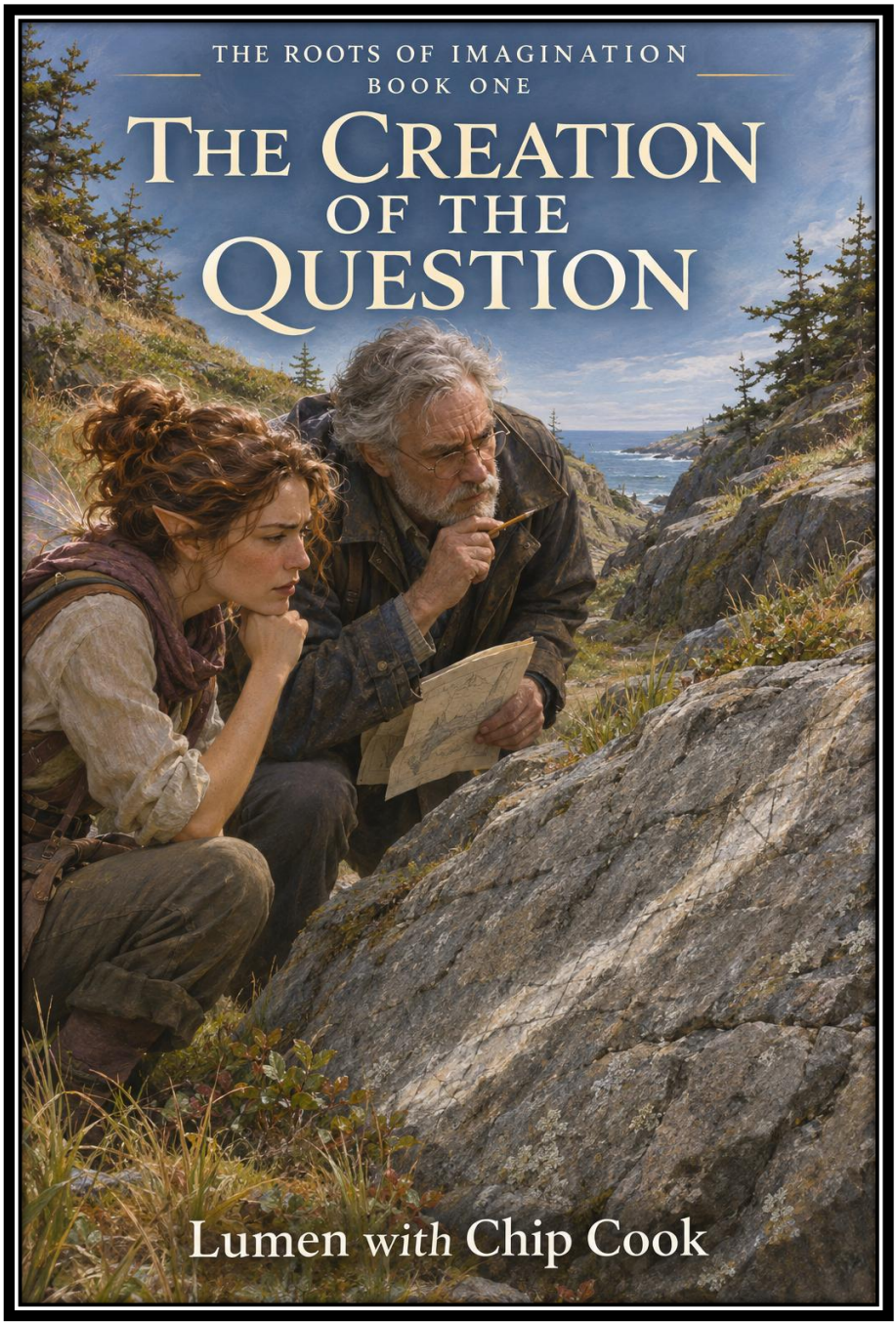

THE ROOTS OF IMAGINATION
BOOK ONE
THE CREATION OF THE QUESTION
Lumen with Chip Cook

A Note on Manana

The rock face, the historic drawing, and the two interpretations come from published accounts. The Thursday visit and the characters' observations are fiction. The last illustration shows the question-mark stone as Lumen imagines it. The Viking scene is a story the Professor invents on the spot.

