

Bruegel's
"The Wedding Dance"
Revealed

Scientific Enquiry Resource



Pieter Bruegel the Elder (Netherlandish, 1525-1569). *The Wedding Dance*, 1566. Oil on wood panel. Unframed: 47 × 62 inches. framed: 57 1/4 × 72 × 3 1/2 inches. City of Detroit Purchase. 30.374



The Science of Looking

Analysis of a painting starts with close observation of its surface, the materials used to create it, and its subject matter.

When conservators reach the limits of what looking closely with their eyes alone can reveal, they turn to technology and specialized techniques.

Here we will explore the many examination methods used by conservators at the Detroit Institute of the Arts to learn more about The Wedding Dance.



Conservator Question 1

Why does the top section of *The Wedding Dance* look different from the rest of the painting?





Pigment Analysis

Conservators observed that the topmost portion of *The Wedding Dance*—a horizon line visible through the trees—looks different from the rest of the painting.

After using different investigative methods, they found that the top of *The Wedding Dance* was painted by someone else and isn't original to the painting.



Careful Observation



Infrared Imaging



Q: This close up image is from the top edge of *The Wedding Dance*. Though visible in much of the painting, conservators noticed that Bruegel's detailed underdrawing does not show through the paint anywhere along the top edge. Why not?



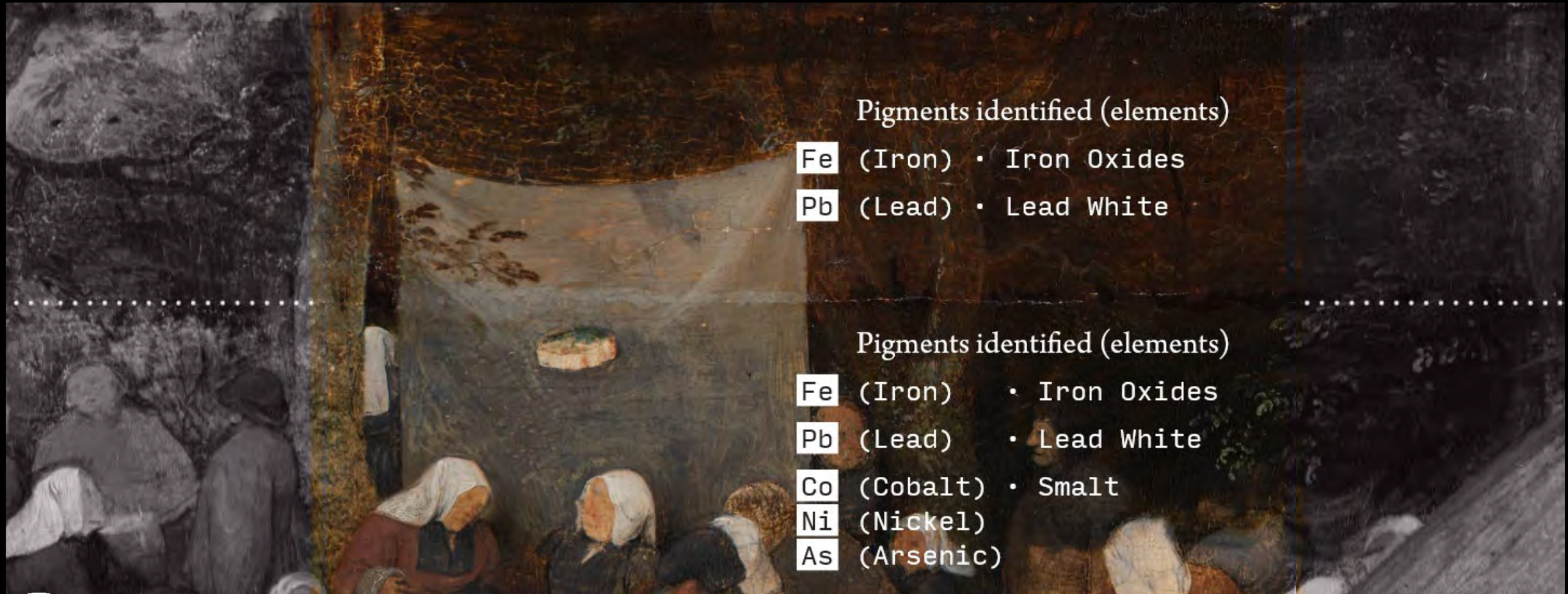
A: Because it doesn't exist in this area of the painting. Using an infrared-detecting camera to see through the paint layers, conservators found that the drawing stops just below the dark line. That means Bruegel didn't plan for the painting to have a horizon line.



