GAMES 'n stuff v2
06/11/2013
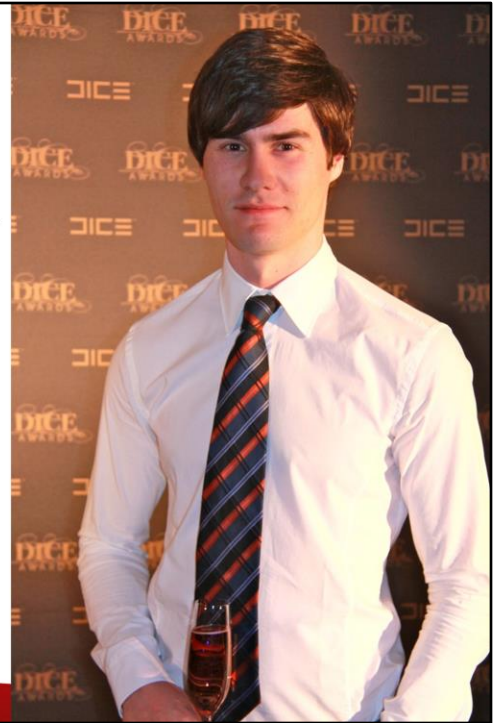
ME
Lukas Van Daele

- Level Designer
  - Partying, tech-trance/metal, guitar, VFX, card games.
- 23 years old
- Mods 'n stuff
- 3y Digital Arts & Entertainment (Belgium)
- Internship @ DICE
- 2,5y as a professional
  - Battlefield 3
  - Mirror's Edge (2)

Started with building-like games: Rollercoaster Tycoon, Age of Empires 2 map editor
2D game creation, 3D maps (Far Cry), mods.

SHOW E3 TEASER TRAILER

Mirror's Edge ('2')

F.A.Q.
Frequently asked questions

- When and why did you start working in this line of work?
- What did you do to get a job at DICE?
- What DICE game is your favorite
- What would you like to do if you didn't work as a level designer?

- How big was the design team for BF3?

- What's your view on your rivals?
- What do you feel is the most important thing to make the gamer feel entertained?

- What's the most importance difference between an AAA studio and an indie studio?
- Describe how you work with EA?
- Do you need major math skills to work at DICE?

When and why did you start working in this line of work?
- ...
What did you do to get a job at DICE?
- Portfolio, design test, interview
What DICE game is your favorite
- Mirror's Edge, BFBC2 (fondest memory even though BF3 is a better game).
What would you like to do if you didn't work as a level designer?
- Try getting back into art, VFX for movies.

How big was the design team for BF3?
- Team as a whole 200+, design team around 15-20?

What's your view on your rivals?
- They do a great job ☺ Rivalry is good.
What do you feel is the most important thing to make the gamer feel entertained?
- Players value different things so it's important to stick to your guns and decide on your goal publicly and go through with that in the best way possible.

What's the most importance difference between an AAA studio and an indie studio?
- Money, lol. Creative freedom in a way but then again, you would never be able to do something as GIANT without that funding! So it all depends on what YOU want to make.
Describe how you work with EA?
- They own us so they approve projects, besides that DICE is surprisingly independant!
Do you need major math skills to work at DICE?

- As a programmer, yes... And not only maths but also physics (collisions, etc...).
- For pretty much all jobs logic skills are necessary. Art is very technical, level design needs logic, etc...

INDEX

- **1) GAMES & DEVELOPMENT**
- **2) DICE**
- **3) GAME DESIGN THEORY**
- **3B) LEVEL DESIGN**

MARKET CHANGES
Games then & now

Boxed
- CD´s, manuals, maps, …
- Expansions

Digital
- DLC
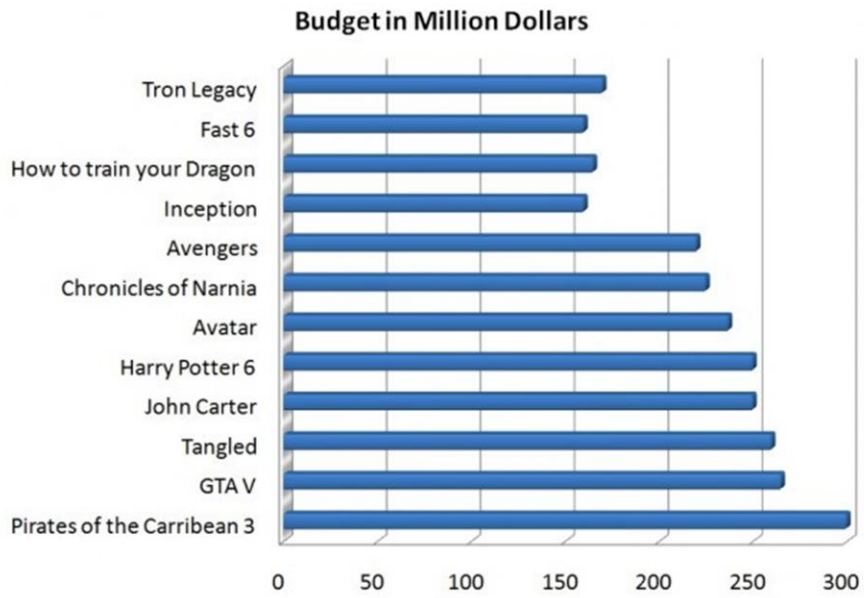- Pre-order bonusses
- Subscriptions
- Micro-transactions
- Full game

Used to have big boxes, some kind of ownership.
Very thick manuals, multiple CD's, maps.
(Explain EULA, you own a license. - Perhaps)
Games are becoming a service rather than a package deal.
Basically: The price model is changing!

GTA V –VS– MOVIES

Budget in Million Dollars

Title	Budget
Tron Legacy	~170
Fast 6	~160
How to train your Dragon	~165
Inception	~160
Avengers	~220
Chronicles of Narnia	~225
Avatar	~237
Harry Potter 6	~250
John Carter	~250
Tangled	~260
GTA V	~265
Pirates of the Carribean 3	~300

