WHEN LAST I SAW THE STARS

Lost vision.

BY JEFF HECHT

I have news that no one else knows," I told my grandmother. "I promised I would tell you first."

"Yes, Little Helen. You have been good about that," she said. My parents called her Big Helen, because she had been so much taller when I was little. I grew just as tall as she was, but now she had shrunk and was too frail to stand for very long.

"Remember the new space telescope out past the Moon that is so big and so powerful it can see planets around other stars? I used it to see something new." Its 30-metre mirror sees far into the infrared, where planets like Earth glow with their own heat. I had told her before, but at 104 years old, she doesn't remember details well.

"You told me about that before, Little Helen. When last I saw the stars, you were just a little girl."

I was not so little then. I had been 12, visiting her and my grandfather at their summer cabin in rural Maine. We stayed up late, turned out all the lights, and went out to the open field behind the house. Leaning back in old aluminium lounge chairs, we saw the whole Universe spread across a deep black sky. My grandfather pointed out the Milky Way, handed me his big binoculars, and told me to look closely. When I focused the binoculars, the cloudy areas turned into more and more stars, and I was enchanted.

"They were beautiful," I told her. "I still remember that. It made me want to be an astronomer." Remembering how long ago that had been, I was grateful for the medical miracles that had let her live two decades longer than her grandparents had.

"Do you remember what I told you then, Little Helen?"

"About the Milky Way?"

"No, no," she said.

"That we would never see the stars like that

again. The first global geoengineering project was spreading haze across the sky to cool the ground. You didn't notice, but we could already see the scattered light in the night sky, as if city lights had come to our country cabin."

"We can see the stars better from space telescopes than we ever could from the ground," I told her. "There's no air in the way."

"I want to look up and see stars all across the sky, Little Helen," she said. "I haven't seen them in so many years; the haze and the lights are everywhere."

"We need the geoengineering aerosols, grandmother," I said. "They are the only way we can control the climate, to keep it from getting too warm, and melting the rest of Antarctica and Greenland."

"We could stop burning coal," she said. "I remember when governments talked about stopping greenhouse-gas emissions and not lighting up the roads and highways and the whole outdoors all night long. We called it conservation."

She and my grandfather had told me how they had worked to control pollution. They scared me when they told me what the future would bring. "Outdoor lighting does good things, grandmother," I said. "It lets us see when we go out at night. It prevents crime. It sustains our modern 24-hour lifestyle."

"There's too much light and too much pollution, Little Helen," she said. "But I don't want to argue. You said there was something you wanted to tell me. I want to hear your news."

I smiled. That was my grandmother, trying to avoid family arguments. "What I wanted to tell you was that the new telescope works so well we can see the disks of planets

the size of Earth around other stars. We found one with oxygen in the air, and with other gases that are signs of life and civilization. We found the same sulfates that we spray into the stratosphere to keep our Earth cool. We think the planet may have a civilization." It was only 30 light years away, and I wondered why we had heard no signals from them. But I didn't want to complain to my grandmother that no one cared enough about other intelligent life to approve my plan to signal to them.

"That is wonderful to hear, Little Helen. I never thought that we would be able to see planets so far away. But what I want to

see is stars sprinkled across a dark sky, and the whole glorious sweep of the Universe."

"I have pictures," I said. "I can show you."

"I don't want little pictures. You cannot know the Universe unless you see the stars spread across the whole sky," my grandmother said. "When I was young, I looked up at a sky full of stars and told your grandfather that someday our grandchildren's grandchildren would go visit the stars they saw in the sky. But if your grandchildren's grandchildren can't see the Universe of stars spread across the sky, they will never try to explore it."

I shivered, remembering how small my postcard of the Grand Canyon seemed after I had stood in the bottom of the canyon. I turned away so my grandmother would not see me cry. ■

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