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DON'T BE SO QUICK TO DISMISS THE IDEA OF FLYING SAUCERS. ASTROPHYSICISTS THINK THERE'S A GOOD CHANCE WE'RE NOT ALONE

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potting a UFO is like falling in love—you suspect an illusion, but you can't turn away. On the clear morning of June 24, 2011, five luminous white disks, spinning and dipping among the clouds,

appeared in the sky over London. Witnesses captured the unidentified flying objects on their camera phones, and as I watched their videos I couldn't help but believe. The disks had intelligence, sentience, even

a kind of beauty. Since turning 40, I'd found myself at something of a crossroads. For the first time since childhood—though I knew it was absurd—I wondered if aliens existed and if they ever transported humans

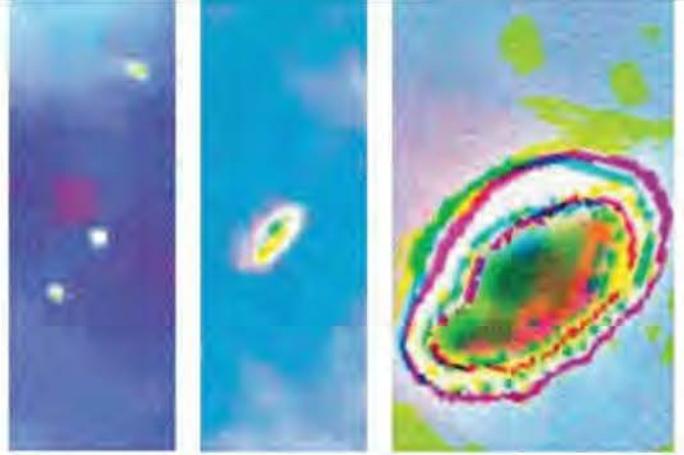


to an advanced world. Every night I watched the stars.

A few months later I found myself in London at the headquarters of the British Interplanetary Society. Richard Osborne had two drinks going—a glass

of claret and a champagne chaser. He turned toward me and said with urgency, “We need to become a multiplanet society as fast as possible. Our solar system is in a dangerous spot. There are too many rocks floating around.”

Astrophysicists, engineers and science fiction enthusiasts milled around the buffet tables, discussing wormhole portals, warp drives and the possibility of hitchhiking on negative force fields. On the walls hung movie



REAL OR FAKE? IN JUNE 2011 RESIDENTS OF LONDON WERE BAFFLED BY AN EXTRAORDINARY DISPLAY WHEN A NUMBER OF WHITE DISKS WERE SEEN SPEEDING ACROSS THE SKY. THE UFOS WERE CAPTURED BY AT LEAST THREE CAMERAS, BUT ANALYSIS OF THE IMAGES REMAINS INCONCLUSIVE.

stills from *2001: A Space Odyssey* signed by Arthur C. Clarke, one of the society's early members. In a corner, a few of the latest rocket models stood on pedestals.

Osborne opted for the vegetarian lasagna, so I followed suit. We'd had only a few bites when he guided me back to the drinks table. He wore a silk ascot under his blue oxford, and his long hair rippled across his shoulders. A physicist by training and a rocket specialist by trade, Osborne resembled a slightly overweight professional wrestler. "I'm not worried about global warming," he said, "as much as I am about asteroids, which are a greater existential threat. We need to find our way to the next solar system. Or secure a base on the moon."

Osborne is a designer for Project Icarus, a worldwide organization dedicated to improving travel time to nearby stars. Using conventional rocket-propulsion technology, it would take

said. "I believe I've decimated his argument. After all, we can use asteroids to replenish our platinum-group metals, then target them for water refueling during lunar colonization."

I squeezed past him and got my hands on a beer. It had become uncomfortably warm at the Interplanetary Society—all the scientists, unleashed from their labs, had their brains on overdrive. I found an empty spot along the wall.

Standing beside me, a large man in a pin-striped suit had the reassuring air of a businessman. I found myself gravitating toward him.

He shook my hand and asked, "What brings you to our little gathering?"

"Just curiosity, I guess." He studied me quietly. I had a swig of beer. "I just hope we're not alone. You know, drifting around on a dying rock."

"We take our motto seriously here: From imagination to reality."

Atacama Large Millimeter Array is expected to detect a new galaxy every three minutes. Are we at a midlife crisis as a species, increasingly aware of our uncertain future?