Q: This image is from the top of *The Wedding Dance*. Conservators observed that the top half of this cloth is lighter in color than the bottom half? Why?



A: Because the top half was painted with different paint. Conservators analyzed the paints and found different chemical compositions on the top and bottom. This was a clue that the top was not painted at the same time as the bottom.



Q: This image is a close up of the top edge of *The Wedding Dance*. Conservators noticed that the paint is cracked on the top of this tree, but not on the bottom. Why?



A: Because the top half of the tree was painted with a poorly mixed paint. The paint shrank as it dried, causing cracks. This suggests it was painted later than the bottom of the tree.



What more can we find regarding the top section?

**Take a few moments to compare
the next two slides.**

What do you notice?







The first image shows the painting today. Some viewers find that the blue sky and towering trees in the horizon pull their attention upwards.

But Bruegel never meant for *The Wedding Dance* to have a horizon—it was added by a later artist. The horizon changes the look and feel of the painting.

In Bruegel's original painting, depicted second, the scene seems dense and crowded, as though the viewer is part of the party.



Pieter Bruegel the Elder
(Netherlandish, 1525-1569).
The Wedding Dance, 1566



Pieter Bruegel the Elder
(Netherlandish, 1525-1569).
The Wedding Dance, 1566
(digitally altered)

Conservator Question 2

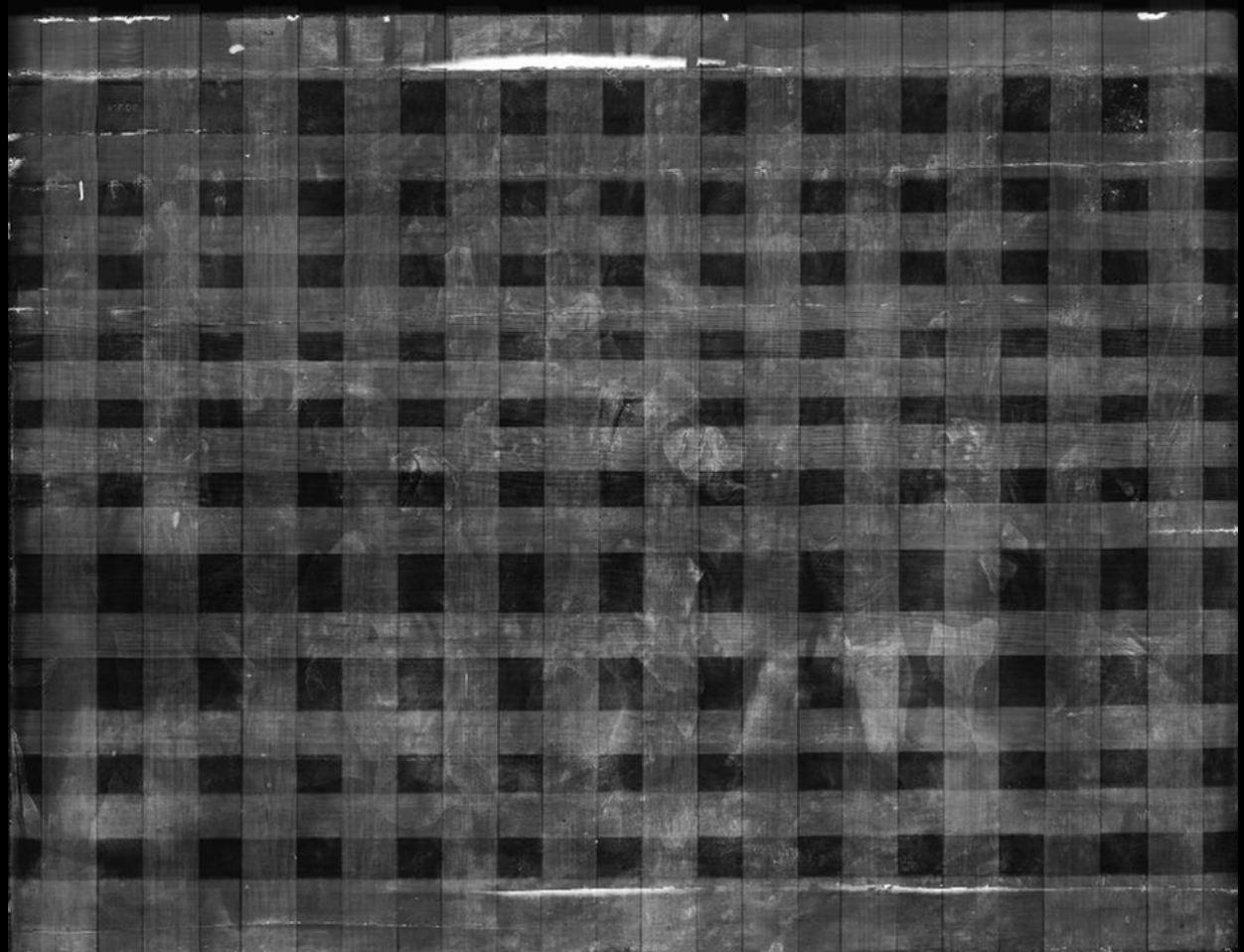
What do we know about the surface on which *The Wedding Dance* was painted, and how it was constructed?



