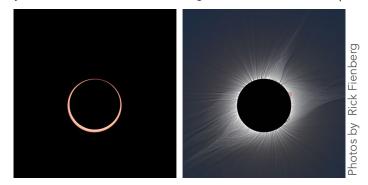
PUNCH Public Engagement

Monthly Newsletter Issue 12: Oct 2023

Shining New Light on Diverse Views of the Sun with our Ancient & Modern Sun-Watching Theme

Did You Know.... ...that the Moon's orbit is elliptical? When the New Moon is farther from Earth during a solar eclipse, the lunar disk may appear too small to cover up the entire solar disk and so an annular eclipse (ring of light) can occur (below-left). When the New Moon is closer to Earth during an eclipse it can block the entire solar disk, revealing the lovely corona (below-right). But our <u>PUNCH PI</u> was atop <u>Sandia Peak, NM</u> testing out *new* ways to observe the corona during the recent *annular* eclipse!



Supporting Annular Eclipse Events in the Four Corners

<u>PUNCH Outreach</u> team members Cherilynn Morrow and G B Cornucopia connected with four rangers from <u>El Morro</u> <u>National Monument</u> offering an extemporaneous training on indoor and outdoor use of our <u>3-Hole PUNCH Pinhole</u> <u>Projector</u>. In the future we will contribute to the Monument's sunset/moonrise programs on the Inscription Rock mesa top where there are <u>Ancestral Puebloan</u> dwellings. This is just one of numerous contributions PUNCH Outreach made to annular eclipse viewing events, providing training, personnel, and quality <u>outreach products</u> to sites in the <u>Four Corners</u> region.



A New Activity for Blind and Low-Vision Learners

PUNCH Outreach Advisor, <u>Tasnim Alshuli</u>, is supporting us to make outreach activities on our website more accessible to Blind and Low-Vision (BLV) learners. She is helping us develop a new learning activity about the Sun's corona that uses an upgraded set of seven thermoform tactile art representations created by our partner <u>Dr. Nicole Johnson</u>. The set reveals how humans have recorded the solar corona throughout history, from petroglyph to coronagraph. Each of the tactiles now has a unique QR code that links to screen-readable text. The activity will allow BLV learners to participate in the inquiry

about whether a <u>Chaco petroglyph</u> is a representation of a stormy solar corona during the 1097 total solar eclipse.



Thermoform tactiles by: Nicole Johnson

Your Solar Photo of the Month

Every month we feature a photo <u>submitted by readers</u> that portrays a personal experience of the Sun.



"My mom is the Evaluator for the PUNCH Outreach Team. My family went with her to Chaco Canyon, New Mexico to support visitor outreach before, during, and after the annular eclipse on October 14th, 2023. To prepare, I learned to use 3-Hole PUNCH the Pinhole Projector so I could show others how to use it to view the Sun safely. It was awesome during the five minutes of annularity when we could see a ring of the Sun's light all the way around the Moon! I made this photo in <u>Pueblo Bonito</u> showing my shadow with the Projector's images during this time."

Photo & caption by Annyse Buxner (age 11)

Visit <u>punch.space.swri.edu</u> for more about the **NASA** PUNCH mission and its <u>Outreach program</u>. For questions or photo submissions: Outreach Deputy Program Manager (jtrump@slco.org) & Outreach Director (cherilynn.morrow@gmail.com). <u>View the Newsletter Archive</u>.