ULTIMATE LEVEL DESIGN GUIDE

by: Alex Galuzin

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World of Level Designs' purpose is to give you the toolset to become the BEST level designer and game environment artist.

WoLD is dedicated to bringing you **high-quality** level design and game environment art tutorials.

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ABOUT THIS BOOK: V.1

Ultimate Level Design Guide is 55 chapters long. It includes tips, advice, insight and principles into level design and game environment art.

This book is ongoing. New chapters will be added and released via World of Level Design newsletter.

Each chapter can be read as a stand-alone or you can read it in sequential order as it is presented to you. This book was meant to provide as much insight and give you tips with many examples so you can begin to apply them to your level designs today.

Lets begin.

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1. HUNDREDS OF LEVEL DESIGN IDEAS

Ideas are everywhere. Wherever you maybe right now, look around. Everything around you has a potential of becoming a level.

Begin to see everything around you as playable space.

Movies and shows you watch, games you play, books you read, places you travel to are possible game environments. All of these are clues to ideas.

Write down your ideas. Get yourself a sketchpad or a tiny notebook to carry with you. Write things down and sketch top down views of places you visit, locations you see. Everything can become a layout, or at the very least a starting off point.

If you make this into a habit, within a week you'll hundreds of ideas to browse through.

Following list is a reference list where you could get inspiration and ideas for a map or an environment to create.

8 TIPS TO GET IDEAS

ARCHITECTURE: Learn about various architectural styles. No building or a house is built without prior planning and thought of theme and style. Flip through an architecture book and get some ideas inspired by an architecture style.

Gears of War © Epic Games. All rights reserved.

MOVIES TV: Movies and tv offers a never ending supply of information. Watching movies is great way to reference shots, ideas, and environment setting. Watch all kinds of films: action, drama, documentaries etc. **Key:** don't just watch movies; actively look for locations and environments.

BOOKS: Look through architecture, nature, and photography books. Reference them for composition, color, light and architecture detail of your environments. There are a lot of ideas in books. **Single image could capture your attention and inspire you to create an environment.**

GAMES: You are a level designer and game environment artist; it's a good practice to begin to look as you play at worlds in games. Take note on what you like and what you don't. What would you change and why.

Watch trailers and videogame shows. Seek out designer interviews, game developers and game designer diaries on blogs.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

MUSIC: Listening to music will evoke a certain emotion within you. Many screenwriters in Hollywood write their screenplays listening to music. It helps to set the mood, pacing, atmosphere and mood. While listening to music see if you can visualize environments. Pay attention to the mood and atmosphere that the music evokes within you.

HISTORY: History is full of stories. Stories are ideas. There is an entire genre of games based on history.

Age of Empires 3. © Microsoft Corporation. All rights reserved.

Watching the History Channel one hour per day will offer a lot full of ideas on possible themes and topics to create maps for.

PHOTOGRAPHY: Photographs tell stories in a single image. It's amazing that a single photo can communicate so much. Photography is one of the best resources for reference, inspiration and environment ideas.

ART: Concept art, paintings, photography, sculpture, filmmaking and theater are some of the art forms that introduce other ways of experiencing and receiving ideas.

BLOGS WEBSITES: visit other artists website, forums, and various artistic blogs.

100 LEVEL DESIGN IDEAS

Take a look at this blog post; it should get you started on various ideas:

- [100 Level Design and Game Environment Ideas.](#)

2. STORYTELLING LEVEL DESIGN

Every environment, every level has to have a reason to exist. The purpose of it being there and history that comes with it.

- What is your maps story?

- Why is the player there?

- What is the purpose behind your environment?

The depth of your game environment world will reflect how long you've spent on designing the background story.

Spend time on creating background story of your level.

Half Life 2: Lost Coast. © Valve Corporation. All rights reserved.

Your environment should always be designed to tell a story without you having to explain it.

This is done through your level's theme and set dressing.

Set dress your level to have "character". Put clues into the level that when a player looks around, they could piece together a story of what happened here.

Bioshock is a great example of storytelling environments. Single screenshot communicates emotion, sets an atmosphere and gives you a background story without explicitly telling you. It also lets the player fill in the gaps.

Bioshock. © 2K Games. Dev: Irrational Games. All rights reserved.

Your environment should always reflect the story being told in the level.

In L4D2, zombie apocalypse just happened. As you explore through an abandoned apartment building you come to a mattress on the floor and a suitcase full of money and guns. No one there to claim it.

Left4Dead 2. © Valve Software. All rights reserved.

Great example of storytelling environment through prop placement.

That attention to detail will improve your level designs.

Start using storytelling in your levels today. Create stories.

3. PLAN AND RESEARCH YOUR MAP

Planning is an essential aspect of level design and environment creation. When I first started creating custom maps and game environments I didn't do much planning or research.

Needless to say I didn't finish a lot of projects. Without proper planning, my levels lacked focus and vision.

Once I began to spend time on research, photo reference and understanding exactly what I wanted to create before I jumped inside the editor, my success rate with finishing projects increased.

> Know exactly what you want to create. Visualize your environment in detail. Planning and research will help you do that.
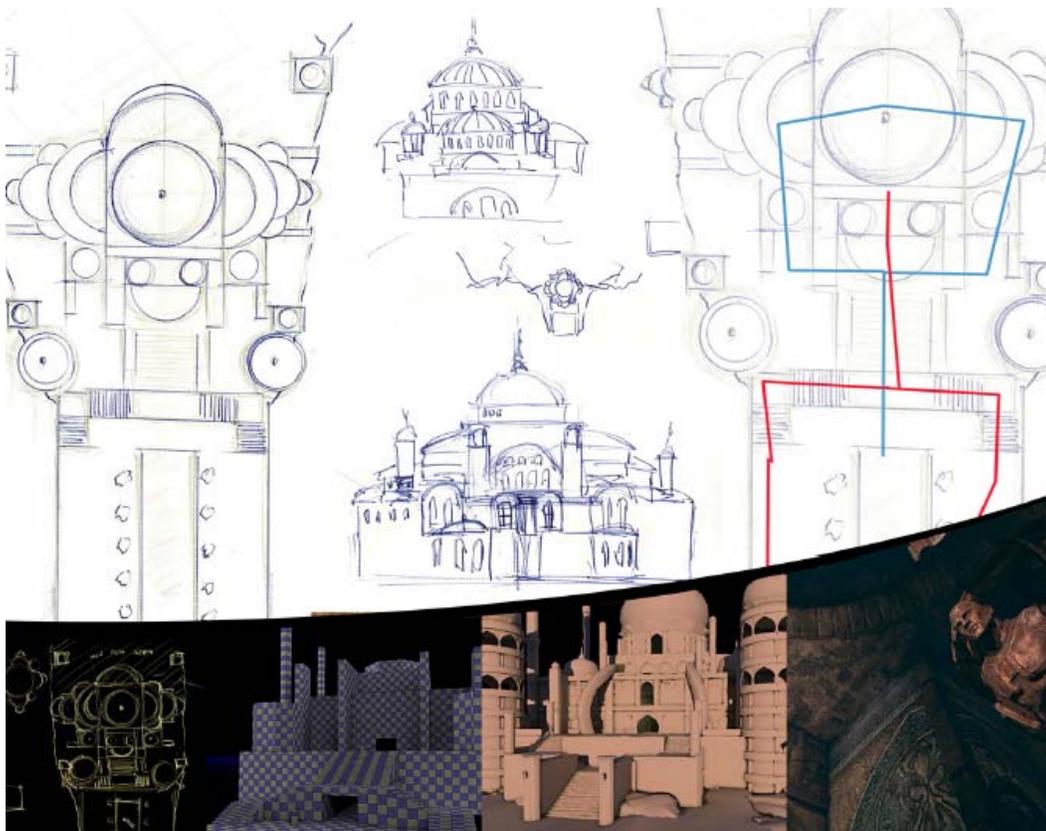
DM-Hasophia. UDK© 11 Day Level Design

Spend time figuring out exactly what your idea is. Do research on the location of your environment. Plan your workflow out on paper.

Decide what you will need to do in what order. What models, what textures will you need to create?

Here is an overview to get your planning under way:

- Decide on your idea

- Know your purpose for your design. Why do you want to create this game environment? What is the final outcome?

- Research your location (architecture style, time of day, color palette you want to use etc)

- Collect photo references (architecture reference, lighting, props)

- Create a top down layout. How will your environment play? How will the player navigate through your environment?

- What are the objectives if any for the player to complete?

- Create a background story for your environment. Why is the player there? What does he/she need to do?

- What will you need to learn? Are their any skillets that you need to improve on? Modeling, Texturing, Lighting?

Figure all these details out before you jump inside a level editor.

4. KNOW YOUR OUTCOME

You have to be absolutely clear on what you want to create and what do you want the outcome to be.

Final outcome examples could be:

- Learn a skillset (texturing, modeling, lighting, UDK etc)
- Get a job. The map you want to create will be used as part of your portfolio
- Finish a map for a mod team you are in
- To create a visually stunning map with all custom assets
- etc

Whatever that maybe, figure out **why** you will spend time to finish the map. Knowing the outcome you want to achieve will help you through the hard times during your production when you feel like it isn't working out. When you feel that you may be better off starting a new map.

Knowing your outcome will help you stay on track.

L.A. Noire. © Rockstar Games. All rights reserved.

5. LOVE YOUR IDEA

Remember to love your idea. There is nothing worse then working on a map that you don't like. That is why spending time in planning stages is important. Pick ideas that you are in love with and environments that you want to see come to life.

Environment Study in Hammer Source. See More at AlexGaluzin.com/blog

L4D2-HotelSwiss map in Hammer Source. See More at AlexGaluzin.com/blog

6. SILHOUTTE ENVIRONMENT DESIGN

Silhouette is a drawing of the outline of an object; filled in with some uniform color, usually black.

Silhouette design is very powerful way of designing characters, props, and environments. It is great way to make your designs to have strong shape, memorable visual appeal and to stand out from the rest.

Designing your environments in silhouette makes you **focus on shapes, form, and visual appeal**. You don't need to worry about perspective, details, color or line quality. It's about letting your creativity and imagination flow.

Team Fortress. Copyright Valve Software. All Rights Reserved.
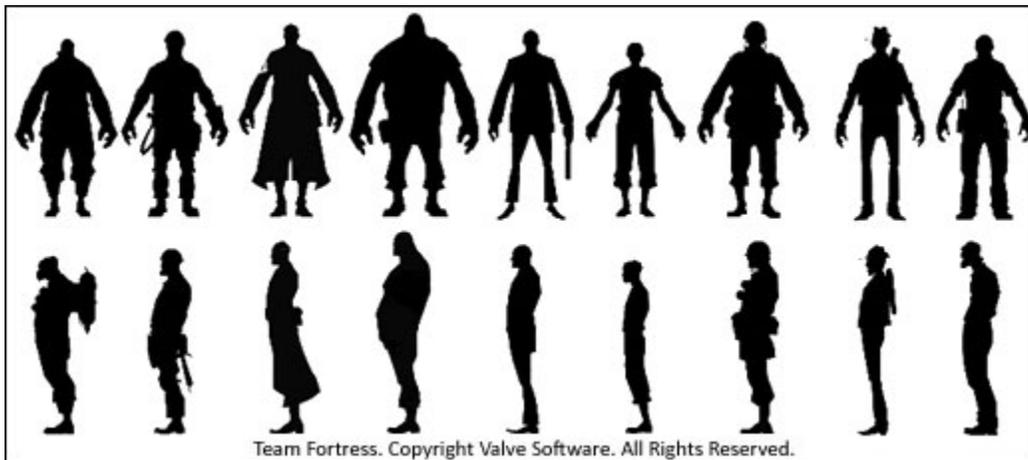
Beginning with silhouettes will eliminate your environments being generic. Designs with recognizable and strong silhouette will be visually more memorable, and appealing from the silhouettes that are not.

8 KEYS TO SILHOUETTE DESIGN

- Strong Shapes
- Memorable
- Recognizable
- Quick read from a distance
- Pops out from the rest
- Appealing
- Original
- Unique

It is all about the first quick read. Strong and appealing silhouetted designs are able to stand-alone and when they become a part of the rest of an environment it will be more recognizable and appealing.

Fallout 3. © Bethesda Softworks. All rights reserved.

Take a look at these 2 video tutorials on how to environment design with silhouette:

- 6 Steps to Silhouette Environment Design

7. TOP DOWN LAYOUT

Top down layouts will be your guide to blocking in your level.

