COLORS OF THE MIND

Where do colors reside?

How can exploring color perception influence our relationship to color?

What can color vision tell us about ourselves?

Marie Baeta
May 13, 2020
MUSEUM 583A: Emerging Curator Initiative
Exhibit Proposal for the Bellevue Arts Museum

Curator's Statement

Color defines the human experience. Exploring color perception can illuminate the intricacies of the vision system, allowing visitors to contemplate how color shapes their inner and outer worlds. With this exhibition I hope to explore the theme of color perception and interpretation, both internally and externally.

Through a variety of visual experiences that combine artwork with prompts and props, this exhibit will demonstrate several aspects of visual mechanics, encouraging exploration of one's own visual interpretation and experiences as well as sparking dialogue between visitors. Major themes of the exhibition will include:

- Dimensions and diversity of human color vision
    - Low-light/black and white vision
    - Blue, green, red photoreceptors and their effects
    - Afterimage phenomenon
    - Interpretation of color
    - Relational experience of color
- Color vision in other species

I believe that the Bellevue Arts Museum is particularly a great fit for this exhibit content. As a museum that aims to explore the visitor's relationship to art and their experience of art, I see this interactive exhibit as a continuation of this theme. When discussing the mission of the Bellevue Arts Museum, the Executive Director quoted artist Roy Ascot saying that artwork should be a "trigger for experiences". The exhibit ideas within my proposal aim to do just that- provide interactive experiences for visitors that engage them in exploring their perceptions.

Thematic Discussion

The intersection of art and science has been an evolving exploration in many social and educational arenas. From integrating Science Technology Engineering Art Mathematics (STEAM) into classrooms to climate change focused art exhibits to entire museums dedicated to this intersection, this topic continues to be discussed, explored, and shared. Within the context of art museums and art galleries, exhibitions that explore science related topics tend to cluster around environmental science, climate change, and natural materials and processes. This exhibition would not just be science content exhibited in an art gallery, but rather a cross-disciplinary experience for visitors that muddles the boundaries between art and science. Jason Silva beautifully states that at the intersection of art and science is an "intellectual collision of seemingly disparate bedfellows, that something magical and unexpected happens: new patterns emerge; new connections are forged between previously unconnected ideas and inspiration reigns."[1] It is exactly these new intersections of thoughts, ideas and behaviors that I hope this exhibition will inspire in visitors.

Central to this exhibit is the integration of interactivity with the art on display. Inquiry-based activities that blend art and science, like those that would be included in this exhibition, have been shown to promote longer staying time, decreased drop-off of interest in the first few minutes, and more socially mediated learning[2]. Given that the average time a visitor views an art piece is between 15 and 30 seconds[3], interactive exhibits have the potential to hold visitors' attention for longer, which could lead to further engagement and potential learning. I expect that this exhibition will draw in and engage visitors in new and novel ways, expanding and diversifying their expectations of art museums. I also think that an exhibition like this one can attract visitors that may not have considered an art museum to be a place of science learning and visa versa. Scientists often long to connect their work to audiences outside of their realm and one way to do this, as Erin Espelie suggests, is through the art museum "bringing people together outside political affiliation and into a different environment that allows for more empathy."[4]

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[1] Ayesha Khanna and Parag Khanna, "At TED 2011 Science + Art = Wonder." Big Think, March 11, 2011.

[2] Bonnie Epstein, "Building a STEAM Museum," SCIART Magazine, 2017.

[3] Stephanie Rosenbloom, "The Art of Slowing Down in a Museum," The New York Times, October 9, 2014.

[4] Alina Tugend, "Can Art Help Save the Planet?" The New York Times, March 12, 2019.

Museums are cultural entities that can help visitors build their capacity for feeling empathy towards others. Empathy was identified as a major trend by the American Alliance of Museums in their 2017 TrendsWatch report. The report shares that empathy, a crucial building block to a functioning society, is in decline in the United States.[5] Luckily, empathy is a skill that can be improved with practice and museums are well-suited to provide empathy-strengthening experiences for visitors. I believe that this exhibition will provide opportunities for visitors to build empathy for others. Engaging with the artwork and prompts will enable visitors to shift their seemingly objective experience of viewing color into a subjective experience. This could increase their appreciation and understanding of their visual system and relationship to color, as well as lead to examination around other assumptions they might hold. Interacting with the Educational Activity #2 and viewing artwork from artists who are colorblind and blind will provide opportunities to empathize with other peoples' experiences of color.