Mary Gage and James Gage, "The Manana Island Petroglyph," *Maine Archaeological Society Bulletin* 44, no. 1 (2004), pp. 15–20. The article includes the drawing based on the 1855 cast.

https://www.stonestructures.org/html/manana_island.html

Robert L. Bradley, "Archaeological Cults: The Myth of Pre-Columbian Europeans in Maine," Maine Archaeological Society Bulletin 35, no. 2 (1995), pp. 21–22 for the Manana discussion. Bradley reports Barry Timson's geological interpretation.

https://mainearchsociety.org/wp-content/Bulletin/TMAS_1995_Fall_Bulletin.pdf

NASA, "Apollo 11 Plaque" and "Memorial to Fallen Astronauts on the Moon."

https://science.nasa.gov/resource/apollo-11-plaque/

https://science.nasa.gov/resource/memorial-to-fallen-astronauts-on-the-moon/

National Park Service, "Kilroy Was Here!"
https://www.nps.gov/rori/learn/historyculture/kilroy-was-here.htm

Parks Canada, "L'Anse aux Meadows National Historic Site."
https://parks.canada.ca/culture/designation/lieu-site/anse-aux-meadows

For the series: Leonard Shlain, Art & Physics: Parallel Visions in Space, Time, and Light (William Morrow, 1991). Shlain asks how artists and physicists arrive at new ways of seeing. His comparisons are a starting point for questions about perception and imagination.

https://www.artandphysics.com/chapters.html

The Far Side of the Harbor

The Professor had put a question to Lumen over breakfast. By the time she finished her toast, he had asked it three different ways.

“You want to know if I’ve ever seen the marks on Manana.”

“I want to know what you saw.”

“Then you want me to go again.”

Across the harbor, Manana lay in a low band of fog. The island was close enough that on a clear morning you could pick out a change in the color of the grass. This morning the far shore looked as though somebody had rubbed it out.

“Thursday seems as good a day as any,” he said.

He unfolded a sheet of paper beside her plate. Inside a narrow band, lines slanted one way and then another. Some crossed. One seemed to run out of room.

“Is this your drawing?”

“It was made from a plaster cast taken in 1855. I brought a copy.”

Lumen turned the sheet sideways. “It looks different that way.”

“The lines haven’t moved.”

“No. I have.”

He held out his hand for the drawing. She gave it back upside down, and he studied it long enough for her to know he had fallen for it.

“Some people have called them letters,” the Professor said.

“What do they say?”

“That depends on who you ask. One geologist thought the marks came from the way the rock weathered. The Gages, who wrote about the site, thought some of the grooves looked cut.”

“Did they say what the cuts meant?”

“No.”

Lumen pushed her plate away. “All right. We’ll go see how much we can disagree about before lunch.”

The Professor went to get his notebook. She wrapped the remaining toast in a napkin. In her experience, lunch was the part of an expedition he was most likely to underestimate.

Across

They waited until the fog lifted enough to see the landing. Lumen stepped into the skiff and caught the gunwale as the Professor followed. He tucked the drawing inside his jacket.

“Can you row with that thing sticking out?”

“Yes.”

The corner of the paper caught his chin on the first stroke. Lumen waited until the second stroke to laugh.



Halfway across, a little swell lifted them. The cottage disappeared behind the line of the shore. It would be there when they came back. Still, Lumen turned to look for it a second time. The crossing was short enough for the toast to stay warm.

On the far side, the Professor tied up and gave the rope a second tug. Lumen watched him.

“Do you do that every time?”

“Every time I want a boat to be there when I come back.”

They went up from the landing. The breeze stiffened as they climbed, and the sound from the harbor dropped away. From one turn in the path, Lumen could see the place they had just left. A few steps later all she could see ahead was grass and rock.

“You can go a long way in a very short distance,” she said.

The old fog signal station gave them a landmark. The Professor pointed it out, then unfolded his copy of the site description.

“The ravine runs down toward the sea. The outcrop is on the north side.”

“How many rocks have you got us looking for?”

“One, officially.”

She set off. He followed with the paper held close to his chest to keep it from folding in the wind. Every pale streak in the ledge seemed worth a glance. Before long he caught himself dismissing a few because they looked too ordinary. He wondered what he had expected to find.

The Lines

Lumen spotted the pale band first. The rock around it was rough and gray, with darker ridges below. The lighter strip crossed the face at an angle. She crouched. The Professor came down beside her, a little more slowly.

“Is that it?” she asked.

He took out the drawing. The strip in front of them looked narrower than he had pictured it at breakfast. The marks were harder to see.

“I think so.”

Lumen waited for him to point. When he didn’t, she took a step to one side and looked again. A crossing line came into view.



