

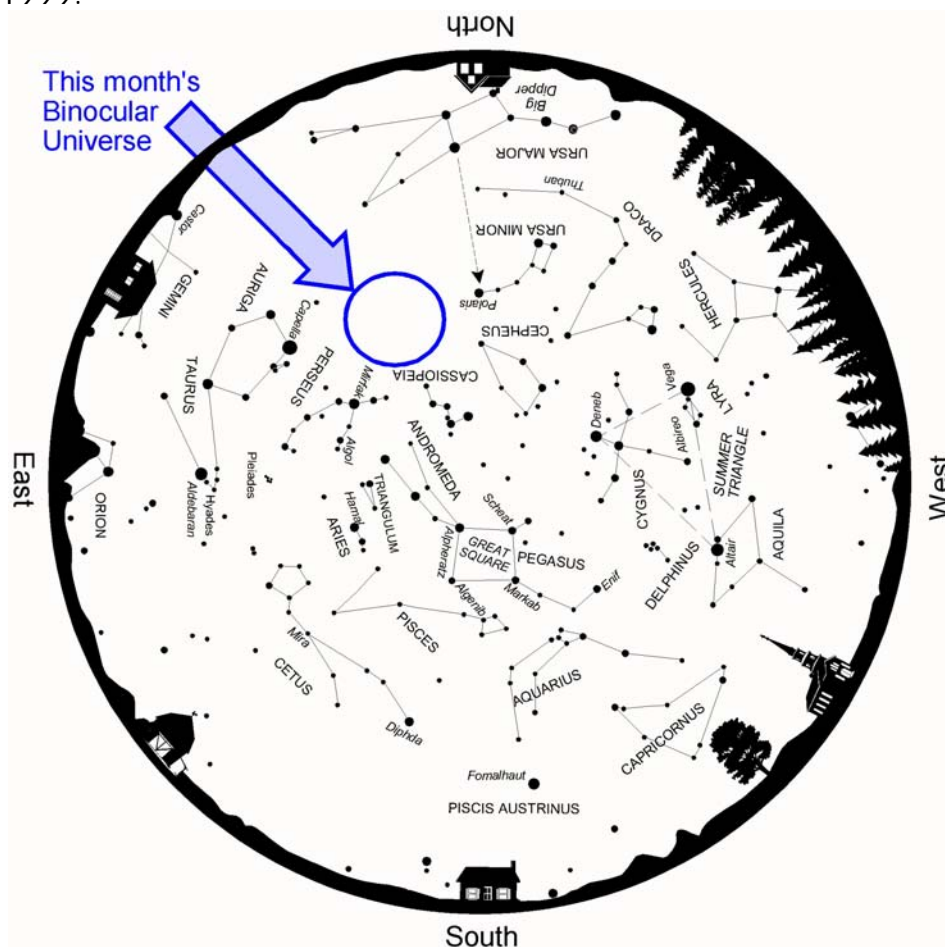
Binocular Universe: Lamplighter

December 2012

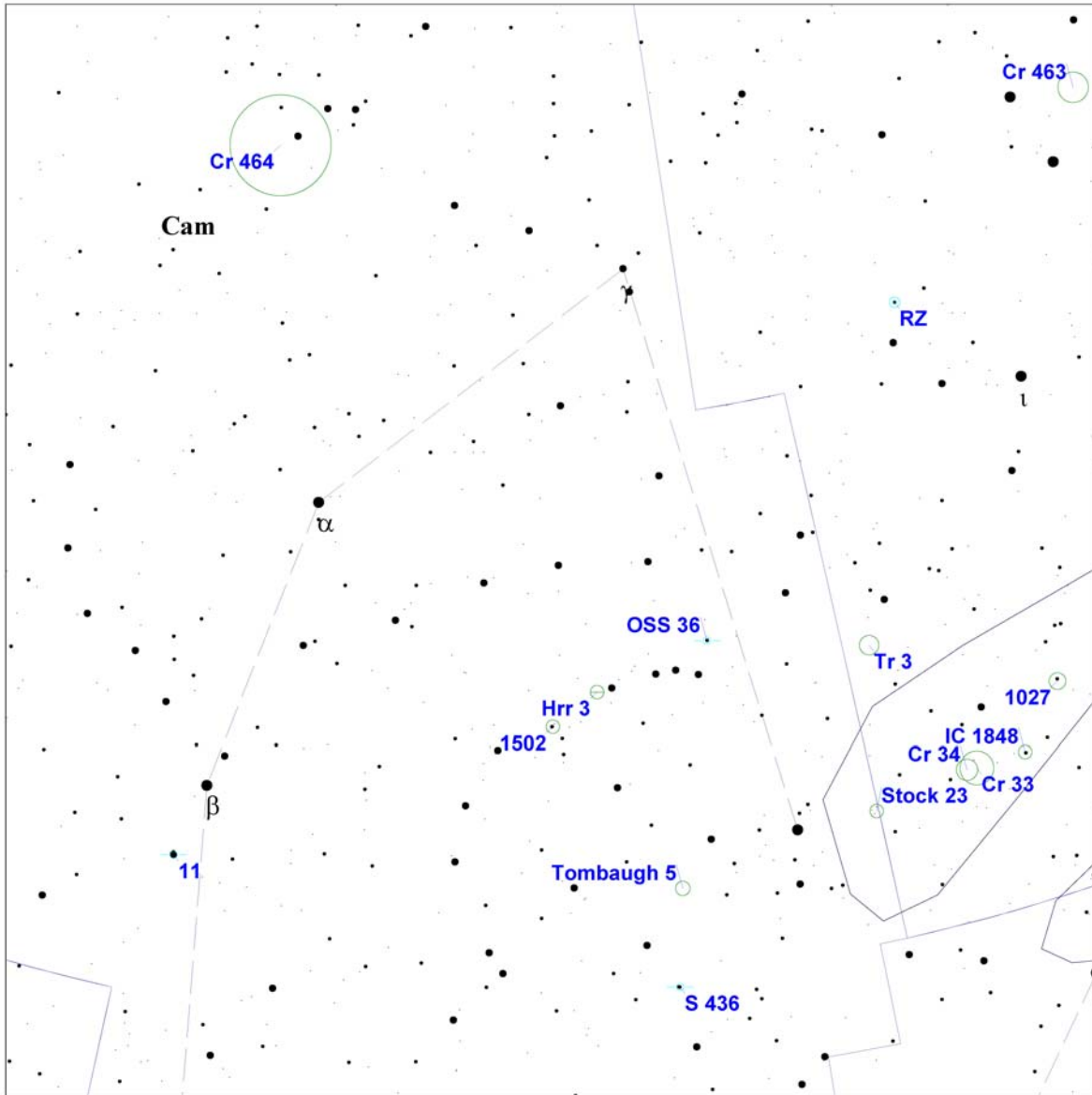
Phil Harrington



Of all the amateurs that I have been fortunate enough to know over the years, one of the most endearing had to be Lucian Kemble. Father Kemble, a member of the Order of Franciscan Monks, was a talented observer from Saskatchewan, Canada, and a genuinely fine human being. I had the great pleasure of corresponding with "Lamplighter," as he was known to friends, many times prior to his death in February 1999.



Above: Autumn star map from [Star Watch](#) by Phil Harrington.



Touring the Universe Through Binoculars Atlas

RA: 4h 7m, Dec: 65d 49m, FOV: 20d, Mag: 8

- ≤ 1.1
- 1.1 - 2.3
- 2.3 - 3.4
- 3.4 - 4.6
- 4.6 - 5.7
- 5.7 - 6.9
- > 6.9

- Galaxy
- Open Cluster
- ⊕ Globular Cluster
- Diffuse Nebula
- Planetary Nebula
- Variable Star
- Double Star

- ♿ Mercury
- ♃ Venus
- ♂ Mars
- ♃ Jupiter
- ♄ Saturn
- ♅ Uranus
- ♆ Neptune

- ♇ Pluto
- ☉ Sun
- ☾ Moon
- ♁ Asteroid
- ☄ Comet
- Unknown

Above: Finder chart for this month's *Binocular Universe*.
 Chart adapted from *Touring the Universe through Binoculars Atlas (TUBA)*,
www.philharrington.net/tuba.htm

Father Kemble had a passion for deep-sky observing through telescopes as well as binoculars. While he and I often wrote about hunting for obscure galaxy groups, his most enduring astronomical legacy revolves around a curious asterism that he bumped into more than 25 years ago while scanning the vague constellation Camelopardalis the Giraffe with his 7x35 binoculars. Camelopardalis occupies the seemingly starless void between Auriga and Ursa Minor.

Although Camelopardalis's dim outline makes locating Father Kemble's discovery all the more challenging, it also helps it to stand out when you finally do. Aim your binoculars about halfway between Capella and Polaris, and look for the 4th-magnitude stars Alpha and Beta Camelopardalis. While there, take a quick side trip south of Beta to a pretty binocular double star formed by 5th-magnitude **11 Camelopardalis** and 6th-magnitude **12 Camelopardalis**. The stars are separated by 3 arc-minutes, making them easy prey through most binoculars.