Most important keys when creating a top down layout are:

- Flow of the environment

- Gameplay

- The player's navigation throughout the environment. Where will the player go? How will he/she move through the environment?

- Objectives

- Locations and landmarks

- Spawn points

- Possible prop, weapon and item placement

- Choke points

- Enemy battles

- Pacing

- Which areas will be accessible and which areas will be non-playable?
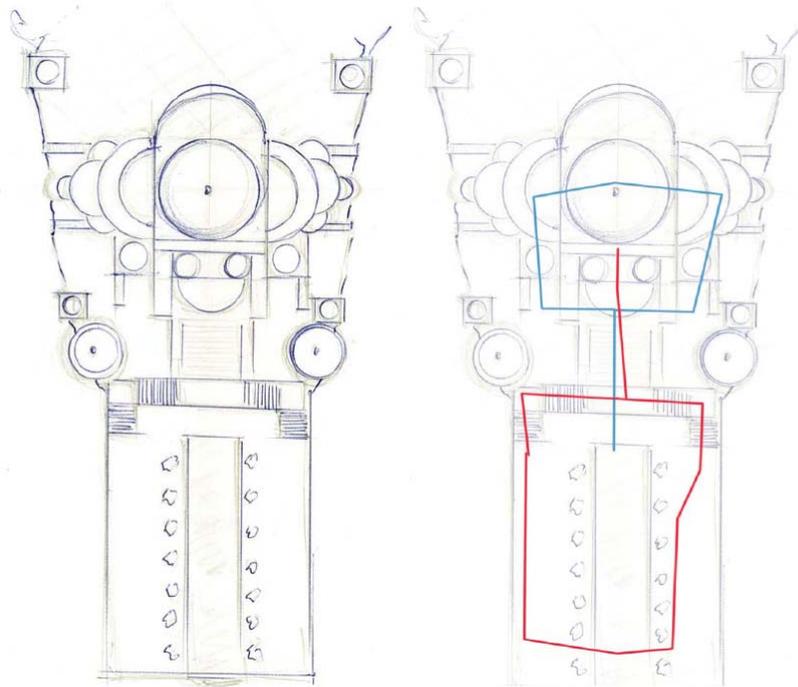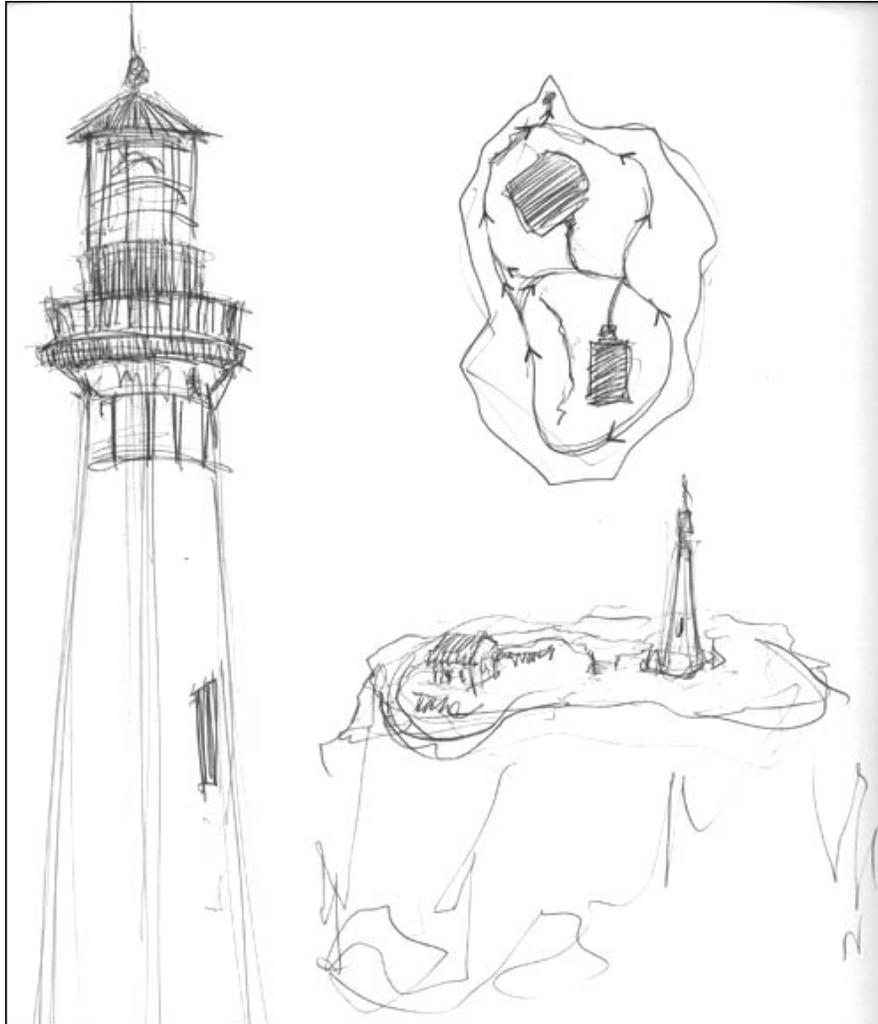
You can create a top down sketch on paper then scan it in, or simply drawing directly in your computer using Photoshop, Painter or GIMP.

Focus on flow. Make sure you figure out how your level is going to play and how the player is going to navigate throughout your environment. Before you begin blocking in.

Once your top down layout is designed, you can be flexible and rework the layout during the block in stages. But the top down drawing will serve you as a blueprint.

8. COLLECTING PHOTO REFERENCES

Collecting photo reference is a very important part of pre-production. If reference images are not collected, you will have a hard time creating something that looks real, authentic and high quality.

Using reference for your level designs is the key to create real, authentic environments.

Our mind is not very good at remembering details. We form symbols of what something looks like. If we have to recreate it in a game engine, the outcome will be less then good. Photo reference eliminates the guess work.

Abandoned South. Trip I took through the South of USA.

Here are 3 types of photo reference to get you started in creating better levels.

1. Environment/Location Reference

2. Lighting Reference

3. Style Reference

ENVIRONMENT LOCATION REFERENCE: includes the environment itself. The location you want to create. This could also include props in your environment, various structures, and architectural details.

LIGHTING REFERENCE: includes exterior and interior lighting of the environment. It also contains a color scale you may want to use. My idea included a sunset color scheme.

STYLE REFERENCE: this would include a certain style to use for the environment. The way you want your environment to look. A certain color combination and/or strong visual design. The way your environment will look.

New Orleans. One of the trips I took to New Orleans.

9. BECOME A METHOD LEVEL DESIGNER

"Method acting is an acting technique introduced by Stanislavsky in which the actor recalls emotions or reactions from his or her own life and uses them to identify with the character being portrayed." (source)

Put yourself in the environment you are creating. Think of how would the environment came to be? What is the story behind each prop placed? How did it get there?

What would happen after a nuclear war? What would apocalyptic environment look like and feel like?

Fallout 3. © Bethesda Softworks. All rights reserved.

Zombie apocalypse. Traffic jams, people panicking:

Left4Dead 2. © Valve Software. All rights reserved.

10. LESS IS MORE

It is better to get a few principles and elements in your level working and looking great, then trying to cram as much as you can it one.

Just because there are hundreds of textures and models that look great, doesn't mean you have to use them all.

> Great work comes from simplicity of your design, not addition to it.

This is a very common beginner mistake to include as many models, textures, weapons into a level as possible.

Once you've done the preplanning part of your design process. Once you picked a theme of your level. Focus on a few simple features, models and textures to be used in your environment.

LESS IS MORE.

Get the few key elements as good as you can possibly make them. Focus on few, rather then many.

Limit your options to few models, texture and a specific color palette.

Journey. © Sony Computers. Dev: Thatgamecompany. All rights reserved.

11. THEME

Theme is a unifying idea. Theme is the consistency of your environment. It shows through story, from one map to another, and throughout your entire game.

What is your theme for your environment?

All of the campaigns in L4D2 stay consistent within their own theme. Pick a theme and stick with it for the rest of the level design.

Theme is usually set in the beginning stages of pre-production. That is why spending time in the planning stages is so important.

Themes can be story elements, visuals or gameplay elements as few examples.

Following are examples of L4D2 campaigns with a specific theme for each campaign.

Hard Rain: **weather/storm**.

Left4Dead 2. © Valve Software. All rights reserved.

Dark Carnival: **Amusement Park**

Swamp Fever: **Swamps**.

Few other examples:

Assassin's Creed: Revelations. © Ubisoft. All rights reserved.

Rage. © Bethesda Softworks. Dev: idSoftware. All rights reserved.

12. STYLE

Style is the visual quality of your environment. This could be done through lighting, color or architecture.

Defining a specific style will help your level stand out from the rest. This can help you to set yourself apart from the.

Good example of style in a game:

Fable 2. Architecture, color, lighting and overall design. This entire game has a very definitive style.

Fable 2. © Microsoft Game Studios. Dev: Lionhead Studios. All rights reserved.

Limbo. Also a very good study of silhouette design we talked about in Chapter 5.

Limbo. © Microsoft Game Studios. Dev: Playdead Studios. All rights reserved.

Bioshock. Architecture, gameplay, and story. Art Deco architecture style helps to create a very original look that we haven't seen much in games.

Bioshock. © 2K Games. Dev: Irrational Games. All rights reserved.

Bioshock. © 2K Games. Dev: Irrational Games. All rights reserved.

Journey:

Journey. © Sony Computers. Dev: Thatgamecompany. All rights reserved.

13. BLOCK IN AND PROTOTYPE EARLY
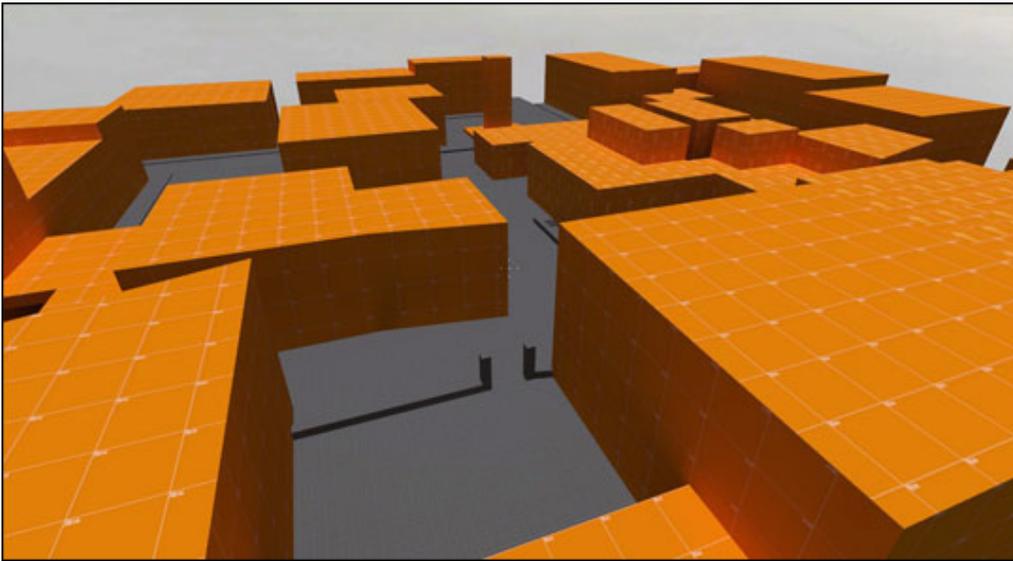
Counter-Strike Source. © Valve Software. All rights reserved.

As soon as you have everything planned out. Level's story, research, photo reference, top down view etc. The first thing you want to do is begin to block in and prototype your environment.

Blocking in is where you open up the editor and start roughing in the dimensions of the map. Big blocks, very rough and making you're your scale is right. Most of what you put in will likely change.

> Think big blocks. Think large to small. What you are doing here is developing a sense of scale, a sense of geometry and a sense of architecture.

There are no details added, no texture work or lighting in the blocking phase. Everything is extremely rough. You want to be very flexible and being able to change things around.

Work the whole map; do not focus on any one part. You want to block in as much as you can as fast as you can. You want to jump into your map and start testing gameplay and how fun it is in the blocking stage.

Counter-Strike Source. © Valve Software. All rights reserved.

