

## PHAINOMENA

Phainomena, poem written in 275 B.C. by Arato de Solos (in 315-245 B.C.) in it describes the sky and identify 47 constellations based in a lost book with the same tittle written by the Greek astromer Eudoxo de Cmido (in 390-340 B. C.)

## OBSERVING OUR UNIVERSE



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## PHAINOMENA

Since the antiquity our ancestors were interested by the astronomical observations since before to be worshipers or to realize witchcraft practices, they were astronomers and they were dedicated to the observation and data collection. It is reflected in some prehispanic pictograms elaborated by MUISCAS during the colony. The MUISCAS lived in Boyacá, Cundinamarca and Santander, departments in Colombia from year 310 to 1305 in our age.

In next picture, we can observe a pictogram that allows the representative register of an observation realized by one of our ancestors to a singular form that represents a moon in CRESCENT in our sky and we can observe close to Ecuador, the moon hung Oz, in the horizon, looks like a swinging gondola on the waves (The boat of the moon, from the Arabic tales) or an shiny bow.



The last photography was taken in the town of Mongua in a place called Santo Domingo in Boyaca's department by investigation group Phainomena

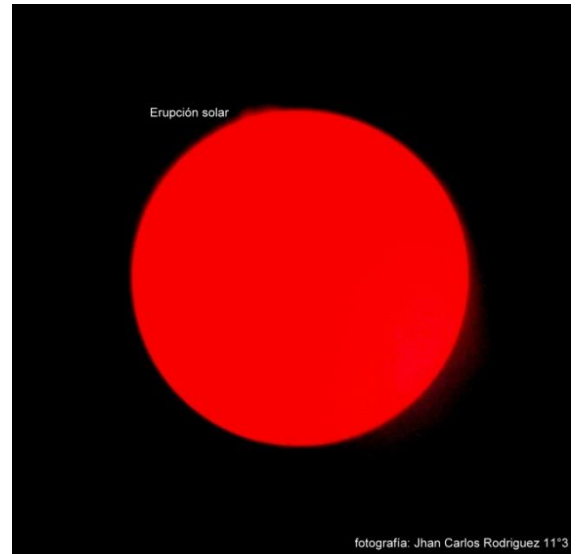
Next photography to moon, was taken in May 25 in 2012 in a city called Duitama in Boyaca's department and describes the form of the moon aforementioned.



Other star which was observed constantly and documented was our sun , figure that we can observe in superior and left part of the next picture, this photography was taken in the town of Mongua in Colombia.



The next photography of sun was taken by integrants of investigation group PHAINOMENA in SERGIO ARBOLEDA (an university in Bogota, Colombia).