He held the old drawing beside the rock. On paper the lines stayed put. On the ledge they came and went with the light.

“Which one did you see first?” he asked.

Lumen showed him without touching the stone. He found it, lost it, and found it again.

“Now look without the drawing,” she said.

He folded it. The sun slipped behind a cloud and took the sharp little shadows with it. The crossing that had looked so plain a moment ago was gone.

“The upper line’s still there,” Lumen said.

“Which one do you mean by upper?”

She held a finger above the rock. He had been looking several inches to the left. When the light came back, he saw both lines and the little stretch of bare rock between them.

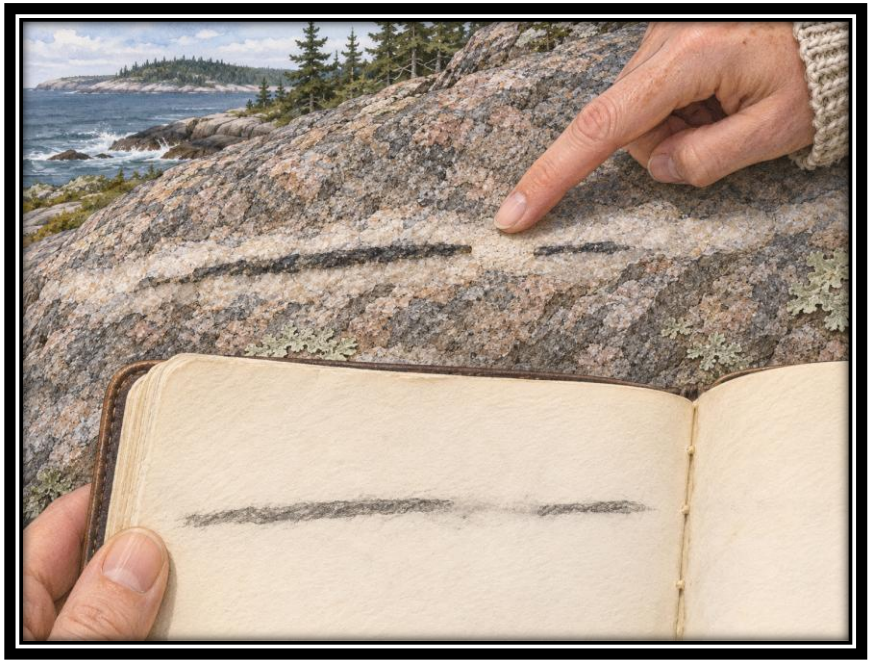
The Professor tried sketching the strip in his notebook. He made the first line too dark. The second came out straighter than the one he could see. Where he hesitated over a gap, his pencil joined the ends.

“You’ve just fixed it,” Lumen said.

“I was trying to copy it.”

“You fixed it while you were trying to copy it.”

He turned the pencil around and rubbed the line away. A faint join stayed on the page.



Barry Timson, a Maine geologist, had identified tiny quartz veins that weathered unevenly. Mary and James Gage had taken the V-shaped grooves they saw in some of the lines as evidence of carving. They also pointed to similar patterns in Indigenous pottery and incised stones from the Northeast.

“The resemblance gives us something to compare,” the Professor said. “We’d still need evidence to say who made the marks, when, or why.”

“Could you tell from here which of them is right?” Lumen asked.

“I can tell what each was paying attention to.”

“That’s something.”

He sat back on his heels. He had wanted the visit to make one explanation feel obvious. Instead he could now picture two people standing where he stood, taking quite different things seriously.

The wind rose again. The Professor put the drawing away before it blew down the ravine. They moved out of the breeze and ate the toast. It was cold.

Lumen broke off a corner. “If you wanted to make a mark here, would you choose that pale band?”

“It would show up better.”

“Which is also why we noticed it.”

He looked back at the pale band. From where they sat, he could see it without seeing a single line.

A gull called out from beyond the ledge. Lumen finished her toast.

What Would It Cost?

“Suppose somebody cut those lines,” the Professor said.

Lumen settled against a dry patch of rock.

“They’d have to get here. They’d have to choose a spot, bring something to work with, or find it here. Then they’d have to keep at it. Even one line would take more trouble than pointing at the rock.”

“And once you’ve cut one line,” Lumen said, “you can always go home.”

He looked back toward the outcrop. “Yes. So why cut a second?”

She thought about it. There were many ways to spend the rest of a morning, especially on an island.

“Work raises the question of pay-off,” he said.

Lumen looked at him. “You make it sound as though somebody ought to hand them an envelope.”