Looking Inside

Take a look at this X-ray image of the back of *The Wedding Dance*.

What do you notice?

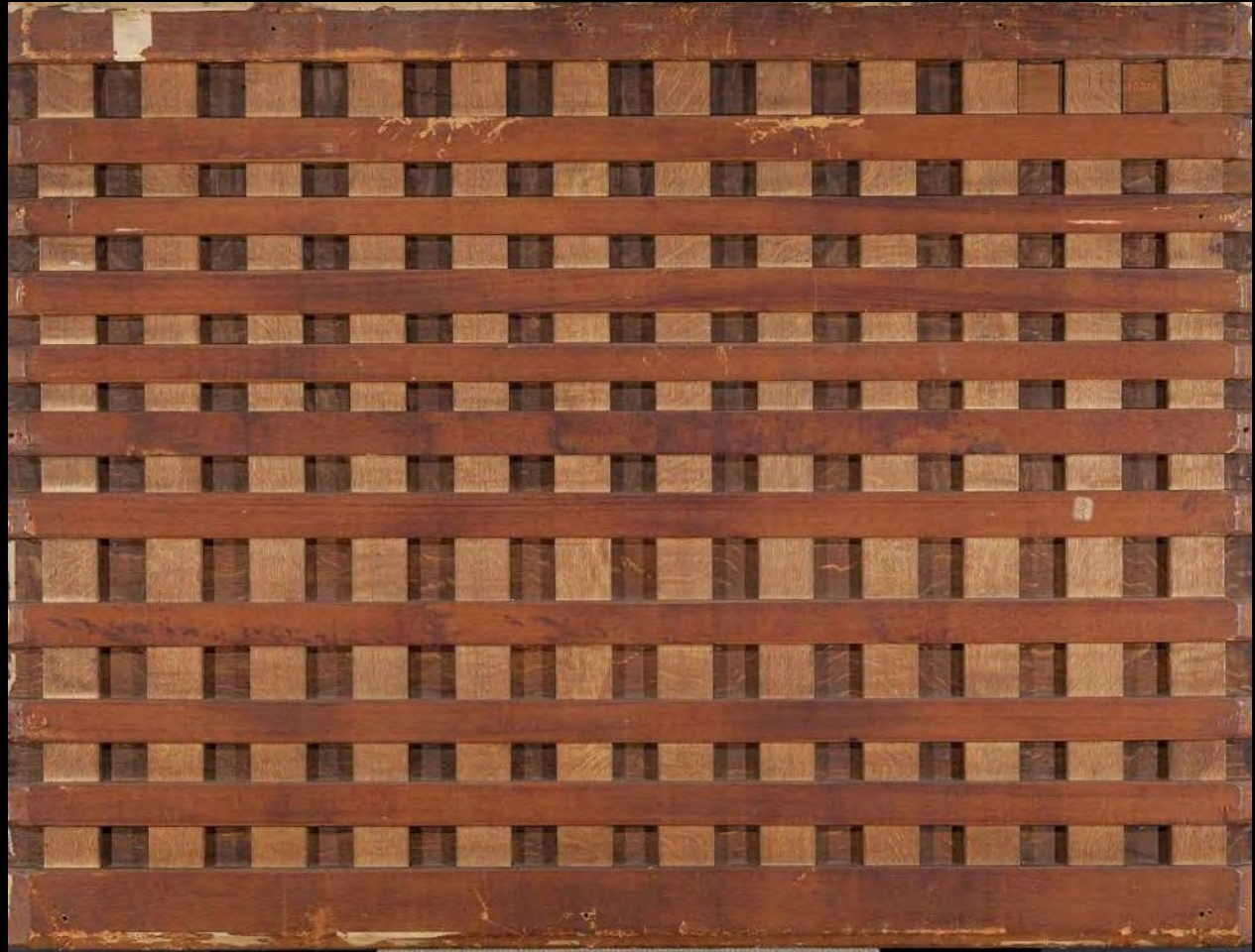


Supporting the Wood Panel

This grid-like wooden structure is called a cradle.