DAYS TILL 1 BILLION $ REVENUE
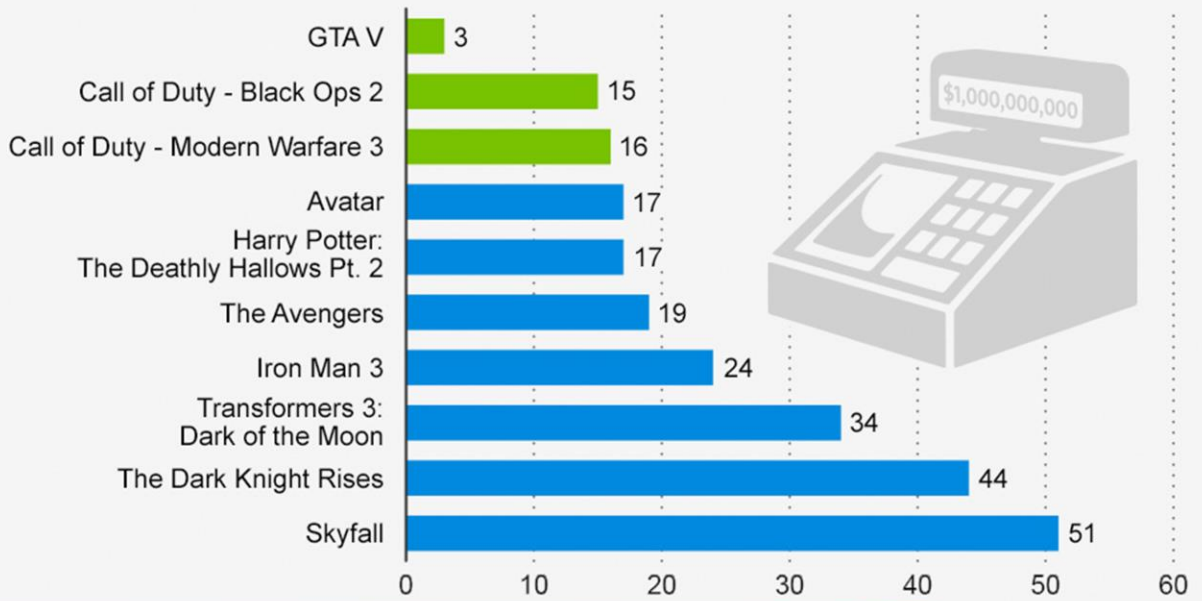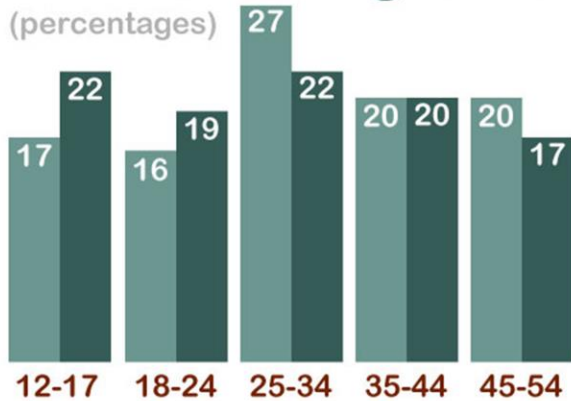
Title	Days
GTA V	3
Call of Duty - Black Ops 2	15
Call of Duty - Modern Warfare 3	16
Avatar	17
Harry Potter: The Deathly Hallows Pt. 2	17
The Avengers	19
Iron Man 3	24
Transformers 3: Dark of the Moon	34
The Dark Knight Rises	44
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AGE

65% The percent of US households that play video games

2 out 5 gamers are female

gamer age distribution

26% under 18
49% 18-49
25% over 50

32 YEARS OLD
the age of the average gamer
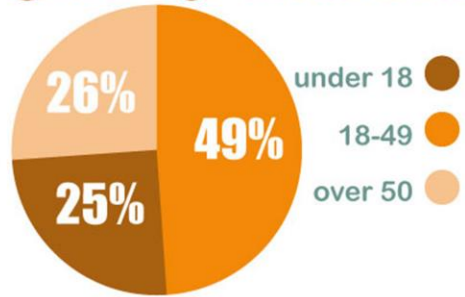
TYPES OF COMPANIES

First-Party developer
- Nintendo
- Naughty Dog
- ...

Third-Party
- DICE (Publisher owned)
- Crytek (Self-published)
- ...

Independant (Indie)
- Mojang
- Rovio Entertainment
- ...

How funding affects this:
Funded by your publisher... Or Kickstarter, rich daddy, lottery...
Valve and steam publishing. (Cutting the middle man)

JOB ROLES

Management team
- CEO
- Producer
- Managers/directors ...

Development team
- Programmer
- Artist
- Designer
- Sound engineer

Support
- Game tester
- Publishing
- Marketing

Other departments
- Engine team (Frostbite)
- Outsourcing
- Motion Capture

Producers/directors outside game teams, overarching multiple stuff. And some that are part of the dev team.
Each discipline has multiple branches of specializations.

GAME DEV CYCLE
(1 game process)

Concept phase
- What?

Pre-production
- How?

Production
- Making the game

Post-Production
- DLC, patching, ...

Total = Usually 2-3 years

Go over this fast, more in depth information in the DICE section.
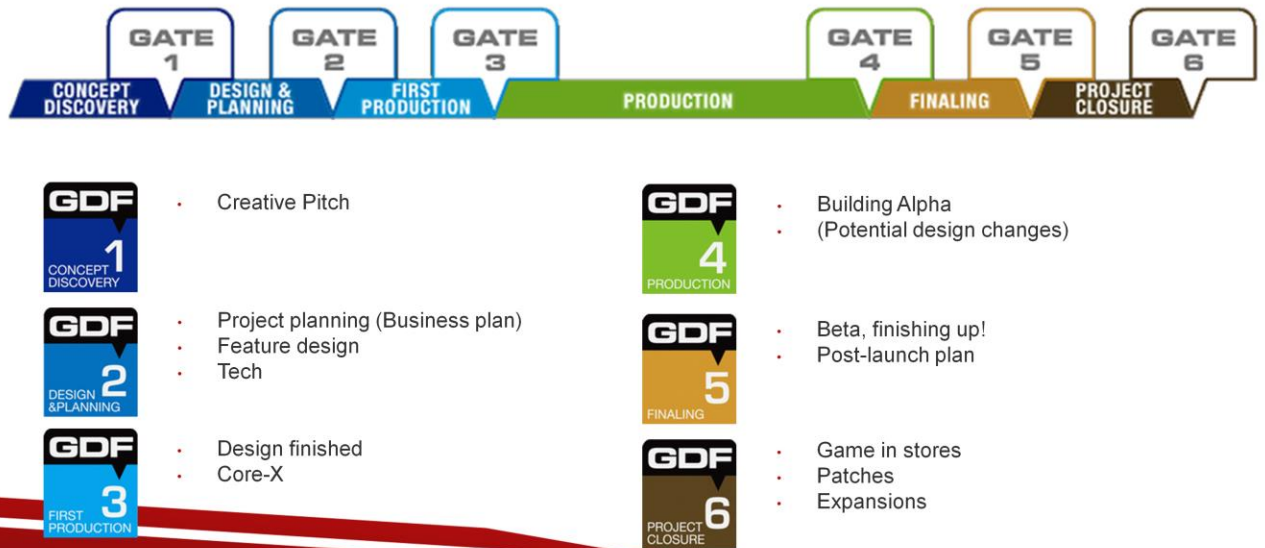
CONCEPT DISCOVERY:
- Ideas: - FPS, MMO
- Business: How to be profitable

DESIGN & PLANNING:
- Core-team, more artists/designers, ...
- What tech will we need to build, CAN we make it?
- Design documentation

FIRST PRODUCTION:
- Design docs are finished (can still change though!)
- Build Core – X, all important features present

PRODUCTION:
- Full team

FINALING:
- People moved off the project, some work on further DLC.

