

Building

RED

MISSION MARS

anthology edited by

Janet L. Cannon

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THE CAVE IN ARSIA MONS

Andrew Fraknoi

The emergency team brought Ciotti back in a pressurized ground-car, hydrated and fed him, and, as soon as it was humane, turned him over to Mars Office—with their compliments. Until they knew whether he was going to be treated as hero or a criminal, no department wanted him on their books.

Of the officers on duty that week, Investigator Ted Forrest turned out to have the most experience with deviants and loners. And the chief trusted him “to keep his damn mouth shut,” as he put it.

That’s how Forrest came to be one of the first to hear what Ciotti had found in that cave, and why for now, it was considered classified material. Forrest’s task was to read the file, interview the man, figure out what part of his story was true, and what part was invention.

His chief had told him, “We have to find acceptable reasons

to detain him and keep him locked up.” After interviewing the man, Forrest was to report directly to the Mars Office CEO that evening to give his summary analysis of Ciotti’s story. As Forrest was leaving his office, the chief barked, “And make damn sure that Ciotti does not speak to anyone before the Council has the chance to evaluate his discovery.”

Forrest took a seat on the pedestrian belt moving toward the jail. After fifteen years on the force, he was no longer surprised by strange new assignments, but he had a feeling this one was likely to take the prize.

He expanded the virtual screen on his wrist viewer, ran Ciotti’s file from headquarters, and rubbed at his mustache absently as he read. When Ciotti had first arrived from Earth, his head was full of ideas about corporate corruption on the home planet and the promise of Mars independence, but his wallet was clearly empty. As a result, he was assigned to one of the dozens of low-level jobs in waste recovery. Perhaps the least glorious job in the colony, thought Forrest—even if most of the direct contact with the waste was by machines.

Ciotti eventually managed to get transferred to General Stores and Supplies—where his record as a clerk was undistinguished. Although he was affiliated with the Independence Party politically, he rarely attended party events. Forrest ran down the list: no listed relationships, long or short term; he kept mostly to himself when he could; and he played the saxophone, but was not part of any musical group. Classic loner profile.

After Ciotti’s transfer, he continued to live in the hastily assembled First-Gen crew barracks, even though ordinarily he would have been given better housing for his GSS rank. At

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first, Forrest was surprised, but then he realized that Ciotti's requests for better living quarters had come at a period when shiploads of colonists, all hungering after more independence and less corporate control, had put particular pressure on housing. Forrest remembered that his own promotion had not brought him and Anna a better place to live for another two years.

It was during his fifth year as a supply clerk (and after his third request for a change in quarters had been rejected), that Ciotti apparently decided to take his unofficial excursion to the slopes of Arsia Mons. Forrest, a geology buff in his spare time, wondered what had put the thought of that particular volcanic cone into the man's head. Forrest himself liked Arsia, with its majestic flanks and wide opening at the top. It was his favorite of the four giant volcanoes that towered on the Tharsis plateau, and he was intrigued that parts of the volcano's walls showed evidence of having been eroded long ago by ice glaciers. But that was a personal preference, and he didn't expect others to share it. Most tourists and colonists tended to prefer Olympus, the largest of the Martian volcanic giants.

Forrest returned to the practical aspects of the case. Where did Ciotti get the vehicle and supplies he took with him? Forrest entered a screen-memo to check whether supply runs on Ciotti's watch had greater-than-average reports of inventory shortages. Next, he listened to the report that the two-man rescue team had radioed back to headquarters when they had first responded to the clerk's emergency signal.

It seems Ciotti had driven from the main base to Arsia Mons in the Schiaparelli rover, a late-model, pressurized

vehicle, built for longer-range excursions. Authorization for its use was always required, and the database showed proper sign-off by two levels of supervisors. He shook his head. It was another example of just how slack things had become. He decided to make a quick vid-call to one of the supervisors, and after he implied that heads could roll if he did not hear the truth the first time, the man was only too ready to explain.

“Our department has been caught between personnel shortages and the need to keep three satellite Mars bases fully supplied. You can’t imagine how many supply runs we have to make. Some of those rovers are going day and night. And frankly, these days, few of us have time to pay detailed attention when rover requests come in.”

Digging further, Forrest found that Ciotti had been asked to go along on several supply runs—to help load, unload, take inventory, and shelve the supplies more rapidly. So, although he was not a fully certified driver, his name was commonplace on the rover manifests, and approval of his solo trip request had been routinely granted.

