

Chromaticity Gradient Mapping: Supplementary Materials

Algorithm Appendix

The file `cgm_appendix.pdf` includes additional implementation details for handling edges of the chromaticity gradient mapping algorithm.

Perceptual Study

The folder `perceptual_study` includes data collected during our perceptual study. Please refer to the file `perceptual_study/README.txt` for more details.

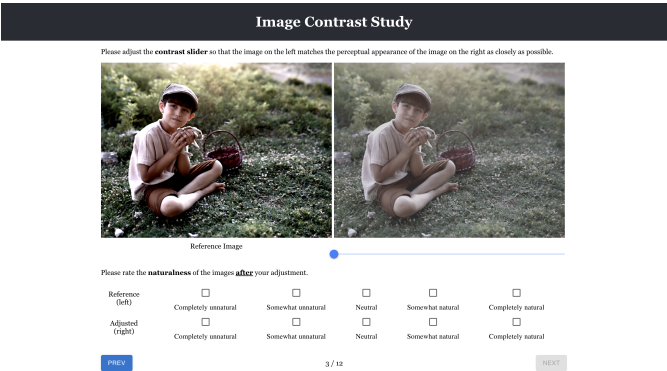


Figure 1: **Perceptual Study Interface:** This figure shows a screenshot of our interface for the perceptual user study. We show the participant one reference image with adjustments applied, and one input image where they can adjust the contrast by themselves by a slider. Below the images, we show two 5-point Likert-scale questions for the participant to rate the level of naturalness for both the reference and their adjusted images.

User Interaction Study

The folder `user_interaction` includes data collected during our usability study. Please refer to the file `user_interaction/README.txt` for more details.

Comparison Study

The folder `comparison_study` includes a static build of the user study interface and additional data analysis. Please refer to `comparison_study/README.txt` for more details.

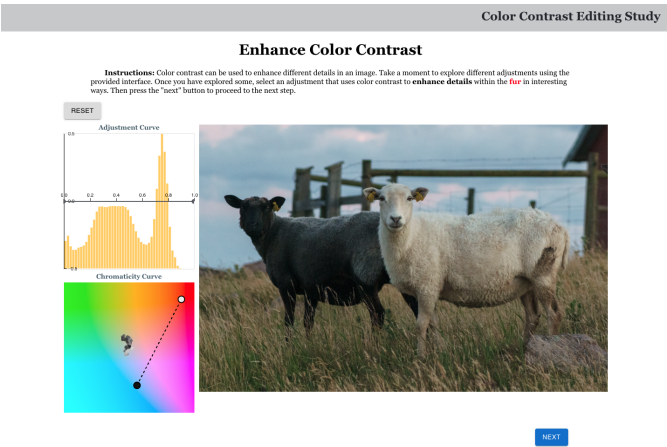


Figure 2: **Comparison Study Interface:** This figure shows a screenshot of our interface for the comparison user study. In this task, the participant is prompted to adjust the contrast of specified detail in the image via a simplified version of our method.

Candlelight Visualization

The video `candlelight.mp4` visualizes the color gradient around candlelight due to sensor clipping, supporting our argument in Section 3.1 of the main paper. We took a raw photo of a flame with heavy exposure compensation to ensure that there was no clipping, and found that without clipping the candle is in fact orange in the center. We simulate the effects of clipping by adjusting the exposure in Adobe Camera Raw. Chiaroscuro painters mimick this effect to enhance the perceived tonal contrast in their paintings.