Focus on the following aspects as you are blocking in:

- Scale
- Gameplay integration
- Proportion
- Pace and flow
- Add bots to test gameplay or ask friends to run through it with you

Very often your layout will change and geometry will be adjusted. But since you are working with basic shapes, it will be simple to do and manage. That is why its important to block stuff in and not do any detail passes.
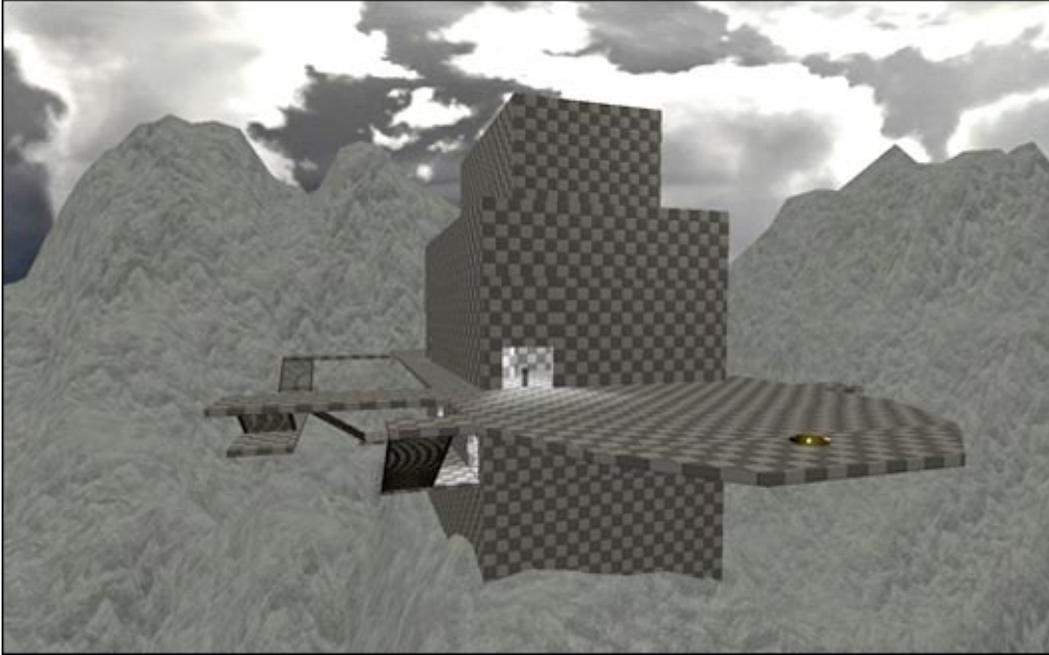
Ideally you want to get some other level designers to test it for you. They will be able to see the map for what it is and they will know what to test for and look for. This feedback from others is one of the most important and underestimated aspects of building a spectacular custom map. So if you have a chance, play test it with others.

Play test, rework, continuously until you are happy with how your map plays and feels.

Before you start adding any geometry detail passes make sure that your layout is finalized because once you start texturing, lighting and detailing there is no going back to adjusting gameplay/layout elements.

Blocking in will often be very fun process. Everything will be fluid and evolving and seeing your level come to life at this stage is exciting.

14. PLAYTEST OFTEN

Play test often and as soon as you can. Once you have placed a few sections of your map during the block in stages. Jump into the editor and begin to get a sense of scale, space and layout.

When you begin to integrate AI, scripting and gameplay test each feature in game.

> Remember, play test as early as possible and as often as possible.

Get others to play test your map along the way. Ask them to tell you what is working and what isn't.

Half Life 2. © Valve Corporation. All rights reserved.

15. STUDY GAMEPLAY

Actively play other games on the market to study how they approach gameplay spaces, environment locations, pacing, flow and balance. Play single-player and multiplier.

The key is to play consciously, figuring out why and how this level was constructed.

- What is the flow of the map?

- What are the objectives?

- What is this map doing well? What is it doing poorly?

- Why did this scripted event happen?

- How did the developer introduce locations?

> When you play to study the levels, have a notebook ready to write down your thoughts.

I do this with all games that I play. First time I play to have fun and experience the ride that the game has to offer.

Second time I play with level designer hat on. I analyze and dissect each section and try to figure out what makes this fun, and what makes it not fun.

I also purchase walkthrough strategy guides to look at top down views. I read what others are saying about the strategies for each map and each location. This helps a lot to study layout, gameplay, pacing, flow and map's balance.

16. LEARN SCRIPTING

Scripting is an essential part of creating levels. If you have created and released a level you probably already dealt with some scripting such as setting up a game type.

Scripting tends to have a steep learning curve, but it is something that needs to be learned and used. Most ignore this because of hard to learn and lack of tutorials. But if you want to create great levels for single player and multiplayer you'll have to figure out a way to learn it and reverse engineer it.

> Many game editors come with example maps. Open them up and study how the developers did it.

Try it out yourself. Start from the beginning. You don't need to tackle large scripted levels. Start slow and add on to the knowledge you are learning.

Half Life 2. © Valve Corporation. All rights reserved.

17. SCALE AND PROPORTION

One of the most fundamental aspects of level design is proper scale and dimensions. A doorway that is few units too big or too small will ruin the illusion of your environment.

A building set to improper scale will destroy the immersion of the player in your environment. Know your scale dimensions with the engine you are working with.

First thing you want to do is insert a player reference scale. This is an entity that inserts a player model. Depending on the game you are creating your environment for there are various ways of inserting a model scale.

Left4Dead 2. © Valve Software. All rights reserved.
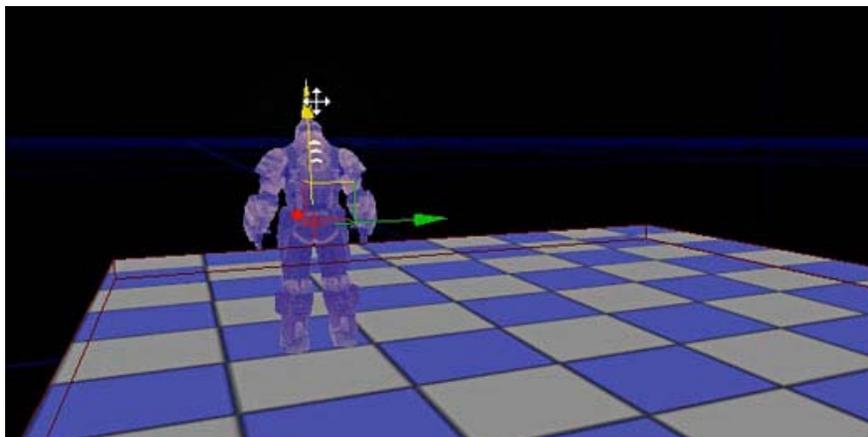
UDK © Epic Games. All rights reserved.

Hammer Source:

32 units
Character Width/Depth

72 Units
Character
Height Standing

64 Units
Eye Level

36 units
Character
Height Crouching

28 units
Eye Level
Crouching

48 units
door width

Max Slope
45 degrees

108 units
door height

128 units
corridor height

8 height x 16 width
average stairs
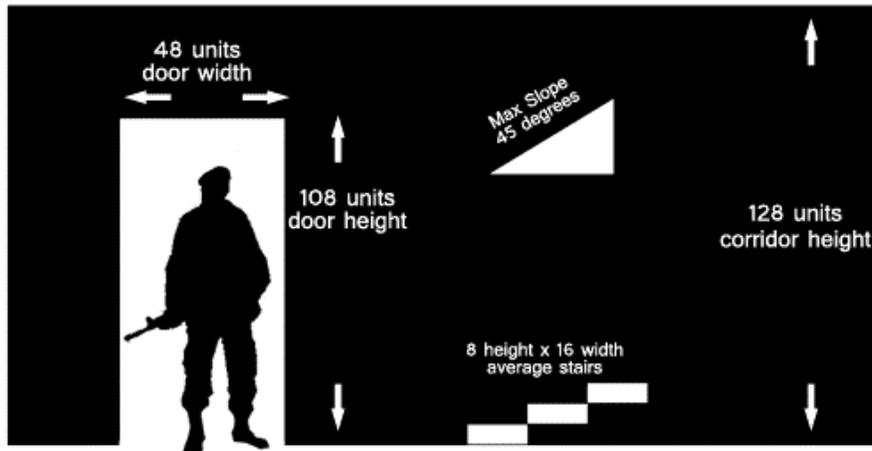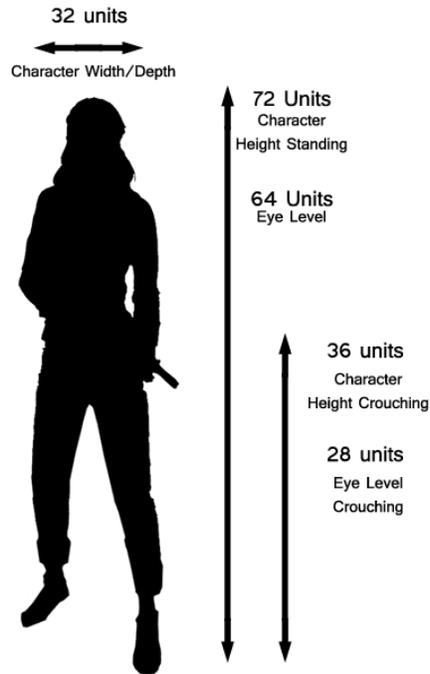
Using developer textures is additional way to help you with scale, dimensions and architecture proportion.

Here is an example of developer textures in Hammer: Source.
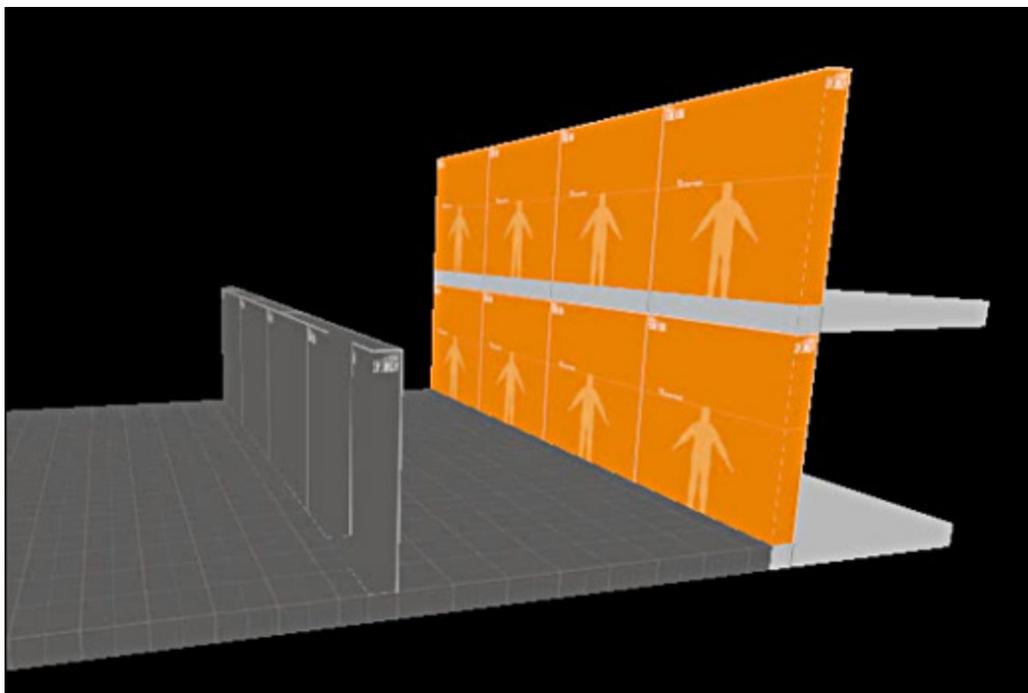
Left4Dead 2. © Valve Software. All rights reserved.
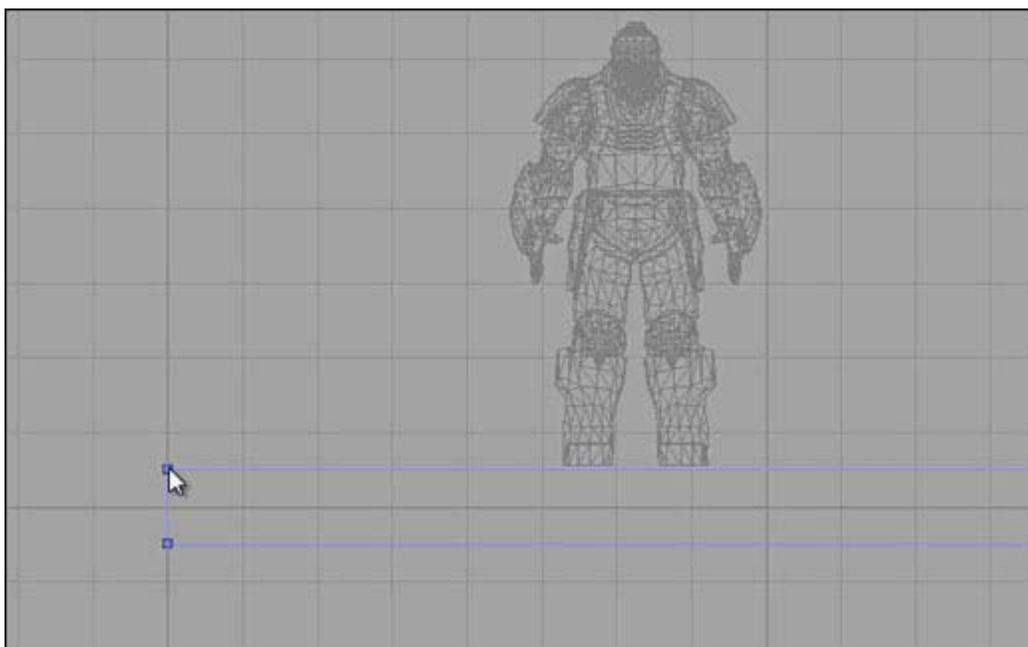
UDK © Epic Games. All rights reserved.