Slowly, Forrest was getting the picture. By the time Ciotti was ready to undertake his little “vacation,” it was clear he’d been planning it for a long time. He had been able to squirrel away an ample collection of gear, food, and medicine, certainly enough to keep one man going for a week or so of quiet spelunking. When his distress call came from the cave in Arsia Mons—Forrest figured this out even before he spoke with the man—he didn’t call for help because he was hurt or lost or hungry. He called because what he saw in that cave scared him witless.



The uniformed security guard led Forrest to a small conference room as Ciotti was brought in through a different door. The guard escorting him was a muscular woman with a no-nonsense expression and spit-shined boots. Forrest suppressed a smile as Ciotti flinched when the woman pushed him into his seat. Ciotti turned out to be shorter and more unkempt than Forrest had imagined. His hair was cropped short, and he wore his grey GSS uniform without any marks of decoration or personalization. Although he seemed in good physical shape, he slumped in his chair and looked like he needed sleep.

Both guards took up positions at the back of the room until Forrest motioned them out. He doubted Ciotti would be violent, and like the chief had said, the fewer people heard the man's story, the easier it would be to control.

"Now, I am not here as a prosecutor," Forrest began, after introducing himself. "I'm simply investigating what happened after you took a rover out on a personal trip."

Ciotti shot back. "Hey, I had all the authorization papers for that rover."

Forrest raised an eyebrow. "Maybe, but you didn't have papers to go on a vacation in Tharsis. So don't try to kid me and we'll get along much better. Listen, my job here is to help Mars Office decide what to do with you—and with what you found."

"Yeah, I found something pretty amazing, didn't I?" Ciotti asked. "You can't lock me up! Not when I made a goddamned major discovery."

“It’s not my decision,” Forrest replied. “Let’s just get to the facts. Why don’t you tell me what you did to get yourself to Arsia Mons, and how you made that discovery?”

Ciotti had his story ready. “All right. I didn’t mean to get anybody into trouble taking the rover. I just needed a little space. That’s all, man. You don’t know what it’s like in those First-Gen dorms. Sleeping on bunk beds in shifts, people constantly around. You’re never alone. And the smell of all those sweaty bodies! Two-minute showers and that ridiculous recycling system, are never up to the job. I’d had it!”

Forrest asked him about the psychological training that all Mars immigrants were supposed to have received Earthside.

“Sure, we did those simulations in the pods back on Earth, and the psych people gave us tests about group living,” Ciotti said. “But it’s different when you are really here. You smell other people day and night, and there’s no place to go, no place to get away!” Ciotti put his elbows on the table and dropped his head on his hands. He let out a deep breath, and, before Forrest could ask anything else, said, “Listen, I applied for a better place over and over. Check the record. But they kept telling me there was no room in better dorms, even though I was on the list. I knew it wasn’t just me. Every place was more crowded than it oughta be. We just grew too fast. I got that. And the extra pay we got, that was fair and everything. But then, I just couldn’t take any more, being crowded in there with the noise and the smells. I had to go to some place where I could be alone.”

Forrest stared steadily at the man, who was working himself into a self-righteous lather. He thought Ciotti was hoping for a word or gesture of understanding about stealing

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the rover, but he had no intention of obliging him. So, Ciotti continued to make his case, “On Earth, no matter how bad the job, you get a vacation, right? That’s all I wanted, man. Just a vacation—not even from work so much, but from those god-awful stinking dorms!”

He took a deep breath and went on, “I have a friend in the tourism office. He looks after all the e-chures and instavids. He once showed me these skylights on the side of that big volcano. Said they were openings into a cave system. Some of ’em were listed in the early materials for tourists. But they eventually dropped the whole idea. Those cave systems ... they were too deep and dark to be safe for Earthies. So, I decided that’s where I wanted to go. I figured there would for sure be no one there now. Just me by myself.”

Forrest rubbed his mustache and then asked, “All the caves and tunnels on Arsia Mons start with a vertical drop. So why did you think it would be safe for you to go alone?”

“I’d done some climbing and caving on Earth, so I knew what I was getting into. I got some climbing equipment, a pressure tent, and a comm-relay. I had oxygen and lights and food. All I could think about was all that sweet privacy. I didn’t care where those caves went. I was going to get my damn vacation. Of course, I didn’t know what was in that cave!”