PROJECT CLOSURE:
- DLC team keeps working, patches keep on getting released.
- The rest of the team on different project
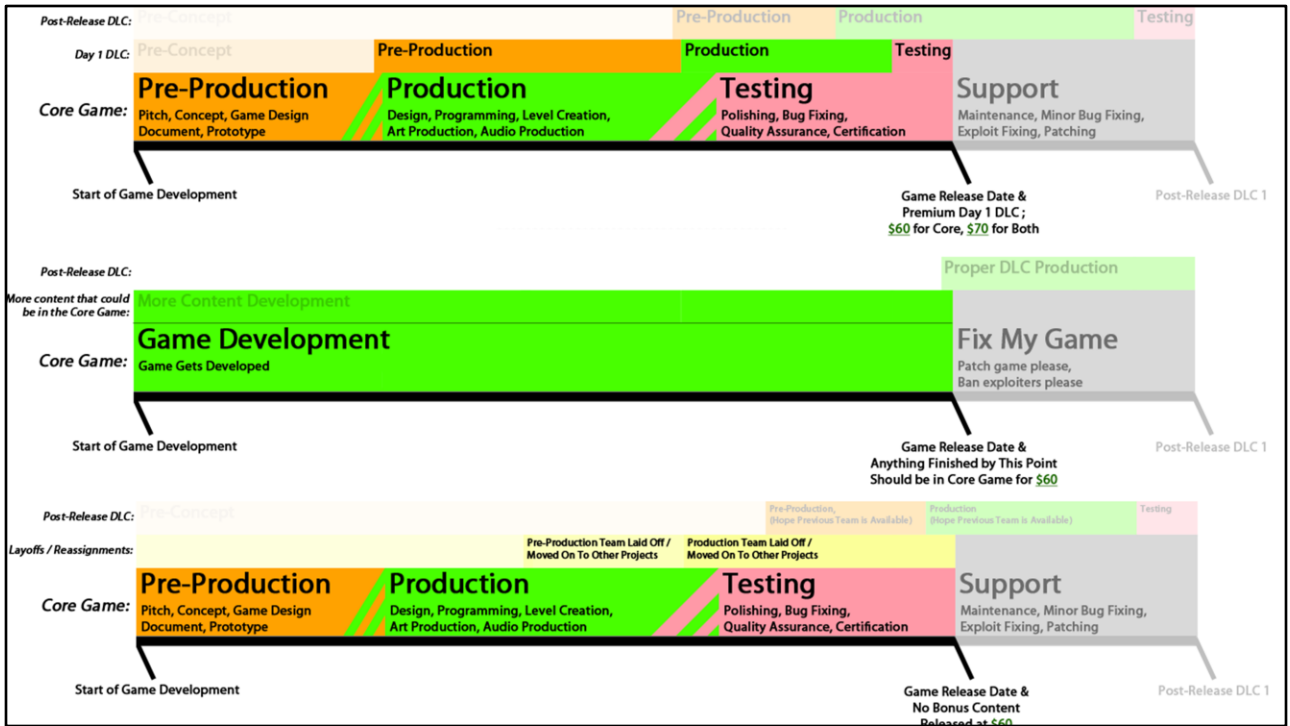
DLC. Gamer entitlement.
DICE LA, different studios. Act almost like independent studio, need to pay for their stuff as well!

2) DICE

Founded in 1992
EA acquisition in 2006
300 employees
- 19% non Swedes (me!)
- 18 Nationalities
- 10% girls
- 22% of Sweden's game devs work at DICE

Battlefield series sold over 50 million copies
BF3 sold 25 million copies

1992: 4 guys in highschool

DICE TIMELINE VIDEO

Battlefield
Mirror's Edge
Star Wars Battlefront

Rallisport Challenge
Midtown Madness 3

DICE OFFICE

WORKING AT DICE

The good
- Social interaction
- Casual attire
- Flat hierarchy
- Pub Friday once a month

WORKING AT DICE

Perks
- Expo's
- Shooting range
- Trips

3) GAME DESIGN THEORY

- Design in general
- Design doc
- Player archetypes
- Flow
- Risk/Reward
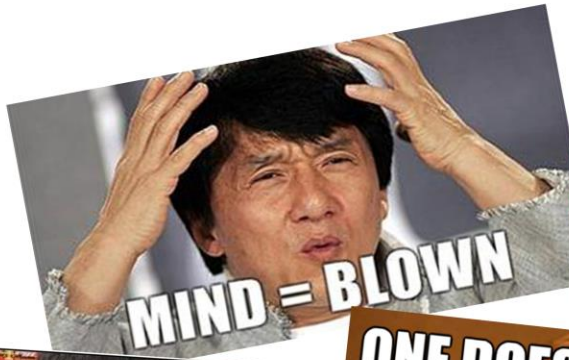
DESIGNING GAMES
(Any type of game, really)

Start from theme
- Design mechanics to reinforce theme

Start from mechanics
- Design theme around gameplay

Usually a bit of both.
Limitations in general = GOOD! = Out of the box thinking

GAME DESIGN DOC
And/or pitch doc

Mix of pitch/design information
- Created during concept discovery

Example:

GAME DESIGN DOC
DO's and DONT's

- Think when you introduce concepts/dependencies
  - Names of characters
- "Depth" at right time (Less is more)
  - Gameplay mechanics not focussed in 1 section
  - No overview
  - Way too long story intro <> Story dependent mechanics but story not introduced yet...
- Less is more
  - Short, focussed vision
- Find your "core" of the game
  - Add limitations, don't bloat with different features

PLAYER ARCHETYPES
Different types of gamers

Explorer
- Discovery, hidden stuff, easter eggs

Achiever
- More points, achievements, collecting

Socializer
- Player interaction

Competitor (killer)
- Vs players, leaderboards, ratio's

Story focussed
- Being a part of a cinematic experience

- Do the Bartle Test!

gamerDNA Quiz taken Oct 12, 2012 BARTLE GAMER PSYCHOLOGY QUIZ	EXPLORER E 87%	ACHIEVER A 47%	SOCIALIZER S 47%	KILLER K 20%

Players value different things.

COGNITIVE FLOW

Flow
- Extreme focus
- Sense of active control
- Merging of Action & Awareness
- Loss of self-awareness & time

- =Immersion

Flow enhancers
- Clear goals
- Player actions fit capabilities
- Clear & Timely Feedback
- Eliminate distraction

Skill / *Difficulty* — Boredom / FLOW / Anxiety
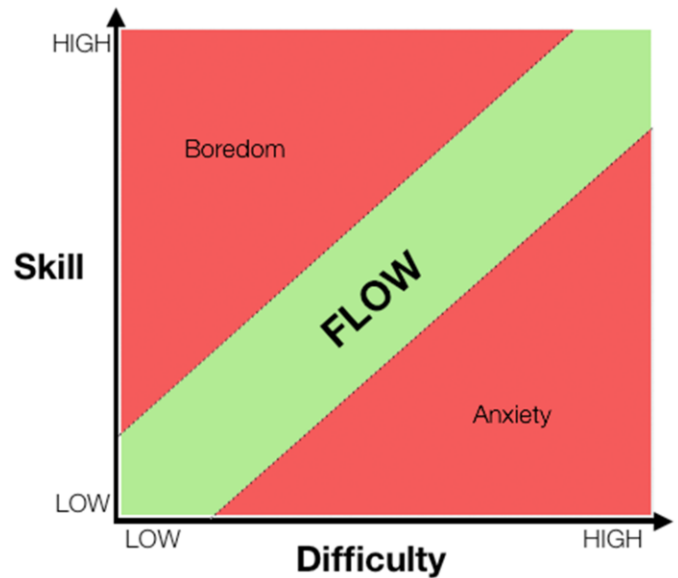
"The experience of the task being the only necessary justification for continuing it."

One must have a good balance between the *perceived* challenges of the task at hand and his or her own *perceived* skills. One must have confidence that he or she is capable to do the task at hand. =Your own skill versus the challenges in the game.

Flow killer: Taking away control (cutscene). Some personalities easier to get into the flow than others.

Clear goals: If not = Distraction
For instance Arkham City, player is bombarded with information = distraction = flow breaker.

FLOW ENHANCERS

Clear goals
- "Help! WTF am I doin´?!!"

