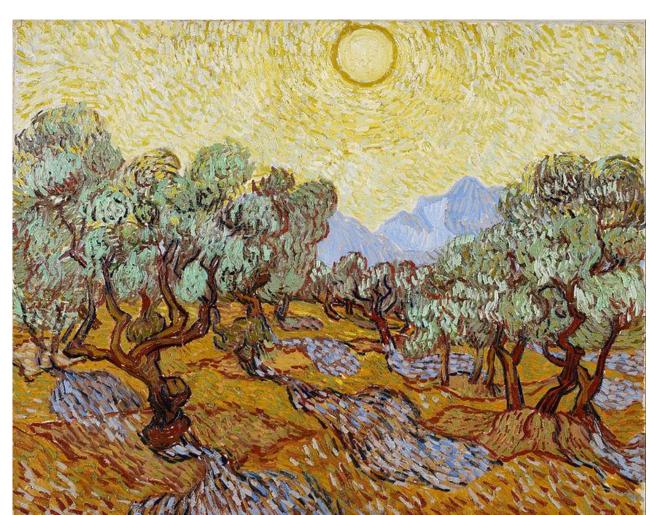


The Art and Chemistry of Light Thomas A. Schmedake, Department of Chemistry, UNC Charlotte



Overview

The use of light and color as metaphor is ubiquitous throughout art and culture. In this seminar series, we explored the artistic and scientific truths these metaphors illustrate. Each week we focused on one of these metaphors in depth (e.g. light as metaphor for energy), identifying examples from paintings, movies, literature, music, and other artistic media. We then performed experiments to explore the science behind the artistic truths the artists intuited.



Olive trees - Vincent van Gogh



Thanos – Marvel



CTI Fellow Diane Strickland exploring light as energy

Typical Weekly Seminar Structure

- 1. Dinner with Fellows
- 2. Progress update "mountain talk" one fellow presents brief update on CU or demonstrates relevant activity/demo
- 3. Presentation on theme approx. 30 minutes (Schmedake)
- 4. Experiments/Activities approx. 30 minutes (hands-on)
- 5. CU Development (discussion, one-on-one mentoring, collaborative discussions)



CTI Fellow Michelle Faggert playing with

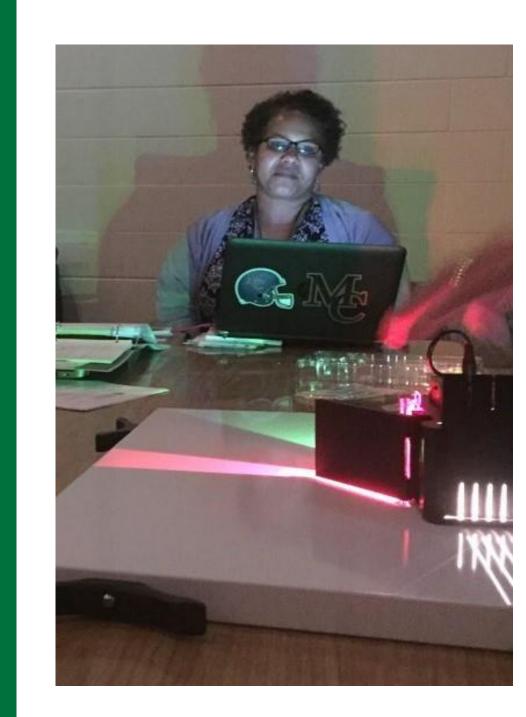
CTI Fellows' art gallery: Fellows tested out potential curriculum units activities that merged science and art. (top) acrylic pore paintings, (bottom) cyanotypes.





Content Knowldege

Fellows gained content knowledge in area of light and the way light interacts with matter



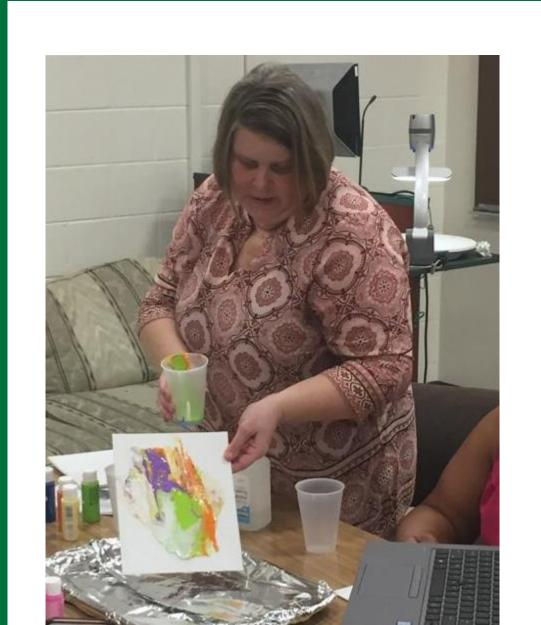
CTI Fellow Geneva Bell experimenting with light rays

Creativity

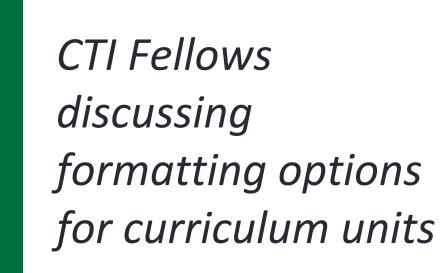
Fellows created new crosscurricular connections (light bridges) for their students using concepts of the art and chemistry of light.

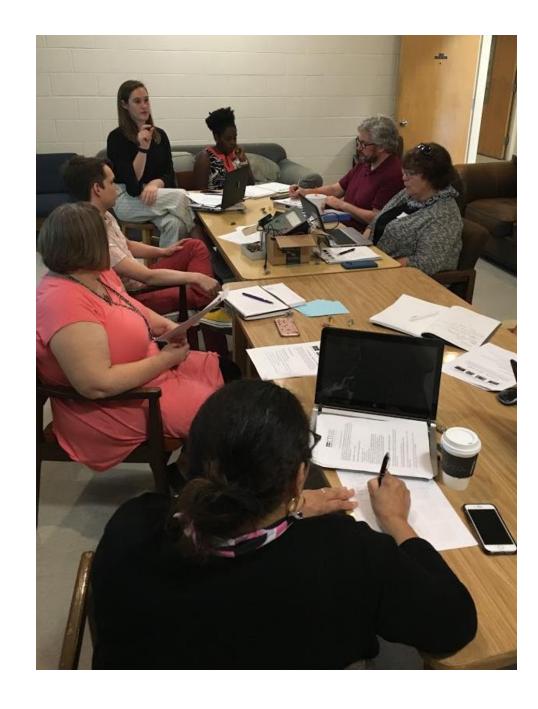
CTI Fellows creating art projects together





CTI Fellow Teresa Strohl leads a painting activity for her mountain talk





Collaboration

Fellows collaborated with a diverse group of K-12 teachers to explore evolving concept threads through the grade levels.

Fellows developed and implemented new curriculum units for their school with confidence and expertise.

Leadership

Acknowledgements: The Art and Chemistry of Light seminar was made possible by support from UNC Charlotte's College of Liberal Arts and Sciences, the Charlotte Teachers Institute, and the North Carolina Humanities Council. We also thank Christopher Lawing and Shannon White of the Bechtler Museum for sharing their knowledge of the role of light control in the presentation and maintenance of art collections.





After-hours at the Bechtler!

