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Change is Good
The Importance of Iteration Within a Character Art Pipeline

- Narrative: Creating a “human” character
- Art Direction: Populating A Changing World
- Combat Design: New challenges and Unique Problems
Elizabeth

- Creating a character that seemed human...

- Not just another escort mission...
From Gibson Girl to Femme Fatale
Gibson Girl

- Didn’t fit our new setting...

- Now a talking character you had to empathize with...

- The player had to “want” to spend time with her...
Nightgown

- Too modern...

- Too plain, not iconic enough to be a main character...
Corset

- Multiple iterations on one design...
- Needed to take bigger steps, lose details from previous versions...
- Collaboration between concept artists and modelers...
- Introducing new technology...
Demo #1: Public Announcement
Corset

- Final polish pass...
- Finalized Budget...
  - 20,000 triangles...
  - 7 Materials...
  - 135 Bones...
  - Cloth Sim...
  - Custom Shaders...
“Young” Elizabeth
“Young” Elizabeth

- Needed to show character development...
“Young” Elizabeth

- Needed to show character development...
- More variety for an asset you always see...
- Unappealing design / frumpy...
- A departure from the Elizabeth we were familiar with...
“Young” Elizabeth

- Outsourced an artist with a specific skill...

- Simplified version of a real world uniform...

- Bold color statements with significant surface detail...
Femme Fatale

- Matched the story elements for Elizabeth...

- Not to the level of quality we expect in an Elizabeth asset...
Femme Fatale

- Complete redo....
- Collaboration with Creative Director, Concept, and Design...
- New makeup, clothing, addition of color...
- Fully Emracing “Femme Fatale”...
- Iteration on the model, not spending time between concept and modeling...
Femme Fatale

- Lots of iteration....
Femme Fatale

- Lots of iteration....
- LOTS of iteration....
Making Better Friends...
As our art direction evolved, it required us to take a hard look at our general population and how they were fitting into our changing world. The result was a complete facelift, bringing our heavily stylized characters from an Art Nouveau setting to a more relateable, period appropriate look that you can see in the final game. Using examples that span over 4 years of development, I will show how changes such as these gave us more grounded characters in the world, a more repeatable population, and a more consistent art style.
Organic Growth

- Change Over Time effects Quality...
- Allowing changes for the greater good...
- Recreated or heavily modified every asset...
- Supported major change in environment art direction...
Organic Growth

- Change Over Time effects Quality...

- Allowing changes for the greater good...

- Recreated or heavily modified every asset...

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STYLIZED FACES

- Model and texture style no longer fit into our world...
- Character’s resembled splicers rather than citizens...
- Too unique, obvious repetition
STYLIZED FACES

- Inconsistent polycount, number of bones, materials, cranium size, and weighting.

- No automation, all unique assets from scratch.
STYLIZED PROPORTIONS

- Proportions were unnatural.
- Textures were too painterly and muddy.
- Ill-fitting clothes, not period appropriate.
STYLIZED PROPORTIONS

- Inconsistent construction leads to budget issues.
- Next to no shared assets.
- Texture randomization was ugly and hard to create.
- Patterns became too distracting in a crowd / hard to repeat.
PROGRESS

- Higher detailed sculpt and textures...
- More realistic proportions...
- Still too stylized, and inconsistent.
Consistency and Better Asset Management

- Introduction of a universal system...
- Shared topology...
- Shared UVs...
- Shared Facial Rig / Automated Face Weighting...
- Standardization allowed for kitbashing...
- Similar quality levels and style throughout the game...
Improved Workflow

- Higher quality assets...
- Quicker turnaround times...
- More time spent making art...
Chumps

- Regular AI models were too expensive...
- Needed a cheap solution to populate areas...
- Retroactively created assets...
- Quality Suffered...
Chumps

- The Town Center Strike Team...

A VISION OF A GREAT CITY!
Chumps

- The Town Center Strike Team...
- Quality Exemplar / Chumps became important...
- Preplanned “Group” assets created with modular pieces...
- Higher quality assets and easier to control...
Lutece Twins

- Original costume was too stuffy...
- Models were literally the same face but with a beard...
- Color scheme and detailing were too hard to read...
- Didn’t stand out from the crowd as a special character...
Lutece Twins

- Brought back Claire for a redesign...
- New outfit made bolder choices...
- More obvious similarities...
Scheduled Polish Time

- Protecting time at the end of the project for a final pass...
- Improving old assets to match new ones...
- Incorporating techniques developed later in production...
Making Bigger Enemies
At Irrational, we greatly improved the appearance of our combat AI characters from BioShock 1 to BioShock Infinite. After collaborating with our designers, we were forced to rethink how we handle character art in a combat scenario. This often required new models, re-evaluating silhouette, the importance of colour between factions, and a tiered armor system unique to BioShock Infinite.
MALE SPlicERS

4 DRESS TYPES

open coat  Boxy coat  Vest  Narrow Wasted Long Jacket
BioShock Infinite Combat

- Roles clearly defined...
- Factions at War...
- Citizens...
- Increased Difficulty...
- Huge Arenas...
- Shared Rigs and proportions...
Original Combat Assets

- What we did on BioShock...
- Anyone can be anything...
- Citizens...
- Undefined threats...
Model Randomization

- Hard to author...
Override System

- At spawner level...
- True Randomization...
- Allow racial difference...
- Easier to make swooping changes...
- Memory issues...
Defining Threats

- Needed a military force...
- Uniforms stand out...
- Unique headsets.
A Second Faction

- Who are they?
- Arming the rebellion...
- Stand out from the working class..
- Visual cues...
Final Combat Models

- The Crunch Push...
- Creating tiers...
- Adding attachments..
- Shared top tier models...
Heavy Hitters

- Clearly bigger threats...
- Unique Assets...
- Action Figures...
- Faction Specific...
Dinosaur Chart

- Clear Hierarchy...
- Easy to visualize...
- Cut work isn’t always wasted work.
- Making games is a team sport.
- Quality changes over time.
- Great ideas can happen naturally.
Questions?

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BioShock Infinite Art Team

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