In late December, after celebrating a certain extraterrestrial's birthday, I decided to check out the SETI Institute. I wanted to ask about the possibility of aliens at the place that had made its name searching for them.

The nonprofit Search for Extraterrestrial Intelligence Institute, founded in 1984 with the help of NASA's chief of life sciences, uses large radio telescopes to scan the outer reaches of our galaxy. The institute partners with NASA on many projects and currently employs more than 150 people, including astrophysicists and astronomers with ties to NASA and the Jet Propulsion Laboratory in Pasadena. Frank Drake, whose "Drake equation" is the most widely used way to estimate the existence of

WE ARE HOT ON THE HUNT FOR EXTRATERRESTRIAL LIFE AT A FASTER PACE THAN EVER BEFORE.

70,000 years for *Voyager 1*, launched in 1977, to reach Alpha Centauri, the star system closest to our planet. The scientists of Project Icarus want to design a fusion-powered starship that could reach a nearby star in less than 100 years. They hope their research will lead to the launch of an interstellar vehicle by the year 2100.

I headed for the cans of ale stacked in a pyramid at the far end of the table. A little man in a tweed coat appeared at my elbow. His eyebrows twitched like angry mice. "Have you read my article on the benefits of asteroid mining in the April issue of *Spaceflight*?"

I told him I hadn't yet seen that issue. "I'm in a debate with a certain physicist from San Diego," the man

I looked around the room. "Anyone you know seen any UFOs?"

He shook his head. "We tend not to invite those types."

Space exploration has reached the outer limits of our solar system. *Voyager 1* should be the first man-made object to go interstellar. Meanwhile, the *Kepler* spacecraft has discovered dozens of planets orbiting distant stars. We are hot on the hunt for extraterrestrial life—and plan to make ourselves extraterrestrial—at a faster pace than ever before. Radio telescopes from Puerto Rico to Japan sweep the heavens for alien signals. Soon, on the Chajnantor plateau high in the mountains of Chile, the ultrasensi-

intelligent life in the galaxy, is a SETI Institute trustee. Still, visiting hours were not listed on the website. When I called the main number, I heard a recorded message. Operators were either away from the desk or on another line. What if I'd been an alien?

Before leaving San Francisco, I stopped at a neighborhood café. I asked the regulars if they had any messages for the institute across the bay. "See if those ETs do crossword puzzles," a guy in a Giants cap said. He tapped his newspaper with a pencil. "I need a five-letter word for *cornucopia*."

It was overcast all the way out of the city. As soon as I reached Silicon Valley, the clouds scattered and sunlight shot across (continued on page 170)

BEYOND THE SKY

(continued from page 82)

the sky. I passed Stanford University, NASA's Ames Research Center, Moffett Federal Airfield and an aviation museum. An electric Tesla breezed by me on the highway without a sound. I followed my car's navigation system to the SETI Institute's headquarters in Mountain View. I expected to find the place teeming with scientists interpreting the latest data from *Kepler*. Instead, the parking lot was mostly empty.

The SETI Institute shares a building with a company called Jasper Wireless. I could see the Jasper guys through an open door in the lobby, working away at their computers. The institute's door was shut. A handwritten sign explained: SETI INSTITUTE CLOSED FOR WINTER HOLIDAYS. IN CASE OF YEAR-END GIFT RECEIPT, URGENT MESSAGE OR OTHER IMPORTANT ISSUE, PLEASE CALL MAIN NUMBER.

Maybe this was why the aliens hadn't made first contact—they kept trying to communicate during our winter break. I walked around SETI's half of the building, hoping for a glimpse inside. I climbed up into the planters and stood beside an old elm. I peered through the dirty window.

"Can I help you?"

I turned. Down in the parking lot a man stood beside his Toyota Prius, holding a cup of coffee. He'd parked in one of the SETI spaces.

"You work here?" I asked, climbing out from under the elm. "You mind if I ask you a few questions?"