Player actions fit capabilities
- Fair difficulty

Clear & Timely Feedback
- = Rewards

Eliminate distraction
- Keep player focussed

Performance (vertical axis: LOW to HIGH)

Zone of Optimal Performance

Arousal/Stress (horizontal axis: LOW to HIGH)
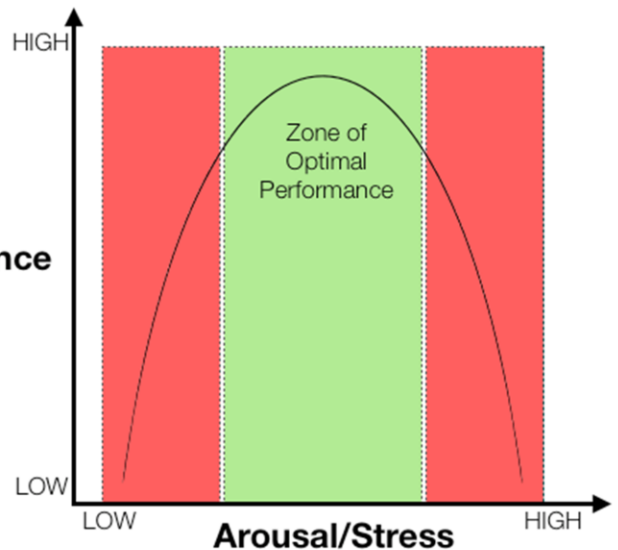
Clear goals:
People have limited information processing capabilities.
Introduce goals when the player is focused and the least distracted. Divided attention is bad!
Introduction of new mechanic during something else, new quest during conversation, ...

Player actions fit capabilities:
Act of achieving goals is a powerful reward, if you keep things manageable you can keep the player engaged.
If player can't complete goals then they may experience stress-provoking drops in performance. Kills flow states.
If goals become increasingly difficult to accomplish then the commitment to accomplishing these goals diminishes. Player will likely stop playing.

Feedback:
Feedback is accomplishment, empowers player to continue.

RISK & REWARD
= challenge

Common risks
- Waste of resources
- Player damage
- Impede progression
- Waste of time

Tedious bad, challenging good = excitement

Rewards
- Resource gain
- HP
- Continuing to play
  - Solving puzzle (mental challenge)
- Shortcuts (time)

Risk/reward is a system established by the arcade generation that rewards the player for taking a risk that goes beyond what they are asked to do normally.

If the player does not care if they improve then the player cannot be challenged. Ergo we've removed both risk and challenge from the game and made it "unfun".

RISK & REWARD
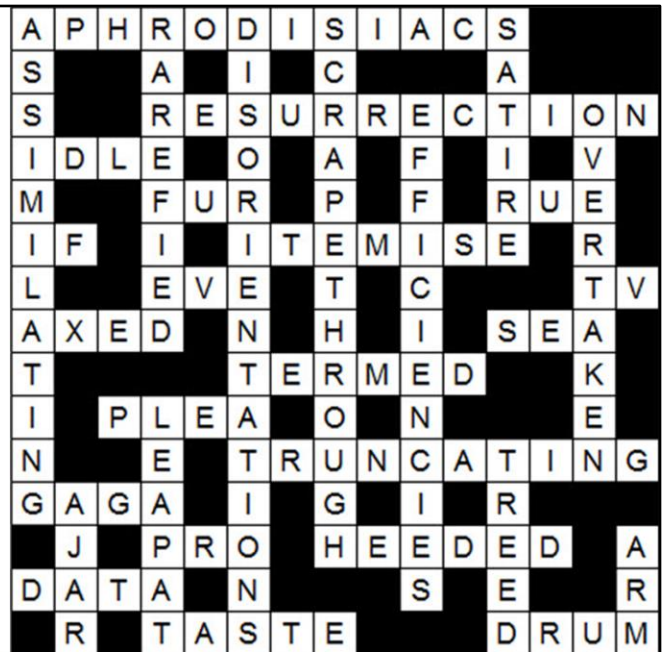= challenge

Common problem in lineair design
- Less risk
- Illusionary rewards as milestones

Example:

Flaws of lineair game design
- Vs crossword puzzle

Crossword puzzle game. Multiple crossword puzzles, increasing in difficulty each time.
Clear goal: Finish puzzle
Reward: Filling in a word gives clues about the next words
Risk: Filling in the wrong word potentially sets you back!
However, players can fill it without needing the other words. IF the player has the skill he can bypass chunks of the game.

In a lineair game this is not possible. If you have a door game, you need to open door A to be able to pass through door B.
There is no way for the player, even if he has aqcuired the skills for door B to go there without first completing door A.
The conclusion is that levels have milestones to rewards the player rather than having rewards for player skill. = "Rollercoaster ride throughout the game"

3B) LEVEL DESIGN THEORY

Singleplayer
- Guidance
  - Functional lighting
  - Composition
- Env story telling

Multiplayer
- Balance
- Layouts

LEVEL DESIGN PROCESS
Constant iteration

Paper design
- Write doc
- Sketches, layouts

Prototyping
- Test level specific mechanics

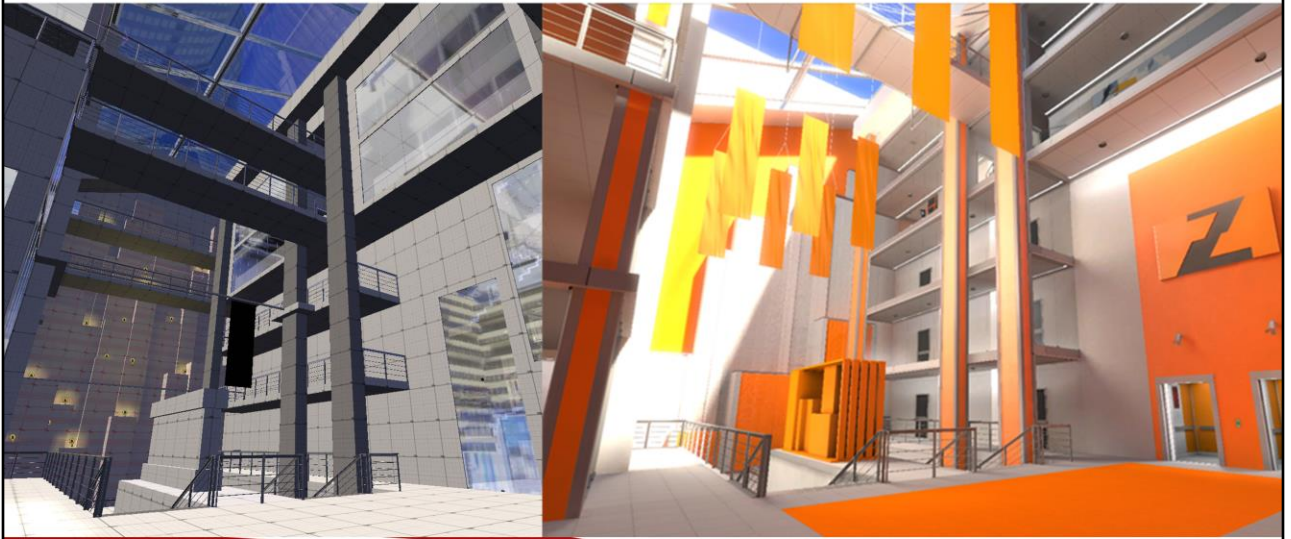Whiteboxing
- Level block out
- Scripting