Left: Kemble's Cascade flows diagonally across this sketch made by the author through 10x50 binoculars. Open cluster NGC 1502 lies at the southeastern end of the cascade.

North is up.

Okay, now scan approximately 6° , or about a full binocular field, to the west of Alpha and Beta. Watch for a stream of faint stars shining between 7th and 9th magnitudes flowing southeastward and accented by a lone 5th-magnitude sun about midway along. That's **Kemble's Cascade**, a name bestowed on the grouping by famed deep-sky author Walter Scott Houston. You'll see it cross-listed on the finder chart above as *Hrr 3*, its shorthand designation in my book [Touring the Universe through Binoculars](#). In all, 20 stars set neatly in a row and ranging from

5th to 10th magnitude form the cascade. Although the stars in this 2.5° string are not physically related to each other in space, they seem to line up with almost military precision. The sketch here shows my impression of the cascade through 10x50 binoculars, while NASA's Astronomy Picture of the Day web site has a [beautiful photo](#) of it in their archives from January 28, 2010.

If you ride the rapids southeastward along the cascade, you should spot a dim blur next to the last star in line. That's the open cluster **NGC 1502**. Father Kemble likened the combined view to a waterfall pouring into a pool, which is a great analogy. The 45 stars that call NGC 1502 home collectively shine at 6th magnitude. My 10x50 binoculars only resolve a few individual points, however; the rest combine into a triangular glow.

Continue another binocular field southwestward to the 5th-magnitude star Struve 385, a tight telescopic binary star often shown representing the Giraffe's front leg. Struve 385 makes a handy marker for our next binocular target, open cluster **Stock 23**. Several observing guides refer to this as *Pazmino's Cluster* after New York amateur John Pazmino, who accidentally stumbled upon it while observing with a small refractor in the late 1970s. Back then, very few observers had ever seen, or even heard of, Stock 23, since it was surprisingly missed in the Messier and NGC listings. Through binoculars, however, it stands out nicely. Of its 25 stars, half a dozen shine between 7th and 9th magnitudes and are visible in 50-mm glasses from dark skies. The four brightest form a trapezoid that reminds me of a tiny version of Draco the dragon's head.

Our final target is **Collinder 464**, another little known open cluster. You'll find it about 8.5° northeast of Alpha Cam. Although the 50 stars that form Collinder 464 are difficult to distinguish from the surroundings, I've always been impressed by a 1° by 2° pattern of ten stars that include some from the cluster as well as a few to its north. Being a dog lover, I always see the stars as forming the profile of a toy poodle. In fact, I've christened this mini-constellation **Amy** after my own toy poodle. To my eyes, Amy is facing west with her legs extending to the south and her tail standing at attention to the east. The stars that mark the tip of her nose, ear, and tail look very slightly orangish, while the rest appear white.

There's more to see in this month's Binocular Universe. Here are few more binocular targets in this corner of tonight's sky.

Object	Con	Type	R.A. (2000)	Dec	Mag	Size/Sep/ Period	Notes
Stock 23	Cam	OC	3 16.3	+60 2		15'	*TUB page 99*
OSS 36	Cam	**	3 40	+63 52	6.8,8.6	46"	69°(1923);2650
Tombaugh 5	Cam	OC	3 47.8	+59 3	8.4	17'	
S 436	Cam	**	3 49.3	+57 7	6.5,7.3	58"	75°(1975)
Hrr 3	Cam	OC	4 0	+63 0			*TUB page 99* Asterism; Kemble's Cascade
1502	Cam	OC	4 7.7	+62 20	5.7	8'	*TUB page 99-100*
11	Cam	**	5 6.1	+58 58	5.4,6.5	180"	8°(1924)
Cr 464	Cam	OC	5 22	+73 0	4.2	120'	*TUB page 100*
Cr 463	Cas	OC	1 48.4	+71 57	5.7	36'	
1027	Cas	OC	2 42.7	+61 33	6.7	20'	*TUB page 115*
RZ	Cas	Vr	2 48.9	+69 38	6.2-7.7	1.195 days	Eclipsing Binary
IC 1848	Cas	OC	2 51.2	+60 26	6.5	12'	
Cr 33	Cas	OC	2 59.3	+60 24	5.9p	40'	
Cr 34	Cas	OC	3 0.9	+60 25	6.8p	25'	
Tr 3	Cas	OC	3 11.8	+63 15	7.0p	23'	

Until we meet again in 2013, remember that for stargazing on late autumn and early winter nights, two eyes are better than one.



About the Author:

Phil Harrington has written 9 books for amateur astronomers, including his latest, Cosmic Challenge. Be sure to visit his web site at www.philharrington.net for more information.

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