He gave me a shy smile and walked me into the building. An astrophysicist with a doctorate from Cornell, Paul Estrada has a pronounced forehead and bulging eyes—as if his brain were so large, it needed an escape route. Estrada studies how planets form out of nebula dust. He took me through SETI's front offices, which were occupied by high-speed computers. They blinked steadily behind a wall of glass, interpreting signals from the powerful Allen Telescope Array up in Hat Creek—about 320 miles northeast of Mountain View. (Paul Allen, co-founder of Microsoft, donated \$25 million to the project to keep this search for aliens alive.) The SETI Institute, Estrada explained, is pointing the array at stars with potential Earth-like planets that are being discovered by NASA's *Kepler* space telescope. These planets are relatively close, a few hundred light-years away.

"So if we heard a message right now," I asked him, "it would be hundreds of years old?"

"That's right," Estrada said. "And our reply would take hundreds of years to get back."

I wondered what kind of meaningful conversations were possible under such time delays. If I asked an alien for a five-letter word for *cornucopia*, would crossword puzzles still exist by the time I received an answer?

Estrada walked me upstairs and turned down a corridor of cubicles. The fluorescent lights flickered on. I glanced into the empty workstations. Instead of

pictures of family members, SETI Institute researchers hang pinups of black holes and supernovas.

"We can talk in here," Estrada said, leading me into the Carl Sagan conference room. The walls were covered with computer-generated images—a telescope beaming from the surface of the sun, a space base on Mars. Estrada settled into a leather chair.

"Can you tell me a little more about your research?"

"I study the origins of the planets by looking at how they form from the disk of gas and dust that surrounds their young parent stars." Estrada drank the rest of his coffee. "I model the structural and compositional evolution of Saturn's rings due to meteoroid bombardment."

I was at a loss for words. He sat forward, waved his hands and started to shout. "Do planets form out of nebulae that are turbulent or not turbulent? That's one of the key questions I am trying to answer. I do complex parallel computing to model the sticking and growth of dust particles into larger bodies in the nebula on a global scale."

I wanted to go back downstairs. I could have talked to the good people of Jasper Wireless or watched the computers tracking signals from outer space. I wondered if Estrada himself were an alien and if he had snuck into the SETI Institute to infiltrate the human race.

Estrada walked me out of the building. I walked to the parking lot, gathered myself for a moment, then turned on my car's navigation system to guide me home.



There are no easy answers to why we're here on this planet or if we're alone. We build rockets, fly men to the moon, guide robots around the surface of Mars, only to come crashing back to Earth, no less ignorant about the most important questions. How was the universe created? Is there a purpose to life? Are we really cosmic accidents, all by ourselves, or do we share our fate with some web-footed Greys in a distant galaxy?

Stephen Hawking, confined to his wheelchair and capable now of moving only a few muscles in his cheek, finds encouragement in the revelations of science. Recently he told *New Scientist* the most exciting discovery during his career was "variations in the temperature of the cosmic microwave background," which amounts to "quantum gravity written across the sky." (When asked what he thought about most during the day, Hawking admitted, "Women. They are a complete mystery.")

The cosmic microwave background, also described as the afterglow from the big bang, consists of a band of barely detectable thermal radiation, a remnant of the brief period of time when light and matter first separated. Because it holds such valuable clues to our beginnings, a full understanding of the CMB almost certainly means a Nobel Prize for whoever achieves it. I wanted to know where the best minds were investigating the CMB—and after some research, I headed south to Pasadena.

It was early January, and the day felt as warm as bathwater as I drove among the palm trees. A few Santa Claus sleighs lit-

tered the enormous front yards. I passed Orange Grove Avenue, where rocket scientist Jack Parsons blew himself up in his garage in 1952. The road rose toward distant mountains. Soon I reached a sign: WELCOME TO LA CAÑADA FLINTRIDGE, HOME OF THE JET PROPULSION LABORATORY.

JPL is the world's leading designer of robotic spacecraft. *Voyager 1* is a JPL craft, as are the flagship satellites of NASA's Deep Space Network, a worldwide array of communication facilities that support our missions in space. Back in the 1930s, rocketry was considered beyond the fringe of respectable science, deemed impossible by a popular college textbook. Parsons, along with a high school buddy and a few grad students at Caltech, conducted launches just north of Pasadena in an isolated area called the Arroyo Seco. His team steadily improved the design and precision of rockets and helped the Allies win World War II. He eventually co-founded JPL and the rocket manufacturer Aerojet. Parsons also followed the teachings of British satanist Aleister Crowley. Under Crowley's psychic guidance, Parsons lured men and women to jump nude over fire in his backyard. He thought sexual ecstasy lifted humans to higher planes of consciousness, recited pagan poetry and boasted of impregnating statuettes with his "vital force." Parsons also believed in the interconnection of fiction and future reality. He attended science fiction discussions alongside Robert Heinlein and L. Ron Hubbard—founder of Scientology—before Hubbard moved into Parsons's mansion and then ran away with his mistress. (After performing a ritual in the Mojave Desert, Hubbard and Parsons prophesied that a Faustian female messiah named Babalon would be born in nine months, a product of immaculate conception. Parsons went downhill soon after. He unloaded his Aerojet stock for about \$11,000—it would have increased in value to the tens of millions—and died at the age of 37 while cooking explosives in a washbasin. A crater on the far side of the moon is named after him.)