Educational Engagement

Program #1: Lecture by Dr. Dina Popovkina and Dr. Jay Neitz

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[5] Elizabeth Merritt, "Empathy a Mile in my Shoes: Clothing the Empathy Deficit," Center for the Future of Museums
Blog, May 1, 2017.

Dina Popovkina is a vision neuroscientist passionate about connecting ideas across disciplines and communicating scientific concepts to non-experts. She holds a Ph.D. in Neurobiology and Behavior and is currently a postdoctoral researcher studying human attention and object perception at University of Washington.

Jay Neitz, a professor of Ophthalmology at University of Washington, is best known for his groundbreaking work in exploring gene therapy to cure color blindness. Dr. Neitz received his Ph.D. from the University of California, Santa Barbara. He studies the biological basis of vision and vision disorders and color blindness.

This lecture would be held towards the beginning of the exhibition and would address the boundaries of color vision in humans, color vision diversity, and surmise the future of vision science research. This would be an opportunity for the public to engage with local experts, learn about vision science, and current research in the field. This lecture would provide another modality to engage visitors, and also has the potential to attract folks to the museum who may not have considered art galleries a place to engage with science concepts.

Program #2: Color Memories

This would be an on-going, interactive exhibit within the exhibit space. It would consist of a small desk and display area above with vertical wiring and clips. Each vertical row will have a color theme, such as ‘red’, ‘orange’, etc with color families moving from left to write. Visitors will be invited to think of a color that is tied to a memory of theirs,write or draw their memory onto a small post-it sized paper, then clip it to the color family it most closely corresponds to. There will be some permanent examples to help scaffold visitors’ engagement. This interactive invites visitors to further explore their relationship to color, specifically through color memories, and help scaffold connection and empathy towards other visitors’ experiences of color.

Budget: TBD

Bibliography

Epstein, Bonnie. “Building a STEAM Museum: Or How I Stopped Worrying and Learned To Love What STEAM Was, Not What It Stood For.” *SCIART Magazine*, 26 (2017):

retrieved from
https://www.sciartmagazine.com/steam---everything-connects-to-everything-else.html

Khanna, Parag & Khanna, Ayesha. “At TED 2011 Science + Art = Wonder.” Big Think. March 11, 2011. https://bigthink.com/personal-growth/how-to-think-effectively-6-stages-of-critical-thinking

Rosenbloom, Stephanie. “The Art of Slowing Down in a Museum.” The New York Times. October 9, 2014. https://www.nytimes.com/2014/10/12/travel/the-art-of-slowing-down-in-a-museum.html

Tugend, Alina. “Can Art Help Save the Planet?” The New York Times. March 12, 2019. https://www.nytimes.com/2019/03/12/arts/art-climate-change.html

Artists

Jose Felix Castro Jr.

An artist of Mexican descent, Castro was born in Redwood City, California and raised in various cities throughout the Bay Area, a region rich with diversity. He is a colorblind artist and a graduate of Academy of Art University. His paintings reflect political, Latino, and immagration issues. Jose's work compliments this exhibition by way of his uniquely colored artwork that I hope will show visitors that many colorblind artists exist and create wonderful and vibrant art.

Monica Valentine

As a resident artist at Creative Growth center in Oakland, California, Monica explores two distinct bodies of work that both build on her passion for jewelry and express her offbeat, dry sense of humor. Often sporting perfectly monochrome outfits complete with a matching flashlight necklace, Monica is enamored with color. Based on her artwork, it comes as a surprise to most that she is completely blind and uses prosthetic eyes. Monica is incredibly adept with her hands, creating works that are as tactile as they are visually rich. She considers these objects decorative and celebratory, and seems to revel in others' visual delight over them.

The colors and textures of Monica's work would add a physical dimension to the art pieces in this exhibition. The juxtaposition between her colorful work, experience as an artist who is blind, and exhibition themes would provide a complex platform for visitors to contemplate color and it's expression and relation to people of diverse abilities to perceive it.

