In 1906 a fifteen-year-old amateur astronomer in Providence, Rhode Island, penned a letter to Scientific American urging the world’s observatories to “band together and minutely photograph the ecliptic” in a quest for planets beyond Neptune. The discovery of Pluto 24 years later excited this amateur, now a published author of horror tales, “more than any other happening of recent times” — so much so that he featured the dwarf planet in a story that he was writing. In his classic “The Whisperer in Darkness,” the eerie Vermont woods and their stream-trickling glens are settled by malign, crablike creatures from Yuggoth — “a strange dark orb at the very rim of our solar system.”

The amateur astronomer was Howard Phillips Lovecraft.
Lovecraft (1890–1937). Almost unknown during his lifetime, he is now regarded as the seminal weird-horror writer of the 20th century. He was a key transitional figure, carrying the genre from its traditional ghost stories (which he considered petty and unimaginative) into the wild cosmic immensities revealed by astronomy, finally merging into science fiction.

Lovecraft’s nightmarish tales arose from several sources: his own actual nightmares, which he claimed to remember in perfect detail, his intimate love of the 18th-century antiquities around him in Providence, and a philosophical dread regarding the starry voids overhead. His tales are filled with haunting astronomical images—a waning crescent moon casting its feeble light on moldering gravestones; frosty Aldebaran seeming to balance on a steeple over an ancient, worm-bedeviled Massachusetts seaport; Polaris, steeped in prehistoric secrets from its 26,000-year precessional cycle, “winking hideously like an insane watching eye.”

From his childhood studies in astronomy, Lovecraft came to regard humans as insignificant dust on the infinite cosmic stage, ludicrous in their self-centeredness. “When Kleiner showed me the skyline of New-York I told him that man is like the coral insect,” he wrote, “designed to build vast, beautiful, mineral things for the moon to delight in after he is dead.” His stories draw their peculiar power in part from this detached, awestruck worldview.

In “The Call of Cthulhu,” for example, the protagonist learns of a monstrous tentacled thing from the stars, dead and dreaming in the ocean depths for geologic ages, waiting for “when the stars were right” to emerge. In “At the Mountains of Madness,” Antarctic explorers stumble onto a vast fossil city constructed eons ago by starfish-headed, plantlike creatures that “seeped down from the stars” not long “after the earth had flung off the moon”; they had started Earth life as an accident, or a jest. In “The Shadow Out of Time,” his last major story, a professor comes to the realization that during years of amnesia he had switched bodies with a scholarly conical entity from an extraterrestrial race which resided on Earth in “the world of the Permian or Triassic age,” and which had bottled up horrible, semi-supernatural things in Earth’s interior.

**OBSERVATORY NIGHTS**

Howard Phillips Lovecraft discovered what he called “the myriad suns and worlds of infinite space” in 1902 at the age of eleven or twelve. He credited the “excellent but somewhat obsolete collection” of astronomy volumes amassed by his maternal grandmother for sparking his interest in the science. He had always been precocious: he was reading voraciously by five or six, entranced by the poetry of Coleridge, *The Arabian Nights*, and the Greek and Roman classics. When in 1903 his patrician mother gave him a 2½-inch refractor, Lovecraft reported that his “gaze was ever upward at night.” He would own two more telescopes during his lifetime, the last one a Bardou 3-inch refractor bought from Montgomery Ward in 1906 for $50—roughly $1,300 in today’s dollars.

The melancholy teenager began haunting Brown University’s Ladd Observatory. His tall, gaunt figure could often be seen on clear nights trudging up the hill to the observatory or bicycling back down in “a glorious coast.” Winslow Upton, a Brown University astronomer and family friend, gave Lovecraft “free access” to the observatory, which boasted a fine Brashear 12-inch refractor that remains there today. Taking full advantage of this permission, the enthusiastic amateur pestered the observatory staff “half to death,” Lovecraft later confessed, but fortunately the director and his two assistants were, Lovecraft admitted, “infinitely tolerant of a pompous juvenile ass with grandiose astronomical ambitions.”

Lovecraft spent much of this time observing the moon and Venus. The brilliant, cloud-shrouded planet, which revealed little to the telescopic observer, attracted him because of its very mystery. “In boyish egotism I fancied I might light upon something with my poor little 2½-inch telescope which had eluded the users of the 40-inch telescope,” he informed a correspondent in 1918. Lovecraft also liked to view comets — his first was Comet Borley, which reached naked-eye visibility in July 1903. He missed seeing perhaps the most spectacular comet of the early 20th century, the Daylight Comet of 1910, because of “a hellish case of measles” that kept him confined to bed. He did observe Comet Halley during its very favorable apparition later that year.

