

# The Solar Eclipse Through Time Documented by Art



**Get into small groups of 3 to 4 people.**

Imagine your group is in the past, approximately 400 years ago. You are a part of a small civilization. Your group sees the solar eclipse begin. Imagine what happens next.

Teachers please pause for about 3min for discussion.

Now, discuss the following questions in your group.

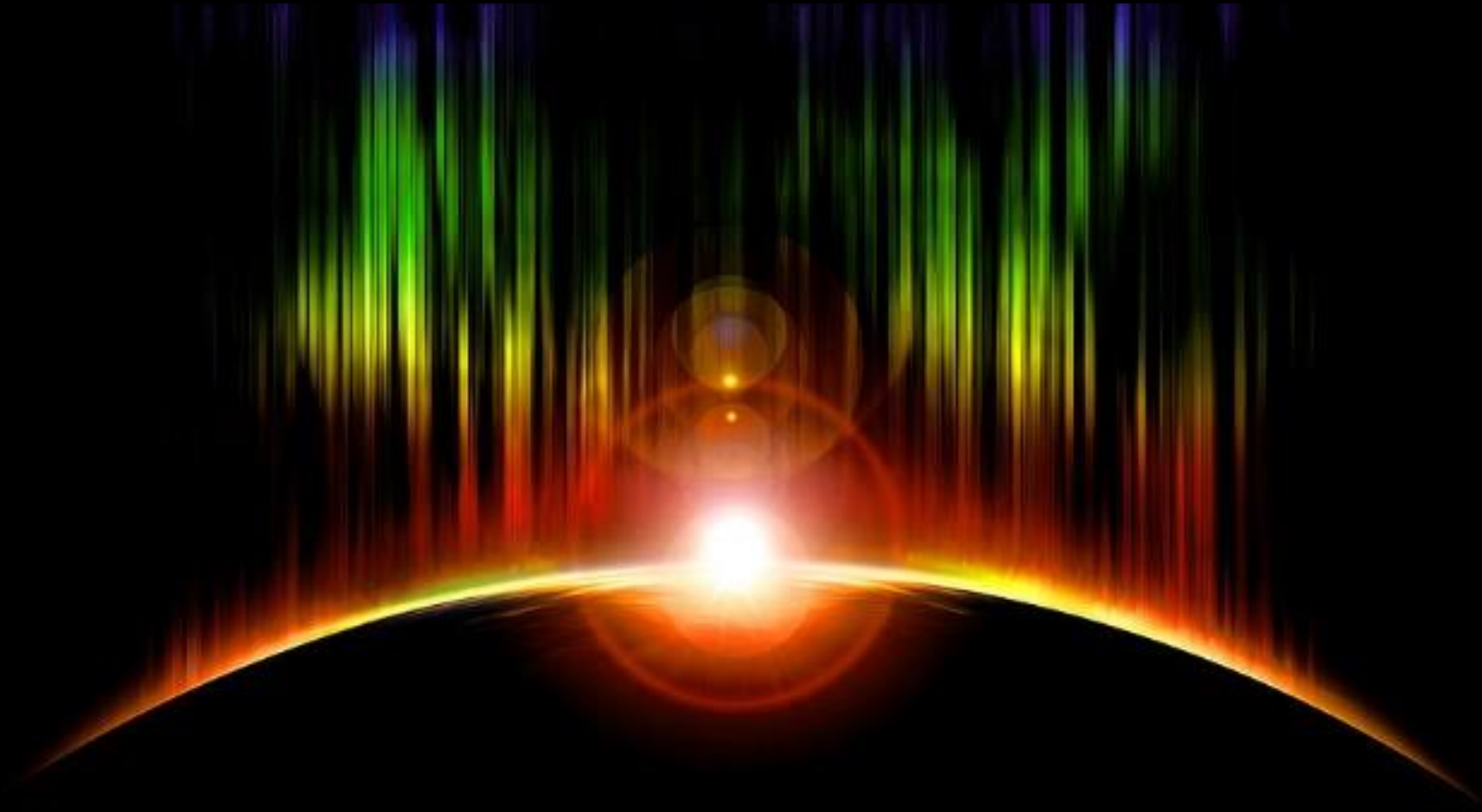
What do you do when your group sees the eclipse?