Forrest led Ciotti through the whole experience so his wristband could record it, starting with the time Ciotti checked himself out from Mars Base One and began the long drive southwest to Arsia Mons. Forrest did his best to keep

him to the facts of the trip, even though Ciotti kept returning to how much he hated the crowded dorms. Eventually Ciotti arrived at the point where, having driven the rover slowly up the steep side of the volcano in a crisscross pattern, he found a cave entrance he liked and prepared to lower himself down.

“I wasn’t takin’ chances,” Ciotti said, “I set up the comm-relay from the rover, in case of emergency. And I had a pretty good idea of how much I could carry in a backpack climbing up and down the terrain in Mars gravity. All I wanted was my week to be alone. I figured after all the years, I had it coming.”

“So, when did you find the chamber with the evidence?” Forrest asked.

“I’m getting there,” Ciotti answered, a little testy. He looked plenty nervous, sweating, despite the climate control. Forrest guessed that Ciotti still didn’t know whether he was in ordinary trouble, or in “they’re-going-to-throw-the-book-at-me” kind of trouble.

I got to the bottom of that first lava tube no problem. And then I saw a horizontal tunnel. So, using my headlight, I just followed it. It was hard to stand up in there, plus I had cramps from all the bending over. About the time I was going to turn around, the tunnel opened into a bigger cave. That seemed like the right place to set up camp, even though my light showed me only a small part. So, I unspooled the comm-relay line and put all the gear down. I rested for a bit and then headed back up for the second backpack of gear.

“Tell me about your discovery.” Forrest didn’t want to hear every minor detail.

“I didn’t see them the first day. I was too busy setting up and pressurizing my tent. By the time I had everything put

together, I just ate my dinner and fell asleep. I was good and tired, and it was so quiet, man! I was lovin' it!"

"Go on."

"It was the next day that I saw them—when I was shining lights around the chamber. I couldn't believe it. I thought my eyes were playing tricks on me. There were these pictures, all around that cave. In color, too. I thought maybe some tourists or early settlers made them. You know, before they stopped letting anyone down those skylights. But when I saw what the pictures showed, man, I freaked out."

Forrest interrupted, "So, you didn't know the paintings were there? You hadn't gone down there before on a scouting trip? People are going to say you knew and just kept quiet. That's why you were stealing supplies. You wanted some time to explore that chamber on your own first."

Ciotti narrowed his eyes and leaned toward Forrest. "No. No way. It's just like I've been trying to tell you. I wanted to get away. Sure, I planned the trip, but I hadn't been down there before. How would I know I was gonna find those things?"

Forrest wished he had a neuronal reader to see if the man was lying, but that could come later. For now he wanted to hear the rest of the story. "All right," he said, "let's assume you're telling the truth. Tell me about the paintings in that cave."

"I was blown away. I mean, who'd expect pictures on the wall of a cave on Mars? And then I looked closer and saw that the pictures showed those ... those creatures. And that they were acting like people. In the pictures, I mean. But man, they sure don't look like people. Well, I just stared at them. I just couldn't stop staring. It was so weird. I mean they looked

like they were part dinosaur and part insect. They were like nothing I'd ever seen!"

Ciotti took a breath and went on. "They were aliens. Paintings of aliens, like in the scifi vids we watched when we were kids. Aliens with spaceships and machines and who knows what else, doing things that we would do. And there wasn't just one painting, there were dozens of 'em, on just this one wall.

"First, they just seemed like a bunch of different pictures to me. But I moved my lights around the cave, and the more I looked at them, the more it was like there was a story there. The only thing I could think of was some kinda comic book on the wall. It took me like an hour to figure out where it started. And the story's time went from right to left. I guess there's no reason aliens should go from left to right like we do, huh?"

Forrest restrained the impulse to tell the man that not all human cultures read from left to right. Instead he just said, "Go on."

Ciotti thought for a few seconds and then continued, "It was spooky, man, when I got an idea of what the pictures seemed to be telling me. There was this one alien who had this sort of black crest on top of his head. And it was mostly his story in the pictures.

"First he lived in a big spaceship crammed full of those aliens. So many of them right on top of each other, it was really hard to look at. And then in one picture, the guy with the black crest is in a little ship, and he's leaving the big ship. In the next picture, he's here ... on Mars. I could tell it was Mars by the color and the scenery. Later, this alien—it was just him now—he was acting like a Mars tourist. The pictures

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showed him at the big volcanoes, and Mariner Valley, and some of the dried-up river valleys our tourists like to go see. And you know, the art was pretty good. I actually recognized most of the places.”