The frequent observing took a toll on the frail teenager’s health. “So constant were my observations that my neck became much affected by the strain of peering at a difficult angle,” Lovecraft would maintain. “It gave me much pain, & resulted in a permanent curvature percep-
Nevertheless, the pleasures of astronomy were too great for Lovecraft to resist, and he was soon sharing his love of the science. At 12 he self-published the first edition of a newsletter for family and friends that he titled *The Rhode Island Journal of Astronomy*. Issued irregularly from 1903 to 1909, it showcased Lovecraft's growing astronomical knowledge. Soon he broke into bigger leagues. At 16 he began penning astronomy columns for two newspapers — the rural *Pawtuxet Valley Gleaner* and then the *Providence Tribune*, one of New England's leading dailies.

In a typical article, Lovecraft would inform his readers of the visible planets and constellations for the month. But he sometimes devoted his column to a single subject such as “Comets” or “The Fixed Stars” or “Can the Moon Be Reached by Man?” In this last piece, Lovecraft argued that a trip to the Moon was “not a scientific impossibility” and predicted that “some day an inhabitant of this earth may set foot on the soil of our satellite!”

In 1908 Lovecraft was struck by a debilitating attack of depression and suddenly stopped writing his astronomy columns. Financial ruin several years earlier had cost the family its grand, beloved old house, and Lovecraft never recovered from the loss of his childhood surroundings. As a young teen he was at times “so exhausted by the sheer burden of consciousness & mental & physical activity that I had to drop out of school for a greater or lesser period & take a complete rest from all responsibilities,” he wrote years later. His 1908 breakdown caused him to abandon high school forever a few months before he would have graduated. S. T. Joshi, Lovecraft's chief biographer, speculates that the breakdown was brought on by his realization that he could never become a professional astronomer. He had been, in his own words, “repelled and exhausted” by mathematics, especially algebra, and astronomy, alas, was “a mass of mathematics. . . . That was the first major set-back I ever received — the first time I was ever brought up short against a consciousness of my own limitations,” he bitterly recalled. “It was clear to me that I hadn't brains enough to be an astronomer — and that was a pill I couldn't swallow with equanimity.”

That may not be the entire story; around this time he suffered a severe head injury in a long fall, following which his head was kept “packed in ice” day and night.

Lovecraft spent the next five years as a hermit, seeing few people and rarely venturing from his “skimpy flat” at 598 Angell Street, where he resided with his overprotective and increasingly mentally ill mother (she was finally institutionalized). “I could hardly bear to see or speak to anyone, & liked to shut out the world by pulling down dark shades & using artificial light.” He suffered blinding headaches, and his vivid nightmares increased.

His love for astronomy seems to have sustained him during this bleak period. He kept an astronomical notebook in which he recorded his observations of the Moon, the Orion Nebula and other deep-sky objects, the planets, meteor showers, occultations, and various comets including Halley and Delavan. Comet Delavan was “indeed a beautiful sight” in his 3-inch refractor, though the view was “somewhat hampered by electric street lights.” The notebook grew to at least 100 closely-written pages.

He considered himself frightfully ugly. As early as 13 or 14 he planned suicide and often bicycled to the spot on the Barrington River where he intended to drown.

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**XIV: Star-Winds**

*It is a certain hour of twilight glooms,*  
*Mostly in autumn, when the star-wind pours*  
*Down hilltop streets, deserted out-of-doors*  
*But shewing early lamplight from snug rooms.*  
*The dead leaves rush in strange, fantastic twists,*  
*And chimney-smoke whirls round with alien grace,*  
*Heeding geometries of outer space,*  
*While Fomalhaut peers in through southward mists.*

*This is the hour when moonstruck poets know*  
*What fungi sprout in Yuggoth, and what scents*  
*And tints of flowers fill Nithon's continents,*  
*Such as in no poor earthly garden blow.*  
*Yet for each dream these winds to us convey,*  
*A dozen more of ours they sweep away!*

— From Lovecraft's “Fungi from Yuggoth.”

**a cycle of 36 sonnets.**
himself. "And yet certain elements — notably scientific curiosity & a sense of world drama — held me back," he later wrote. "Much in the universe baffled me, yet I knew I could pry the answers out of books if I lived and studied longer." That, and a certain intense poetic awe that the scenery around him inspired almost wherever he went, would always remain his delights and reasons for living.

Late in 1913 Lovecraft emerged from his five-year funk and resumed his astronomical writing, this time a monthly column for the Providence Evening News. In addition to current sky highlights, he regaled his readers with the mythology of the constellations, the history of astronomy, and the latest discoveries. He assailed the fanciful theories of Percival Lowell, the famous exponent of Martian canals, whom he met on one of Lowell's lecture tours. Lovecraft took especial delight in puncturing the pretensions of "the sordid astrologer, who beholds in infinity only a cheap little fortune-telling contrivance." He charged into a print feud with the astrologer J. F. Hartmann; Lovecraft's rebuttals morphed from serious and reasoned to, finally, florid Swiftian satires with astrological predictions spanning the next 2,000 years.