Playable
- Polish + tweaking

LEVEL DESIGN PROCESS
Mirror's Edge

LEVEL DESIGN PROCESS
BF3 – Coop (Drop 'em like liquid)
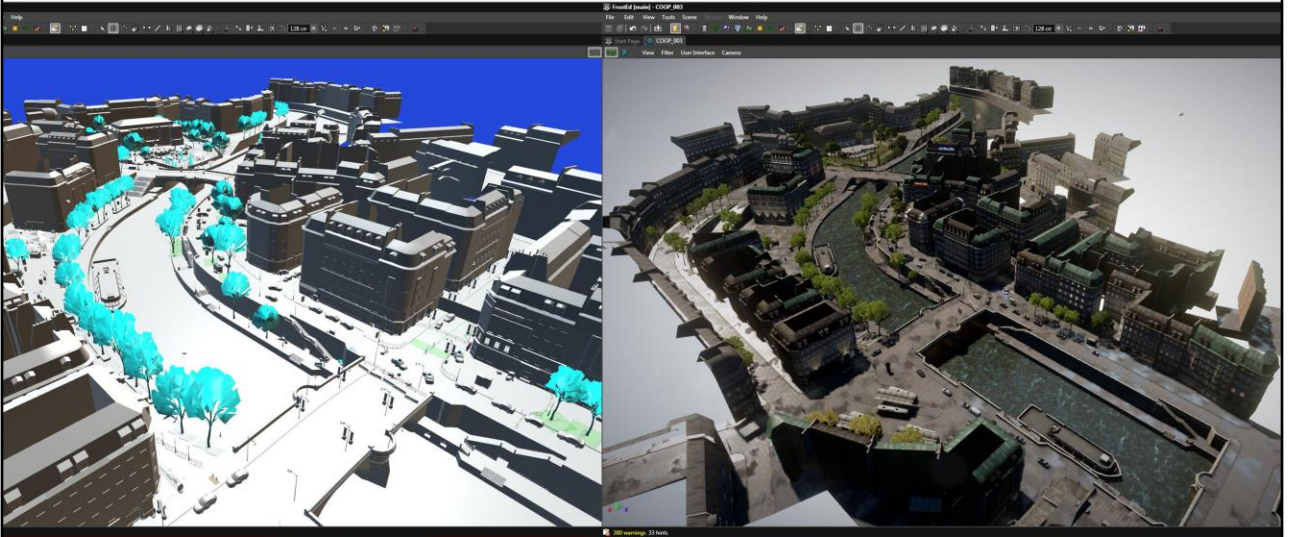
LEVEL DESIGN PROCESS
BF3 MP – Strike at Karkand
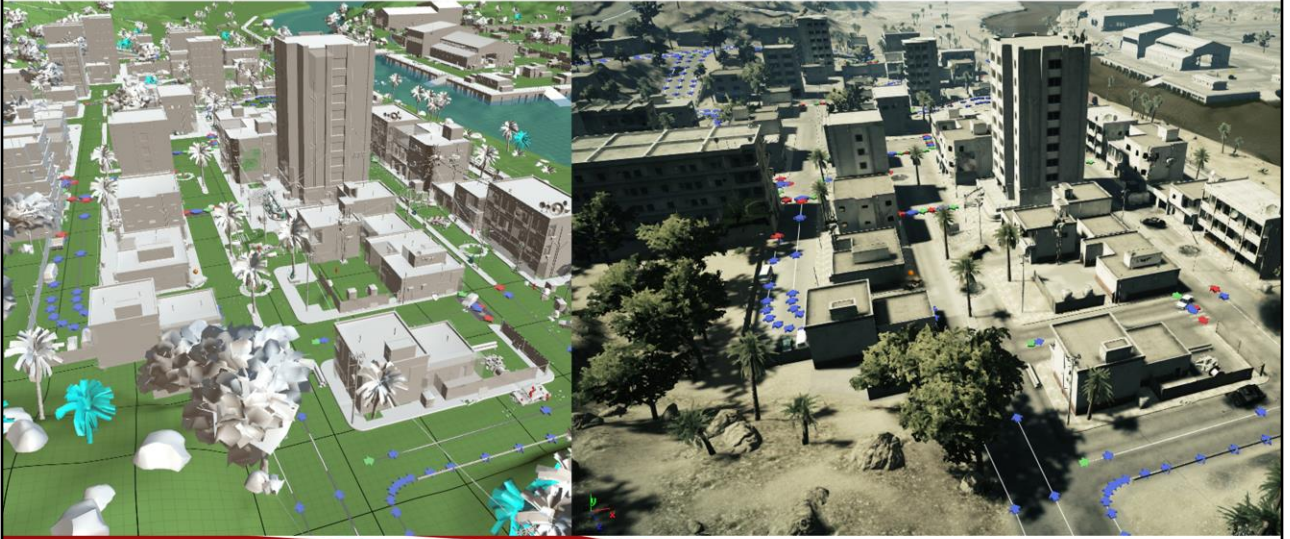
GUIDANCE
Helping players find their way

"How do you know what to do and where to go?" - mom

- Lighting
- Composition
- ...

- UI = Last resort

GUIDANCE - LIGHTING
Functional Lighting

Magnar Jenssen

Environment is well-lit but nothing stands out.
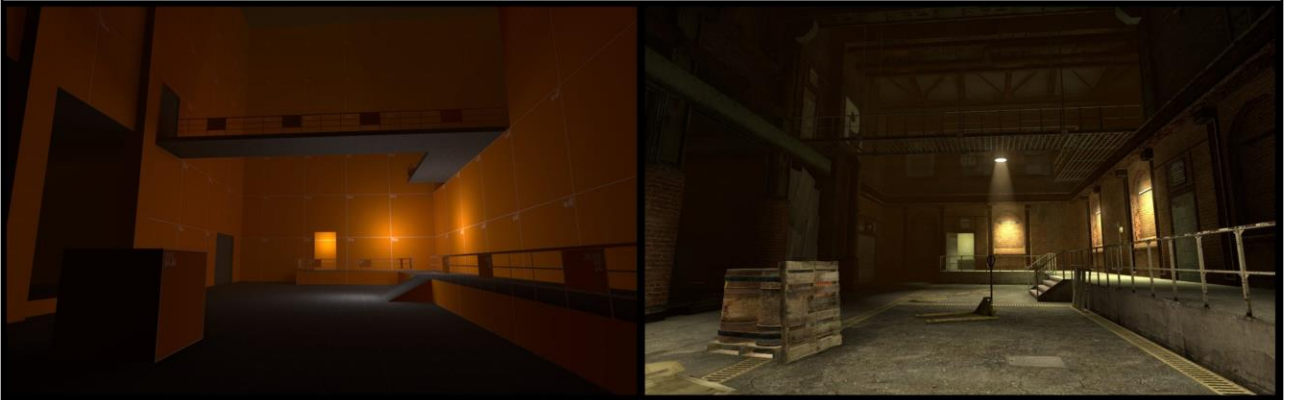
Exit highlighting:
- End goal very obvious