Forrest didn't know if Ciotti had even stopped to take a breath, he was so intent on telling this part of his story. “Then, in other pictures, he ... it—this thing—built himself a place to live inside some caves. There must have been air pressure, 'cause he wasn't wearing the pressure suit anymore. And he had some kind of tube of food that he was eating from. So, this alien learned to survive on Mars, just like we do. That's when I started to worry. I thought, man, what if the creature that made the pictures was still around?”

“What do you mean, still around?” Forrest said. “Did you see any evidence that the cave was inhabited?”

Ciotti replied, “No, not the cave I was in. I searched and there was nothing that looked like equipment or machines or anything, except what I had brought down. But I thought maybe he lives in a different cave. And what if it wasn't just him but a whole pack of them dinosaur-insect aliens that still lived in them caves? That's when I really got scared. And man, I don't scare easy. Maybe they wouldn't like anybody sharing their caves. If that was the case, I sure didn't want to meet them by myself. That's when I pushed the emergency signal to get me some backup.”



Forrest reported to Mars Office CEO Sadao Nakamura in the late afternoon. By then, enough time had passed since

Ciotti's alarm, that the first team of experts had examined the cave and was back with a report. Nakamura told Forrest he was just going through it, and asked him to sit and wait a moment.

Forrest had dealt with Nakamura before, on a case that involved a fairly high-level conspiracy to divert public supplies to private use. He had found the CEO rigidly self-controlled, but generally willing to listen and be fair. In his eleven years as the head of the independent Mars colony, Nakamura had earned a reputation as a skilled manager who could generally see the bigger picture, even when others got hung up on the details.

When Nakamura was ready, he wanted to hear Forrest's assessment of Ciotti, especially his mental state. Forrest summarized their conversation and said that, on the whole, he believed many details of the man's story. There needed to be a much wider investigation, but everything so far led him to believe that the clerk was as surprised by his discovery as the rest of them were.

Nakamura asked, "What do you think would happen if Mars Office had to detain Ciotti for a longer period of time?"

Forrest didn't have to think long about that one, "Just give him his own cell and make sure it doesn't smell of people, and he'll be all right."

Nakamura asked a few more questions, and then nodded with satisfaction. He asked Forrest to wait for him in the outer office. They would walk together to the Council Chamber, where Forrest had to be ready to answer any questions the Council members threw at him about Ciotti. Forrest had only seen Council meetings on the newsvids, and suddenly worried

that his uniform was a little worn, and that his mustache was unruly, since he hadn't trimmed it in a while.

In the meantime, he used his wristband to edit some of the key interchanges during his interview of Ciotti, and create a short vid that he could show the Council if necessary. Then a clerk brought him one of the longest non-disclosure agreements he had ever seen. The lawyers had been busy, too.



The group in the Council Chamber was restricted to Council members and top Mars Office management. Forrest was by far the lowest ranking colonist present, and he tried to blend into the background, sitting on one of the seats at the rim of the circular chamber. The only other person not sitting at the raised table reserved for the Council and senior staff was a rumpled academic type across the room. Given the age of the typical colonist on Mars, there was more grey hair assembled in that room than Forrest had seen since coming to the red planet. The meeting started only after a tech had come in to sweep the place for hidden cameras and microphones.

The Council president, Karen Beckwith, gaveled the meeting to order and said that the Mars CEO had a matter of extreme importance to discuss. Her stance gave nothing away, and Forrest wondered how much she'd been briefed. Her raspy voice and sardonic questions were well known from the newsvids, but this was the first time Forrest had seen her in person.

Nakamura began by introducing Forrest and the academic, a Dr. Aley, who had led the team of experts who had examined

the cave. Nakamura said he had brought them along in case someone had questions. But he began the proceedings on his own, with deliberate authority.

“Ladies and Gentlemen,” he said, “I have invoked section 19.12 of the New Mars Charter and called an executive-level meeting. I remind you of the Charter agreement forms you all signed when taking office. What we say here today may have to be kept secret for some time. Investigator Forrest and Dr. Aleyn have also signed our strictest non-disclosure agreement. Everyone else who has seen the phenomenon we’ll be discussing is being detained for now, and is temporarily deprived of communication with the rest of our colony.”