18. MAKE DELIBERATE DESIGN CHOICES

Create locations within your game environments that are interesting and that makes sense within the story you created.

- Think of how the player got there.

- Where will they be going?

- Does it make sense?

The environment has to stay within the **theme** you chose.

> Make deliberate and conscious choices of why the environment is there and how it relates to the player. What happened in this environment?

Crysis 2. Many deliberate level design choices were made based on the story of the game.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Why are the streets blocked off with cars? How did they get there? Why is the specific prop placed there? How did it get there? How did each room become to be this way? What happened?

L4D2 is another great study of this.

If you have the story of your environment figured out, the decisions to add or remove something from your level will become very obvious and simple to make.

19. ILLUSION OF FREEDOM

Unless your world is open-ended such as Grand Theft Auto series, Fallout 3, or Elder Scrolls, you can still give freedom and control to the player while guiding them to their next objective.

Crysis 2 is a great example of a single player linear story progression, but within each section of the map, there is a lot of creative freedom of how the player wants to approach the environment. The game even gives you options within the HUD system of how you may want to approach that particular section. Tactical options. You can go stealth, direct or flank. Each section was designed with that in mind.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Design your maps with this in mind. Even if your environment is very linear and story driven, give the player options of how they want to approach various sections of your level.

Side rooms, side buildings, rooftops and side streets allow for the player to experience a bit more choice and freedom in the environment, rather then following a linear approach. Let the player explore without taking them away from the main path too far.

Offer alternate paths for players to take. Give them choices and options.

L4D2 is a linear game, but within each map there is freedom in the environment.

Here is another example from L4D2.

Explorable building off to the side allows the player to collect some items and ammo.

Modern Warfare's 2 Takedown mission in the slums is another good example of this:

Call of Duty: Modern Warfare 2 © Activision. Dev: Infinity Ward. All rights reserved.

20. SET THE PACE AND ANTICIPATION

Pacing is the tempo, the speed that something is revealed.

Anticipation is waiting for something to happen, an expectation.

You want to avoid revealing too much too soon. Keep your cards hidden and show one card at a time.

You have to structure your level to be showcased a bit at a time over the progression from start to end. Building up on the previous event, and objective.

Start off slow and finish fast. Make it easy for the player to get through the first parts of the map then introducing more challenges as he/she continue to progress through your environment. Introduce more enemies, bosses, weapons and gameplay elements. Reveal new locations.

Max Payne 2. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

Anticipation and pacing is an important part of creating any single player and multiplayer map (depends on gametype).

It is useful to build up tension to a certain event or an outcome in your environment.

Very effective technique to create anticipation and build up the pace is "calm before the storm."

Perfect example of this is in Saving Private Ryan.

At the end of the movie when they are getting ready to fight the Nazis in the small-bombed town, you see them sitting around, talking and listening to music. It's almost perfect. But within few seconds the entire place breaks into a war zone.

Calm before the storm.

To do this: make sure that everything is calm in the environment, no infected, no killers, and no bosses. Almost like everything is perfect, then you introduce a sound or two and few seconds later, all hell breaks loose. L4D uses this in a great way, when you call for help and you have a few seconds before the horde gets there.

Then, all hell breaks loose.

Pacing should be build slowly and meticulously. Thinking through every event as each step on a staircase. One step at time until you reach the top. You never want to go from step one to step ten without hitting every step along the way. Build up.

> To build up pacing and anticipation in multiplayer maps use choke points and primary battleground where a lot of action happens. Design the layout where the players meet in a specific confided space to fight. Don't create an open field and see what happens. Design your map in a way that guides the player into a space created specifically for interesting and creative multiplayer mayhem.

Think of an arc with a point of no return at the end. This is how most films are written. You want to design and think of your events in your level the same way.

Arc:

Point of No Return
Right Before All Hell Breaks Loose
Also "Calm Before the Storm"

Rising Conflict Pacing

Climax
Final Showdown
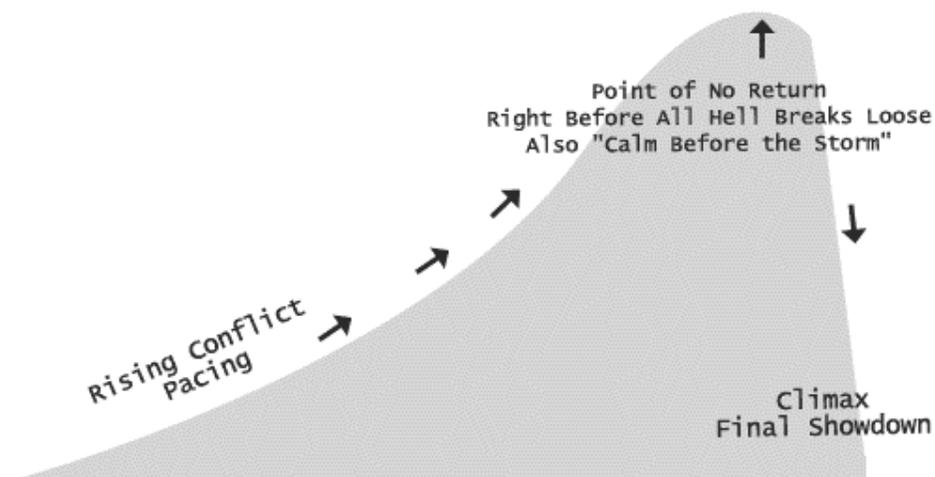
Think of your events in your level as progression of one event to the next, but with rising conflict. For example in Counter-Strike you buy weapons, then you run towards a choke point, firefight happens. Most of your team dies. Everything calms down for a second; there is a moment of serenity. You advance further, plant the bomb, anticipation is built even higher. Timer ticks down as you know that the CTs are going to rush the bombsite to diffuse. At the last second it goes off. Expectation justified.

Create enough space between each event to let the player breath before the next even happens. Next one comes, should be harder and more interesting and challenging then the previous one. Introduce your events slowly, meticulously and well thought out.

Counter-Strike Source. © Valve Software. All rights reserved.

21. CONSISTENCY

Once you have established a theme for your level, you have to be consistent with the use of models, textures, lighting and gameplay. Keeping it true to the level's theme. Consistency is the harmony within your entire environment.

If theme is an overall unifying idea and direction that you are going with. Consistency could be applied to the use of the physical objects in the environment. Although it can be applied to non-visual elements as well. Such as gameplay (ai, scripting etc.)

One of the fastest way to break immersion of your level is to use models or textures that aren't consistent to the rest of the environment.

For example if you are creating a level set in industrial abandoned factory, and few props you are using are pristine clean condition. The use of these props would be inconsistent with the environment you are trying to create.

If you are not paying attention to it, it can ruin the quality of your map.

The key is to always keep the theme of your entire environment in front of you. Keep referencing back to the theme and ask:

- Am I keeping true to level's theme?

- Does this prop, texture or lighting adds to the environment or distracts from it.

- Ask others to look at your map and see if something doesn't't make sense.

Here is a screenshot from Damnation. Inconstancy breaks immersion.

Another example is Bruce Lee: Quest of the Dragon. This game is inconsistent with who Bruce Lee was, and it doesn't reflect his legacy.

22. STUDY & REFERENCE ARCHITECTURE

Studying real world architecture will go a long way to help you understand how to create beautiful, visually appealing and authentic environments.

Before you begin each project spend time researching and studying architecture style and various elements that you want to use for your level.

Assassins Creed series is a perfect example of this.

Assassin's Creed 2. © Ubisoft. All rights reserved.

23. MAKE IT IMPERFECT

Most things in the world are not perfect. The branches on the trees seem irregular and random. Some have been broken off during last night's rainstorm. Buildings have been through decades of weather, rebuild and use. Props have been moved, broken, replaced and fixed up. Visual evidence. Everything has an expiration date and nothing stays in its perfect shrink-wrapped condition for very long.

Imperfect pass is a production pass where you go through the environment and make things, well imperfect.

Dirty them up, break a few pieces, and make it random.

As we talked in previous chapter, "Storytelling Level Design." Knowing the story of your environment will help you to decide how exactly to go about your imperfect pass. What to move, break, dirty up, remodel and retexture.

When you are creating a level or a 3d model, dedicate to some time doing an "**imperfect pass**". Unless it is consistent with you your theme, try to avoid having environments and props that have perfect edges, clean textures and pristine condition of objects.

Portal 2. © Valve Corporation. All rights reserved.

Collect photo reference to get a better visual understanding how real world objects get weathered away and used up.

24. LEVEL DESIGN ORIGINALITY

Innovation refers to creating something new, better or improving upon another idea in a way that is significantly different then where it originally came from.

As a level designer and environment artist, you should always **aim in creating something original**. Be fresh with every new environment, every new level design and every new map you create.

When it is so easy to re-create and remake a Golden Eye map, an original Counter-Strike map or an Unreal map. Don't remake maps from other games unless you can introduce something new and interesting in a way that hasn't been seen before.

To innovate in level design you don't have to create a new gameplay type that a player has never seen before, or introduce a sci-fi weapon in a realistic shooter. Just simply changing and introducing a simple element in a new and unique way is often enough.

Left4Dead 2. © Valve Software. All rights reserved.

25. CLICHES

There are sets of rules, situations and visuals that seem to appear many game environments. Many may have started, as original ideas but over time became clichés.

Definition of **cliché** is ideas that have been overused to the point of losing its intended force or novelty.

Some game clichés:

- WW2 theme games and maps

- Abandoned towns, building or asylums

- Alien invasion

- Sci-fi space ship theme

- Castle environments

- Lava levels

- Remakes of popular maps

Problem with clichés is we know what to expect because we have seen it so many times. No originality or thought has been put into making something new or improving it.

Now, you shouldn't avoid clichés. You just have to be aware which ones are effective and which ones have lost their appeal. Then make sure that you are creating something new or improving upon an existing idea; but making it better and unique.

Left 4 Dead introducing co-op play and infected. Ability to play as the infected. Just as '28 Days Later' redefined what "zombies" movie should be.

Left4Dead. © Valve Software. All rights reserved.

BioShock. Combining first person shooter with survival horror elements and creating a setting that is memorable and unforgettable. The art style of the game and the art deco architecture is unique and original.

