GDC 2013: 10 principles for good level design

Dan Taylor

**1. Good level design is fun to navigate**

For a smooth and enjoyable experience the player should always know where to go. This can be achieved through the use of visual language like light and geometry. [Mirror’s Edge](http://www.edge-online.com/news/gdc-2013-10-principles-for-good-level-design/www.edge-online.com/review/review-mirrors-edge/) is a strong example of this as the red parts of the scenery offer the most obvious route. But there is a difference between intuitive to navigate and fun to navigate. Don’t make navigation too clear; [Modern Warfare 2](http://www.edge-online.com/review/review-modern-warfare-2/)’s Favela stage succeeds because it is so different to the others in the game – a tight, twisty maze with a really good sense of dramatic tension. Confusion is cool.

**2. Good level design does not rely on words to tell the story**

A good piece of communication is like a broken circle – make that break too big and the payer won’t bridge the gap. Make it too small and it’s too easy and the player gets bored. Use mise-en-scene – the art of telling the story through the environment – to add detail to your narrative without being completely explicit. The master of this implicit language is [Bioshock](http://www.edge-online.com/review/bioshock-review/), naturally.

**3. Good level design always tells the player what to do, but never how to do it**

Keep your guidance concise and clear, and make sure you provide multiple paths. A good example of these more nebulous kinds of objectives are the Skyrim Dark Brotherhood missions, in that the player knows what to do, but the game never tells them exactly how to approach their tasks. It is up to them – It’s important not to punish the player for improvisation.

**4. Good level design constantly teaches the player**

Taylor recommends Raph Koster’s A Theory Of Fun for a deeper exploration of this principle (and many others touched upon here). Essentially Koster says that the human mind enjoys storing and decoding patterns, so your game should always be giving the player new patterns to analyse and resolve. The best example of this principle is any game in the Zelda series. Each dungeon is one massive tutorial, in that it gives you a new item, teaches you how to use it and finally tests your mastery of that weapon in the boss battle. Often, the game’s final boss will test several, if not all, of the weapons skills you’ve learned throughout the game.

**5. Good level design is surprising**

Bethesda game uses a specific play loop in creating their games – learn, play, challenge, surprise, says Taylor. Keep everything fresh by not falling into a routine, and avoid the ‘rollercoaster method’ of game pacing – that is, a steady overall increase in play intensity with large peaks and troughs along the way. It’s too predictable. Fun is created by uncertainty; the Ishimura stage in [Dead Space 2](http://www.edge-online.com/review/dead-space-2-review/) revisits the eerily silent ship from the first game and holds back the expected alien onslaught for around 15 minutes. It generates a great sense of tension and surprise this way.

Game designers must seek to surprise, but be sure it works, added Taylor. It is the game designers’ responsibility to mitigate that risk. It’s absolutely crucial that if you’ve got anything risky, you grey-box it and test it as soon as possible.

**6. Good level design empowers the player**

Real life sucks, says Taylor – videogames are about escapism and should allow players to do things they can’t in real life. In most games, players want to be badasses, and games like [Red Faction Guerilla](http://www.edge-online.com/review/review-red-faction-guerrilla/), (through its destructible terrain mechanic) and [InFamous](http://www.edge-online.com/review/review-infamous/) (with its balance between player action and consequence), are good examples of how to make the player feel powerful.

**7. Good level design is easy, medium and hard**

Taylor has a big problem with the whole concept of choosing a difficulty setting before the game even begins. “It’s an arbitrary choice which will completely change the players’ experience with the game,” he said. Instead, focus on the risk/reward balance. The Burnout games are the kings of this concept, said Taylor, as through taking trickier shortcuts the player is rewarded and they are neatly marked out by bright yellow barricades – a strong example of the series’ visual language. There’s no difficulty select in Burnout because players can essentially select their own. An alternative way of stage design being easy, medium and hard is the more layered approach within[Dishonored](http://www.edge-online.com/review/dishonored-review/). It offers multiple paths for various player styles and aptitudes, all the while extending replayability – smart and efficient stage design.

**8. Good level design is efficient**

Modular design is your friend for efficient game design, says Taylor. One problem with game design is that once the player completes a task, they’ll rarely revisit that part of the game world unless they are incentivised, or it is built into the mission design. Consider bi-directional play so that all of your artists’ work doesn’t flash by, never to be seen again. In the Halo series, for example, there are several stages in which the first half of the mission is about reaching a destination using one style of play, before returning back through the same area with different weapons or modified circumstances. Non-linear design should give the player implicit objectives which encourage exploration – don’t pad it out with scattered collectibles, like the Skulls in Halo, Cogs in Gears Of War and Feathers in Assassin’s Creed.

**9. Good level design creates emotion**

There are plenty of ideas in architectural theory which can be used in videogames to create certain emotional responses, says Taylor. Spatial empathy is important, too. When games like [Tomb Raider](http://www.edge-online.com/review/tomb-raider-review-2/)switch from narrow, claustrophobic corridors out to a large open spaces, Crystal Dynamics is creating a sense of liberation in the player. Adding verticality to stage design can help prompt a sense of persecution, and a feeling of hope can be evoked by placing a large reward at the top of an in-game obstacle. Taylor tends to work backwards here, in that he uses the emotion he wants to prompt in the player as the starting point for the stage design, before thinking about the techniques he can use to enable that.

**10. Good level design is driven by mechanics**

Videogames are driven by interaction, says Taylor, so stage design should be considered as a ‘gameplay delivery system’. That means bringing together artists, stage designers and programmers to work towards the same goal – interdisciplinary communication is vital for success, added Taylor, suggesting that games like [Deus Ex Human Revolution](http://www.edge-online.com/review/deus-ex-human-revolution-review/) and [Batman: Arkham City](http://www.edge-online.com/review/batman-arkham-city/) use and re-use or modify the game’s core mechanics to achieve variation, keep the player engaged and most of all, showcase each game’s mechanics.