Shawn Parks

A graduate from the Rhode Island School of Design, Shawn is a practicing studio and public artist with a love for color, pattern, and anything textile based. He describes his art focus as "fiber, ceramic, queer, and fine arts". Shawn's work fits well into this exhibition because of his use of brightly colored, textile-based pieces. His use of the common and underappreciated material, thread, is a unique way for visitors to connect with color and texture.

Jazz Brown

Using detailed geometric and organic textures, Jazz Brown attempts to chronicle the cycles and tiers of nature. Using vibrant colors, he utilizes vibrational sequences to invoke

inspiration. As everything is energy, Brown explores the connection between optimism and empowerment. Brown's piece, 'prime', would be the perfect piece to display with various colored filters to view through. His use of color and shape along with colored filters will help demonstrate aspects of color vision and perception.

Cecelia Deleon

Cecelia is a Seattle artist and graduate in Design from the Cornish College of the Arts. Ultimately deciding to pursue fine art to explore ChicanX and Pop culture, she utilizes her design background to convey ideas through 3D installations, paintings, and design work. Cecelia's use of bright colors and bold shapes will support visitor's explorations of color and storytelling.

JW Harrington

JW is a painter, social-science professor, and trained baritone, living, working and painting in Tacoma, Washington. Using acrylic on canvas or hardwood panels, he paints abstract works: some using strict, "rational" patterns of complementary colors; and some using intuitive composition. Harrington serves as Professor of Urban Studies at the University of Washington Tacoma. JW's color abstractions, shown in the following Sample Checklist, provides a colorful basis for visitors to explore their color perception.

Sample Checklist



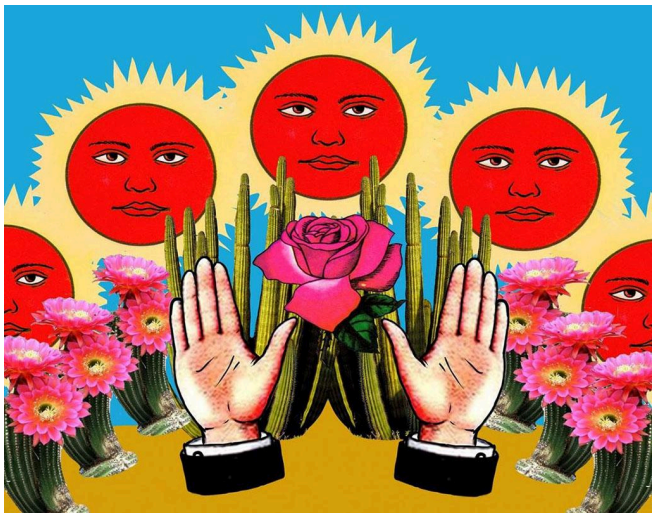
Monica Valentine
Untitled (MV 064)
2018
6" x 8" x 12"
Styrofoam, sequins, beads, pins

Monica's sculptures burst with color and texture. As an artist who is blind, I hope her sculptures spark conversations about the diversity of color experiences and expression.



Jazz Brown
"Prime"
Acrylic on canvas
20" x 24" x 2"

Brown's use of color and shape makes this piece a good addition to the exhibition. It would be a great piece view through different colored filters, demonstrating color vision mechanics.



Cecelia Deleon
"El Sol"
Collage Digital/Photoshop
11" x 14"

Cecelia's use of color, shape, and storytelling would support the theme of this exhibition. Cultural icons related to ChicanX culture help tell a story through color. It can also be used to demonstrate the phenomenon of the afterimage effect.



JW Harrington
“Color Abstraction 20”
Acrylic on Canvas
24” x 24” x 1.5”

I picked this piece in particular because its use of a limited palette resembles the visual experience of people who are red-green colorblind.



Jose Felix Castro Jr.
“Nature’s modern wealth”
Date, medium, dimensions TBD

I would like to include this piece into the exhibition because of its unique use of color to convey emotion. Jose is also colorblind and I think this piece could provide visitors an opportunity to consider the color experiences that are different from their own.



Shawn Parks
Title, Date, Material, Size TBD

Shawn's use of color and shape would add a dimensional aspect to this exhibition. Using white backgrounds for his display will aid visitors in exploring the relationship between forms, color, and the stories they convey.