Condemned 2: Bloodshot. Taking the first-person shooter and combining with survival horror elements and then introducing melee combat. There is enough of familiarity and yet enough originality. Level design of condemned 2 is driven through the melee combat elements.
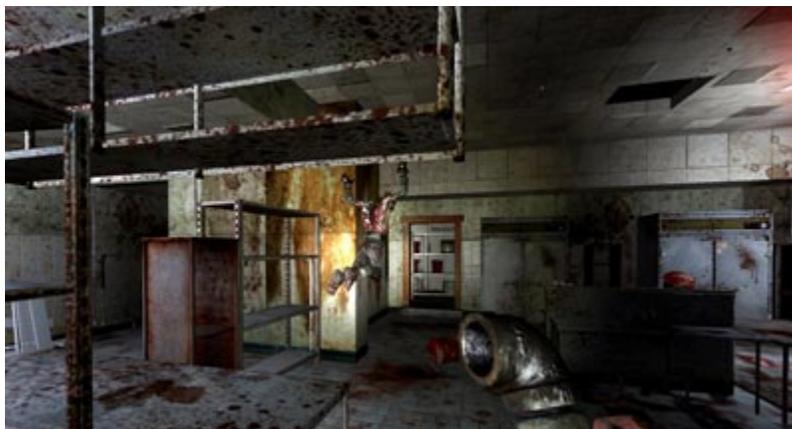
Clichés are important. They are important to know and understand. Because the do work.

Even when we know what is going to happen, there are certain psychological triggers that make us react. That is why they are clichés, because they have been proven to work.

The goal is to recognize the clichés and then take it a step further.

Using the clichés as a starting point you can begin to explore and introduce new elements that hook the player to your environment, your story and your level.

26. FORESHADOWING

Foreshadowing is showing, indicating or suggesting an upcoming event or location.

Foreshadow upcoming locations in your level. Put up barriers where the player can see another part of the map but can't get to it. What is up ahead? Let us see the next location behind a window or a fence. This can be within the same map or within a larger campaign.

Modern Warfare 2 shows you the upcoming location from the helicopter ride.

Call of Duty: Modern Warfare 2 © Activision. Dev: Infinity Ward. All rights reserved.

L4D2 does this a lot in its campaign. L4D2 Parish Campaign foreshadowing:

Left4Dead 2. © Valve Software. All rights reserved.

L4D2 safehouse in Dark Carnival location before we ever get to it:

This idea also ties within your theme of your level.

Crysis 2. Statue of Liberty. We get to see the statue right from the start of the game, but we can't get to it yet. Foreshadowing upcoming events through landmarks.

Think of ways you can show the player a location or a landmark without being able to go there yet.

You can use windows, large body of water, fence, destroyed environments etc.

27. PREVIOUS LOCATIONS

Just as with foreshadowing future locations, make sure to show previous locations where the player came from.

This allows the player to see how far they have come from the start of your level. There is a sense of connection within your environment when the **player relates back to his/her journey**.

L4D2 does this very well. Original spawn was at the top of the roof; we now look back on where we came from.

Hotel view from second map in the campaign. Player's journey.

You can also re-introduce an older environment from the start of the game. Show how much has changed.

Before and after environment.

Max Payne 2 has a few environments where the player has to go back to after it has been destroyed.

Max Payne 2. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

28. BELIEVABLE WORLD BOUNDARIES

Block off the non-playable areas using props, landscape, forests, rocks, hills, fences without calling attention to them.

Spend time creating the illusion of depth to your environment. Make the player believe that the world is greater then it actually is.

DM-Sanctuary is one of examples from Unreal Tournament 3. The area that is playable is contained within a smaller part of this larger world.

Unreal Tournament 3. © Epic Games. All rights reserved.

Props:

Left4Dead 2. © Valve Software. All rights reserved.

Fences:

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Foliage:

Left4Dead 2. © Valve Software. All rights reserved.

Landscape:
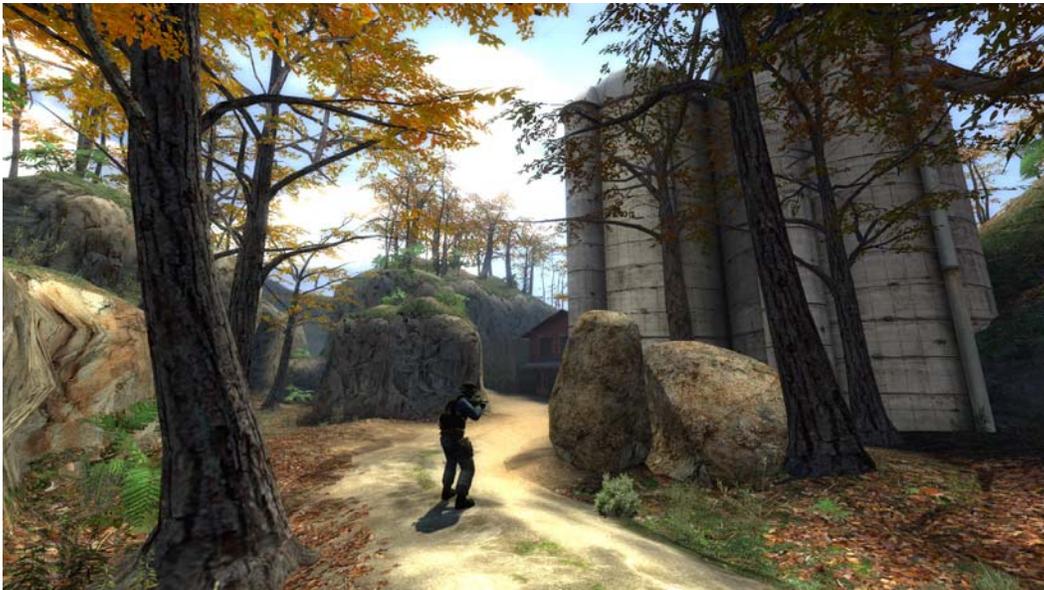
Counter-Strike Source. © Valve Software. All rights reserved.

These are just a few ways you can use to block off non-playable space from playable. Spend time creating the areas beyond the players world.

29. VISUAL TENSION & ATMOSPHERE

Add tension and atmosphere to your level by using:

- Fog

- Haze

- Smoke

- Fire

- Time of Day

- Weather system/rain, snow

- Lighting

Nighttime:

Alan Wake. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

Weather:

Smoke:

Haze:

Time of Day:

Lighting:

Seasons:

30. SCRIPTED EVENTS

Scripted events are often used to move the story forward and to immerse the player in the world.

Show the player that the environment is alive and changing. Make the player react to your environment and make the environment react to the player. Tell the story and immerse the player.

Half Life 2 is very good at studying scripted events that don't take you away from the experience.

Half Life 2 © Valve Corporation. All rights reserved.

In L4D2, bridge explosion that forces the player to go down into the cemetery.

Left4Dead 2. © Valve Software. All rights reserved.

Call of Duty series is a good example of scripted events:

Call of Duty: Black Ops © Activision. Dev: Treyarch. All rights reserved.

Scripted events do require some technical skill to set up in game editors. But it is worthwhile you time because of the impact it has on the player and your level quality.

31. INTERACTIVE ENVIRONMENTS

Nothing helps to add believability to the environment then having the player interact with their surroundings. Make the player's choice matter.

Half Life 2 is a great example of physics driven interactive environments that adds to gameplay.

Half Life 2. © Valve Corporation. All rights reserved.

Half Life 2. © Valve Corporation. All rights reserved.

Dues Ex is another great example. Bit older game with a lot of interactive props and environments.

Deus Ex. © Eidos Interactive. Dev: Ion Storm Inc. All rights reserved.
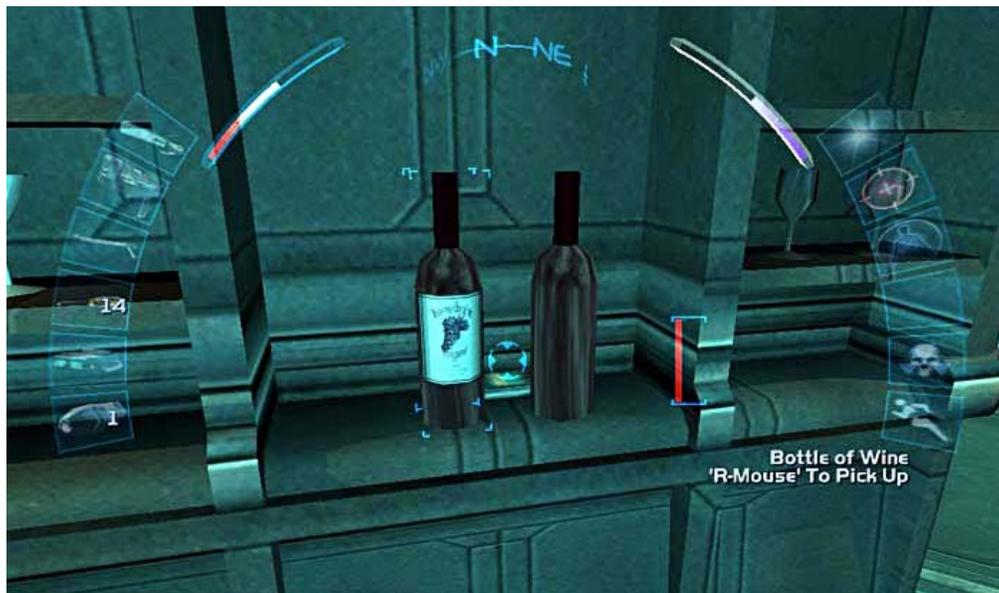
Deus Ex: Invisible War. © Eidos Interactive. Dev: Ion Storm Inc. All rights reserved.

L4D2 stationary gun:

Left4Dead 2. © Valve Software. All rights reserved.

32. ENVIRONMENT DANGER

Introduce dangerous environments. Here are a few choices:

Fire:

Left4Dead 2. © Valve Software. All rights reserved.

Height/Falling:

Left4Dead 2. © Valve Software. All rights reserved.

Traffic:

Grand Theft Auto 4. © Rockstar Games. All rights reserved.

Weather System (low visibility):

Left4Dead 2. © Valve Software. All rights reserved.

Water:

Assassin's Creed 2. © Ubisoft. All rights reserved.

Smoke (low visibility):

Left4Dead 2. © Valve Software. All rights reserved.

Environment Explosions:

Call of Duty: Black Ops © Activision. Dev: Treyarch. All rights reserved.

Destructible Environments (debris):

Battlefield: Bad Company 2 © EA. Dev: EA Digital Illusion. All rights reserved.

Narrow walkways and Ladders:

Use narrow navigation and environment danger such as narrow wood planks, pipes, ladders, rope.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Use extensive use of ladders when needed. Allow players to climb up on rooftops, second floors etc.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Create your own or use combinations of the above.

33. GUIDE WITH LIGHT

We tend to seek light and higher ground. You can guide the player subconsciously to locations in your level by using lights and having higher ground (make them go up the stairs for example).

If presented a choice with going up the stairs to a lit room or going downstairs into a dark basement, majority will choose the stairs going up to the light without consciously thinking about it. Use this in your own campaign design.

Left4Dead 2. © Valve Software. All rights reserved.

eft4Dead 2. © Valve Software. All rights reserved.

Use light to guide where you want the player to go, want you want them to see. Highlight important locations.

Alan Wake. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Bioshock. © 2K Games. Dev: Irrational Games. All rights reserved.

Use lights to guide the player from one area to another.

Use fire, smoke, or headlights on cars. Use contrast of lights, such as lights being on vs lights being off.

The lit up arrow points exactly where the player needs to go in L4D2 The Passing:

Left4Dead 2. © Valve Software. All rights reserved.

Headlights on the car is a very common way Valve guides the player:

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Smoke/Fire in L4D2:

33. GUIDING THE PLAYER WITH PROPS

Visual clues in your environment are important to help the player to their next location in your level. Last thing you want is a frustrated player getting lost in your environment.

We discussed using lights in the previous section. You do also do this by using props.

L4D2 shows many ways of how level designers used props in the environment to tell the story and help the player along.

Use signs such as arrows for various locations. Mall, garage sale, gas signs all help to guide the player to their next location. These signs should make sense within the levels story.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Always reinforce the player with visible cues. This way they do not need to question themselves if they are going the right way. This becomes subconscious. Reinforce it by saying implicitly "You are on the right way."

Safe house overlay in L4D2 Swamp Fever:

Left4Dead 2. © Valve Software. All rights reserved.

You can also help guiding the player by using landmark architecture within your level. We will discuss this in the later section.

34. LINEAR VS OPEN-ENDED

You can design your environments in three ways.

One is simply to have the player go from point a to point b. Straight through, covering distance. This is very linear and can fulfill a purpose within a story if needed. Games such as Doom series, Call of Duty series are for the most part very linear games.

Two is to have the player navigate through a very large environment and explore. Given them complete freedom. This requires a lot of time designing such environments, but the result is often worth the time. Open-ended worlds games include GTA series, Far Cry, Elder Scrolls series, Fallout 3 etc.