Nakamura continued. “I don’t think I am being overly dramatic when I say that we may be at one of those pivotal moments in the history of humanity. What we decide here today could well be remembered longer than anything else we have accomplished on Mars since our hard-won independence from Earth’s corporate control. I want to give you my best assessment of the situation, but the decision of what we do next is, of course, yours to make.”

Forrest stroked his mustache as Nakamura laid out the broad outline of Ciotti’s story for the Council. He couldn’t help thinking about how the news would affect his own career—and when, if ever, he would be able to tell Anna about his role in it.

Nakamura explained that Ciotti had entered a “skylight”—a round opening on the side of Arsia Mons, whose network of lava tubes had drained naturally long ago, leaving a web of empty tunnels and caves. This area had not been extensively explored before. Few, if any, of the caves had

been top priority for the early Mars survey teams. “Now, of course, all tubes and caves will have to be explored.”

Several of the Council members, curiosity obviously piqued, sat forward in their chairs. Nakamura turned down the lights, switched on his projector, and a series of holographic images appeared, giving everyone in the room clear details of the cave. “These images were captured by the science team sent to investigate,” Nakamura said over a collective gasp. Forrest stood up to get a better look. The paintings on the cave walls, in vivid hues, were distinct and easily visible. A murmur spread through the Council chamber.

Nakamura spoke over the hum as he scanned through the images taken from various perspectives, “Yes, ladies and gentlemen, this is the reason I have called this meeting. You will note that the paintings Mr. Ciotti discovered tell a remarkable story. An alien being, clearly intelligent and, most likely more advanced in technology than we are, seems to have spent time living or working in that cave many years ago. According to the paintings, as best we can tell, it expected to live out its life on Mars and to die here.

“Of course, there is always the possibility of a hoax by some earlier human Mars explorers, but the location of the paintings and the level of detail argue against it. I want to stress that we think the creature was not native to Mars, but came from another star system entirely. Like humans, it may have found the unshielded ultra-violet radiation on the surface of Mars dangerous. Perhaps it didn’t have the technology or equipment to build shielded domes like we use. So, the alien sought shelter underground.”

At this point, Beckwith could no longer restrain herself,

“Do you mean to tell me, Mr. Nakamura, that the first evidence for intelligent life beyond Earth, after all the years of searching, is in some cave, inside a Mars volcano? Why there? Why now?”

Forrest could sympathize with her surprise.

Nakamura hesitated and then replied with courtesy, “Well, Madame President, I certainly agree that few scientists would have predicted that our first communication from aliens would take this form. And we don’t believe that this is an official message from one civilization to another. It’s more like those old Earth stories, where a shipwrecked sailor puts a message in a bottle in a desperate attempt to preserve some record of his existence.”

Beckwith asked, “But why only one alien? And why Mars, rather than Earth?”

“Our best guess at this point,” Nakamura responded, “judging from the contents of the paintings, is that the alien who made them was some kind of refugee or exile from an interstellar ship that was passing through our solar system a long time ago. But really, we just don’t know very much at this point. As to why it came to Mars, perhaps the environment here was more congenial for this species than the Earth’s. In any case, Dr. Aleyn’s team estimates the paintings were done hundreds of thousands of years ago.”

A younger Council member interrupted, “Excuse me, but how do we know it was that long ago? Don’t tell me the creature left us some kind of calendar.”

Nakamura gestured to Aleyn, who stood up and came toward him, as he spoke. “In a way, Councilor Oluseyi, he did. I am going to let Dr. Aleyn explain how his team estimated the time.”

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Aleyn had to clear his throat a couple of times, but then found his voice. “What helped us determine a timeline was that some of the paintings include scenes of the night sky with detailed renderings of constellations. As you all probably know, the constellations seen from Earth or Mars are accidental arrangements of bright stars on the dome of the sky. We connect the dots to make familiar patterns, such as Ursa Major, the Big Bear.

“As any star moves through the galaxy, part of its motion may be toward us or away from us, but some part will always be sideways to us. Any such sideways movement can, over thousands of years, mean that the star is then seen in a different position in the sky. As the stars move, the constellation patterns slowly change with time, and we can use those changes to date any record that shows the constellations.