What did your civilization leaders do?

How did the religious institutions act when the eclipse occurred?

How does your society explain what happens when it is over?

Share what each group thinks happens in this scenario?



Date	Type	Description
0334 Jul 17	Annular	Firmicus is first to report solar prominences, seen
0418 Jul 19	Total	First report of a comet seen during a solar eclipse
0968 Dec 22	Total	First report of a description of the corona
1605 Oct 12	Total	Johannes Kepler suggests that the corona is light reflected from material surrounding the Sun
1724 May 22	Total	Jose Joaquin de Ferrer names the "Corona" and proposes that it is a part of the Sun and not the
1733 May 13	Total	Birger Wassenius is the first to report prominences visible to the unaided eye; he attributes them to
1836 May 15	Annular	Francis Baily notes the brief bright beads of light that appear close to totality as the last rays of sunlight stream through lunar valleys along the
1842 Jul 08	Total	Francis Baily identifies Corona and Prominences as
1860 Jul 18	Total	First Wet Plate Eclipse Photograph
1868	Total	Pierre-Jules-César Janssen observed a new spectral line in the sun's spectrum; named "Helium" after the Greek god of the Sun, Helios.
1869 Aug 07	Total	New element ("coronium") discovered in Sun's Corona? Actually, it was confirmed as ionized iron in 1941.
1871 Dec 12	Total	Jules Janssen uses spectroscopy to propose that the corona consists of both hot gases and cooler particles and hence is part of the Sun.
1919 May 29	Total	Sir Arthur Eddington verifies Einstein's Theory of General Relativity, by observing the bending of starlight passing near the sun's limb.

Now, look at this chart provided by NASA.

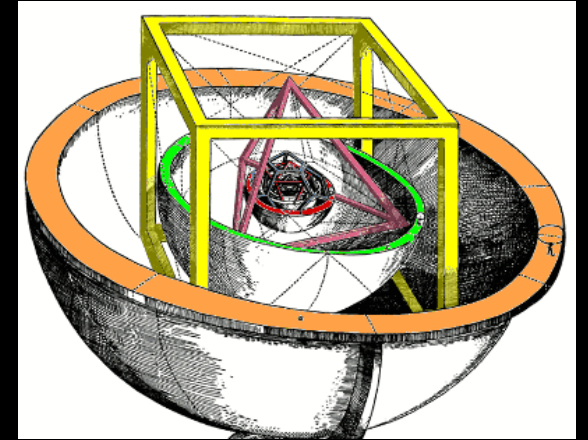
How do you think your group predictions add up to what you see here?

What was going on during the 1600 and what does that mean for the predictions of a solar eclipse?