Security is tight at JPL's entrance. At the front gate, tanned armed guards in sunglasses examined my passport and waved me through. I had received clearance from the JPL's media rep, Priscilla Vega. I met up with her in the lobby.

"I've arranged for you to speak with Matt Kenyon, one of our top CMB researchers," Vega told me. She smiled and twirled her necklace. "Right now Dr. Kenyon is delivering a talk to his colleagues, so I thought I'd start you off on a tour with the Boy Scouts."

Vega pointed outside, where a group of Scouts waited under a canopy. I hurried out of the lobby and got into single file. The tour guide snaked us around cacti, scrub plants and research buildings, all the way to the Theodore von Kármán Auditorium. We took our seats inside. A scale model of the *Mars Reconnaissance Orbiter* stood beside a stage.

"We study Mars for signs of life 24/7, 365 days a year," the tour guide announced. "Any questions?"

A Boy Scout in the front row raised his hand. "This place is big," he said.

"JPL stretches 177 acres. Stay together. If you need to use the restroom, tell a parent."

The lights in the auditorium dimmed. A

film came on, narrated by Harrison Ford, in which the clouds of Venus parted to reveal the planet's spectacular surface. I recalled the story of Leonid Ksanfomaliti, a scientist who worked on Soviet missions in the 1970s and 1980s. Recently he claimed that old photographs of Venus reveal a disk and a scorpion-shape creature. The disk and scorpion changed locations from one photo to the next. "Let us boldly suggest," Ksanfomaliti said, "that the objects' morphological features would allow us to say they are living." (NASA officials say the photos depict nothing more than the ejected lens caps of the landing craft, taken from different angles.)

After the film, I followed the Boy Scouts back outside. Our guide led us into the Space Flight Operations Facility—the mission control center for the Deep Space Network—where we gathered in the upstairs viewing room. The operations facility is a showcase for human exploration. Live tracking data from *Juno*, *Voyager 1*, *Voyager 2*, *Mars Odyssey* and *Cassini* scrolled across the monitors. A satellite feed showed each spacecraft in flight.

"Are those people real?" one of the Boy Scouts asked, peering down at the mission controllers behind their computers.

The tour guide chuckled, but before too long the kid's question might be plausible. "Any sufficiently advanced technology," Arthur C. Clarke said, "is indistinguishable from magic." Scientists are often the ones guilty of closed-mindedness. Back in 1894, future Nobel Prize winner Albert Michelson claimed all central laws of physics had been discovered. In 1928, Max Born, also an eventual Nobel laureate, said, "Physics, as we know it, will be over in six months." Even Stephen Hawking wrote, in *A Brief History of Time*, that we "may now be near the end of the

search for the ultimate laws of nature." If our smartest scientists often turn out to be mistaken, whom can we believe?

I drifted out of the viewing area and found Vega waiting to take me to the Microdevices Laboratory. In this lab alone, an estimated \$375 million in JPL projects has been enabled. Kenyon, Vega told me, has built devices for many spacecraft—including the *Lunar Reconnaissance Orbiter* and *Mars Climate Sounder*. Something in her voice told me he wasn't the average researcher.

We waited outside the conference room where Kenyon was finishing his presentation. Soon the door opened and a gaggle of young men spilled out. They had long pale arms and wore T-shirts tucked into their jeans.

A man with a laptop under his arm walked over to us. Tall, with a distracted, almost indifferent air, Kenyon had wisps of blond hair that floated above his head like tentacles. I asked him what the title of his talk had been.

"I don't know." Kenyon fumbled with his laptop. He finally got it open and scrolled down the page. "This one, maybe?"

