Weekly Report

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Week 18, 30 April 2009

Summary of activities since last meeting

Last meeting: 23 April 2009

Next meeting: 30 April 2009

Goals and Work targets

Goals for this week

• Chat to Kodak (and possibly FotoFirst) people and get some prints done

Goals Achieved

- Changed and updated my website
- Chatted to the people at Kodak and, with some of their help, got prints through AloeX
- Printed a tone-mapped image as well as 3 transparencies at different exposures from the original HDR image
- Viewed on overhead (with light from behind)

Proposed goals for next week

- Organise to print in Hamilton by:
 - Finding out what printer is available and where
 - Finding out what paper (transparency) the printer can take
 - Organising a printing balance
- If the above has been achieved, print another set of transparencies

Rate your work performance

I was very happy to have had something to look at this last week - to have something tangible. It has allowed me to look at some of my initial ideas and confirm / oppose these ideas, as well as allow me to start thinking of new ideas.

Tasks/Learning

It was good to show the printed image (both of the tone mapped HDR, and the transparencies in different combinations) to fellow members of the research group and hear their ideas. But before hearing their ideas I was pleased with the initial attempt. It showed that just by putting a bright light behind a tone mapped HDR, the image seemed to have improved. However, my thoughts of how real the image seemed were shared by the research group, who felt that the image lacked a sense of realism, and looked more 'artsy' than making you feel like you're there.

A useful technique of analysing might be to use (just noticable differences) JNDs, and a great idea came up in the research meeting: to make an HDR image similar to colour blind tests, and if the JNDs can actually be seen. This provides a very neat way of testing without the need for technical equipment.

Another aspect to consider when printing HDR images is to look at one part of the image (such as a bright spot) while blocking out the rest of the image, then to move quickly to another part of the image (such as a dark spot) and to see if this is similar to looking at a port in real life, then moving to another spot.

Last week I thought about file formats and realised this is not really an issue, with psd or exr being fine, since I will manipulate the image and to get the image printed on a standard printer the image must be 16 bit maximum anyway which I will output from the photo program I am using (photoshop).

One last bit I'm going to write here is the issue of detail vs brightness. An HDR allows you to have detail in both the bright and dark areas, but this doesn't mean it must be the same brightness in both these areas, which seems to be what happens when a normal print is made. So in the print that I made (using transparencies) makes the dark areas seem darker because there is more ink for the light to pass through. And this is what seems to be working by having multiple layers with light from behind. This seems to be a major strength of having light from behind - it more closely resembles the physics of light reflecting off objects to your eyes, so less light is reflected when coming from a dark area, something not really emulated by traditional photographic printing techniques.