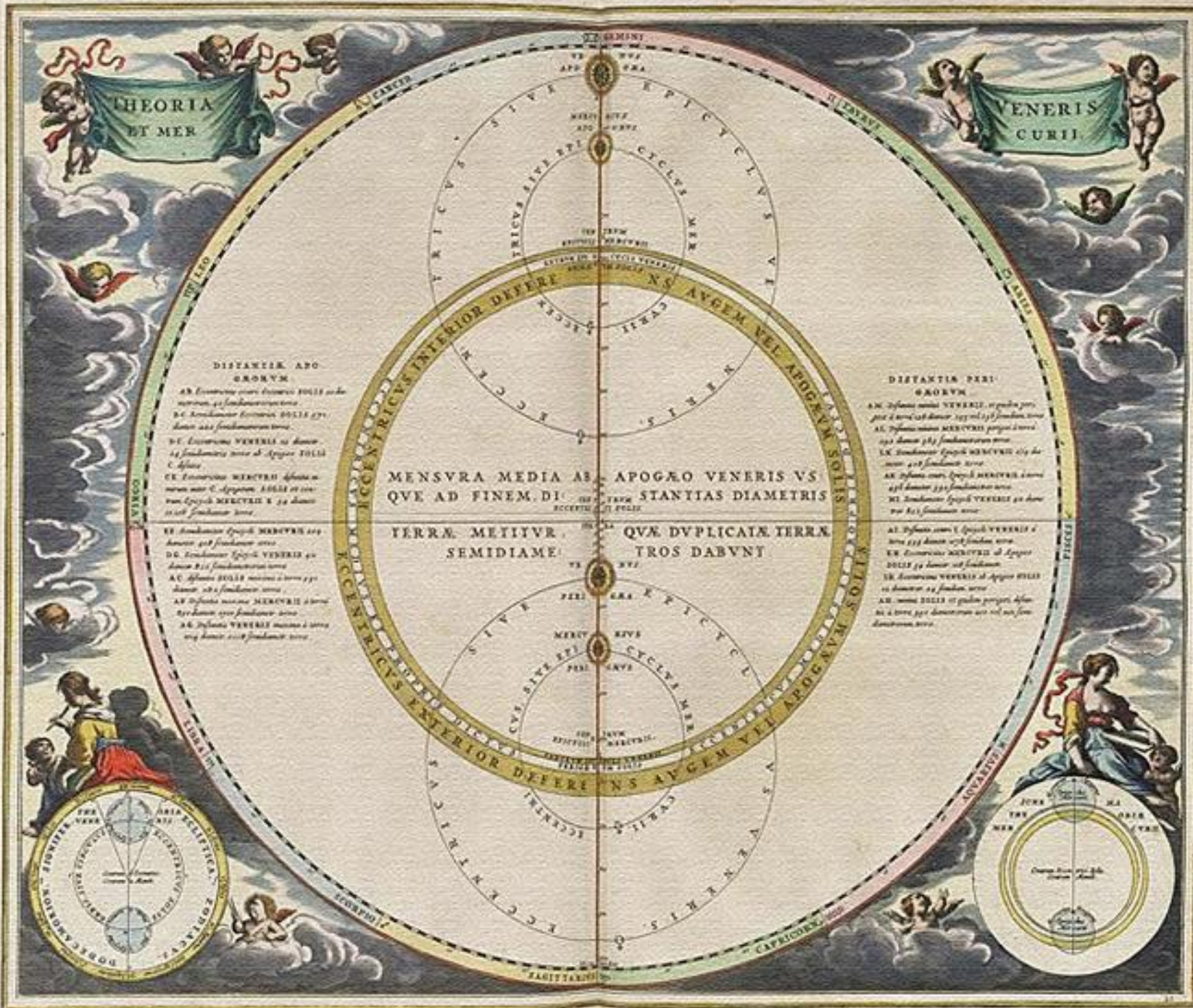
# Johannes Kepler



Johannes Kepler  
1571-1630



Kepler believed the solar system's planets orbited the sun in circular paths whose sizes were determined by an arrangement of the five Platonic Solids



Kepler's laws started the developments of this diagram tracking the moon. This chart is used for tracking and predicting the solar eclipse.

So if we knew this much, what would the experience look like 5000 years ago?



Teachers please pause for about 3min for discussion.

Frontieras Rassouli  
2015 Oil Paint



This is a mound in Loughcrew in Meath, Ireland



# This is what they found in Loughcrew Mound in Meath



The 3340 BC 92 solar eclipses were tracked through history tracked by Irish archaeoastronomer. With none of the technology available to our modern experts, the ancient Irish constructed these complex structures, that not only endured over 5,000 years but were built with such accuracy that they continue to perform their astronomical functions today.

Loughcrew Mound, Meath  
Ireland

This is what we think the device looked like before.

The mound would track different motions of the moon and still functions today. The light would come up and hit a reflection and project the light on the back wall.



Here are some more examples of art work made during different periods of history.

- Look at each of the works and discuss how the pieces fit the time period and place.
- Where is the eclipse placed and how is the placement significant to the piece?
  - How do you feel the eclipse influenced the artwork?



This fresco in the Padua Baptistery — a religious building near the Piazza del Duomo cathedral in Padua, Italy, and dedicated to St. John the Baptist — portrays the crucifixion of Jesus Christ during an eclipse, painted by Giusto de Menabuoi, circa 1378. Crowds of onlookers stand around and the Virgin Mary has fainted.

