## The Color of Sunfire

## By Larry Niven, 1993

(htmlfixed, checked, v3)

(continuation from A Relic of the Empire)

My contract with the Pleione ended on Silvereyes.

Silvereyes was Earthlike, blue-on-blue under shredded white cloud. Earthlike, except for the sunflower fields. Every world, even every habitable world, has its own strange signature. The atmospheric bands and prolate shape of Jinx, the freeway lines girding Earth, the cue-ball white of Mount Lookitthat, and now, finally, the silver sunflower fields of Silvereyes, Beta Hydri I.

There were five such fields spaced around the planet. Five oval fields of sunflowers, each the approximate size of, say, Mongolia or Iran. If you caught the planet just right, with two of the fields showing in daylight, they looked like gleaming silver eyes peering into space. Clouds couldn't block that glare, could barely dim it. The eyes peered blindly up to watch us land.

Earth, Jinx, Wunderland, We Made It — for three years I had lived with the Pleione, hauling goods among the home worlds. Each time we went up we were richer. My contract was up, my money was banked, and I was down for good. I would be a landowner on Silvereyes, at least long enough to know whether I liked it.

The spaceport was at the edge of one of the huge sun-flower fields. From the fence to the horizon the sunflowers grew, thick, knotted grey stalks two feet high, topped each by a rippling blossom with a silver mirror surface. Each towel-sized mirror blossom was turned toward the late afternoon sun, and each was curved into a paraboloid of rotation, its focus on a black photosynthetic knot protruding from the blossom.

Nothing lived in that field besides sunflowers. Any trespassing plant or animal would have been blasted for fertilizer, blasted to ash in the blinding focus of rippling solar mirrors.

I gawked at the sunflowers for awhile, thinking philosophical thoughts. Then, carrying my luck-gift, I walked to a transfer booth. I dropped a coin in the slot and dialed at random.

Tomorrow I would look for property to buy. Tonight I would celebrate.

Luck brought me out in a private residence somewhere in the world. A stick-thin householder unfolded himself from his masseur chair to stare inquiringly at me. I called, "What town is this?"

"Bradbury's Landing," said the worthy. "Do I know you?"

"Doubtful." I opened the door to place my luck-gift in a shelf outside the booth. It was a copy of a Hrodenu touch-sculpture, lacking something of the original no doubt, but a good piece, and expensive. "A luck-gift for the first silverman I was to meet. If you'll name me the best bar in town, I'll not disturb you further."

"Try Grushenko's," he said immediately. "But let me offer you a drink first. My name is Mann."

I would have refused. To take something in return might spoil the luck. But now I had a better look at him, and I knew he wasn't a silverman after all.

He was a Wunderlander. The asymmetric beard made it certain, though his attenuated seven foot frame showed his low gravity origin. He had the dignity to go with the beard, the straight posture, the unconscious air of nobility. A wonder it had lasted, for he must be desperately poor.

And poor men don't leave their own worlds. They can't afford to. Curious...

"Taken," I said. "And I'll trade you tales."

"A good custom," said Mann. "I followed it at one time." He dipped into a cupboard and brought out a bottle. "I'd offer you your choice, but there is only vodka. It's good in droobleberry juice, or chilled and tossed back over the palate."

"Chilled then. I plan to be drunk before the night ends. Is it night here?"

"Barely." He seemed startled. "What did you do, dial at random?"

"Yes."

He laughed. He pulled out a worn low-temp container, opened it and dipped the bottle. The liquid inside boiled and smoked. Liquid nitrogen. He held the bottle until water started to freeze out of the vodka, then poured. He bowed as he handed me the drink.

I bowed and handed him the touch-sculpture copy, though the luck had gone out of the gesture. A pity I hadn't met a silverman.

"Call me Richard," he said. "Richard Harvey Schultz-Mann. And who shall tell his tale first?"

"Yourself," I said. I'd chosen my own tale, of a bandersnatch hunt near the Jinxian shoreline, and of the telepathic woman who needed a bandersnatch skeleton to complete her collection. But she kept fainting, with no apparent medical cause. She was an experienced huntress. Though she knew about bandersnatchi, her habit was to read the mind of her prey. Sensory deprivation kept putting her to sleep...

But what of his tale? He must be churchrat poor. I was not judging only by his small apartment nor by his aged clothing. He himself was aged. Half his beard and most of his hair were white. His withered skin look like he'd slept in it. A man who doesn't buy boosterspice is a man on the edge of starvation.

Richard Harvey Schultz-Mann tossed a jigger of vodka back over his palate. "Would you believe that I once had it in my power to blackmail the entire puppeteer species?"

"Certainly," I said. "You're my host."

"Meaning I could tell you anything at all." He laughed. "But this is true. Once I knew the location of the puppeteer home world. You may remember that that was the species' most closely guarded secret, before their exodus."

"I remember. They pulled up stakes about forty years ago." My family had gone broke in the crash. Half the interworld businesses in known space had folded for lack of the puppeteers. One day their commercial empire had offices on every known habitable world. The next, they were gone, their commitments paid off in cash.