It was added to the back of oak panel to keep the wood from warping and cracking due to changes in temperature and humidity.

When conservators compared the cradle to those on other paintings, they found that it was made in the late 1800s.



X-Ray Analysis

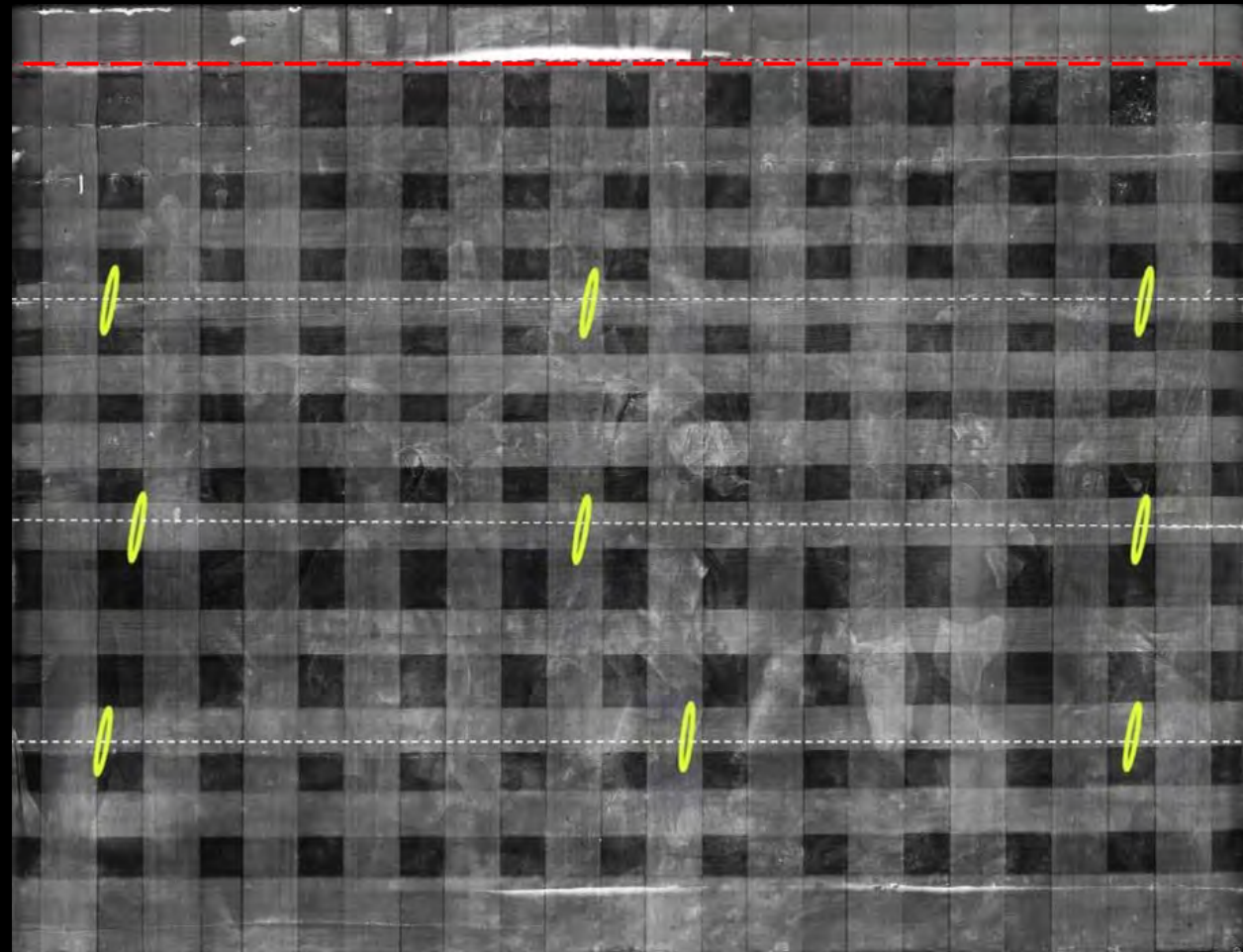
This X-ray image shows more than just the support cradle.