Giusto de Menabuoi, circa 1378

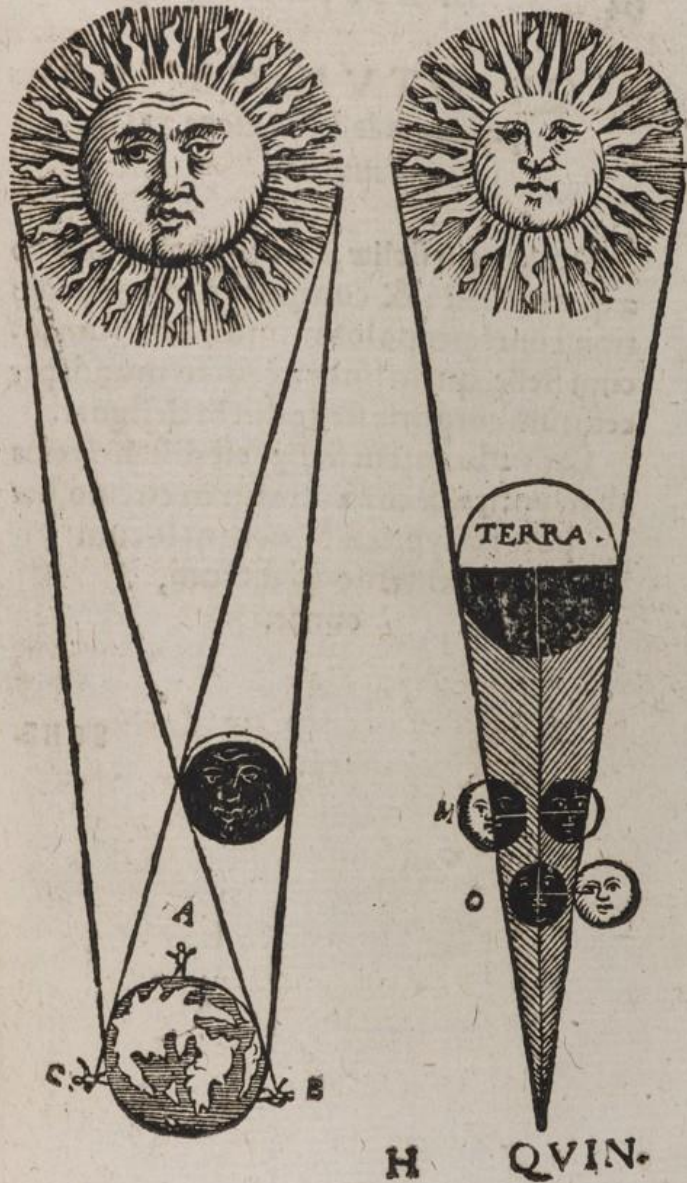
## Annunciation to the Shepherds

Credit: Taddeo Gaddi For hundreds of years, artists have incorporated the spectacular sight of an eclipse into their paintings.

This 14th-century fresco by Taddeo Gaddi, found in the Basilica of Santa Croce in Florence, depicts an angel announcing the birth of the baby Jesus to shepherds during an eclipse.

