



Hello!

Jo Bjorkman here. I am the Collections Associate for the John Michael Kohler Arts Center and Art Preserve. As part of my job, I get the chance be up close and hands on with the art objects we have in our collection.

The Art Preserve is an experimental space designed to house the Arts Center's collection of over thirty-five artist-built environments. Designed by Denver-based design firm Tres Birds, the Art Preserve is built into the hillside with elements such as irregular shaped corners, natural materials, and three floors dedicated to gallery space. It is a truly a unique place that we are so excited to be opening to the public! One of the areas that we have been continuously monitoring as staff at the Art preserve that I'd like to share about is light exposure!

Traditionally, art objects are kept in spaces without windows because too much light, especially sunlight, can cause them damage. Although years of light research was conducted before building the Art Preserve, we still need to monitor and track how much light exposure the objects are receiving now that they have moved out of the dark storage areas and into the Art Preserve. We are using tools like blue wool cards and digital monitors to help us track exposure from sunlight coming through the windows and from the overhead lighting inside the building. The blue wool cards provide us an immediate visual reference on the amount of fading expected over time, which then informs the Art Preserve collections staff how often we need to rotate the work on view, or when we may need to reduce the intensity of illumination.

So how do these blue wool cards work?

Eight pieces of wool cloth tinted with blue dyes of different degrees of lightfastness are mounted on a card. Lightfastness is the chemical stability of the pigment or dye under long exposure to light and is rated between 1–8, 1 being very poor and 8 being excellent. This pigment on the wool cloth works in a similar way as the blue dye on the *Nature Print Paper* found in the "Printing with the Sun" kit. Just as you have to place the *Nature Print Paper* in the sun in order to create your print, the card with the blue wool attached is placed in an area of the Art Preserve that we are looking to measure light exposure.

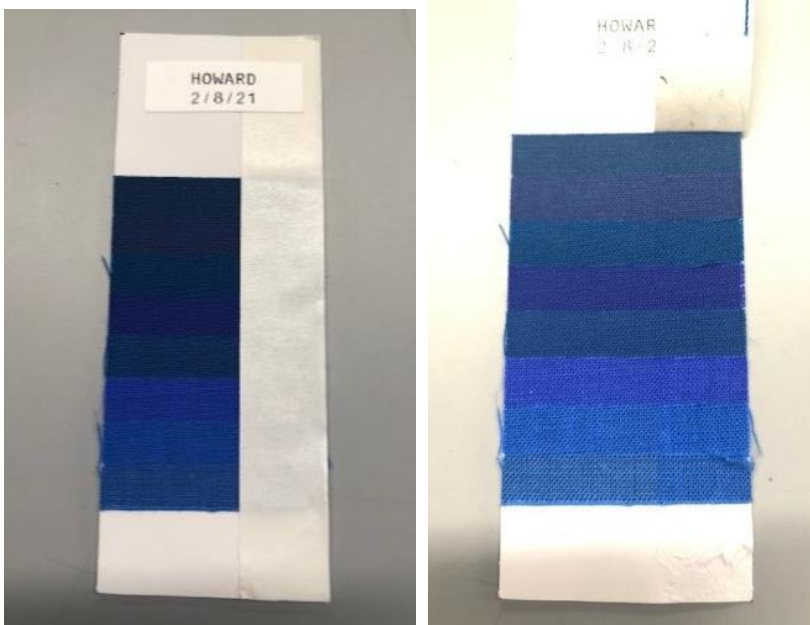
We cover part of the blue wool card before putting it in the area we are looking to monitor to help create a control area. The blue wool under the covered area is protected from the light and doesn't fade. We then place the card in the area we are looking to monitor. After leaving it for a length of time, we remove the card and compare the covered area to the area that was exposed to the light and use this table to teach us what level of light exposure the art objects will have in that space.



Blue Wool / ASTM lightfastness standards		
A	B	Comments
8	900	1. Excellent lightfastness. Blue wool 7-8. The pigment will remain unchanged for more than 100 years of light exposure with proper mounting and display.
7	300	
6	100	2. Very good lightfastness. Blue wool 6. The pigment will remain unchanged for 50 to 100 years of light exposure with proper mounting and display.
5	32	3. Fair lightfastness (Impermanent). Blue wool 4-5. The pigment will remain unchanged for 15 to 50 years with proper mounting and display. ("May be satisfactory when used full strength or with extra protection from exposure to light.")
4	10	
3	3.6	4. Poor lightfastness (Fugitive). Blue wool 2-3. The pigment begins to fade in 2 to 15 years, even with proper mounting and display.
2	1.3	
1	0.4	5. Very poor lightfastness (Fugitive). Blue wool 1. The pigment begins to fade in 2 years or less of light exposure, even with proper mounting and display.

Here is an example of a card I have recently taken down for analysis. The card was placed in the Jesse Howard tableau on the second floor of the Art Preserve in front of a wall of windows and was there for a little over 4 months. The image on the left shows the blue wool before being placed with the art objects. The image on the right shows the blue wool after 4 months. It is a subtle change, but if you examine the image on the right, you will notice that the exposed colors are slightly faded in comparison to the protected colors.

Blue wool #8 is the top cloth on the card and blue wool #1 is the bottom cloth in the photos. Use the chart to see if you can determine how much light this area is being exposed to and how many years we could keep art objects displayed in this area without rotating.



Thanks for taking time and letting me share a little about the blue wool cards! We are constantly learning and growing at the Art preserve and look forward to being able to share the space with you when the building opens on June 26. Good luck with your *Printing with the Sun* prints. Have fun experimenting with the sun!