He showed me the first slide of his PowerPoint presentation: THERMOPILE DETECTORS FOR PRIMITIVE BODIES. "That's just a fancy way of saying we're measuring radiation from various objects in outer space. Putting more pixels in the sky."

He walked us to the door of his research facility and held it open. The building was a beehive. The Microdevices lab includes particle-free clean rooms, sub-Kelvin refrigerators and electron microscopes. A sign outside one of the rooms warned DANGER WHEN RED LIGHTS ARE FLASHING: TOXIC GAS RELEASE. Kenyon stopped at a long glass partition. On the other side, workers in powder-blue hazmat suits carried silicon wafers.

"The origins of the solar system are locked in primitive bodies," Kenyon said. "Asteroids, comets, small objects floating in our solar system. Now the origins of the universe can be found in the surface of last scattering—in particular, the sphere known as the CMB. When our infrared detectors are placed on a telescope in space, they capture the conditions of the universe right after the big bang."

I stepped toward the glass and watched the technicians at work. One of the machines was the size of a small car. "Can you show it to me?" I asked.

"Show you what?"

"The CMB—what Stephen Hawking says is quantum gravity written across the sky."

Kenyon's hair tentacles floated toward me. "I can't show you that."

"Do the data from the CMB indicate if we're alone in the universe? Or if there's intelligent design? What about that sphere you mentioned—the surface of last scattering?"

Vega looked down at her shoes. Kenyon passed his eyes over me like a disappointed father. "Ideally, we'd launch a telescope with thousands of our detectors aboard, but there's not enough money in NASA's budget." He put his hand on my shoulder. "Do you want to grab lunch? We can go to the Athenaeum, where *Beverly Hills Cop* was filmed. We can have ahi salads among the high-society wives."

We walked back across the JPL parking lot to his Lexus. In the car, I asked how he first became interested in physics. It began, he said, with an out-of-body experience. "I was sitting on the couch one night. I must have been 15. I looked up and saw myself on the wall. There I was, looking down on the person I thought was me, Matt Kenyon. After that, I realized consciousness was nonlocal."

I buckled my seat belt as Kenyon whipped the Lexus around the strangely chaotic parking lot. Parallel lines were painted at odd angles, creating geometric puzzles. On the other side of a picket fence, a horse appeared. Its rider nodded hello and turned into a nearby equestrian center.

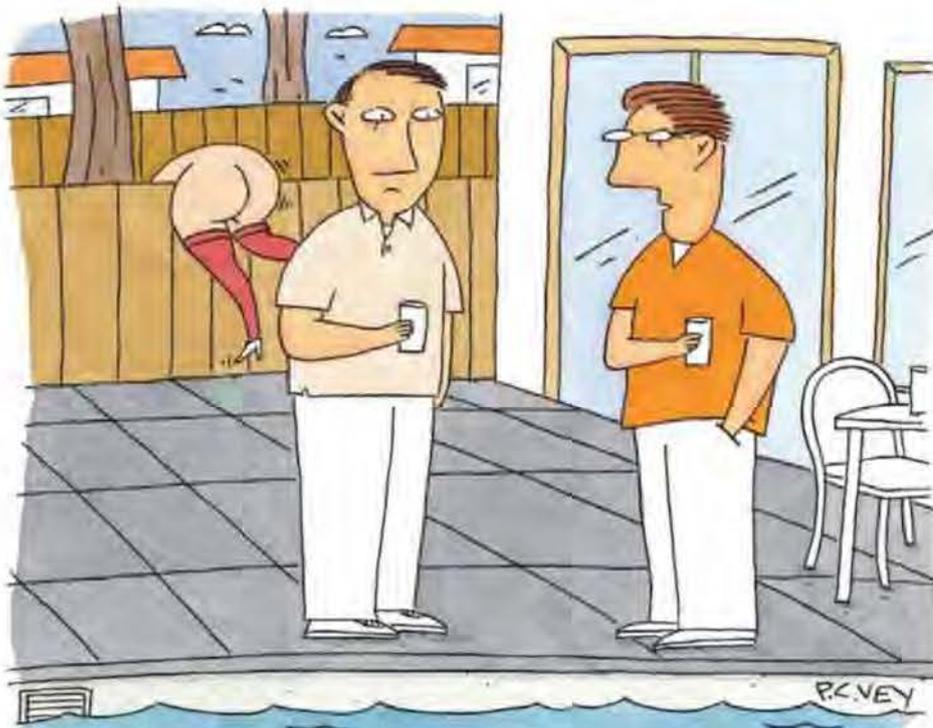
"Nonlocality is a quantum concept," Kenyon said as we left the front gates. "Things are intrinsically interlocked, even if it appears they are separated in space. This could include alternate life-forms."

