Yang Fan is Born (生日快乐)

Director & Writer: Danny Yuxing Huang
Producer: Morgan McGuire[1]
Visual FX TD: Kyle Whitson
FX Artist: Alena Allegretti
Format: 11 min HD 1280x720
Language: English and Chinese w/ Subtitles

Cast: Hai Zhou, Cindy Fung, Ifiok Inyang, Elisa Chang, Nicholas Maschinot, Teresa McHugh, Adam Stoner, Zhaoing Wang

1 Vision

Yang Fan is having a bad day. His girlfriend dumped him, no one remembered his birthday, and he's isolated by American college culture. But maybe this birthday he will awaken from the self-imposed exile of youthful pathos and experience the joy surrounding him.

This story of touching, and occasionally comic, redemption is a collaboration between student film clubs (Purple Valley Films, Rain Stars) and the Computer Science department at Williams College.

The team sought a unique visual style to convey the overwhelming, saturated emotions of the characters, who are all college freshmen experiencing their first loves and losses. The disorienting and crowded social scenes resemble cell-phone video, while scenes of solitary characters experiencing strong positive and negative emotions appear to be moving paintings.

The Chinese title translates as "Happy Birth Day". It differs because the English title translates awkwardly.

2 Production & Post-Production

The entire film was shot on digital with hand-held cameras over a two-day period, without audio. All audio, including dialog, was added during post. Post-production was completed over a two-month period using FinalCut Pro, Photoshop, and in-house tools.

2.1 Cell-Phone Cinematography

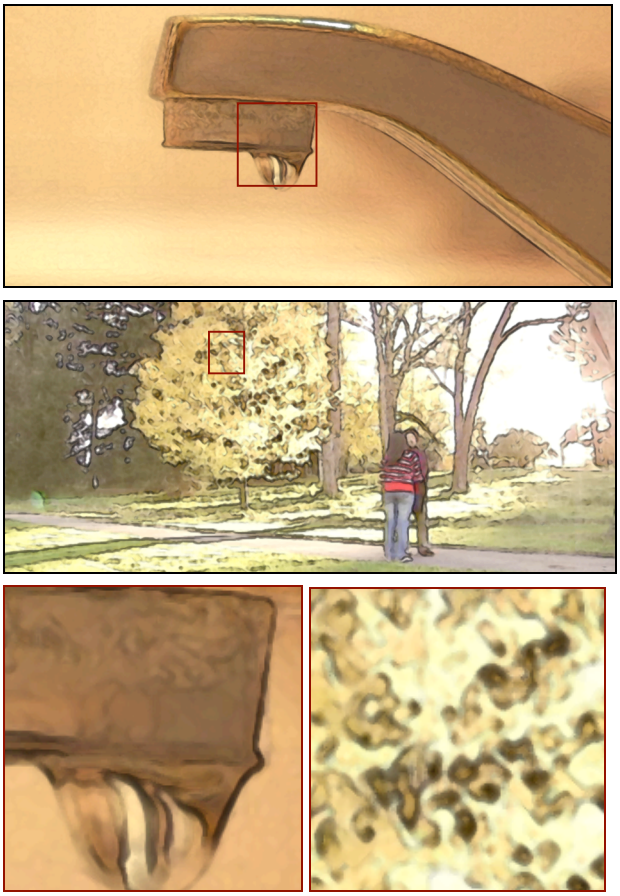
The disorienting crowd shots are filmed with a jerky hand-held camera and large depth of field to resemble a cell phone. We adjusted the contrast of these images in post to give the feel of degraded video quality without actually adding noise.

2.2 Painterly Effect

College freshmen experience the world drenched in iconic and epic emotions. The film captures this and emphasizes the repeated water and nature symbols through effects that mimic painting media. Joyful scenes show simulated pigment flow and edging from watercolor and ink. Dark scenes show the strong brush strokes and saturation of in oils. Both styles heavily abstract background details to enhance focus.

The effect combines a multi-resolution edge filter for pigment flow, a new small-edge filter that creates the paper texture, iterated median defocusing, and color correction tools. It is implemented in OpenGL and GLSL. Human faces require special attention. We hand-painted mattes for 2000 frames in Photoshop, and used them to apply separate parameters to the faces. For effect shots with slow camera motions we cut the frame rate to 10 or 15 fps, which increased the paper texture's temporal coherence and invoked hand-drawn animation.

The painterly effect runs in nearly real-time, which allowed the team to interactively tune both code and parameters for every shot. This performance is enabled by a recent fast median filter algorithm (McGuire, "A fast small-radius median filter" in *ShaderX*[6], 2008) and the NVIDIA 8800 GT and 9800 GX2 graphics cards.



Two shots. Details below emphasize the painterly effect.

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