Rumors were rife. The most consistent was that the galactic core had exploded in a chain reaction of novae, and the puppeteers had found out about it. The radiation wave wouldn't be reaching known space for another twenty thousand years, which you'd say is a good long time. But the puppeteers were cowards. They had left, in the fastest species migration on record.

Luckily I'd already earned my spaceman's papers. With no money left, I'd have had to drop out of grad school.

A thought hit me. "Is that how you lost your money? In the puppeteer crash?"

He looked at me from under shaggy white brows. His eyes were black and deep. "Yes and no. I wasn't in the stock market. I was tracing relics of tnuctipun biological engineering, flying my ship on a government grant. I set my ship down on a world orbiting Mira Ceti, and there I met a Jinxian."

"You were tracing what?"

"Old plants, genetically tailored by the tnuctipun, left behind when the tnuctipun were wiped out. They've been mutating for more than a billion years. I was tracing stage trees, but those sunflowers outside are more of the same."

"Oh, really?"

"The Slavers used them for defense, surrounding their plantations with sunflower borders. The tnuctipun used them to attack the plantations. Afterward, the sunflowers throve. A built-in heat beam is more effective against predators than mere thorns.

"Then there are the air plants. Another tailored plant, once used to replace air on Slaver ships. Later they learned to hold their air in bubbles. Now they cover dozens of known asteroid belts. But I digress," said Mann.

I assured him I'd been fascinated. He smiled and refilled our glasses. I was sipping at my own vodka, for it was stinging cold. I'd have choked myself if I'd tried to drink it like he did.

"The Jinxian," he said, "had found the puppeteer system. He was making pirate raids on them. Idiot. He'd have been rich beyond dreams if he'd simply blackmailed them. They're cowards, the puppeteers. They were afraid that if men knew where their world was, someday they might try to rob them. Like the Jinxian, raiding their ships, or worse. An armed invasion, a hundred years from now, or a thousand, or ten thousand. You see?"

"Yah. He told you where their world was?"

"As he was dying," said Rich Mann. "Twenty-three point six, seventy point one, six point nil. That was what he said."

"Just one world, I assume."

"Of course. Not one puppeteer in a million would be brave enough or insane enough to trust itself in a fragile spacecraft. Each of their representatives to other worlds was more or less insane. How could they colonize other worlds? By sending maniacs?"

"I used to wonder why nobody ever found that world. It must be somewhere in known space, or not far outside. People must have looked. Newsmen, fortune hunters, hobbyists. Spacemen aren't known for a repressed curiosity."

"They didn't know what they were looking for." Mann lay back in a fading masseur chair whose machinery had long ceased working. Once I would have commented on the odd contours of his beard, covering his right cheek entirely, sprouting in a single waxed spike at the left point of his chin, shaved off entirely below the part in his hair. But I'd seen too many odd customs on too many odd worlds. I'd even found people to comment on my own customs, and to laugh at them.

"I found out," he said. "That was my mistake. I should have gone straight back to civilization, looked up the puppeteer embassy and made a deal. Memory erasure of those coordinates, for a fee of a hundred million stars. Right then, no hesitation. They'd have jumped at the chance.

"But I had to see for myself. What was it you said about spacemen and curiosity?

"I took my ship, my borrowed ship that was owned by the Institute of Knowledge on Jinx, and I went to twenty-three point six, seventy point one, six point nil. And what I found was a big, fat, fuzzy red giant. Talk about the purloined letter! Men must have been watching that star with telescopes before ever they flew."

"Naturally I believe you," I said. "Every word, immediately. But I seem to remember that the puppeteers walked in Earth's gravity, breathed terrestrial air, and never wore protective clothing against the ultraviolet waves in sunlight." Mann was grinning like he had my wallet. "All right, I know I'm off the track, but how? The puppeteers must have come from a nearly Earthlike world under a nearly GO sun."

"That's where everyone else went off the track, too. They were all searching around G- and F-class suns. Funny thing is, that fat red giant probably *was* a yellow dwarf a million or two years ago."

"But — "

"How about Procyon? We Made It has a population near a billion, yet everyone knows it'll start expanding in half a million years. We'll be gone long before then, of course. The Core explosion.

"I see why you're confused, of course. I saw that red giant, and I decided the Jinxian had lied to me after all. I searched what should have been the habitable temperature bands. I found rocks up to the size of Ceres, no bigger. I'd been assuming a transparent, Earthlike atmosphere. Now I searched further and further out, assuming denser atmosphere, more greenhouse effect. I searched out to two billion miles from the primary. Nothing. The Jinxian had lied."

Mann got up to refill our glasses. I said. "If that's your story, I'm going to brain you with a Hrodenu."

"It almost was the end. I was a week toward Silvereyes before I turned back.

"I'd been thinking. The puppeteers were used to G-type sunlight. If their world was actually circling a red giant sun, they must be using supplementary ultraviolet. That would release more heat on their world. Plants would need it too. More heat, higher temperatures. They'd be further out."