GUIDANCE - LIGHTING
Path Highlighting
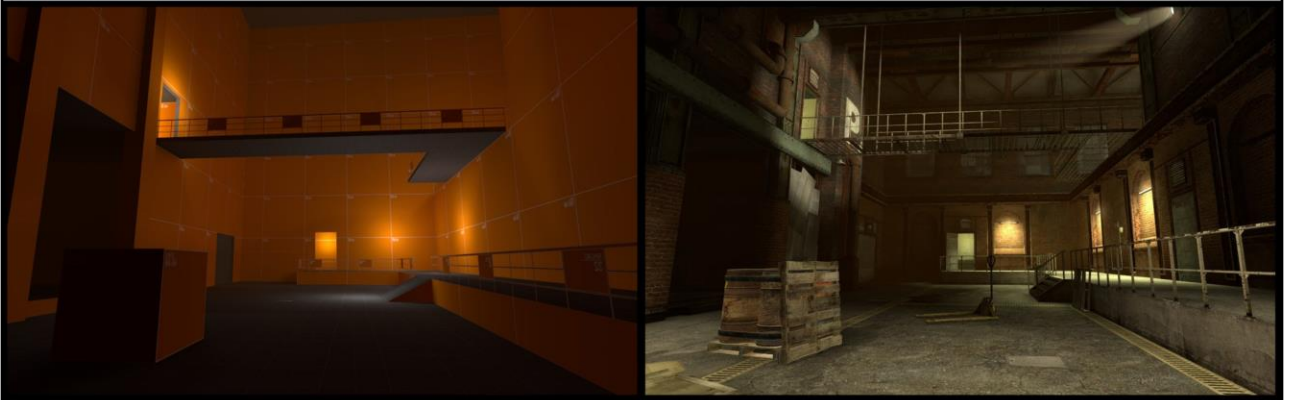
Magnar Jenssen

Path highlighting:
- Holding hands, showing each step along the way

GUIDANCE - LIGHTING
Enemy Presentation

Magnar Jenssen

Enemy presentation:
- Silhouette
- Light on cover
- Player can easily track enemy movement

GUIDANCE - LIGHTING
Hinting
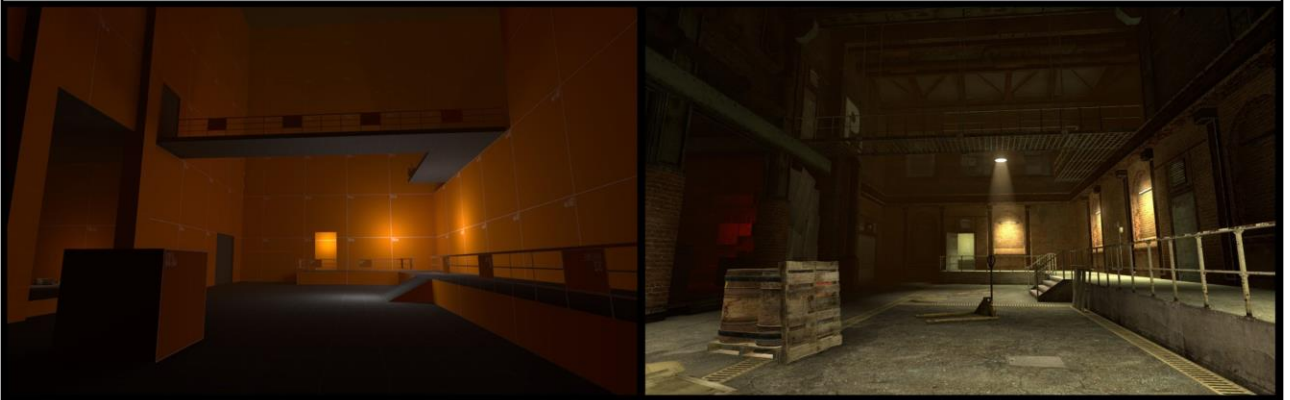
Magnar Jenssen

Hinting:
- Alternate passages, pickups, interests
- Don't let it interfere with main lighting!
- Don't make too obvious cos then it destroys sense of discovery!