"You mean alternate versions of people on Earth?"

"So far, the claims of aliens from outer space are not falsifiable. But there is plenty of research to support psychic phenomena, communications with disincarnate spirits. Nature is aware of our consciousness. She aligns us with these anomalies in such a way that we say, 'Wow, there is more to life than what we see and feel.'"

We rolled up to the valet outside the exclusive, members-only Athenaeum club on the Caltech campus. All JPL scientists are allowed in. The Athenaeum was envisioned by the astronomer George Hale, whose first guest for dinner was Albert Einstein. A hostess led us through the restaurant and out into a courtyard, where we were seated at a table under a palm tree. Waiters in crisp white aprons circled with goblets of iced tea.

Kenyon surveyed the room with his blue-green eyes. "I am convinced that we survive physical death," he said. "If you study the subject without bias, it's hard to deny it.



"If it weren't for your wife, I'd never come over."

There are patterns inside the CMB. The basic model of our universe is still fundamentally incomplete."

"Patterns?"

"The earliest gravitational waves, imprinted on primordial plasma." Kenyon lowered his voice to a whisper. "Nature shows us the surface of last scattering. She lets us peek behind the veil."

Our ahi salads arrived. Kenyon sliced off a sliver of tuna and examined it on his fork. "We may have to alter our consciousness to interact with other intelligent life-forms. Perhaps there's an internal equivalent to the surface of last scattering, where we peek behind the veil to understand our origins. If quantum physics is right, then every particle in the universe was once connected—and when we reach an understanding of that state, we'll have access to realms we wouldn't otherwise."



The scale of our galaxy is unimaginably vast—more than 200 billion stars. Even if we assume only five percent of these stars host a habitable planet, that makes 10 billion habitable worlds. Beyond the Milky Way are billions more galaxies. Here on Earth, we struggle to make sense of the paradox. Where is everyone? We turn our ears to space and receive only what astrophysicist and astrobiologist Paul Davies calls, in his most recent book, an "eerie silence."

We could be alone. If so, and our species eventually dies off, we will end a 13.75-billion-year evolution of improbable miracles leading to life. Dwelling on this possibility can make the little things—getting out of bed, brushing your teeth—seem downright absurd.

Some scientists believe primitive life almost certainly exists elsewhere—shadow biospheres, interplanetary volcanic germs, dormant microbes buried in Martian fossils. Others believe intelligent life-forms existed long ago, only to destroy themselves, as we might do, before obtaining the technology necessary to travel to other stars. The U.S. government is aware of the need for a space base in the event of cosmic catastrophe. Jupiter's moon Europa, with a stable atmosphere and possibly three times the water of Earth, is a promising candidate. NASA takes the habitation of Europa so seriously that it deliberately crashed the spacecraft *Galileo* into Jupiter's atmosphere to avoid contaminating Europa with "hitchhiking microbes."

Life in the universe may turn out to be common but hard to find. What if Kenyon is right? What if a more sophisticated life-form is out there right now and we're just looking in the wrong place? Our planet has been around for only 4.5 billion years. The rest of the universe is nearly 14 billion years old—which suggests that intelligent life, if it exists elsewhere, would be highly evolved. "Detectable extraterrestrials," writes Seth Shostak, senior astronomer at the SETI Institute, "will be an older intelligence than ours." Advanced civilizations typically expand the frontiers of transportation and communication in ways unforeseen by previous generations. Extraterrestrials could be nearby, watching us. If they are, why would they allow us to know about them?

Scientist Rupert Sheldrake has proved, in

a variety of experimental settings, that people tend to know when they are being looked at. This uncanny ability reliably manifests itself at long distances from the observer as well as in proximity to him. According to a Reuters Ipsos poll of 23,000 adults, 20 percent of people believe aliens walk among us disguised as humans. Is the belief in aliens a result of the sensation of being watched? To explain UFO sightings as mere hallucinations is to take the easy way out. Harvard psychiatrist John Mack, after interviewing people who claimed to have been abducted by aliens, concluded that abductees represent every social class, level of intelligence and degree of education. Alien abductees also proved to be no more neurotic than the rest of the population.