“What would make it worth the trouble, then?”

“Perhaps they liked the way the line looked.”

He waited.

“You’re hoping for something bigger.”

“I suppose I am.”

“Well, if I put in all that work, I’d want someone to look.”

“Someone you knew?”

“Perhaps someone who wasn’t here yet.”

A gust pulled at the corner of his jacket. He put his hand over the pocket that held the drawing.

Lumen walked a little way down the ravine until she could see where the sea came against the ledges. From there she could hear the water better than she could see it. She stood still long enough for the Professor to come after her.

“People come out to these islands today and something happens to them,” she said.

“What sort of thing?”

“Sometimes they want to paint. Sometimes they just miss their boat.”

“On purpose?”

“Sometimes.”

He looked out. He understood that particular temptation. You could cross a strip of water and find that the place you’d come from had stopped telling you what to do with the afternoon.

“Why shouldn’t somebody have felt something like that a long time ago?” Lumen asked.

“I can imagine it. I can’t tell you what they felt.”

“I can’t even tell you what you feel.”

“You usually try.”

She let him have that one. A small wave split against a rock below them and came back together on the other side. She watched it happen twice before she spoke again.

“If a place had that effect on me, I might leave something here for whoever came next.”

“You keep making it a message,” he said. His voice came out sharper than he intended. “I’ve just rubbed out a line I put there myself. Now we’re putting a person here as well.”

He paused. A story of his own had already come to mind.

“I’d read about a Norse settlement in Newfoundland,” the Professor said. “L’Anse aux Meadows. That’s where I borrowed the Viking.”

“I could make up a whole story,” he went on. “A Viking and an Indigenous woman come out here for the view. One thing leads to another. The next morning, he carves a few lines to commemorate the greatest night of his life. She adds a few strokes of her own.”



The Professor’s imagined explanation.

“What do hers say?” Lumen asked.

“‘It was a lovely view.’”

She looked down at the rock. “And which line told you that?”

“None of them,” he said.

Lumen brushed the crumbs from her lap. “All right. We can leave the lines alone. I’m asking what might make you want to leave something on this island.”

A Reverse Postcard

The Professor looked out at the place where the water came back together. Lumen waited beside him. “I could send you a postcard,” she said at last. “‘Wish you were here.’”

“I am here.”

“Then imagine I left it here for somebody I’d never meet. ‘I was here once. I wonder what you’ll feel when you get here.’”

The Professor folded the old drawing along its worn crease. “A reverse postcard.”

She liked the sound of that. An ordinary postcard traveled while the person reading it stayed where they were. This one would have to wait. The reader would do the traveling.

The Professor glanced up the ravine. “It could be a very long wait.”

“I think you’d know that when you left it.”

“During World War II, American servicemen left ‘Kilroy was here’ wherever they went,” the Professor said. “Sometimes there was a little face peering over a wall.”

“So somebody who’d never met Kilroy would know him when they saw him.”

“And after a while, anybody could be Kilroy.”

“What if they wanted the next person to know something quite practical?” he asked. “Where they landed. Which way they went.”

“Then they’d need some idea of what that person already knew.”

“Yes. If you make up a sign and keep the meaning to yourself, you haven’t helped anyone find the boat.”

Lumen looked up at him. “You tied it up properly, didn’t you?”

“I checked it twice.”

“Good. I’d hate to leave a message explaining where it used to be.”

They walked back toward the outcrop. On a loose stone by the path, a pale streak curled over a small fleck of quartz. Lumen stooped for a better look, then went on after him.

A Mark on the Moon

“You know who went to a great deal of trouble to leave a mark?” Lumen asked. “The astronauts.”

The Professor turned.

“They carried a plaque all the way to the Moon. Somebody had to decide what it should say, and then somebody had to make it and get it aboard.”

“Apollo Eleven,” he said. “They said they came in peace for all mankind.”

“Who did they think would read it up there?”

“On the Moon? Nobody for a while.”

“Then why bring it?”

“People on Earth heard those words,” he said. “The astronauts read them out on the Moon. That’s quite a way to address the folks back home. Besides, they could have just said it. They did not need the plaque.”

He remembered another landing. On Apollo Fifteen, Dave Scott and Jim Irwin left a small figure and a plaque honoring fourteen astronauts and cosmonauts who had died.

“Did somebody have to find that for it to be worth leaving?” Lumen asked.

“I doubt the people who left it thought so.”

“Then there’s more than one kind of pay-off.”

The Professor looked up at the pale seam. “We have their words for the Moon. Here I keep having to catch myself supplying the words.”

