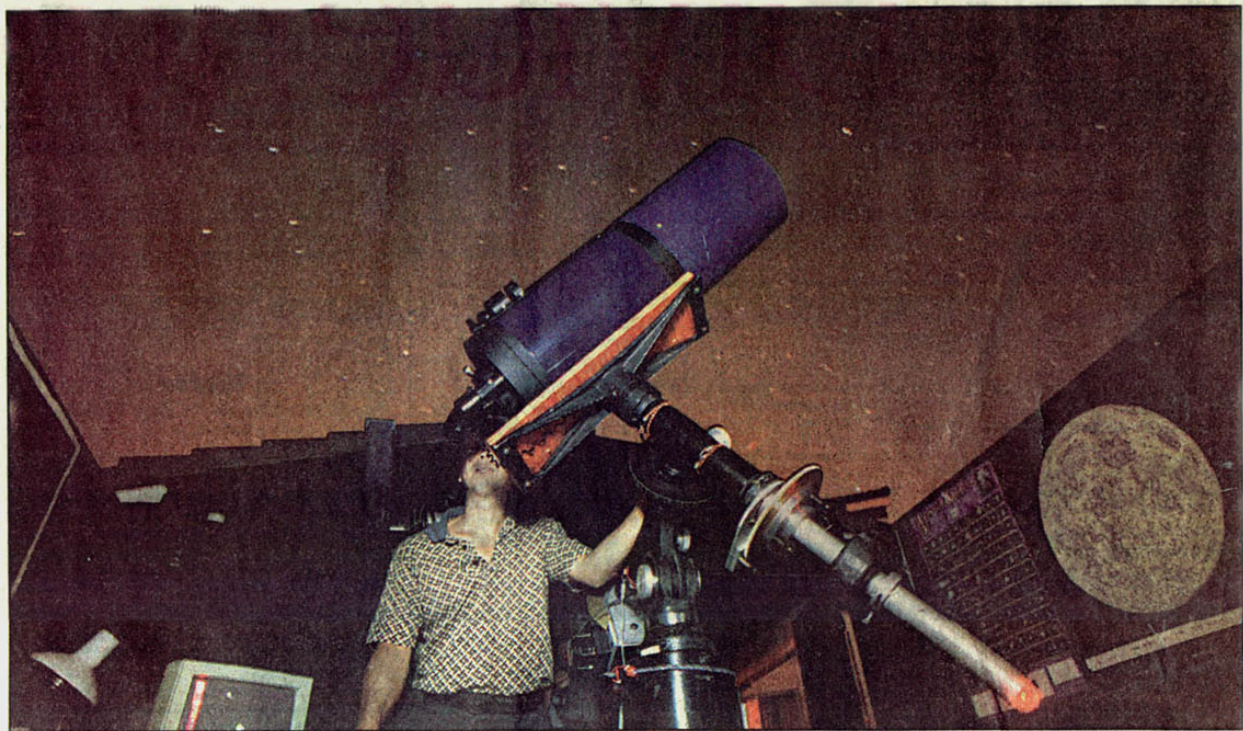


TGIF

THE GREAT INDEX TO FUN

Show Biz
Violist Bob Karol
is retiring after 20
years with the
Honolulu Symphony.
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Photographs by Gregory Yamamoto/The Honolulu Advertiser

Starry, starry night

Top: Raymond Young checks out the stars on a clear night in Makakilo, where he's built an observatory he opens to small public tours.

Right: Young's set-up includes a computer which allows the viewer to click on a celestial feature; the telescope will pan to the correct spot in the sky.



By Vicki Viotti
Advertiser Staff Writer

MAKAKILO — Ray Young's back yard borders the rolling hills of Palehua below and the universe above.

It was for the celestial view offered by this location that Young waited for hours in line to purchase this particular lot in 1989. Five years later, his dream took shape: an observatory he built and equipped for \$16,000.

Young, a planner for the city Department of Land Utilization, has followed the stars since childhood, when he loved to watch meteor showers. "You don't need a telescope for that,"

See Stars, Page D3

Mauka & Makai

AN INSIDER'S
GUIDE TO HAWAII

WHAT: Tour of the Stars

WHEN: By appointment.

