

Homework: The Zodiacal Light

Classical astronomy dealt with the celestial realm which included the “fixed stars” of the celestial sphere plus seven “luminaries” or *planetes* which moved with respect to the fixed stars. The latter consisted of the Sun, the Moon, and five objects which we now call planets; Mercury, Venus, Mars, Jupiter, and Saturn. (The other planets - excepting the Earth - are not visible to the unaided eye.) Comets, meteors (“shooting stars”), and the *aurorae* were usually not regarded as belonging to the realm of astronomy but, rather, considered to be atmospheric phenomena. Then there is another naked-eye astronomical phenomenon the Zodiacal Light - and the associated *gegenschein*.

Please provide me with a brief essay on the Zodiacal Light. This should address the following questions:

- What is mean by the Zodiacal Light? The *gegenschein*? Describe the appearance of these phenomena.
(Why are they so named? Who first described them? ...)
- What causes the Zodiacal Light? The *gegenschein*? What hypotheses were offered; what evidence (observations) support these hypotheses?
(Who proposed these explanations? Any controversy here?)
- What did the classical astronomers (e.g., Aristotle) think was responsible for the Zodiacal Light??
(Astronomical, terrestrial, supernatural,?)

... and please remember to cite your sources.

I don't know the answer to the last question, but I'd guess that Aristotle or Ptolemy would have had something to say on the subject. But maybe not.

You might include your own observations of the zodiacal light- if we have some clear morning or evening weather before the due date of **Monday, 29 September**.