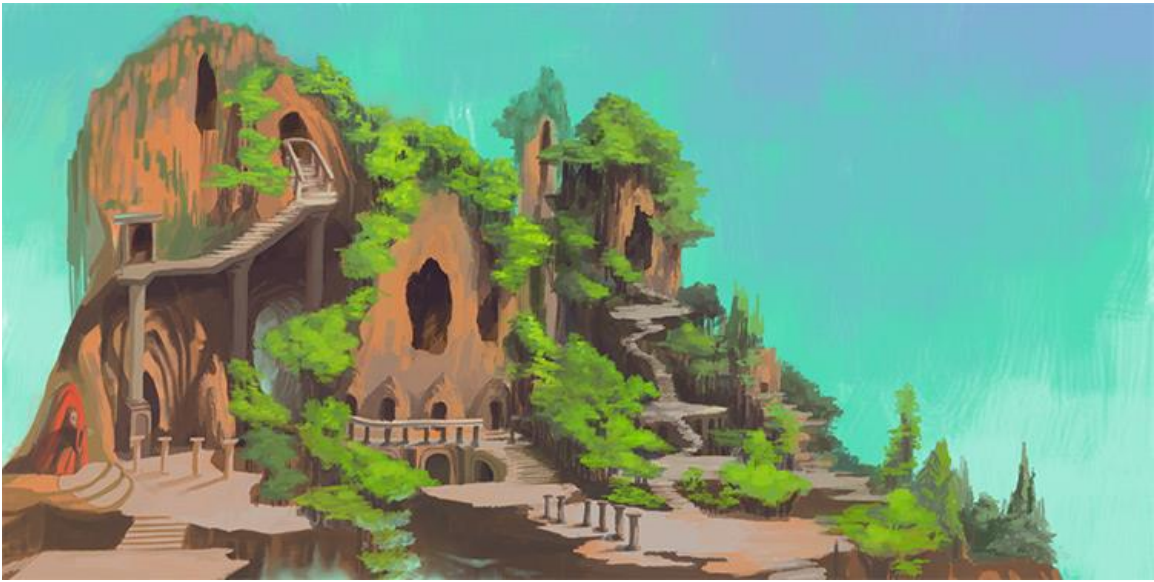


Figure 42 Created by [Adrian dela Cerna \(@a.drian.d.c\)](#)

An Alternate Bahamas

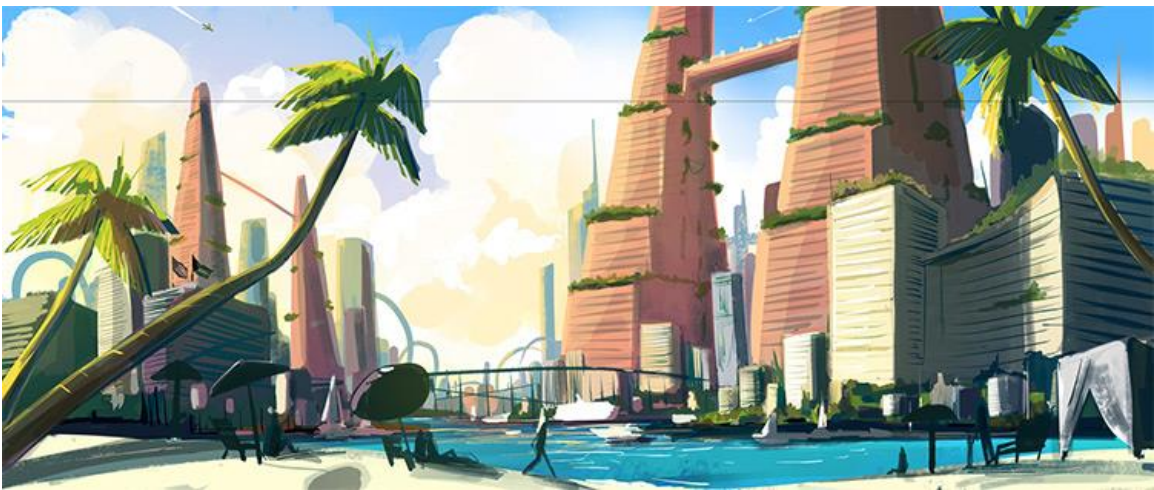


Figure 43 Created by [Lamaro Smith](#)

Northern Gate, City of Anzag



Figure 44 Created by *Erica Lee*

Crimson Cyber Temple



Figure 45 Created by *Claire Bian*

Overhead Environment



Figure 46 Created by *Tony Holmsten*

Ancient Civilizations 1



Figure 47 Created by *Olexii Shuhurov*

Ancient Civilizations 2



Figure 48 Created by Olexii Shuhurov

Up North



Figure 49 Created by [Branislav Perkovic](#)

Circuits and Shields



Figure 50 Created by *Andreas Moritz* for *Circuits & Shields*

The Crusty Gunner



Figure 51 Created by *Andrew Bosley*

The Apothecary's Study



Figure 52 Created by *Samir Benounis*

Temples – VisDev Worldbuilding



Figure 53 Created by *Max Schiller*

Forest Environment Art



Figure 54 Created by [Fernanders Sam](#)

Valles Marineris



Figure 55 Created by [Laurent Gaumer](#)

HOW TO CREATE THE GAME WORLD?

The game in term of dimension is divided into two categories: -

- 2D games
- 3D games

2d Game Envoronmet Developments

Here is the example of 2D game world created with Adobe illustrator: -



Figure 56 2D game design with character and enemy



Figure 57 2D game Environment design

For 2D games Environment's creation, we can use many applications software which supports it. We can use unity 3d application tool for 2 D games. Also, we can use Adobe Illustrator or Photoshop or other application which supports.

3D Game Environment developments

When we are developing the game world, we will use 3D application tools to create desired world for our game. There are many 3D application tools exist for such creation. Here we will use Unity 3D for our game world.

For creating 3D world, we need to start from somewhere. For most of the 3D creation, normally we will use primitives for starting point and will modify it and come up with desired object. First, we get familiar with unity 3D primitive's types.