

## Hodierna's *Luminosa* 8 = $\psi^{1,2,3}$ Aquarii

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ABSTRACT: The 8<sup>th</sup> *Luminosa* (resolvable star cluster) in the catalogue of Joannes Baptista Hodierna (1654) is identified as the asterism consisting of  $\psi^{1,2,3}$  Aquarii.

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One of the first catalogues of “deep-sky objects” (nebulosities) was that of Giovanni Battista Odierna (Joannes Baptista Hodierna), in a short treatise, *De admirandis coeli characteribus* (“On some remarkable features of the sky”) included with his *De systemate orbis cometici*, published at Palermo in 1654. He divided nebulous objects into three classes: *Luminosae*, in which the naked eye can see some stars; *Nebulosae*, resolvable or partly resolvable with the telescope; and *Occultae* or *Obscurae*, not resolvable.

Of Hodierna's eight *Luminosae*, Serio et al. (1985) convincingly identify the first seven as: (1) the Pleiades; (2) the Hyades; (3) Coma Berenices; (4) the  $\alpha$  Persei group; (5) M42 and neighboring stars; (6) the compact trio  $\lambda$ ,  $\varphi^1$ ,  $\varphi^2$  Orionis; (7)  $\zeta^1$  and  $\zeta^2$  Scorpii along with NGC 6231.

The eighth and last *Luminosa* is described thus:

*Octava Luminosa splendet in [eff]usione Aquae Aquarii, multiplex gregatim, ut non immerito Aquae perlabentis, atque spumantis similitudinem repraesentat.*

The eighth *Luminosa* shines in the pouring of the water of Aquarius, multiple stars in a group, so that it not unfittingly represents the image of water flowing and bubbling.

Serio et al. consider this description “too vague to allow any identification” and, unlike the others, Hodierna does not accompany it with a map or sketch. I submit, however, that there

is an obvious candidate: the compact trio  $\psi^1, \psi^2, \psi^3$  Aquarii. This is a group of three fifth-magnitude stars within a 1-degree radius, similar to the  $\lambda$  Orionis trio but better matched; with the naked eye, in my experience, it is a conspicuous feature of Aquarius and looks as if it may well be more than three stars. On the maps of Bayer (1603), Hevelius (1690), and (no doubt) many others, it is right in the stream of water pouring out of Aquarius' water jar.

### *Reference*

G. F. Serio, L. Indorato, and P. Nastasi, "G. B. Hodierna's observations of nebulae and his cosmology," *Journal for the History of Astronomy* xvi (1985), pp. 1—36.

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