The Ins and Outs of Inside Out's Camera Structure

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Inside Out's camera structure is an integral part of the visual structure and its purpose is to provide our film with a camera arc that parallels story and its character's emotional ups and downs.

This presentation not only takes the audience step by step through the aesthetic thought process in designing the camera plan but also how that plan is executed to create a coherent camera structure.

1. Visual Languages

From production design, camera, animation and lighting, Inside Out's visual structure is based on contrast between the outside real world and the inside mind world.

The foundation of our camera plan is also based on contrast. Two sets of visual languages are designed to help separate these two worlds and at the same time, compliment and contrast each other.
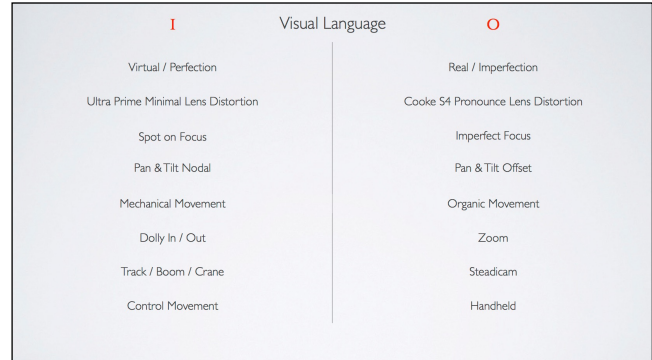
2. Visual Progression

Visual progression is the roadmap to applying our two visual languages to the film. Base on the emotional ups and downs of our main characters in their respective worlds, each scene is analyzed and rated with a visual intensity rating. 0 being the least intense and 10 the highest. This exercise allows us to study the contrast between the two worlds scene by scene during pre-productions and guide our creative decisions during productions, ensuring the visual progression is always supporting our characters and story.
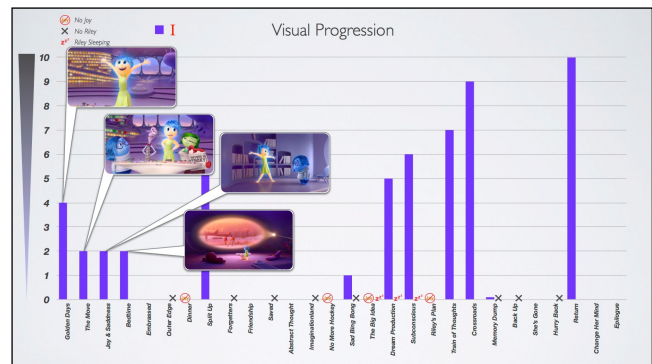
3. Scale Progression

Scale is the size of the worlds from our characters' perspective and its progression is also based on contrast. Growing up, Riley's world is big in Minnesota while Joy's is cozy inside Headquarter. However in Act 2, the scale flips upside down when Riley's moves to San Francisco and Joy becomes lost inside Riley's mind.

4. Additional Technical Achievements

For the outside world, we want our virtual camera to feel as realistic as possible. For the first time, we modeled our lens distortion based on real lenses. In addition, we have expanded our camera capture system from 'The Blue Umbrella' to capture all of the outside world camera movement. This presentation will also covers these technical achievements.

Visual languages of the two worlds

Intensity Progression mapping
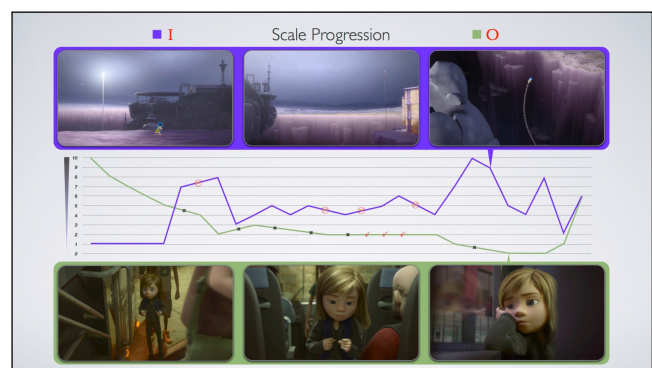
Scale Progression to contrast the 2 worlds

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