This exchange caught the attention of the community of amateur journalists and printing-press hobbyists, small but flourishing in the 1910s, and they recruited him in. He was soon a leader in this little world and a mentor to would-be writers within it. It provided an appreciative audience for his essays on everything from atheism and scientific materialism to literature and world history; his often lugubrious poetry; and his increasingly serious stabs at weird fiction. He was off and running.

While Lovecraft was waging his word war with J. F. Hartmann, a real Great War raged overseas. Educated by his astronomy books to think in cosmic terms, Lovecraft was not impressed in the least by the scale and magnitude of the conflict. "The fiercest battles between mortals are of small consequence in the vast system of infinity," he asserted in September 1914, a month after World War I began, "and the celestial bodies perform their accustomed motions without regard to the state of war or peace upon this tiny sphere."

**AWE AND TERROR**

On the other hand, the enormous extent of the universe more than impressed Lovecraft: it absolutely terrified him. In the 1910s astronomers were beginning to get a handle on the true size of the universe beyond the known stars, thanks to the Cepheid variables, the great celestial yardsticks. Even earlier, the German astronomer Max Wolf had estimated the distance to the farthest so-called "spiral nebula" to be a staggering 578,000 light-years. "Humanity with its pompous pretensions sinks to complete nothingness when viewed in relation to the unfathomed abysses of infinity and eternity which yawn about it," Lovecraft declared in one of his later astronomy columns for the Providence Evening News. "Man, so far from
being the central and supreme object of Nature, is clearly demonstrated to be a mere incident, perhaps an accident, of a natural scheme whose boundless reach relegates him to total insignificance. His presence or absence, his life or death, are obviously matters of utter indifference to the plan of Nature as a whole.”

Lovecraft would later refer to this view of human insignificance — a view derived from astronomy — as cosmicism. This philosophy would inform much of his fiction writing.

Lovecraft gave up his astronomy column in 1918 after an editor asked him to dumb it down. He turned more to the crafting of “cosmic horror” tales, many of which deal with godlike entities that he loosely termed the Great Old Ones. Lovecraft’s human characters tend to be cutouts; their purpose is often to be gradually overcome by terror as they slowly grasp the existence of super-powerful things from Outside, and are brought to madness as they realize the utter unimportance of humanity. Over the course of Lovecraft’s life, these entities gradually morphed from Elder Gods echoing classical mythology to utterly nonhuman but material creatures, at a time when science fiction was taking shape in pulp magazines. Lovecraft questioned the validity of “organic life, good and evil, love and hate, and all such local attributes of a negligible and temporary race called mankind.” His bold rejection of the centrality of human concerns gave his fiction, despite its flaws, staying power. In his tales, Lovecraft continually struggles to evoke the feelings of horror and awe that his youthful astronomy books sparked in him.

Yet he was always disappointed by his stories and felt

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I have whirled with the Earth at the dawning,
When the sky was a vaporous flame;
I have seen the dark universe yawning
Where the black planets roll without aim,
Where they roll in their horror unheeded, without knowledge or luster or name.

— From “Nemesis,” 1917, anticipating loose planets between the stars.
that they never really conveyed what he was striving for. His lifetime output of fiction was small, though he wrote an estimated 80,000 letters to friends and literary acquaintances, often filled with intense, tightly written essays. (Some 20,000 letters still exist.) He believed that his fiction style had been fatally compromised by the pulp magazines he consumed as a youth and by the demands of the pulp Weird Tales, practically the only paying outlet where he could try to slow his descent into increasingly dire poverty.

After several years in which he had barely enough to eat, H. P. Lovecraft died of cancer in 1937 at age 46. Nothing he wrote appeared in book form in his life. His work would have been lost and forgotten had not a few fans organized to find and rescue it after his death. In 1941 they discovered a stack of his papers piled by a furnace to be used as fuel.

Whatever the quirks and flaws in Lovecraft's writing, the intensity and sincerity of his efforts to convey his fright-bedazzled scientific vision have gained him an ever greater following decade after decade, to the point that he is now an item of pop culture among people who have never read him. You can buy Cthulhu plush toys and Yog-Sothoth T-shirts. On the other end of the cultural spectrum, in 2005 the prestigious Library of America accepted him into its canon of great American authors, pulp style and all.

Lovecraft remained an astronomer until the end. He visited the Hayden Planetarium in New York (a city he loathed as soulless and modern) twice after it opened in 1935. The “lover of the sky must needs marvel at the callousness of those whose nocturnal gaze never mounts above the garish glare of the sordid city,” Lovecraft once wrote. “How trivial seem the rays of the lamp to him who is wont to look upon assembled suns and worlds!”

John Franch, a freelance writer and researcher, is the author of Robber Baron: The Life of Charles Tyson Yerkes. Alan M. MacRobert, a Sky & Telescope senior editor, discovered Lovecraft at age 13 and was marked for life by the final passages of “The Rats in the Walls.”
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