GUIDANCE - COMPOSITION
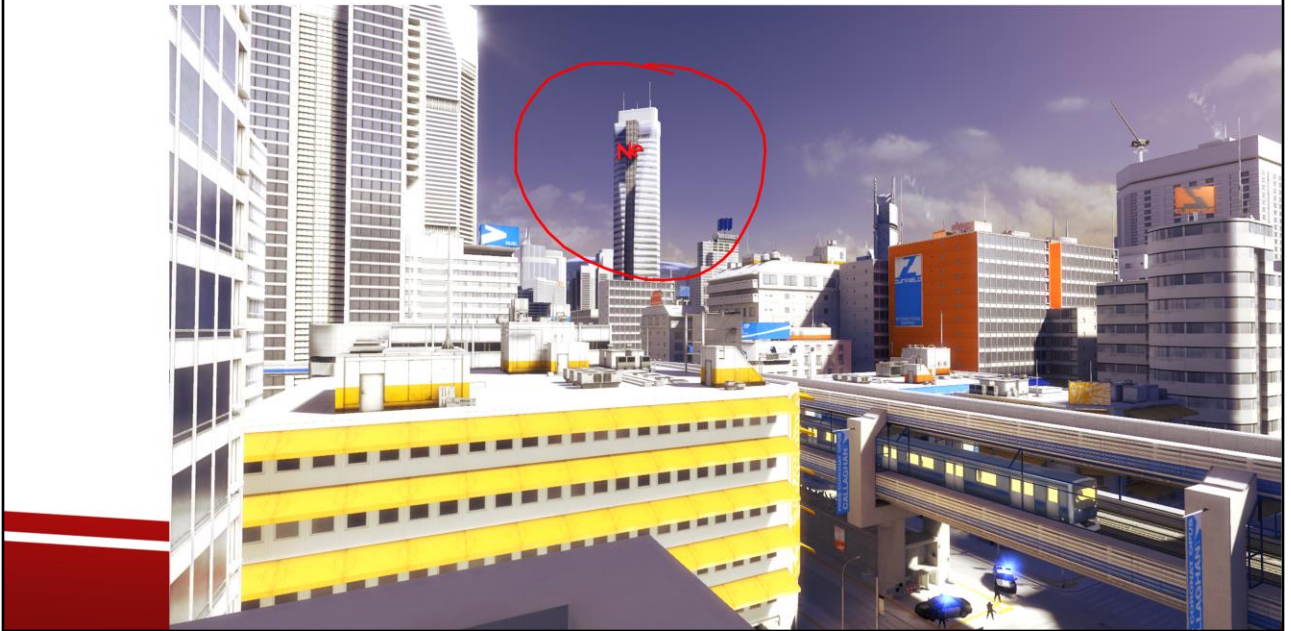
GUIDANCE - COMPOSITION

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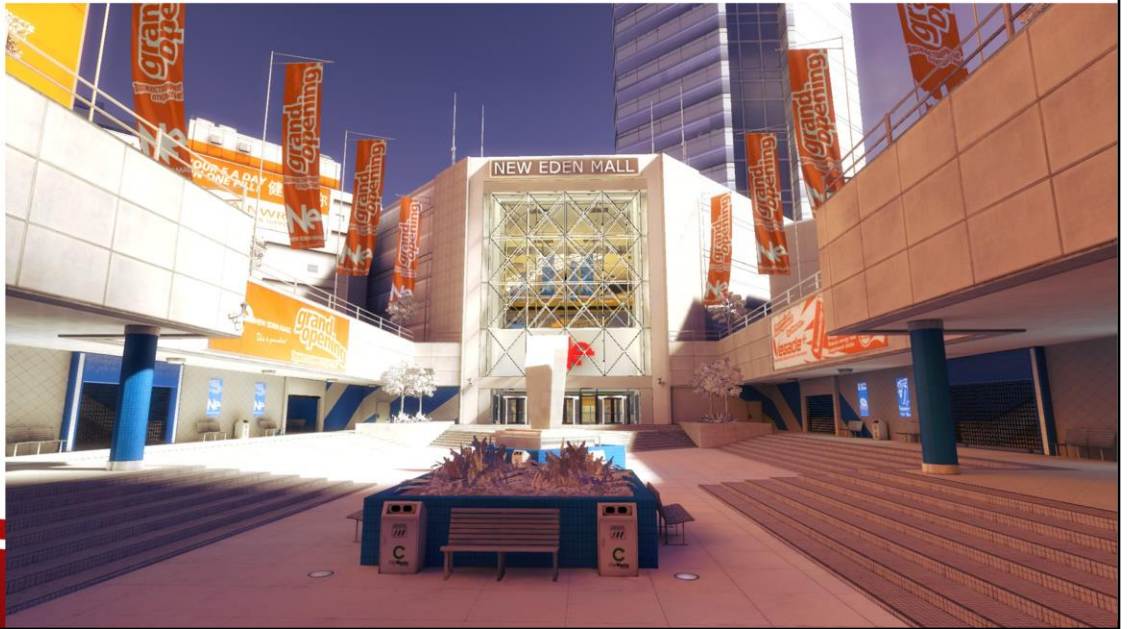
GUIDANCE - COMPOSITION
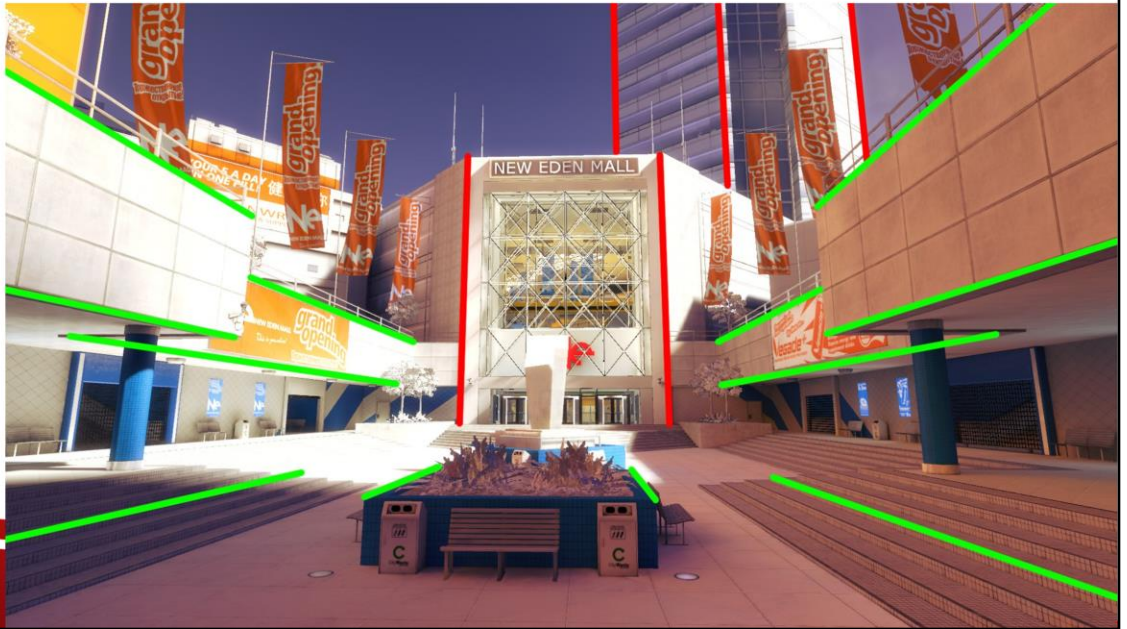
GUIDANCE - COMPOSITION

ENVIRONMENTAL STORY TELLING
= challenge

Environment should reflect main storyline
- Anticipation
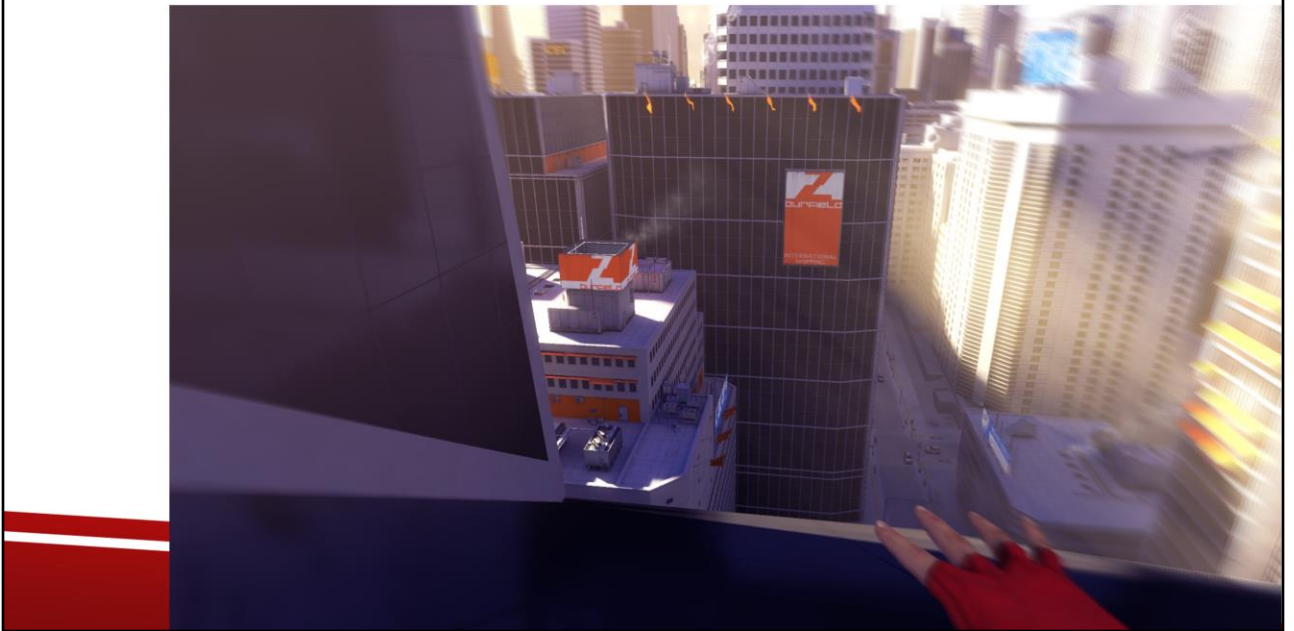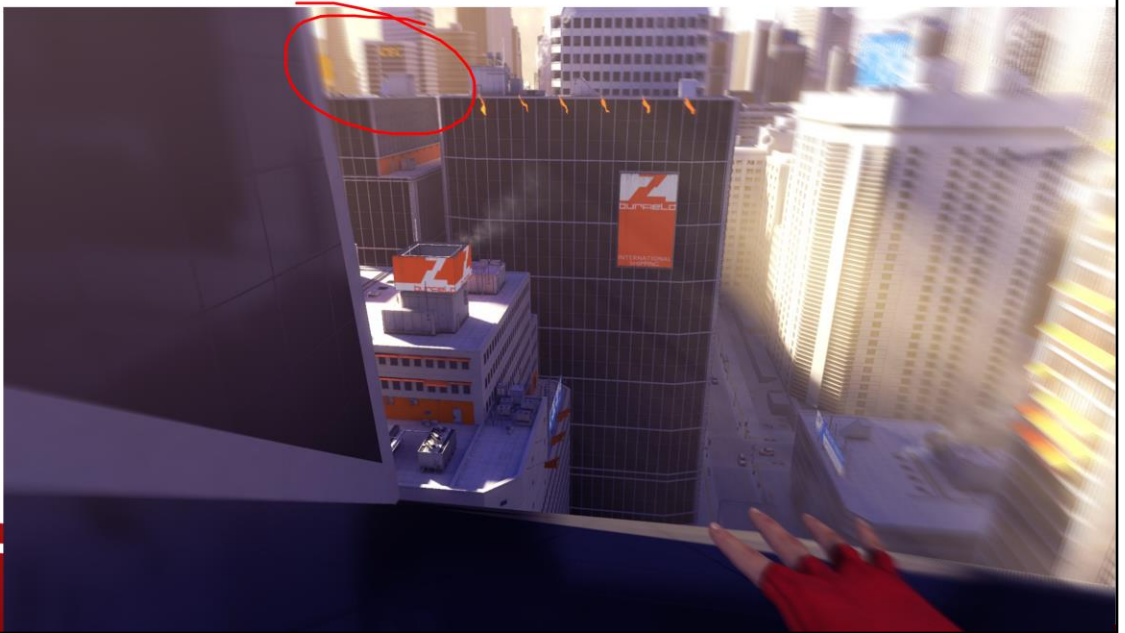- Don't spoon feed: (Toddler research)