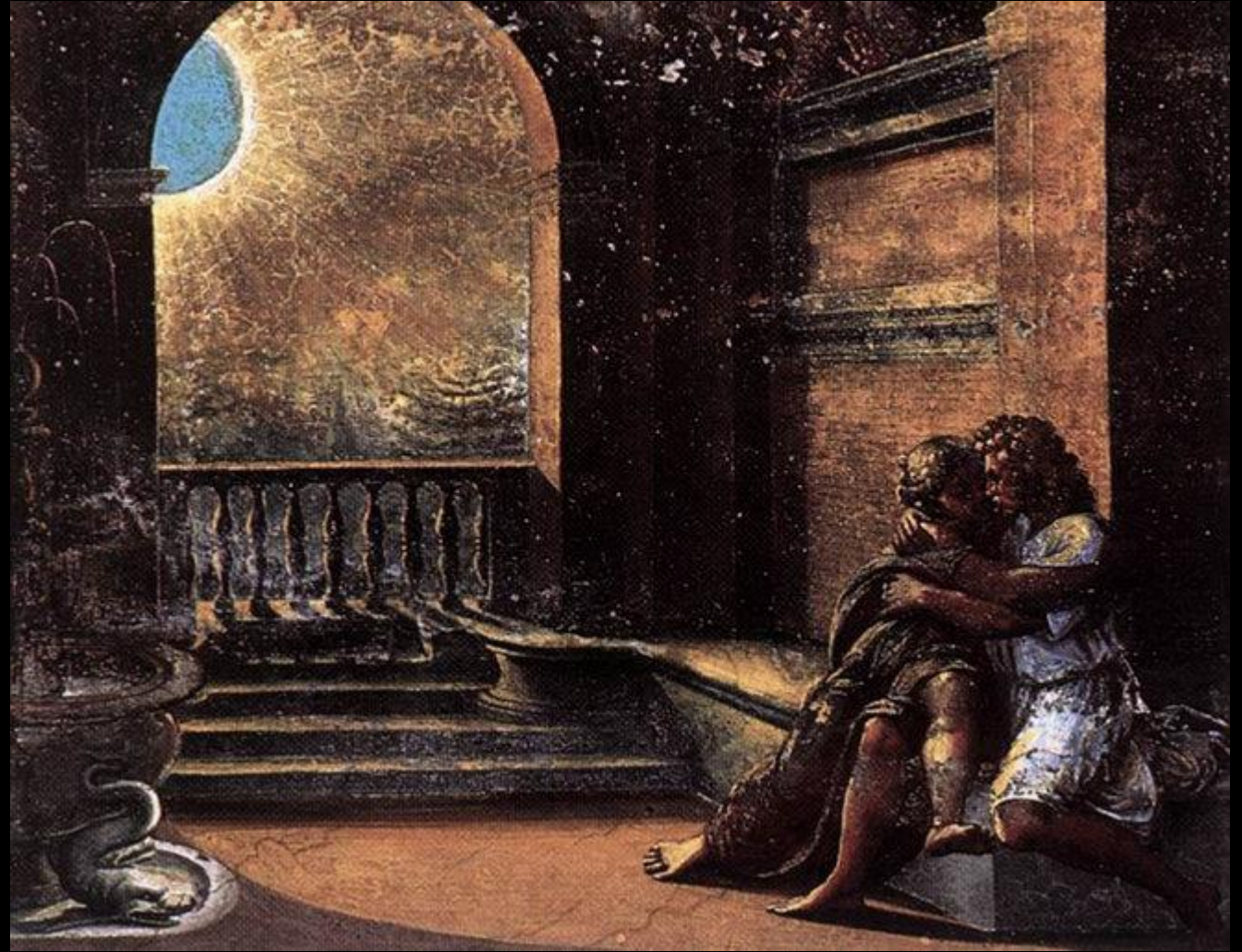
Taddeo Gaddi 1423





In Western Europe during the Middle Ages, eclipses took on a dual meaning, and became a means for expressing varieties of both religious and scientific experience.

This fresco, painted in 1518 or 1519 by Renaissance artist Raphael and his workshop, is located in the Vatican Palace in Rome, Italy.

