Helios Quantum-7.1 Series

VITAL STATS

- **PRICE** £999
- **APERTURE** 100mm
- **PRISMS** BAK-4
- **EYEPIECES** 25x (fixed)
- **FIELD OF VIEW** 2.5°
- **MOUNT** Adjustable hardwood tripod
- **WEIGHT** 13.8kg (30.5lb) binoculars + 6.2kg (13.6lb) tripod
- **SUPPLIER** Optical Vision
- **TEL** 01359 244200
- **WWW.**opticalvision.co.uk

FOR Good, bright views
AGAINST Rather heavy

The Quantum-7.1 binos look impressive, with a classy champagne body and an air of quality about the finish and workmanship. They're supplied with a handle that you have to attach and a place for fixing an optional finderscope.

Weighing nearly 14kg, we were glad of the handle when we lifted them up onto the heavy-duty hardwood tripod. Once locked in place, the mount held the binoculars firmly, yet it was still reasonably easy to take them on and off in the dark. The tripod's head allowed for slow-motion altitude control, with a main knob for large-scale adjustment, but we did find that we couldn't reach the area of the zenith, limiting the objects available to study.

This model doesn't come with a finderscope, which is an optional purchase, but we hardly needed it. With a 2.5° field of view, we easily star-hopped from known bright stars to the majority of objects chosen for study. We found that the handle was a good sight for lining up the binos on an object – useful for getting into the general area. For newcomers to astronomy, though, the wide-field finderscope would come in handy for locating fainter objects.

When we examined the optics, we were a little surprised that the black interior coating inside the tubes was slightly reflective – something that applied to all four models tested. This accounted for the faint halo of light we saw around the brightest stars. However, the halo wasn't present around the majority of fainter objects, so it was only a minor niggle. Otherwise, all the objects we sought out were crisp, and many of the nebulae we looked at – such as M27 and M17 – showed subtle details.

Optical quality

At the eyepiece, we did find the rubber eyecups a little unforgiving: they tended to rub the delicate skin around the eyes. But dioptre (a unit that measures the optical power of a lens; see *Glossary* p113) adjustment was smooth, so finding the right interocular distance (space between the eyepieces) was a breeze. However, because the eyepieces are quite large, there may not be much space for your nose in between them if your eyes are quite close together. And they're fixed, so you can't change them.

The views confirmed the good optical quality, with the star Vega sharp as it moved across the central 65 per cent of the field, trailing off gradually towards the edges. Wide double stars stood out well too, especially Albireo. We then viewed open clusters and large-scale objects such as the Andromeda Galaxy, which showed good detail. Turning towards the planets, Jupiter had bands across it, while the Moon exhibited crisp detail.

Overall the Quantum-7.1 binos worked well within the range of sky the tripod allowed us to observe, and the 45°-angled eyepieces helped out by bringing the higher objects down to a comfortable viewing angle.

VERDICT

BUILD QUALITY	85%
EASE OF USE	84%
FIELD OF VIEW	87%
OPTICS	91%
VALUE FOR MONEY	80%
OVERALL	85%