UNCHARTED 3
DRAKE'S DECEPTION™
The Last 10
Going From Good To AWESOME
NAUGHTY DOG

Introduction

Benson Russell

benson_russell@naughtydog.com

Senior Game Designer @ Naughty Dog

Primary AI and Combat Designer

Overview

- The last 10% takes 90% of the work
- Also referred to as Polish

- Can make a great game … AWESOME
- One of the most important aspects of game development

Overview

- Seems to be the most marginalized aspect
- The fix can be easier than it seems:
  - A change in mindset
  - Better distribution of development time
- How Naughty Dog approached polish on Uncharted 2 and 3

Disclaimer

- By no means is this the perfect system
- The approach is a bit controversial internally

- The KEY take away is to allow for polish!!

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What Is Polish?

- It is not about finding gameplay
- It is about finalizing your product
- Removing the blemishes and imperfections

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What Is Polish?

Examples of items to polish:

- Gameplay related issues
- Presentation issues
- Fixing things we tend to think are “status quo”

What Is Our Approach

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Set The Quality Bar HIGH!!

- Shoot for PERFECTION, don't settle
- "small" things just hurt the feeling of quality

Some Video Examples…

Animation Glitches

Unpolished

Polished

Camera Glitches

Unpolished

Polished

Gameplay Timing Glitches

Unpolished

Polished

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Schedule Accordingly

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“Standard” Development Schedule

Naughty Dog Development Schedule

Polish

Pre-production	Production	Alpha	Beta	GOLD

Gotcha: You need to hit a solid Alpha.

All Gotcha at least 20% – 25% of your schedule

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Naughty Dog Development Schedule

- Having more polish time forces you to evaluate the progress of your development earlier!

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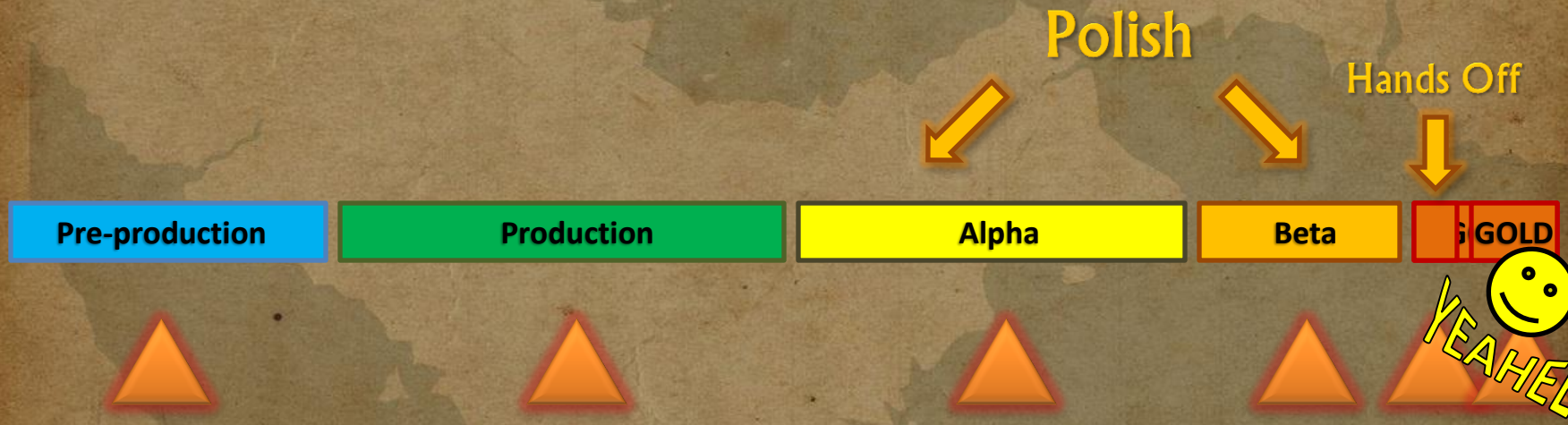
Don't Fear Change

- "Standard" practice dictates DO NOT TOUCH
- With proper scheduling, you can polish in Alpha