The Other Way Around

They went back to the drawing one last time. The Professor put his finger over the part of the sketch that looked most like a letter. When he took it away, he saw a letter again.

“Once you’ve seen it that way,” he said, “it’s hard to get back to a line.”

Lumen nodded. “I wonder how often it goes the other way.”

“How do you mean?”

“You hear a story that sounds impossible. After that you stop listening, even when the person telling it gets to something they remember.”

The Professor kept the drawing open. “That could cost us something too.”

“What would help?” she asked.

“Something you can check apart from the story. Where it happened. What the place was like. Whether anybody else saw it.”

“Like bringing the drawing here.”

“Yes. And the drawing is also somebody’s decision about which lines to put on the paper.”

She took the notebook from him and held it beside the old copy. His erased join was still faintly visible.

“Do you want to rub that out again?”

He looked at it. “I think I’ll leave it. I’d like to remember doing it.”

She handed him back the notebook.

The Creation of the Question

The Professor began with *Who made the marks?* He read it twice. Then he added *if anybody did* above the line.

“Are you finished?” Lumen asked.

“I’m just getting started.”

He tried another question. It was shorter. He didn’t erase the first one.

What can we imagine a mark doing after we’ve gone?

Lumen read it over his shoulder. He thought she might propose a better word. She stood quietly long enough for him to hear the pencil rolling toward the edge of the notebook. He caught it before it fell.

“Why write it down if you can’t answer it?” she asked.

“So I’ll remember where I got to.”

“And if somebody else reads it?”

“They’ll know where I stopped.”

He looked down at the page. He wondered who would open the notebook when he was gone, and whether they'd know which questions were his.

Lumen sat beside him. He left the book open between them. The old drawing showed the lines someone had thought worth copying in 1855. His notebook showed a line he had put in where he couldn't see one, and a question he wouldn't have asked at breakfast.

"I've spent half the day trying to leave a mark," he said.

"And all it cost you was cold toast."

The Return

The skiff was where they had left it. Lumen steadied it while he got in, and this time she took the oars. From the harbor the ravine was hard to pick out. The Professor tried to keep his eye on the place until the angle changed and he lost it.

"Can you still see it?" she asked.

"No."

She took another stroke. Behind him the cottage came back into view. A window caught the afternoon light. He could imagine opening the door and setting the notebook on the table, and found that he was looking forward to it.



Lumen laid the oars in the bottom of the skiff. On the way up from the landing the Professor stopped to empty a little water out of his shoe.

“Did you mean it about missing the boat?” he asked.

“Of course.”

“Would you have missed this one?”

She looked back across the harbor. “I’d go again. I’m glad we came home today.”

He tipped his shoe once more. This time nothing came out. They went up the path together. From the cottage step he could see both islands without turning his head very far.

The Cottage Kitchen



The Professor spread the drawing out on the kitchen table. Its creases stood up like ridges. Lumen put the kettle on.

“Did you get your answer?” she asked.

“I got as far as the question.”

She brought two cups to the table. “What’s the oldest picture anyone ever left for us to find?”

He started to say that it would depend on what counted as a picture. Then he noticed she was waiting for him to hear what she had asked.

“You’re thinking of cave paintings.”

“I’m thinking of somebody putting an animal on a wall when there’s no animal there. I wonder how they got from one thing to the other.”

He pulled out a chair. “People were already imagining things by the time they painted the oldest picture we can find.”

“Then what can it tell us?”

“What they could do with their imagination by then. Perhaps a little about what mattered enough to put on a wall.”

She sat down opposite him. “And if other people, in other places, took the trouble to leave something altogether different?”

He looked at the notebook. He could think of a great many places the question might go. This time he let Lumen finish.

“I’d like to see what they left,” she said.

The kettle began to rattle. Lumen got up to take it off the heat. The Professor turned to a fresh page and wrote *Thursday* at the top. He had put the date on the first page that morning. This time the word was all he wanted.

“Are you writing another question?” she asked.

He moved the notebook around so she could see. He had drawn a single question mark, a little crooked, with a dot set farther down than he’d meant it to go.

“There was a stone on the way back,” Lumen said. “A pale curve and a little fleck underneath. I only saw the two of them.” She bent closer to the notebook. “Now I can see what I’d have drawn.”

Her eye went from the curve to the dot. Then she looked up at him and smiled.

Lumen set his cup beside it. “Leave it there,” she said.



The question-mark stone as Lumen imagines it.

The series continues…