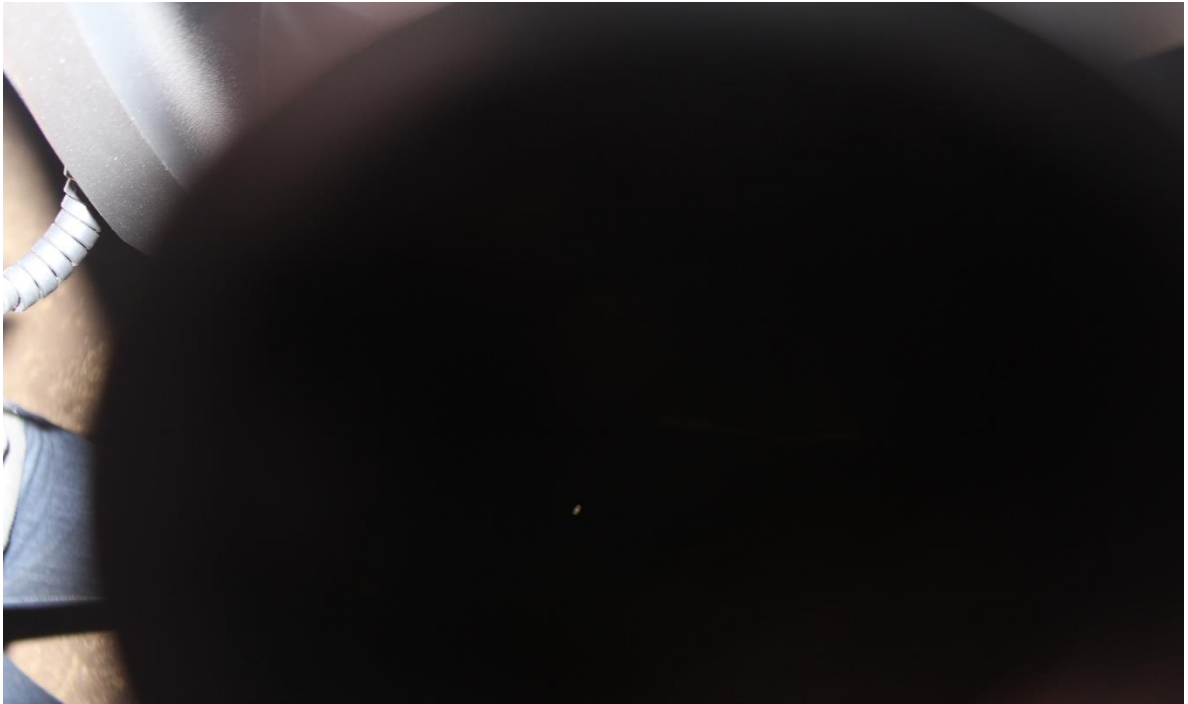
So that, like our ancestors, the astronomy group is dedicated to the astronomical observations specially photography. Coming up next, we show you some of pictures taken by PHAINOMENA group.

### Saturn

Saturn is the second planet in size and mass later to Jupiter, and is the only one that has a density minor to water. On the other hand, its rings give it a nice aspect. The ring A and B are very shiny while ring C is softer. The composition of rings is doubtful, but it is said that contains water. Other version it is said that could be an impact among some satellites, comets and meteorites. But nevertheless, we know that the structure of these is thanks to gravity of the satellites closer.



Original photography of above snipped.



## JUPITER

Jupiter is the biggest planet and its rotation is the fastest on all planets, it has a composition similar to sun, composed by hydrogen, helium, ammonia, methane, vapor among others.

Next photography shows jupiter with its three moons; Io, Calisto and Ganimedes.

This photography was taken on february 18 in 2015.



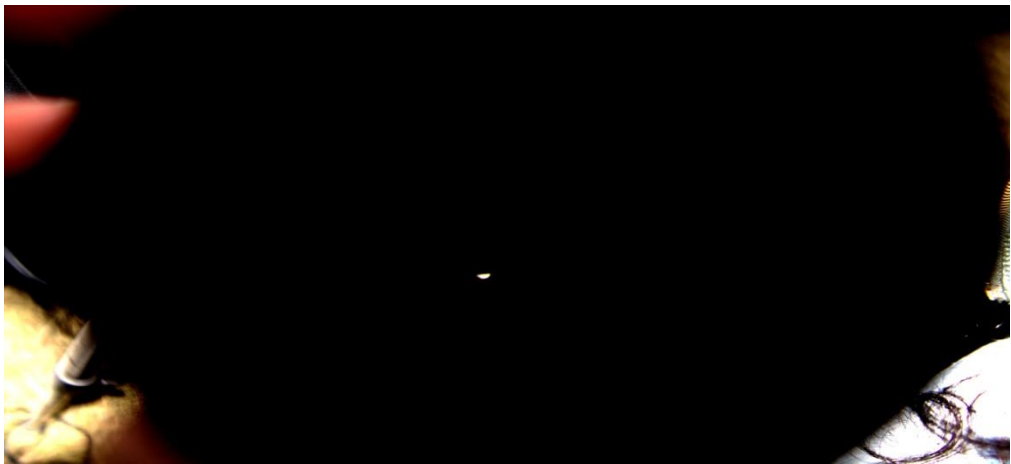
Jupiter's photography



## VENUS

Is the second planet closest to Sun, and is the third smallest in the solar system, it has a similar size to the earth. For this reason it is called “the brother of the earth” in spite of to be the second planet closest to Sun it has the hottest atmosphere in solar system because absorbs more heat from sun, because is composed by carbon dioxide. We can observe this planet day and night.