Naughty Dog Development Schedule



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Rolling Deadlines

THE GAME

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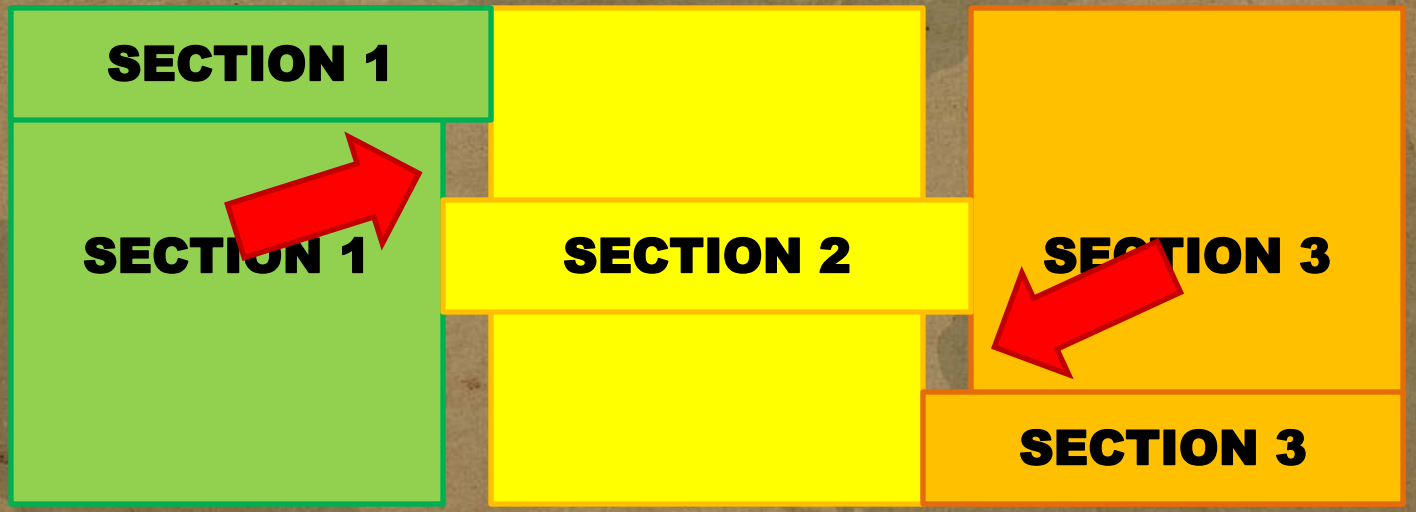
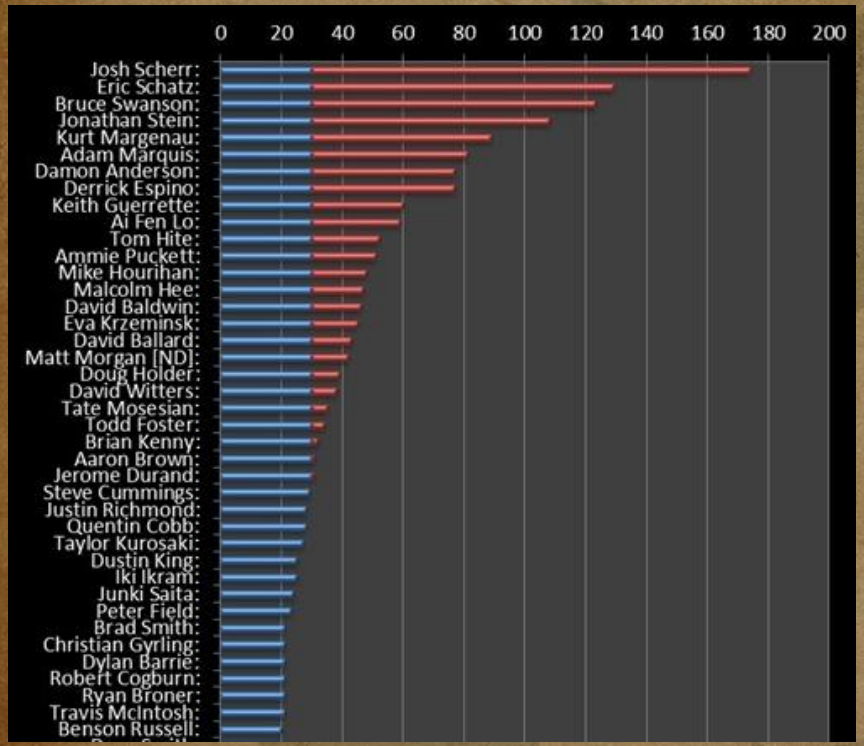
Rolling Deadlines



GOTCHA: too much overlap between sections



	Min	Average	Median	Max
colombia-museum-break-in-roof	1	1.9	1	7
colombia-chase-fence	2	2.2	2	3
colombia-rooftops-tiles	2	2.8	3	4
syria-syria-turret1-outside	1	2.3	2	7
syria-syria-rpgesus-trapped	2	5.9	6.5	9
syria-syria-area2-start	1	2.9	2	8
syria-syria-area2-return	1	7.5	8	14
syria-syria-escape-hub-exit-mid	1	3.0	2.5	8
syria-syria-escape-bridge	1	3.1	2	8
yemen-temple-yem-temp-exit-combat-mid	1	2.2	1	8
grave-grave-01-freighter-section-2-exit	1	3.4	3.5	6
grave-grave-01-firstyard-start	1	3.7	3.5	9
grave-grave-01-firstyard-combat-mid-left	0	1.4	0	10
grave-grave-01-firstyard-combat-mid-right	0	5.3	6.5	11
grave-grave-01-firstyard-wreck-hatch	0	3.1	2	9
cruise-ship-cruise-container-fight-mid	2	5.0	4.5	8
cruise-ship-cruise-ballroom-fight-start	1	5.4	6.5	10
cruise-ship-cruise-ballroom-fight-mid	3	7.6	8	11
cruise-ship-cruise-chandelier-climb	1	2.8	2	9
airport-car-field-start	1	2.3	1.5	8
airport-car-field-mid	1	2.3	1.5	7
sandlantis-san-desert-battle-start	1	4.9	6	7
sandlantis-san-cistern-noria-tower-start	0	3.1	2.5	6

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Tiered Approvals

- Key people's approvals needed for fixes
- Multiple people must approve as you go
- Helps mitigate risks at a critical time
- Pick the right people to give the approvals

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The All Seeing Eye

- Have a high-level person looking for polish daily
- They must understand what to look for
- Have to balance polish vs. time
- Not a dictatorship role
- Critical role to catch things during the craziness

Cruise Ship Pop | One Frame Off | Render Pop

Takeaway

- The last 10% is the hardest, but gives highest payoff
- Schedule time for polish!! 20% – 25% at least!!
- You can use your Alpha / Beta time for this purpose
- A rolling schedule can help to focus your team
- Tiered approval systems will keep you in check
- Have a dedicated overseer to catch things daily

Takeaway

Aim for perfection!!

Set the quality bar HIGH!!!

We're HIRING!!
Contact: jobs@naughtydog.com
Candace Walker Twitter
@Candace_Walker
The Last 10, Going From Good To Awesome
benson_russell@naughtydog.com
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