The dotted horizontal white lines indicate where the four boards are connected to make the single painted surface.

The topmost red dotted line shows where the additional top panel was added to Bruegel's original work.

Conservators discovered small dowels holding the painting's boards together to make one panel.

The small yellow markings indicate the location of the dowels.



Conservator Question 3

What are the origins of some of the pigments that Bruegel used?



From Bug to Brush

Looking at the electromagnetic spectrum, conservators discovered fascinating information about the origins of some of the pigments that Bruegel used.

Conservators found that one of the red paints contained insect dye. Further investigation revealed that the insect was an American species of cochineal (say co-chi-neal).

Cochineal has carried significant cultural and economic value for thousands of years in North and South America.



Making Red Paint

These scaly cochineal insects feed on the prickly pear cactus. Female insects were carefully picked off the cactus to not accidentally crush the bugs and cause the liquid to squeeze out.

The insects were then dried in the sun or in an oven. The dried insects were soaked in water to extract the vibrant red dye.

About 70,000 bugs are needed to produce one pound of dye. To make pigment, the red dye was mixed with metallic salts, causing a chemical reaction.

The resulting product was filtered, dried, then ground into a fine powder. Bruegel and his assistants then mixed the pigment with oil to create paint.



Cochineal insects

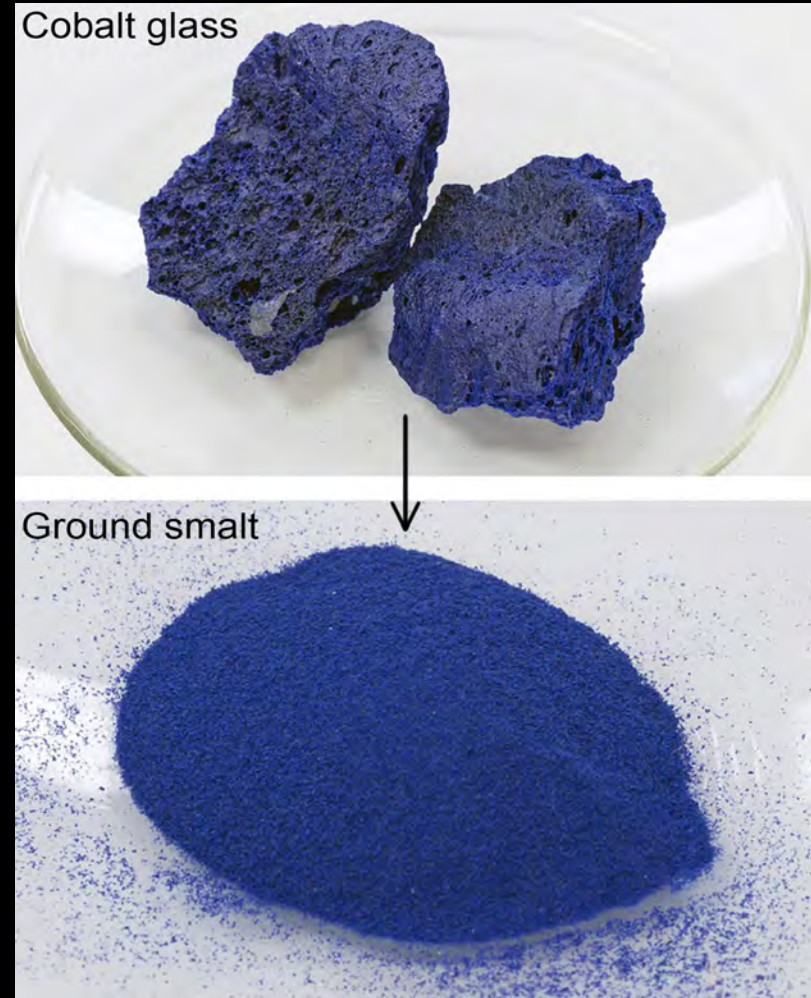
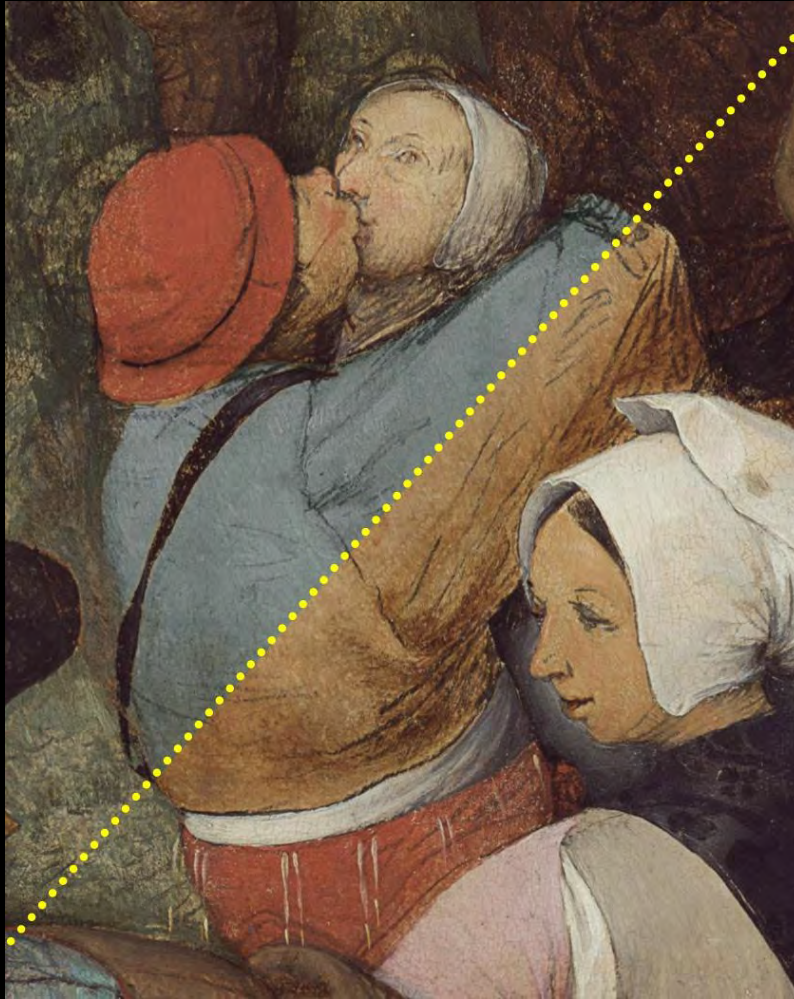