The less you tell your player the better! When people are told what to do/are fed everything in a spoon then they will stop exploring.

Relevant research: Explain example with toddlers that are given a toy and left to examine themselves or given a toy after explaining some functions.

MULTIPLAYER DESIGN

Base design
- Symmetrical/A-symmetrical terrain/layout?
- Landmarks
- Depth (secret areas)

Balance
- Same distances to bases!
- Limiting "line of sight"
- Choke-points
- Cover
- Spawn points

Contrast
- Verticality
- Open vs enclosed spaces
- Risk/reward zones

WIP
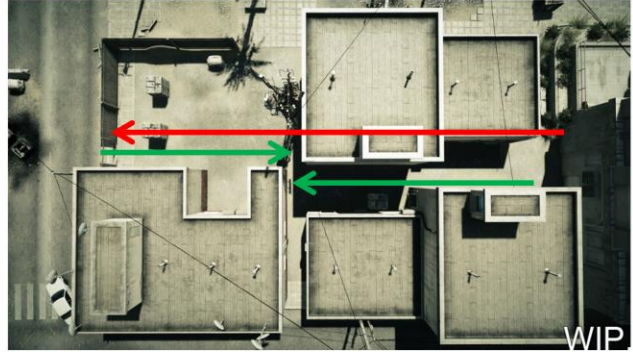
POPULAR FPS LAYOUTS

UT 2004
- DM_Rustatorium
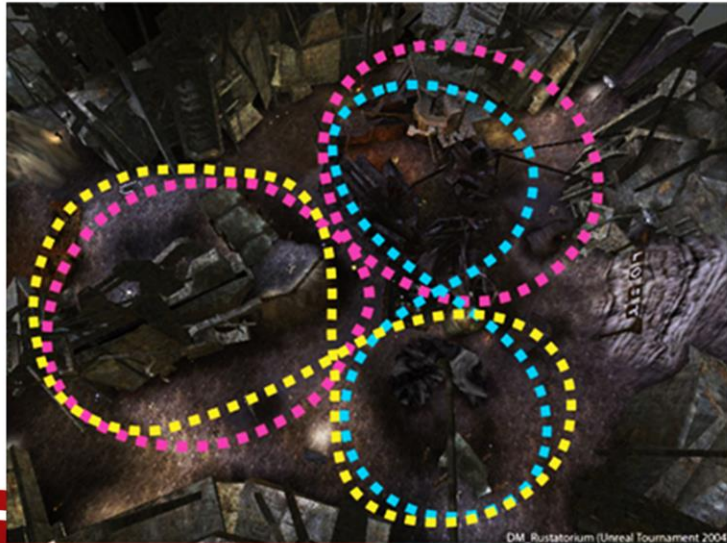
Circles, circle 8. You will always go *somewhere*, you won't get lost in a dead end. You will end up in a choke-point.

POPULAR FPS LAYOUTS

CoD 4
- Crash

Notice same pattern, little more complex.
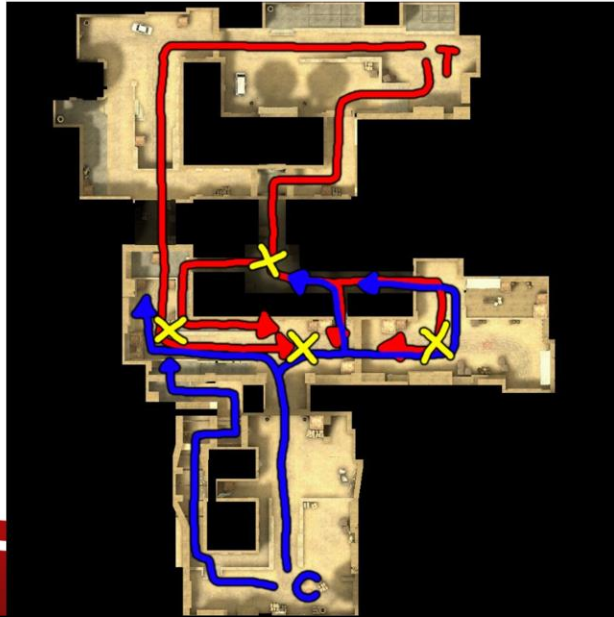
Even more complex. Same ideas though but less of a constant flow.
Counter strike maps are usually played on either side of a choke point with less running around.

Kind of the same concept but on a much grander scale.
BF also is more sandboxy, shitload of weapons/vehicles... Teamplay.
So you can barely compare these maps to the standard FPS maps that have dominated for decades.
And in general comparing games that are so vastly different to one another is kind of stupid.

SO WHAT DEFINES A GOOD DESIGNER?
= necessary skills

Design skills
- Problem Solving
- KISS = Keep It Super Simple
- Execution>ideas
- Flexibility
- Game knowledge

- All this stuff together = Design intuition.

Communication skills
- Team player
- Player Empathy
- Process feedback

Mad Skillz

Learn more? Check out:
- Gamasutra.com
- Ultimate level design guide

KISS: Don't add features, control schemes that are unnecessary. Less is more! Communication is not about what you say, it's about what gets heard. You have to get your team to understand the vision of the game.

Design instincts, you know tips and tricks. You know what is fun. Explained further down in single player design.

GETTING INTO THE GAMES INDUSTRY

Spare time
- Modding
  - Portal 2 creator, Skyrim, minecraft textures, ...
- Finish it, move on! Embrace the suck.
- Very time consuming, need dedication!
- Join community, ask for feedback and learn
  - Polycount, Mapcore, ...
- Create good base before doing the fun stuff
- Ideas are cheap, execution is everything.

- College/University

- "You're not an artist because you talk about creating art.
- You're an artist cos you create art." - Chet Faliszek - Valve Software => So CREATE something! ☺

Modding: Start small, manaeable scale. Get involved in the community.
It's important to finish stuff, make something better with what you've learned.

Create base before doings the fun stuff: Making fancy websites, logo's, inventing job titles. It's easy to get side-tracked. Just DON'T.
Make portfolio to show off your qualities.

QA not a good way to move up imo. You get stuck in your position.

QUESTIONS?