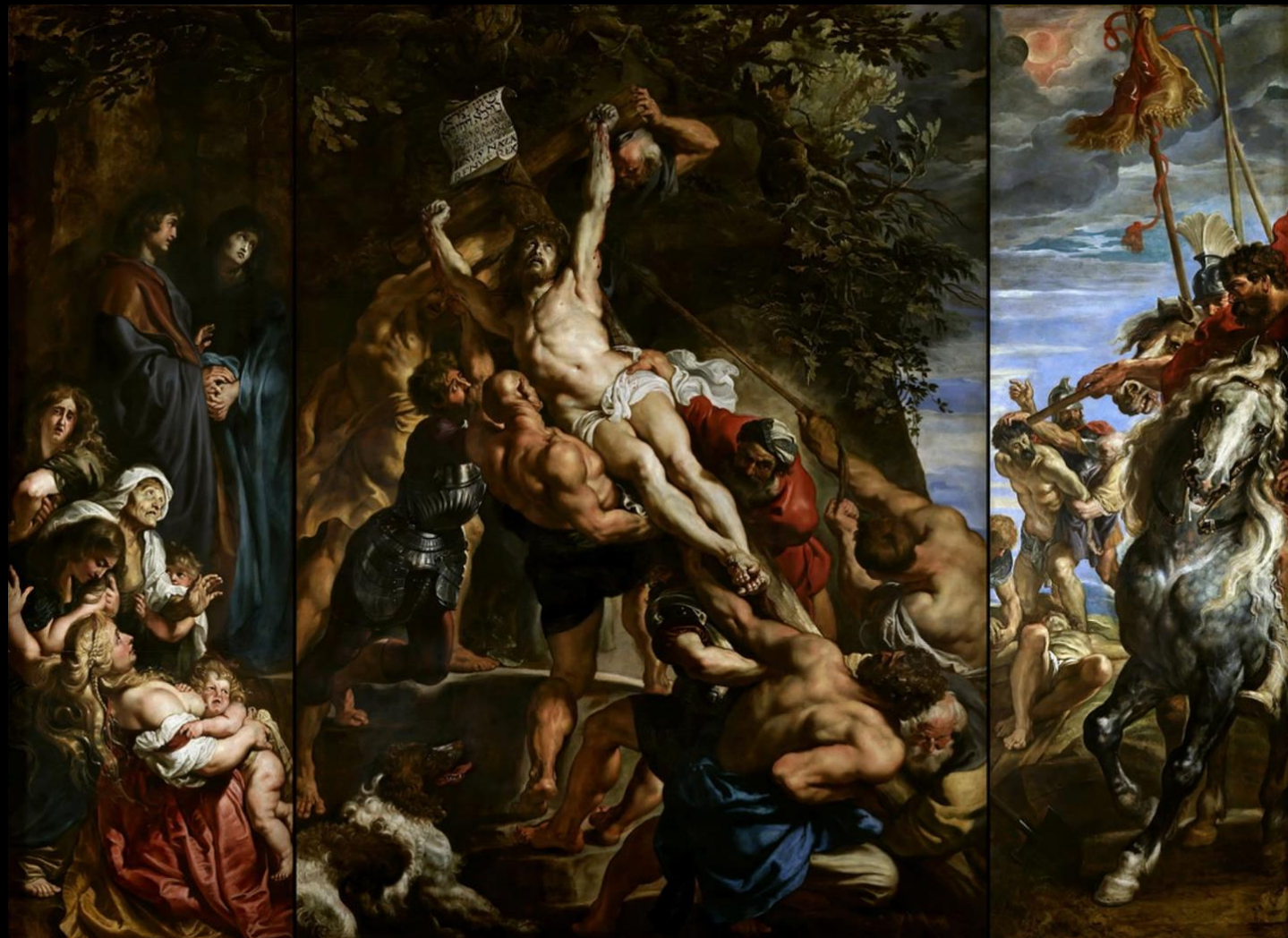






An oil painting from the 1570s — likely inspired by the 1571 total solar eclipse — shows Dionysius preaching the Christian message of salvation to a group of pagan Greek philosophers, while astronomers gather in the town square, beneath the shadowed sun