Next pictures were taken in June 3 in 2015 and show a particular shadow on Venus that is consequence of the position of Venus with the earth.



## THE MOON

Our ancestors called it CHIA and today we know that is the only natural satellite that influences in permanent way on earth. It is believed that the moon was part of our world.



FOTO: GRUPO PHAINOMENA



FOTO: GRUPO PHAINOMENA

## THE CLOUDS

The observation and classification of clouds is important part of our work, because the information from daytime sky can offers precedent to understand the meteorological behavior in our city.



Next, are some pictures with their classification taken by PHAINOMENA

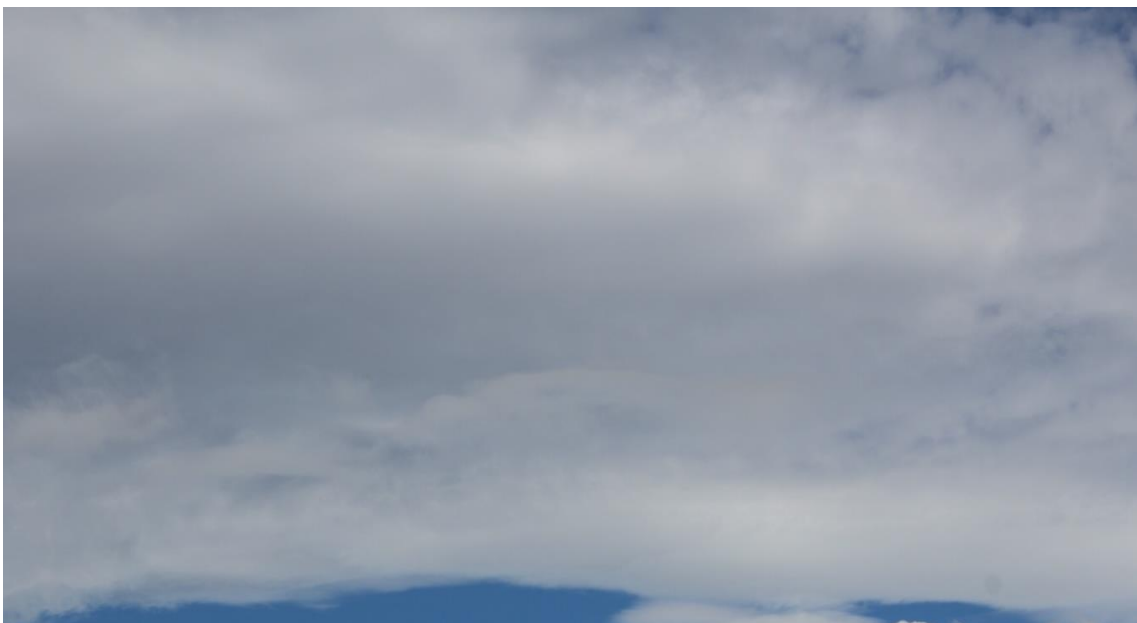
### ESTRATOCÚMULO

These clouds are between 500 meters and 2 kilometers approximately from the earth's surface



### ALTOESTRATO

These clouds are between 3 kilometers and 4.5 kilometers approximately from the earth's surface.



## CIRROCÚMULO

These clouds are between 5 kilometers and 8 kilometers approximately from the earth's surface.



## NIMBOESTRATO

These clouds are between 500 meters and 1.500 meters approximately from the earth's surface.



Our interest is focused in photographic registers, mainly celestial bodies which we can watch with telescopes with high and low power.

We have the conviction that understanding our universe behavior, we are capable to understand the essence that do special the human beings.

Our blog <http://astrophainomenacolfps.blogspot.com/>

## Bibliography

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