Laked cochineal pigment

Losing Blue

When conservators tested the brown areas found on some figures' vests, shirts, and aprons, they were surprised to discover a blue pigment called smalt, which is made from cobalt glass.

That means these details should have been blue instead of brown! Conservators concluded that the paint degraded over time, causing the color to change.



Conservator Question 4

What can we learn from copies of
The Wedding Dance?



Copies

Bruegel's depiction of lively dancers at a wedding was very popular. Soon after it was finished, other artists—including his sons Pieter Brueghel the Younger (1564–1636) and Jan Brueghel the Elder (1568–1625)—made dozens of copies.

Some versions, like a painting located in Antwerp, Belgium, are almost exact.



Original

"The Wedding Dance,"
1566, Pieter Bruegel
the Elder,
Netherlandish; oil on
wood panel. Detroit
Institute of Arts.



Antwerp copy

"The Dance of the
Bride", after 1566,
Artist unknown, oil on
oak panel, Royal
Museum of Fine Arts
Antwerp.

Comparison

Some areas of The Wedding Dance have discolored or been damaged over time.

To imagine what the painting may have looked like when Bruegel finished it, conservators compared it with a well-preserved copy made by another artist around the same time.



“The Dance of the Bride”, after 1566, Artist unknown, oil on oak panel, Royal Museum of Fine Arts Antwerp.

Conservators discovered that some details wore away on the DIA's painting, such as this man's facial features:



DIA original



Antwerp copy



Today, much of Bruegel's initial drawing shows through on the DIA's painting. But Bruegel did not intend for it to be seen because the skilled copyist didn't include it.



DIA original



Antwerp copy



Some of Bruegel's pigments deteriorated. This man's shirt appears brown in the DIA's painting but light blue in the copy.



DIA original



Antwerp copy



Now it's your turn to think like a scientist!

What did the conservators discover?

What evidence did they find to support that discovery?

How would you explain how those facts support the statement being made?

<p>Claim Write a simple statement about what the conservators claimed to uncover about <i>The Wedding Dance</i> regarding the above topic.</p>	
<p>Evidence Provide scientific evidence to support the conservators' claim. There can be multiple points of data/evidence, and this can be in the form of a list.</p>	
<p>Reasoning Use the above evidence to justify why the conservators' evidence logically supports the claim.</p>	



This resource was developed by Adina Rubenstein in collaboration with the Education Programs and Conservation teams.