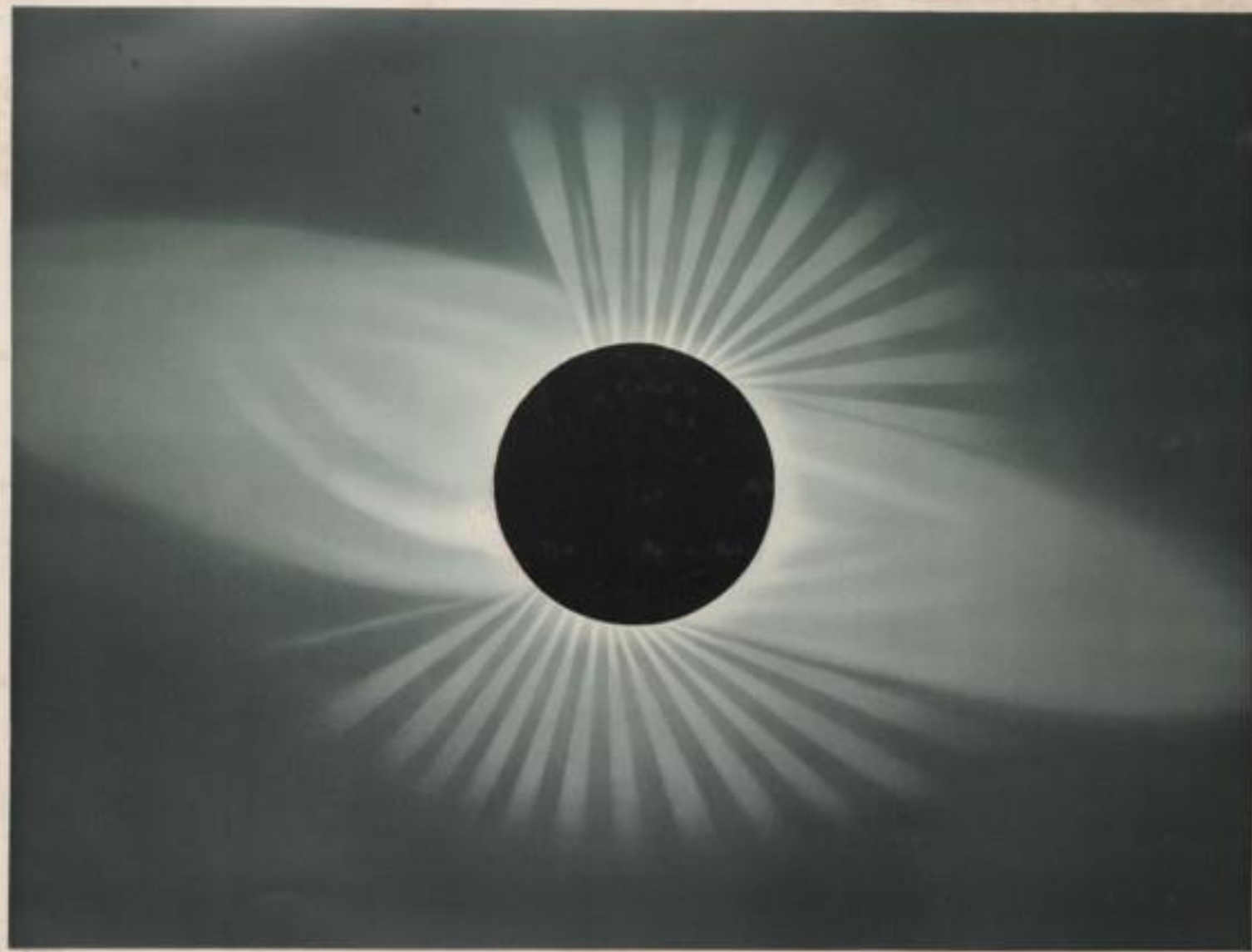
In 1610, Rubens portrayed the raising of Christ on the cross in a triptych — a three-paneled display — which can be found at the Cathedral of Our Lady in Antwerp, Belgium. The panel on the right shows the solar eclipse, though in traditional crucifixion scenes, painters placed the sun to the left of the Christ figure





“In the late 18th and early 19th centuries, astronomy and solar eclipses were a huge craze. Virtually anyone who considered himself an educated person then took an interest in art and science. The popularization of telescopes and printing presses brought astronomical knowledge into middle class homes.”