WHERE: Kapolei
Makakilo

TICKETS:
\$35 Adults, \$20 Under 18
Under 7 No Charge
2 Person Minimum

INFORMATION: (808) 398-6933

Stars: An observatory of his very own

FROM PAGE D1

he said. "I'd just lie down in the back yard."

"Later, I was taking my equipment and driving to a dark place," he added. "But that takes commitment. And when you have kids, you can't do that."

Now that he's created a convenient spot for his own stargazing, Young's determined to share the wealth. He's launched an ongoing series of observatory shows, open to the public by appointment, called **Tour of the Stars**.

The arrival (and imminent departure) of Comet Hale-Bopp has whipped up excitement about astronomy, as such events always do, Young said, and now he wants to capitalize on that momentum to foster a love affair with the stars.

First, some mood-setting music. Young favors New Age recordings to create the correct cosmic ambience.

Next, nature hits the dimmer switch, and when the dusk has deepened sufficiently, Young hits another switch. This one activates a motor that slides the roof of the observatory back toward the building's lanai, exposing the telescope to the brightening stars.

Young uses a Schmidt-Cassegrain telescope, with a combination of a lens and two mirrors enabling compact dimensions and lower cost. The disadvantage: The image comes through upside-down and reversed. But, he said, most peo-

ple don't seem to mind this.

Out on the lanai, Young has set up a tripod with binoculars trained on Hale-Bopp. On the night we visited it was a bright, fuzzy apparition low in the sky, Makaha direction. Binoculars give you a wider field of vision when viewing an object than the telescope affords you, he said.

The real star

But the 'scope remains the center of attention, more the novelty for newcomers to astronomy. Young's set-up yields 100- to 300-power magnification: The object appears 100 to 300 times closer, depending on the eyepiece. (Young cautioned against buying telescopes on the basis of the promised magnification alone; the usable magnification is limited by the size of the lens and other factors).

His set-up includes a computer loaded with software that enables the telescope to move automatically. Once it's set on an object, the telescope can track it as it moves through the sky. The program directs the telescope to match the apparent motion of the Earth's rotation, and the 'scope's axis is angled parallel to the Earth's axis.

Or, Young can click on another object represented on the computer screen, and the telescope will pan around to find that. This was the feature he favored on this clear April night, traipsing about the sky, from the Orion Nebula to Mars.

Hale-Bopp will continue to



Gregory Yamamoto/The Honolulu Advertiser

The observatory structure cost Young about \$10,000, the computer and telescope an additional \$6,000: "I get a kick out of showing people the sky. That's my thrill, just watching them get awed."

rise in the sky until mid-May, he said, but the moonglow is already making it harder to see. It's been such a sensation (unlike the "flop" that was Halley's Comet) because it's been plainly visible to many, despite the interference of city lights.

"The great thing about Hale-Bopp is that it's an urban comet," he said.

So much to see

But there is no need to mourn its departure, Young said, because there's so much else to discover. The cool winter evenings in Hawaii offer some crystalline viewing conditions, he said.

"And summer would be a good time to come, too, because the summer stars and Jupiter will be visible," he added.

Young pairs the 90-minute visual tour with a running commentary about the constellations and galaxies in view. Did

you know the Big Dipper is part of a larger constellation called Ursa Major (the Big Bear)? That the two stars on the leading edge of the dipper's bowl point directly to the North Star?

Young has put the word out about his tours to the visitor industry, but he hopes to draw in the local audience, too. The tour is meant for intimate groups of about 10; families are ideal, he said. The price may make this an occasional treat for many families (see Page D1) — even kamaaina adults pay \$31.50 each.

For his part, Young finds all kinds of possibilities here. A rather trendy idea for an older child's birthday party. And for a wedding, he said, you just can't beat the romance of the stars.

Of course, he added, stargazing can turn even an ordinary night heavenly.

"I get a kick out of showing people the sky," he said. "That's my thrill, just watching them get awed."