“Of course, we don’t know how accurately the alien artist is portraying the positions of the stars. Did it make sketches from the surface of Mars, and then transfer them to the paintings, or was it relying on memory? Even if the positions are accurate, we want to do some additional research before assigning a more precise time. But from the ten or so different night paintings we have quickly analyzed, we arrived at a tentative date of some 300,000 years ago.”

Images on the chamber dome revealed the night sky in the paintings alongside the modern constellations. The differences were readily apparent, and Forrest found himself awed by the time scales they were discussing.

“Thank you, Dr. Aleyn.” Nakamura went on, “To continue, then, our first guess is that we are seeing a personal record left

long ago by a single artist. There is the possibility that the alien was dispatched, or left on Mars, specifically to create these paintings.”

Aleyn touched Nakamura’s arm and interjected, “However, Councilors, we—the team—think the paintings may not necessarily be the reason the alien ended up on Mars.”

Beckwith broke in again, “But I don’t understand! How can something this important have gone undetected and unreported on Mars until now?”

Nakamura replied, “Madam President, I would respectfully remind you that the surface of Mars is roughly as large as the surface area of all Earth’s continents combined. Many places on the Martian surface have not yet been explored, to say nothing of places under the surface.”

Beckwith shook her head. “OK. But you’re assuming these paintings depict real events. What if this is fiction or propaganda? What if the creature was remembering one of its favorite stories? Or what if it went mad in that cave?”

Nakamura thought for a moment and said mildly, “This is all very preliminary, Madam President, and all those options will need to be carefully considered. But if it’s just a story, why bother portraying the correct constellations at all? And we see many other clues in the paintings that portray the Mars we know, including pictures of the four Tharsis volcanoes.”

Oluseyi put in, “So, you’re saying some spaceship from an advanced civilization traveled through our solar system and dropped this cave-painting artist off? So, how many other ships of theirs have done this? Why don’t we have other records or evidence about them?”

Nakamura replied, “We have no idea if more than one

ship ever came. All we know so far is what we can see in these paintings. If Dr. Aley's constellation time frame is correct, they were created much earlier than the development of human writing on Earth. So, even if our remote ancestors somehow observed the mothership seen in these paintings passing by the Earth, there would be no record of it on our home planet. We are very lucky that these paintings are in such good condition after all this time. The fact that they are in a deep cave, and therefore, have not been exposed to Mars' atmosphere and dust storms, has, I'm sure, helped to preserve them

"I don't know," Beckwith said. "This is a lot to absorb. I keep thinking I want to go to that cave and see the paintings—with my own eyes—before I believe that this is real and not some fantastic story."

Forrest found himself nodding. He felt the same way. He, too, wanted to see the paintings first-hand before he was ready to accept the idea that the first Mars settler had not been a human.

Nakamura tried to move on, "Madame President, I think we all sympathize with your feelings. This discovery is completely unexpected. But before we consider what to do next, please allow me to finish my report." A new image appeared, and before anyone could interrupt again, he continued. "You can see on the close-up image I am showing you now, that the alien coming toward Mars is in some kind of vessel. But its precise landing spot on Mars is not depicted on any of the paintings. We will, of course, search for what might be left of its ship after all this time, particularly in the Arsia Mons region. But the team thinks it's possible that the alien

eventually dismantled much of its ship and used the parts and equipment to survive on Mars.”

Forrest’s thoughts jumped to all the scavengers who would descend on Mars, once word got out, searching in all kinds of unmonitored places for bits and pieces left by the alien, and how this would make the job of Mars Office a hundred times more complicated. They would surely need more police and investigators. Could it mean an earlier promotion?

Nakamura continued. “As you can imagine, it’s frustrating how much we don’t know and may never know. Was the alien an especially talented illustrator in their culture, or did everyone in that species have the skill to make such a clear record? Were the paintings made merely to be a journal, a record of its existence, or do they have some religious or social significance?”

Oluseyi interrupted, “I imagine many big companies from Earth would be glad to assign expert staff to ‘help us’ figure out the meaning of the pictures, if they learn of their existence. We managed to remove ourselves from under corporate control once. We may not want to give them an excuse to attempt to take us over a second time.” Murmurs of agreement could be heard around the Council chamber.

Nakamura hesitated, but didn’t take the bait. He went on as if Oluseyi hadn’t spoken. “If I may, I want to share a few more of the team’s first tentative ideas.”