Third way is to use combination of both. Let the player along a specific path while given them an option within that path to explore. Using both methods within your level will give the player more options while the designer still having control of what the player does and where he/she goes.

Here is a linear approach of one section in L4D2 Carnival campaign map. Example of linear path in Carnival Campaign:

Left4Dead 2. © Valve Software. All rights reserved.

After the player has gone through linear path to their next location, open up the environment as a mini-playground. Let the player explore and use his or her own tactics. Then get them back to linear path to their next location. Example of navigating through the environment in Dark Carnival Campaign:

Left4Dead 2. © Valve Software. All rights reserved.

Crysis 2 is a very good example of this. Giving the player freedom within a section of the map to play how they want. Then guiding them onto a linear path to continue telling the story.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

35. PLAYER SPAWN LOCATIONS

Spawn locations and spawn perspective is often overlooked part of level design.

First impressions are very important when meeting someone. You don't get a second chance at first impressions. When the player spawns in your map for the fist time, that initial first look they have is their first impression of your world.

You want to make sure that the first impression has an impact.

This is even more important in multiplayer maps. Where spawning facing a wall can get the player killed.

Most of the time the player is ready to go right from the spawn. They are pushing forward. If they have to turn around and orient themselves to figure out where they are, it becomes frustrating and it looses valuable time they could use to gain a tactical advantage.

- Create interesting, story driven spawn points

- Face the player to view an interesting landmark in the map, so they know where they are

- Control their point of view

- Avoid making the player face a wall

- Face players to their next location

- Face players towards items, weapons they need to pick up next.

Left4Dead 2. © Valve Software. All rights reserved.

Counter–Strike: Source, De_Dust spawn.

Nuketown spawn in Black Ops.

Create spawns that make sense. If it is a campaign of being told in a story of your level, when maps switch next area up ahead has to make sense from where the players came from. This is where having a good story and a theme in your environment comes together and helps you out.

Left4Dead 2. © Valve Software. All rights reserved.

36. AI

AI in your level is as important as your visuals. Badly placed AI and faulty scripted AI often can break players immersion. If you are creating a single-player, multi-player with AI, or multi-player. Make your AI a big part of the experience.

The way you do that is to put thought into your AI placement in the environment. Make sure you know your level's story.

AI Spawns:

Give AI a reason to be in your level. Make AI part of the story. Give them a reason to guard or do something.

Half-Life 2 is fantastic at studying AI.

Half Life 2. © Valve Corporation. All rights reserved.

Don't make AI guard crates, empty abandoned houses or look at odd direction.

Here is AI in Crysis 2, standing looking at a car. Not moving, observing or walking around. Just staring at his vehicle.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Friendly AI:

Friendly AI is just as important. Your AI controlled teammates help you along the way. If their paths are not worked to perfection, then it becomes a very frustrating vip mission. It is not fun if you have to baby sit friendly AI. It takes you away from having fun in the game.
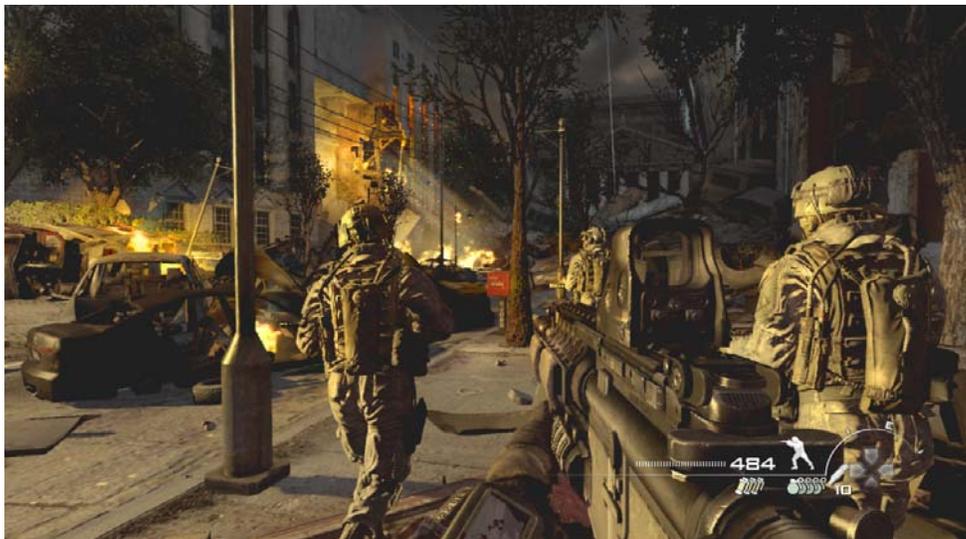
Call of Duty: Modern Warfare 2 © Activision. Dev: Infinity Ward. All rights reserved.

Same goes for friendly AI within your environment. Civilians walking around, on their day-to-day activities.

Enemy AI and friendly AI require a lot of testing and scripting. Checking paths and navigation of each AI and how they react to their surroundings. But the time spent on making AI as perfect as possible will make your map stand out from the rest.

37. CREATE ENV. RELATIONSHIPS

Relationship refers to the connection that the player has to other characters, story and its environment. Establishing a relationship in a game is very challenging thing to do.

Max Payne 2. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

Nothing connects or establishes a relationship faster then a **shared experience**. Some of the strongest bonds that people have were established through a highly emotional circumstance.

Here are a few tips on creating relationships to your story, characters and environment.

Loss

If you give something to the player, then take it away. The pain of loss is greater then motivation to gain. The loss can be through death of another character, story, item, weapon or property to name a few.

Call of Duty: Modern Warfare 2 © Activision. Dev: Infinity Ward. All rights reserved.

Max Payne 2. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

Tactical Advantages

Secret sniping spots, hiding spots and tactical spots that give the player an advantage.

Familiarity and Association

For example if you do something that happens to the player in the bathroom as in Doom 3. Then every time the player goes into the bathroom, he/she will have an emotional response to that environment.

Doom 3. © Activision. Dev: idSoftware. All rights reserved.

Re-Introduction and Before/After

Re-introducing a previous environment and/or showing before and after of that location is a very powerful way to create a connection with the player and his/her environment.

Relationship that a character has to their environment could be used to great effect. For example if the character comes back to an environment that they have previously been to and now it is not the same.

Fable 2. © Microsoft Game Studios. Dev: Lionhead Studios. All rights reserved.

Fable 1 and 2 re-introduces locations where the player was born in and started the game. Showing how different the place is now. That creates an emotional connection with your environment.

In Max Payne, in the beginning of the game his child and his wife are killed by drug addicts who break in. Later in the game through his dreams we get to replay and come back to the same location. By doing that we already have emotional connection and certain response to that environment. It is such as strong motivator that we want to just run up and undo what was done in the beginning.

This could be also done with time of day. Day/night cycle. This creates a different feeling and evokes a different emotion.

Alan Wake. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

Biological/Emotional Trigger:

Dead Island is a great example of biological triggers. In the trailer to Dead Island we see a death of a child who turned zombie. It is pretty gruesome, and if you ask any parent who has watched the trailer, they can't help but **project themselves** into a trailer. As if it were their kid.

Dead Island. © Deep Silver. Dev: Techland. All rights reserved.

Focus on universal emotions (happiness, sadness, surprise, fear, disgust, anger) and create situations where you can induce the following emotions within the player. This will require some time and effort. Knowing your situation, your environment and characters involvement within your environment.

Music

Music can create relationships and make them stronger. Using specific music during crucial parts of your game and during high emotional impact moments will heighten the connection between the player and the character.

That kind of thought put into your level will go a long way of making the player like your creation. They begin to form a relationship to your map.

38. WATER AND WATERFALLS

Water can add a natural, fluid element to your level. It breaks up the monotony of urban environments, of bricks and concrete. It helps to create a more visually interesting location.

Make sure water makes sense within your environment and its story.

Flooded apartments, overflowed construction site, waterfalls, interior fountains. Water helps to add a different visual quality to your environment. It makes the environment come to life because it has movement.

Skyrim. © Bethesda Softworks. All rights reserved.

L4D2 Hard Rain floods:

Left4Dead 2. © Valve Software. All rights reserved.

Half Life 2: Lost Coast. © Valve Corporation. All rights reserved.

Interactive water in Bioshock has an important story element in the game.
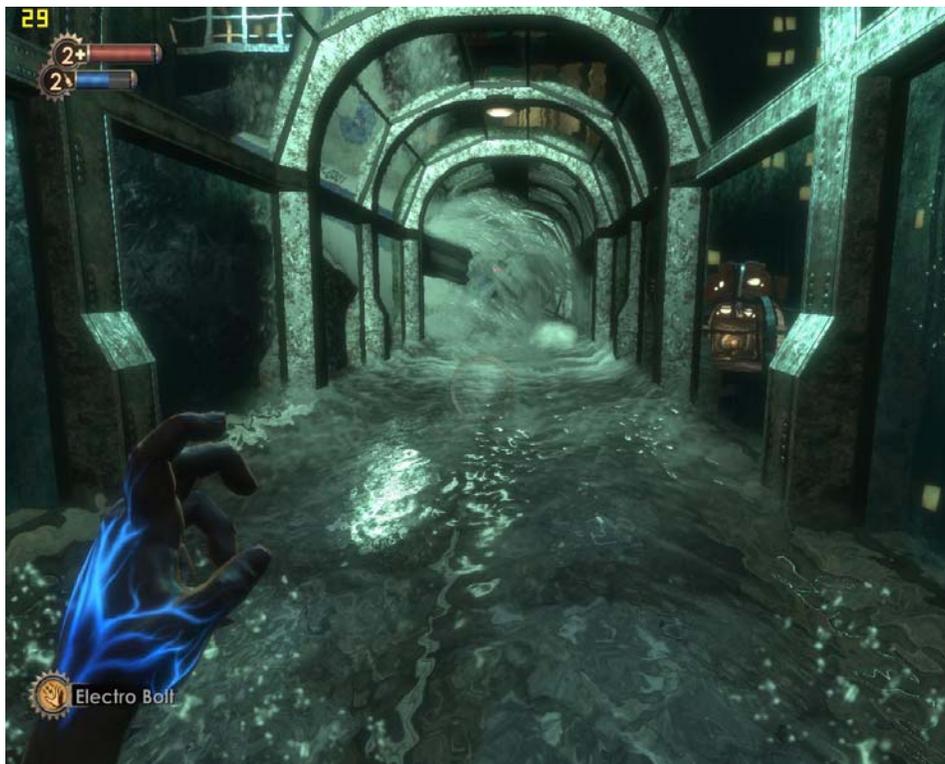
Bioshock. © 2K Games. Dev: Irrational Games. All rights reserved.

39. FOLIAGE

Just as with water, adding foliage helps to add contrast and break up the monotony of the urban setting. Add a park, few trees and bushes.

It adds much needed contrast of color and life.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Overgrown, abandoned locations add atmosphere and history to the environment.
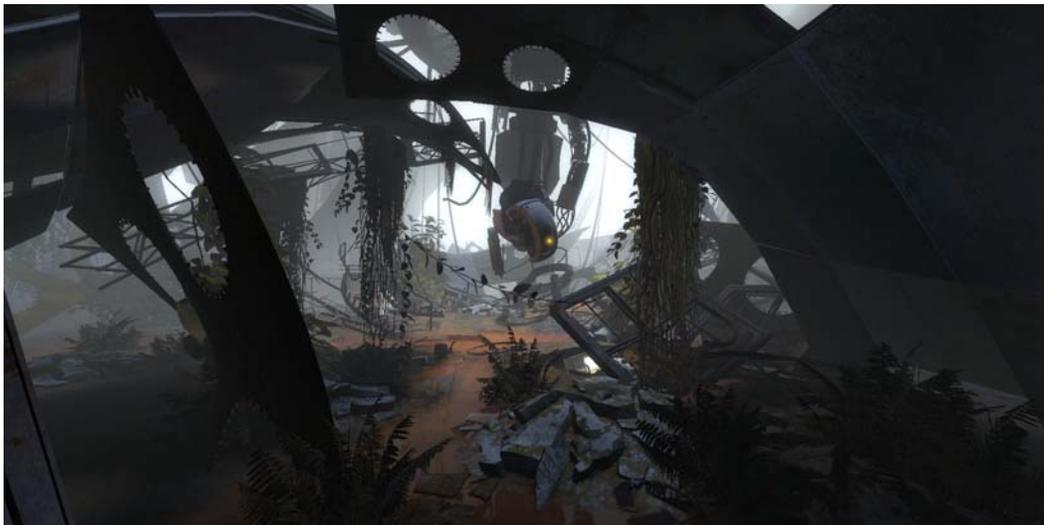
Portal 2. © Valve Corporation. All rights reserved.

