

Sun Crescents: A Lesser Known Phenomenon of Eclipses

Daniel Benveniste, PhD

August 22, 2017

The corona of a full eclipse in totality is an image of extraordinary and sublime beauty, and the image of a partial eclipse is also a majestic sight to behold but a lesser known phenomenon is that of the sun crescents that appear on the ground during a partial eclipse.

When sunlight passes through a hole in a piece of cardboard held at a distance from a second piece of cardboard, the camera effect yields a photographic image of the sun disc on that second piece of cardboard. If it is done during an eclipse a sun crescent appears.

As sun light passes through the leaves of a tree, beams of light are created that project the same effect. When there is no eclipse the multiple images of the sun appear as dappled light on the grass or uneven ground below. If we set up a piece of white cardboard, however, there will appear on it multiple discs of light.

If there is an eclipse in process, the light on the ground looks somehow strange. But when that piece of white cardboard is situated perpendicular to the direction of the sunlight (facing the sun) there will appear numerous sun crescents often of extraordinary beauty. Here are a few from August 21st 2017 photographed in Bellevue, Washington.



Partial eclipse in the sky over Bellevue, Washington.



Sun crescents in the parking lot.



Sun crescents on white cardboard.





Hand shadow faces with eclipsed eyeballs!



And finally, a return to the everyday miracle of dappled light in soft round discs!