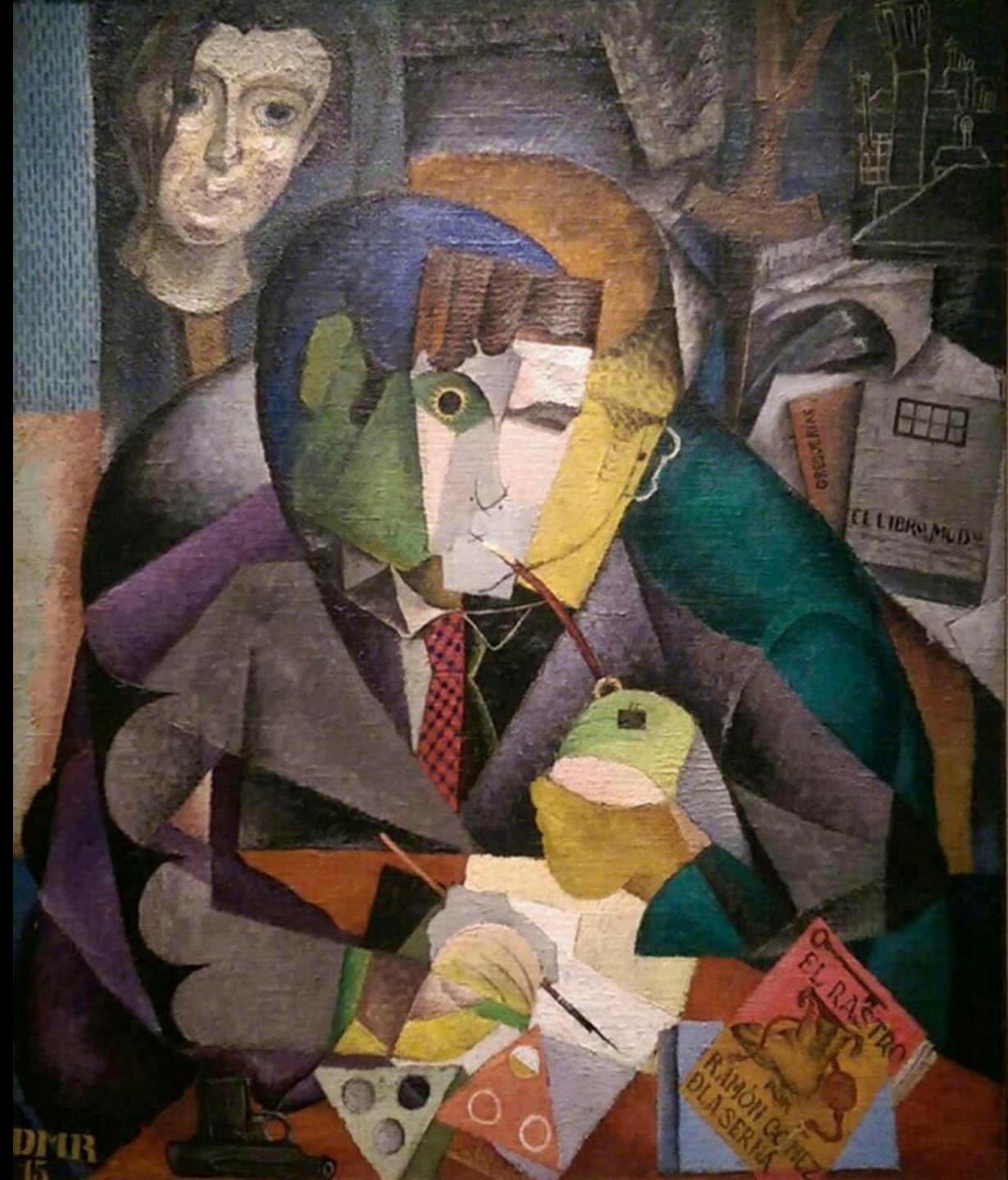
Vision of St Benedict by  
Cosmas Damian, 1735



TOTAL ECLIPSE of the SUN.

Etienne Trouvelot, Lithograph  
in color, Total eclipse of sun;  
observed 29 July 1878

Mexican artist Diego Rivera painted this Cubist-inspired portrait of Spanish writer Ramón Gómez de la Serna in 1915, placing a total solar eclipse squarely in the poet's eye.





George Grosz's surrealist-influenced oil painting, which he painted in 1926, lambasted the power and greed of Germany's governing military and bureaucrats in the 1920s. The solar eclipse — branded with a dollar sign — represented the anticipated collapse of the unstable Weimar Republic, according to the [Princeton University Art Museum](#).

Now put yourself in the artist place.

Discuss this with your group.

What do you think your composition would be?

What imagery would you use?

How do you think the eclipse might affect you?

What do you feel like your artwork will mean to others?