Here are few screenshots from L4D2. Foliage here servers 2 functions. One is from visual perspective, second is to spawn AI infected.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

40. GRAFFITI AND POSTERS

Use posters and graffiti to tell a story of your level.

Use posters on the wall to foreshadow where the player maybe heading. This is a great way to subconsciously tell the player that is where they will be going before they actually get there. Implicitly guiding the player to their next location with posters, billboards etc.

Use billboards, graffiti and posters to re-enforce the story of you level.

L4D2 Dark Carnival Campaign Posters:

Left4Dead 2. © Valve Software. All rights reserved.

Electric billboards can make the world come to life. GTA 4 Billboards:

Grand Theft Auto 4. © Rockstar Games. All rights reserved.

Graffiti written on the walls by those who were there before you; this adds depth to your environment.

L4D2 safe rooms.

Left4Dead 2. © Valve Software. All rights reserved.

41. MINI GAME YOUR LEVEL

Mini games within your level can offer a distraction and give the players to have a bit of fun. There is also interactivity involved. Making the player participate in the environment.

Make sure mini-game makes sense within your theme and your environment location.

Shenmue is one of the games with an extensive mini-games collection. GTA4 is another one.

Grand Theft Auto 4. © Rockstar Games. All rights reserved.

L4D2 has few mini games within its Carnival campaign.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

42. MULTIPLE PATHS ALTERNATE ROUTES

Give the player ways to get to the same location different ways. Give them an option of going path a or path b. Give them freedom to choose.

Either choice leads to the same location, but having the freedom to choose is important.

L4D2 Sacrafice, here gives you an option of going to the side alley or going through the building. Create an illusion of freedom by giving the player a choice where they want to go.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.
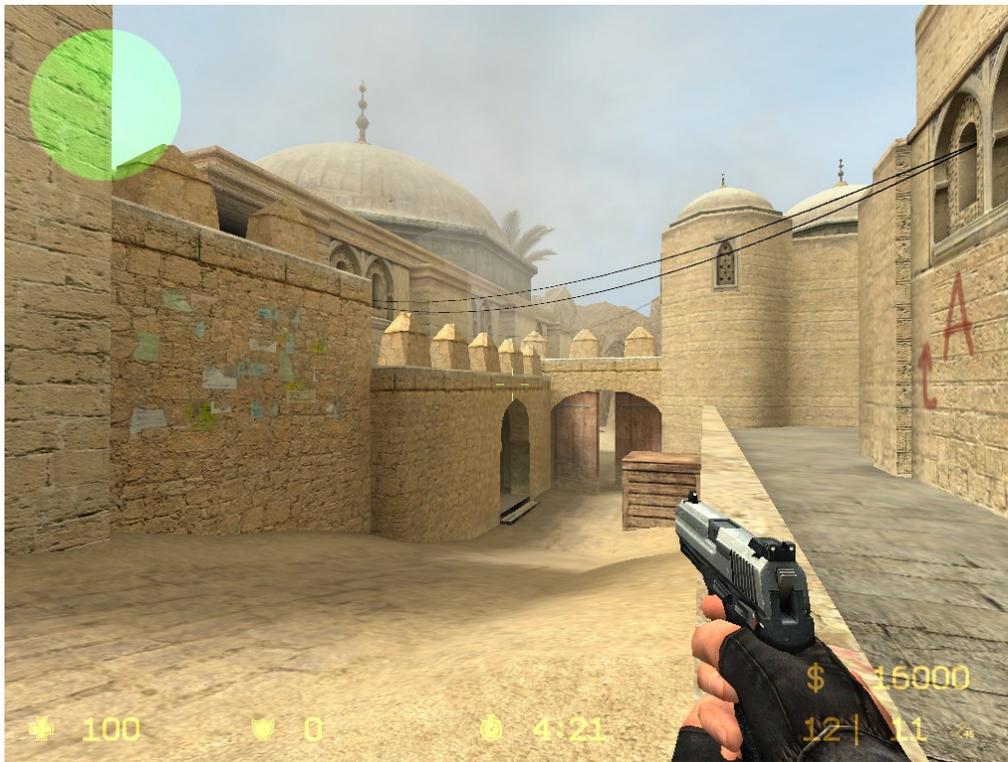
Counter-Strike Source. © Valve Software. All rights reserved.

Do this for multi-player and single player maps.

43. Z-Axis, Height Element

Design areas where there are vertical option of navigation. Higher and lower levels. If the player falls down, they will have to get back to higher ground.

L4D2 Swamp Fever examples:

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Remember to make getting back up near by. Do not frustrate the player and make them track back to a ladder or a ramp too far away. Make it easily accessible. You want them to think, "Shit, I have to get back up." And not "Shit, I have to walk back all the way back there to get back up?"

Instead of sprawling the map over a flat terrain, x and y-axis. Adds height elements as a way to create tension. Elevation also add a strategic element to your maps.

Left4Dead 2. © Valve Software. All rights reserved.

Add the ability to go onto rooftops:

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Create elevation such as floors, terrain and a reason for players to get up top or go below.

Also don't forget that z-axis doesn't always mean up. It could mean down. Sewers and caves.

Dark, and slow moving areas because of water add tension. You can't see but few feet in front. Make these areas very simple to navigation through. Make sure that you can see where you need to go by placing a simple light in the distance or making the player only move forward. Do not create mazes. Simple straightforward approach works best for the sewers. Keep it very simple.

*Call of Duty: Modern Warfare 2 © Activision. Dev: Infinity Ward. All rights reserved.*

Uncharted 2. © Sony Computer Entertainment. Dev: Naughty Dog. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Rochelle protected Coach
Ellis protected Rochelle
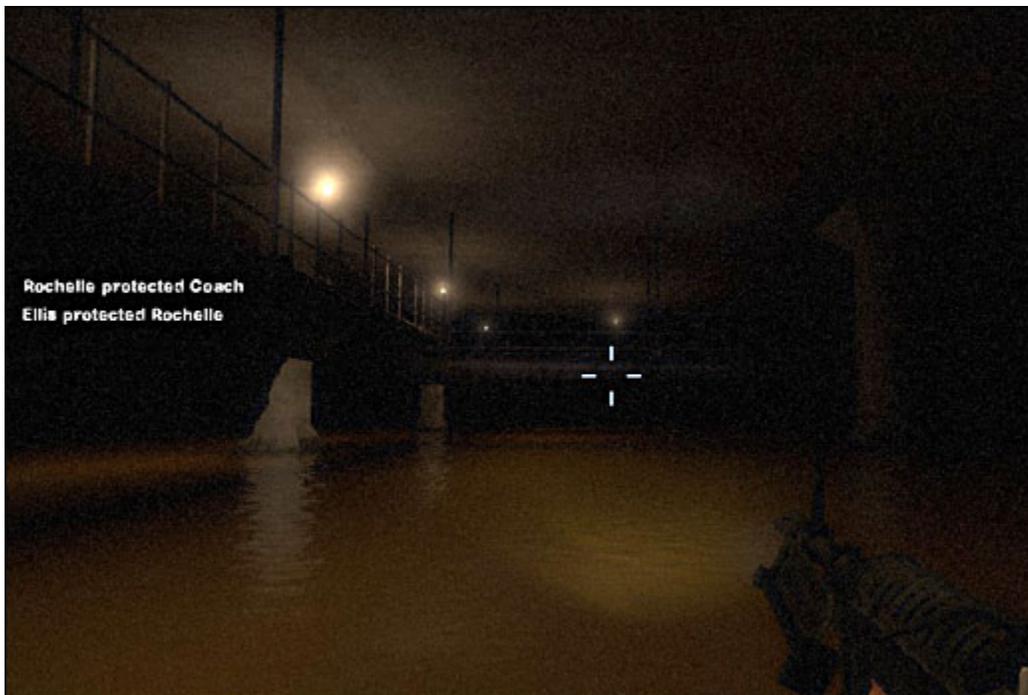
Left4Dead 2. © Valve Software. All rights reserved.

Half Life 2. © Valve Corporation. All rights reserved.

44. BACKTRACKING LOCATIONS

Another option to design your level so the player starts in one location then has to come back to the same location later on in the campaign. Vary the time of day; time in the future, weather.

Study L4D2 Hard Rain to see how this was done effectively. Player starts during a slight summer sunset rain and by the time they return to the same area, it has been flooded, it is nighttime and it is during a sever thunderstorm.

Before:

Left4Dead 2. © Valve Software. All rights reserved.

After:

Left4Dead 2. © Valve Software. All rights reserved.

Alan Wake example again. Same location, different feeling.

Alan Wake. © Rockstar Games. Dev: Remedy Entertainment. All rights reserved.

45. LANDMARKS AND FOCAL POINT

Landmarks are very important part of level design. They have a functional and visual purpose.

Use of landmarks helps to **guides the player to their next location**; it creates a **focal point** and a sense of **consistency** if that landmark is used through multiple maps. It also helps to tell a story.

Landmarks could be architectural buildings, landscape feature or something that is part of the bigger story.

Call of Duty: Modern Warfare 2 © Activision. Dev: Infinity Ward. All rights reserved.

Half Life 2. © Valve Corporation. All rights reserved.

Half Life 2. © Valve Corporation. All rights reserved.

L4D2 is amazing at using landmarks.

Sign during the storm in Hard Rain:

Left4Dead 2. © Valve Software. All rights reserved.

Gas Sation sign in Hard Rain during cornfield sequence:

Spotlights in the distance in Dark Carnival:

You can use the landmark as the entire location for your level or use a landmark as a far off focal point to guide the player and tell a story.

Statue of Liberty in the distance in Crysis 2.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Grand Central station landmark as part of the entire level.
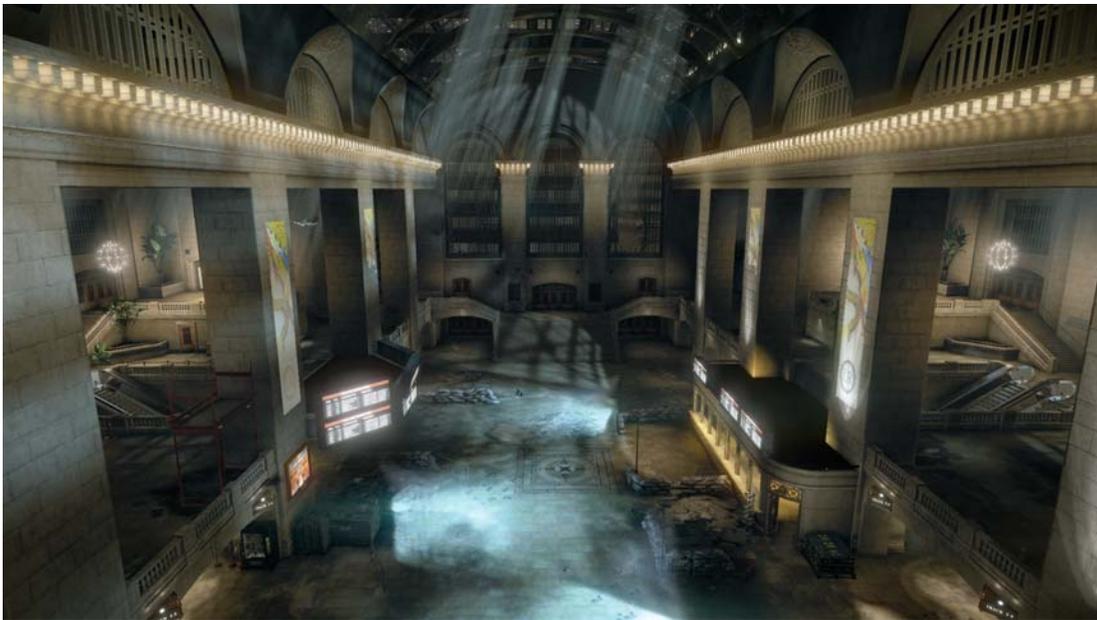
Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

46. PLAYER OBSTACLES AND COVER

Make the player navigate around the obstacle. It could be a hole in the floor or a bus/truck in the way.

Make the player participate in your environment. These obstacles also provide cover for AI and the player.