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experience

Production Intern, Creo Industrial Arts-Exhibits Division, Woodinville, WA Jan. 2020 - March 2020

- Assist with interactive exhibit production for the U.S Olympic and Paralympic Museum.
- Fabricate exhibit components utilizing the bandsaw, table saw, and various hand tools.
- Gain familiarity with various stages of the fabrication process, including design, fabrication, and installation.

ACCESS Informal Science Learning Intern, DO-IT Center, Seattle, WA Jan. 2020 - June 2020

- A 100-hour internship partnering with STEM students with disabilities to perform accessibilty assessments in local informal learning environments.
- Participate in building an online community of practice with regional science center partners.

Interactives Developer, Wonderful Idea Company, Berkeley, CA March 2019 - Aug 2019

- Developed an interactive, science-based, interactive zine as well as marketing products that align with the company's maker aesthetic, through both analog and digital mediums.

Community Engagement Program Coordinator, Golden Gate National Parks Conservancy Feb 2018 - Aug. 2019

- Collaborated with the local National Park Service, California State Parks, Marin Municipal Water District, and Marin County Park's outreach teams to promote the stewardship of Mt. Tamalpais.
- Managed all aspects of mobile outreach truck and program to promote visitorship and stewardship of Mount Tamalpais.
- Collaborated and coordinated 76 public outreach events reaching over 8k community members.

Temporary Assistant Manager, Exploratorium, San Francisco, CA Aug 2017 - Feb 2018

- Supervised 21 museum educators, planned daily schedules, managed timecards and tracked attendance.
- Planned and led daily science and facilitation trainings for educators.
- Ordered and maintained program supplies and non-payroll budget.

Senior Field Trip Explainer, Exploratorium, San Francisco, CA Feb. 2013 - Aug. 2017

- Used in-house shop machines to build tactile boxes, observation tools, and mini exhibits for museum educators.
- Participated in a NFS funded climate grant project, developing an ocean acidification model.
- Designed and led facilitation and science trainings for museum educators.

Shop Assistant, Stellar Grinding, Concord, CA Jan 2010 - Jan 2011

- Operated precision machining tools including mills, lathes, CNC machine, and centerless grinder.
- Conducted precision measurements of manufactured parts, packaged and delivered orders.

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education

Masters of Arts, Museology May 2021
University of Washington, Seattle, WA
- Relevant coursework: Exhibit Development I, Learning in Museums, Technology in Museums, Museum Evaluation I, Climate Change Seminar.

Bachelors of Arts, Child Development May 2009
San Francisco State University, San Francisco, CA

Certificate, American Sign Language May 2009
Berkeley City College, Berkeley, CA

professional engagements

American Alliance of Museums Annual Meeting and MuseumExpo May 2020
American Alliance of Museums San Francisco, CA
- Attend the online national conference, focusing on exhibit development and accessibility.

Climate Change Interpretation Course Oct. 2018 - March 2019
National Network for Ocean and Climate Change Interpretation SF Bay Area, CA
- A 70-hour course learning research-based methods for effectively communicating about climate change with the public.

Museum Evaluation Workshop February 2019
California Association of Museums Conference San Francisco, CA
- Participated in a four hour workshop focused on museum evaluation methods and practices.

Science Content Training Feb. 2013 - Feb. 2019
Exploratorium San Francisco, CA
- Received over 500 hours of science training from resident scientists, teachers, artists and visiting professionals. Topics included perceptual science, physics, biology, social science, environmental science, and earth and ocean science.

volunteer

Wood shop Volunteer, Girls Garage, Berkeley, CA Jan. 2019 - March 2019
- Provided class support for an 8-week wood shop class serving girls 9-14. Supervise safe usage of woodworking machines and tools.

Exhibit Volunteer, Exploratorium Studio for Public Spaces, San Francisco, CA Nov. 2018 - March 2019
- Constructed scale models of outdoor exhibits by use of Illustrator, laser cutter, panel saw, and hand tools.

Wood shop Volunteer, The Crucible, Oakland, CA July 2016 - Oct. 2017
- Supported three week-long summer camps and one two-day workshop with youth including woodturning and skateboard building.