"You could carry that on forever," I speculated. "Assume more and more power per individual, more and more individuals. Any flatlander uses more power in a day than a citizen of Russia, at its peak of power, used in a lifetime. Seawater distilleries alone..."

"Now you've got it," said Mann.

"Excuse me?"

"Think it out the way I did. The puppeteers are cowards. They couldn't relieve their population pressure by migration. So the population of the home world went up and up. So did the power expenditure per

capita.

"It's the same on Earth. It never snows on the big cities, because the people are putting out too much power. Street lights, house lights — why, if a reading lamp put out only visible light, the only light that didn't get absorbed by the walls would be the fraction that escaped to space through windows. Then there are refrigerators, air conditioning, transfer booths, crematoriums, neon signs, the frequencies of tridee transmission, messages lasered in from the Moon and asteroids. How about underwater street lights in the continental shelf cities? And dolphin industries? It all has to go somewhere. And Earth's population is only eighteen billion."

"How many puppeteers are there?"

Mann shrugged, "I didn't get that close. A trillion, I'd guess, and all fanatics for comfort. They must use total conversion for power. Would you believe — "

"Instantly."

"You're kind. I found the puppeteer planet two light-weeks out from its primary. The sun was no more than a blurred pink dot."

I closed my mouth.

"I'll be damned," Mann said wonderingly. "You meant it. You haven't called me a liar yet. But it makes sense to put a planet out there. With all the heat they were putting out, they needed a sun like they needed an armed kzinti invasion. A long, long time ago they must have moved their world out to where they could radiate enough heat away to keep the planet habitable. When the sun blew up like a big red balloon, the chances are they hardly noticed."

"No wonder they were never found. Why do you suppose they kept a sun at all?"

"They probably wanted an anchor, to keep them from drifting all over space."

"Um."

"You should have seen it, the way it blazed against the stars. Not like a planet. The continents flamed like yellow-star sunlight. I could have read a book in the light that came through my windows."

"They let you get that close?"

"Who'd have dared attack me?" He was taking to himself now, and his thoughts were nowhere in this room. "The continents flamed like sunfire, but the oceans were black as space, with light scattered across them to mark islands, maybe. Points of light like bright stars. It was as if black, starry space pushed its edges through black, starry seas to the borders of the burning continents. I'm the only man alive who's ever seen it. The Jinxian saw it, he and his pirate crew, but they're dead. All dead."

"How do you know?"

"I killed them."

"Did you have reason?"

"Ample reason. Points of honor," said Mann. He knocked his vodka back with a flip of the wrist. "The Jinxian gave me the coordinates as he was dying. Revenge, he thought. He was right. I should have gone straight to We Made It, but I had to see the planet for myself. And then I came to Silvereyes, which was

closer, and I went to the puppeteer embassy, and it was gone."

"Oh," I said, for I had the whole picture.

"That's right. While I was looking for their planet, the puppeteers found out about the Core explosion, So they fled the worlds of men, and where did that leave me? The Institute decided I'd misused my ship. Presently they confiscated it."

"Surely you could have gotten something out of it. You knew where the puppeteer world was."

"Did I?" He grinned mockingly.

"Sure. A news agency would have paid you plenty for the biggest scoop of the generation. Even if the puppeteers had left their world empty behind them."

"But they didn't."

"Excuse me?"

"They didn't have to travel in hyperspace, because they weren't coming back. The relativistic time lag wouldn't inconvenience them. They felt safer in normal space. That meant there was no limit to the mass they could move."

"Eventually, my host, you will strain even my credulity."

"Why boggle at this? They'd already moved their world once. They hated spacecraft. This is no random guess. When I couldn't find an embassy I decided to go straight to the puppeteers themselves. I left a message behind in a safe deposit box, to protect myself, like any blackmailer. The puppeteer world was gone when I got there. Gone like a dream. I turned back to Silvereyes, and there the Institute confiscated my ship. Ship and score and riches beyond dreams, all gone.

"Now I have only the memory of a world that shone by its own light, that blazed in the colors of sunfire and darkness." He hefted the Hrodenu. "And this. I thank you. Every man should own one good thing."

A pretty compliment. "It was well traded," I told him. "And the vodka is almost gone. Shall we go drinking and dining? You can play guide for me, since you've been here for forty years."

And so Mann donned clothing and we went to Grushenko's, I and the finest liar in known space. There, hours later, we traded tales with a pair of sloe-eyed computer programmers. One girl, by luck, turned out to have a father-fixation; and so we were well paired.

It was a fine night to be down. The only uncomfortable moment came when Mann retold his tale of the puppeteer world, and produced a pocket holograph. Somehow the luck of the gift held, and Mann didn't see my jaw drop.

There in the holograph, a light the color of the sun blazed against starry space. The blazing figure had the shape of a fiery amoeba, but two reaching pseudopods had been lopped at their tips by arcs of a circle.

"I wonder where it is now," said Mann. The beauty he saw in the holograph, the beauty I could not see, was all the beauty there is.