Make the player think of how they want to approach any given path.

Crysis 2:

Environment obstacles in L4D2.

Cover in Modern Warfare 2.

47. LIGHTS AND SHADOWS

Create contrast in your environment when you begin lighting. Pay attention to shadows and light areas. Don't make your environment evenly lit.

Focus on interesting light and shadow play. This applies to interiors as well as exteriors.

GTA4 late evening light and shadows.

Grand Theft Auto 4. © Rockstar Games. All rights reserved.

Strong light and shadow play in Crysis 2:

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Interior only in Bioshock:

48. INTERIOR NATURAL LIGHT

If you have predominantly interior environment, allow natural light into your environment. Put some windows, or an atrium. This will help to create more believable environment and it will help with a sense of scale.

Lighting shining through in Crysis 2.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

L4D2 Dead Center:
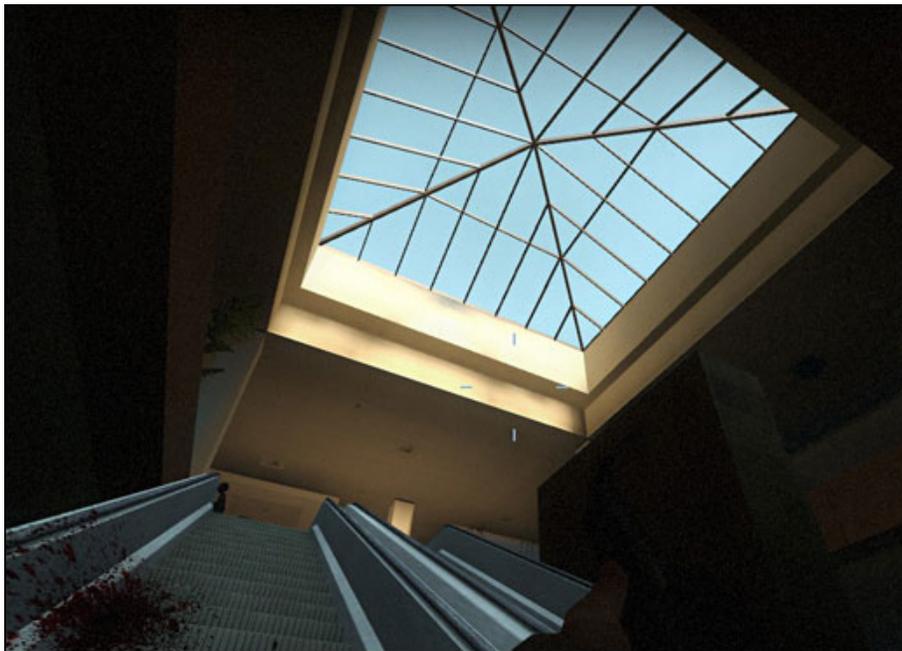
Left4Dead 2. © Valve Software. All rights reserved.

L4D2 Parish:

L4D2 Mall:

49. COLOR PALETTE AND COOL VS WARM

Establish a color palette that you level will use. Is it daytime or night time? Evening or morning.

Each one of these has a different color palette.

If it is interior and no natural light, figure out how you will create that and what lighting scheme you will use.

Color theory is very important to designing the feeling and emotion of your environment. It has a huge impact on the visual quality of your environment. One of the ways is to balance cool vs warm color palettes. With using color correction or simply control the color of the lights, you can control your levels color palette.

Complimentary color palette in Thief: Deadly Shadows .

Blue vs orange. Cool vs Warm.

Thief: Deadly Shadows. © Eidos Interactive. Dev: Ion Storm Inc. All rights reserved.

Bioshock. Orange/reds vs green.

There are many color combinations you can use. With just a bit of knowledge of color theory, you can begin to light environments a lot better.

50. ATTENTION AND CONTRAST

Engaging the player and drawing their attention is becoming harder and harder. Our attention spans are getting shorter. We love to multi-task. There are a few techniques you can use to capture the players attention and draw their eye. To guide them to their next location, show something important and tell your story.

Use contrast. Get their attention by using:

- Architecture

- Silhouette

- Lighting

- Movement

- Sound/noise

- Scripted events

- Cinematics

Scripted Events, Movement and Noise/Sound:

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

Broken wall holes, or holes in the floor. Broken tree stumps among the forest. Use **silhouettes** that add contrast and grab attention of the player.

Left4Dead 2. © Valve Software. All rights reserved.

Left4Dead 2. © Valve Software. All rights reserved.

Contrast of objects out of place:

Left4Dead 2. © Valve Software. All rights reserved.

Crysis2. © EA, Dev: Crytek Frankfurt. All rights reserved.

## Contrast light vs dark, warm vs cool:

Bioshock. © 2K Games. Dev: Irrational Games. All rights reserved.

Contrast in geometry:

Half Life 2: Lost Coast. © Valve Corporation. All rights reserved.
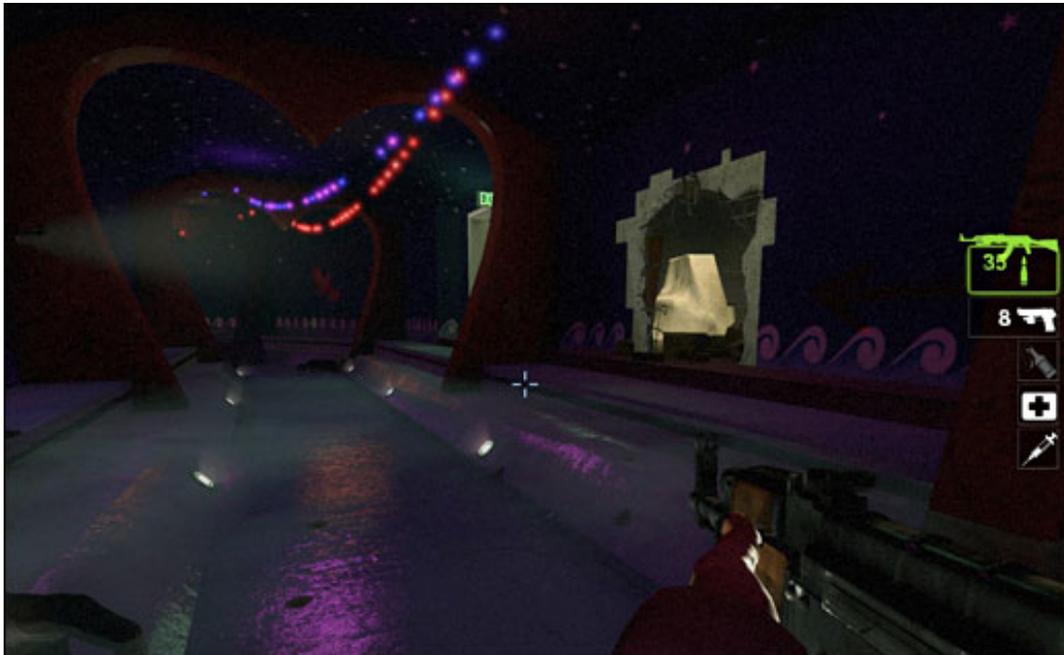
Left4Dead 2. © Valve Software. All rights reserved.

Contrast in props:

Left4Dead 2. © Valve Software. All rights reserved.

51. DETAILS

German-born architect Ludwig Mies van der Rohe said, "God is in the details."

Once you have gone through majority of your environment creation. It is time to dedicate a pass to details.

Details will add an extra polish to your map. You don't need to detail your entire map. Only areas where the player will spend a lot of time in or he/she will be up in close contact with that area.

Add details in the environment for more believability such as garbage, debris, decay, smoke from sewers, flies, firebugs, various objects/props on the ground etc.

Debris, garbage, decay:

Left4Dead 2. © Valve Software. All rights reserved.

Street details, debris:

Sun lens flare and atmospheric fog in the distance:

Left4Dead 2. © Valve Software. All rights reserved.

Road details, car placement, environment decay:

52. INTERESTING GAMEPLAY SPACES

Design interesting gameplay spaces. Spend time researching your location, setting up the story and picking a theme. Don't open the editor until you have something interesting that hasn't been done before or unique take on already created environment. If it has been done, just make it your own way and better.

Portal 2. © Valve Corporation. All rights reserved.
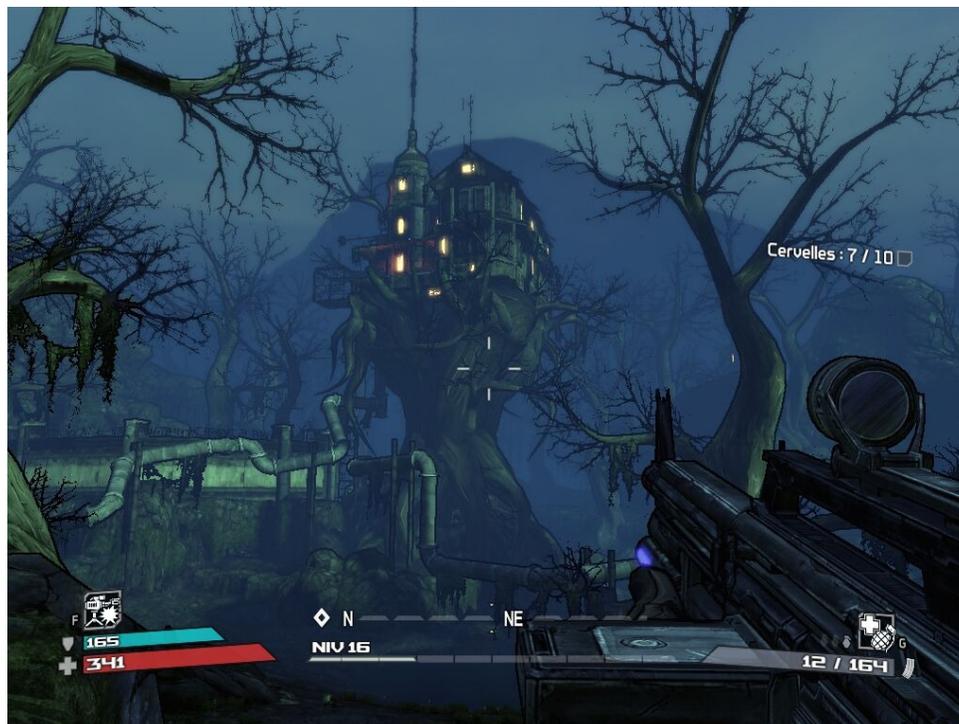
Borderlands. © 2K Games. Dev: Gearbox Software. All rights reserved.

Assassin's Creed 2. © Ubisoft. All rights reserved.

Uncharted 2. © Sony Computer Entertainment. Dev: Naughty Dog. All rights reserved.

53. SPEND TIME ON SOUND DESIGN

Spend time on sound design. Sound in your level is just as important as the visuals. You can't have one without the other.

Try watching an action movie or play your favorite game without any sound. It removes you from the experience.

The key to sound is to be subtle. Don't draw attention to it.

Watch videos of the environment you are trying to create. Pick out various sounds and re-create them in your map.

Close your eyes as you working on your level sound design. Use headphones and listen. Does it communicate the environment feeling and atmosphere you are after? Does the sound match the environment you are creating?

Look at this screenshot and make a list of sound that you think it would need to match the atmosphere and feeling of the busy NYC street.

Look at your map and make a list of all the sounds that you think the map will need to bring the experience and quality of the map to match the visuals.

54. RELEASE, LEARN, RE-APPLY

After you have released a map. Take inventory on things you learned. What went well, and where you could improve. Once you have created something and released it to the public, you will be that much better and that much closer on your level design and game environment art journey.

Remember, the key is to release your game environment art, your level designs. You will learn more from releasing one map, then from ten maps that went unreleased.

55. STUDY REAL WORLD

Study the world around you as much as possible. Learn about things that peak your interest.

The more you reach out to other unrelated industries and hobbies that have nothing to do with level design and game art, the more ideas and depth your work will have.

ABOUT ME:

My name is Alex Galuzin. I am 31 years old as of 2011 and with a B.F.A. in Computer Animation from Ringling College of Art and Design.

My other website is AlexGaluzin.com where I started to release some of my maps and tutorials until I decided to dedicated a whole website to it.

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I love creating worlds and environments. It is my passion. I am aspired to become the top designer in this field and I hope you become inspired by my website, this e-book and the information to create interactive, fully explorable worlds. I am going to teach, inspire and create environments until there is no more games and/or the Internet.

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