If we are being watched, where are these aliens based? Back in England, I met Paul Davies to ask him this question. Davies had just come from Stephen Hawking's 70th birthday party in Cambridge. Discussions at the party involved the possibility of multiple universes and a gravitational singularity located in the distant past. Davies is the current chair of the International Academy of Astronautics' SETI Post-Detection Taskgroup, a select team assigned to organize our planet's response to alien contact.

Psychologist Carl Jung concluded that UFOs were semi-real projections of our unconscious minds. We "strive to fill the illimitable emptiness of space."

We met in London on the upstairs floor of a café overlooking Covent Garden. I ordered a granola-and-yogurt parfait that came in a dessert glass. When the waiter brought it out, Davies regarded my choice suspiciously. "That might be nice to look at," he said, "but it will be difficult to eat."

With his brittle moustache, graying hair and permanently puzzled expression, Davies struck me as a man who has searched in vain for answers to the deepest questions of existence. In his writings, he argues that the technique of pointing a bunch of antennae at the sky is like searching for a needle in a haystack. His attitude toward the uncommunicative extraterrestrials has become almost combative. Aliens, he says, could be using wormholes to evade our detection. Or they could be sending self-generating probes to spy on us. Even more frustrating, they could be "post-biological machines."

"Tell me what a post-biological machine looks like," I asked.

"The aliens could be exploiting quantum physics. They could have a biologically different makeup from our own, one that we can't even imagine. It's a depressing thought."

I looked up from my parfait. "Why is this depressing?"

"Because I'd like them to resemble biological organisms."

I asked Davies about panspermia, the notion that life began on another planet or in another solar system, only to be carried to Earth in microbe form, possibly via a comet. (Panspermia was most recently advanced by Fred Hoyle, the astronomer and sci-fi author who coined the term *big bang*. Hoyle gave Davies his first job, and if his extraterrestrial theory of life is correct, we are all technically aliens.)

"Panspermia," Davies said, sitting up and tugging his moustache. "Yes, it is true that dormant microbes can survive inside a comet for millions of years. But there is plenty of two-way traffic between Mars and Earth too. I believe it is entirely feasible that we are descendants of Martians. The microbes could have come to Earth in Martian rock."

"And in your most recent article," I reminded him, "you suggest aliens might be spying on us, right now, using the moon as a base."

Davies gave me a bitter smile. "We should be analyzing all the data from the *Lunar Reconnaissance Orbiter*," he said, referring to JPL's moon-mapping mission. "We could find robotic probes, alien technology, anything fishy. If you were sent to spy on another species, wouldn't you want a remote observation post?"

"Absolutely!" Excited, I pounded the table. "But how would we know they were aliens if they can appear in any form?"

"In-your-face alien technology—a bridge or some other evidence of large-scale astro-engineering. Those aliens could have modified the lunar surface millions of years ago."

Maybe Davies was truly speculative, like Carl Jung. The eminent psychologist was so taken by the credibility of eyewitness accounts of UFOs that he investigated them at considerable risk to his reputation. Why would independent UFO sightings occur, he wondered, especially among people who had no prior desire to believe in them? How do they show up on radars? Ultimately, Jung concluded that UFOs were semi-real projections of our unconscious minds. We "strive to fill the illimitable emptiness of space," he wrote, and we create a form of "materialized psychism."

Can we make something physically appear by longing for it? If everyone on Earth looked up at the sky and simultaneously wished for an alien, what would happen? It may be beneficial in the long run to push back against easy answers to this question. "The lesson of the UFO," James Gallant wrote, "may be that those content with the little island of intelligibility on which the sciences have marooned us will be reminded forcibly of the sea of their unknowing."

Outside our London café, the rain continued to fall. It was time for Davies and me to go home and face our remaining terrestrial lives. But Davies kept talking, and as he did he managed to raise all kinds of outlandish possibilities about alternate life-forms in the universe. I listened with what can only be described as hope. Holding on to the table and its predictably dead grains of wood, I felt myself floating above the café, then over the city of London itself, until I became a projection of my own mind looking down from the rain clouds.

