Graphics design, graphics pipeline

Jaanus Jaggo
3D movie production pipeline

PRE-PRODUCTION

IDEA

STORY

STORYBOARD

ANIMATIC

DESIGN

PRODUCTION

LAYOUT

R&D

MODELING

TEXTURING

RIGGING/SETUP

ANIMATION

VFX

LIGHTING

RENDERING

POST-PRODUCTION

COMPOSITING

2D VFX / MOTION GRAPHICS

COLOR CORRECTION

FINAL OUTPUT
Preparations

- Finding reference materials
- Choosing color palette
- Material design
- etc.
Finding reference materials

Famous paintings: [Image of a painting with people in a park]

Historical images: [Image of people sitting on a bench]
Variations of the same concept
Choosing color palette
Puzzle
Puzzle
Puzzle
Puzzle
Puzzle
Puzzle
Puzzle
Puzzle
Choosing color palette

- Hue change
- Intersection points

Use artists help: http://www.colourlovers.com/
Blendoku game: http://www.blendoku.com/
Material design

Concept for shader programmers
Modern workflow

AAA quality Tombstone

1. Reference images:
Modern workflow

2. Lowpoly modelling

Do not be afraid of triangles!
Modern workflow

3. Make your model optimal

68 tris
BAD

28 tris
GOOD
Modern workflow

4. Sculpting

Millions of polygons!
Modern workflow

5. Retopology (sometimes necessary)
Modern workflow

6. UV unwrap

JUST LIKE A PAPERCRAFT
Modern workflow

7. Baking

Ambient Occlusion Map  Cavity Map  Normal Map
Modern workflow

8. Texturing

Modern tools:
- DDO-painter
- Substance-painter
Easy way to make unique looking games

AAA graphics takes a lot of time!
More complicated pipelines are taking over!

Star Wars Battlefront pipeline: https://www.youtube.com/watch?v=U_WaqCBp9zo&t=577s
Easy way to make unique looking games

Low poly flat shaded art!

Some examples: https://forums.tigsource.com/index.php?topic=42034.0
Easy way to make unique looking games

Pixelart

Easy way to make unique looking games

Photographed or scanned art

Lumino city: http://www.thisiscolossal.com/2014/12/lumino-city/
Easy way to make unique looking games

Geometry based games -> less if often more

Manifold garden: http://manifold.garden/
Make your individual workflow

Want to look unique? make your own!

Example: Hardland workflow