Nakamura’s projector displayed new holographs as he continued, “Here, in the first few panels, the aliens are seen aboard their ship. Unless it’s artistic license, the aliens are either part of some group organism, or they are crowded together in ways that would be intolerable to us. Different aliens are

decorated in different colors, but we don't know if this is skin color, some kind of clothing, or just artistic embellishment. At present, we are unable to discern if they have different sexes. However, the different colored crests do help to differentiate our alien, the one who eventually comes to Mars, from its companions."

Forrest was seeing the details in the pictures for the first time along with the Council. He didn't know much about art, but he had to admit the paintings were clear and beautifully done.

"In the seventh painting," Nakamura continued, "the Mars alien goes, or is put aboard the smaller ship that separates from the main vessel. Then we see the alien on the surface, setting up a tent-like structure near his ship. The next few paintings seem to be a survey of some of the more interesting sights on Mars. It's hard to miss the contrast between the crowding in the earlier paintings of the mother ship and the sense of being alone in these later pictures." Nakamura turned again to Dr. Aleyn. "Dr. Levinson, the psychologist who accompanied Dr. Aleyn and his team, has a theory about this particular aspect of the pictures. Dr. Aleyn?"

Aleyn had remained near Nakamura during the discussion, and spoke with less hesitation this time, "We all wondered why, among the thousands of aliens crowded into the mother ship in the early paintings, this particular one came to be on Mars alone. It's hard to know from the pictures if it was here by choice, or if it was being punished. Why would they leave only one of their number behind? Even if they don't reproduce the way we do, one is a very small number for founding a colony. So, Dr. Levinson had a suggestion. Maybe this alien was not normal in some way. What if the aliens inclined toward group

living or were some kind of group or hive mind? If that was the case, the one left on Mars had been born different, perhaps it needed to be alone. So, it could have been a merciful act, leaving it behind on some planet where it could be by itself without going mad—and without threatening the stability of the group.”

Just like Ciotti, Forrest thought. Maybe the black-crested alien couldn't take crowded conditions and had to get away, too. He wondered if Levinson's suggestion would ever get back to Ciotti, and if he would see the irony in his making the discovery.

Aleyn continued, “Of course there are many other possible explanations, some of which we haven't thought of yet. Maybe the Mars alien was sick and had to be quarantined. Even so, it must have lived a long time to create all these paintings, especially the ones that show the sights of Mars, which would have required considerable travel across the surface. So, sickness may have had nothing to do with it being here alone. Besides, a species that can travel between the stars probably has more advanced medicine, too.

“Our biggest question, then, is whether the Mars alien had a specific mission to fulfill. Were the paintings part of that mission? It could be some sort of religious testimony or sacrifice the aliens require as they pass new stars in their journey. So far, our preliminary analysis has found no clear explanation as to the Mars alien's goal, or if it even had one. But those who have thought deeply about extra-terrestrial life in the past have always warned us to anticipate aliens being really alien. In other words, we should not expect another life form to conform to our modes of thinking.”

THE CAVE IN ARSIA MONS

“Dr. Aleyn,” Beckwith said, “one reasonable scenario could be that a single alien, dropped off on Mars, was there to spy on Earth and report back to its home planet in some way. Do any of the paintings show the alien building some sort of communication device or machinery?”

Aleyn exchanged glances with Nakamura and replied, “No, nothing that would be recognizable as a communication tool. But,” he quickly added, “we do have to be prepared for the possibility that its technology might not resemble ours in many respects.”

Beckwith shot back, “Well, its spaceship was clearly recognizable, wasn’t it?”

Aleyn thought about the president’s question. “Ye... Yes, Madam President. So, it is reassuring, at least for now, that none of the paintings show the alien building any type of radio antenna or messaging device. On the other hand, 300,000 years ago, there was no evidence of intelligent life on Earth that could be seen from Mars. So perhaps it didn’t have much to report.”

Oluseyi spoke up again, “I had a different, but related thought, Madame President. I know it sounds like a plot from science fiction, but we do seem to be having a discussion that reminds me of the science fiction vids I used to watch.” He turned his attention back to the science team leader. “Dr. Aleyn, could there have been some kind of trip-wire in that cave, which we humans set off by going in there? Could some underground machinery, left by this alien be notifying its species of our existence right now?”

Nakamura stepped in. “If I may, we are now in the realm of sheer speculation. Let’s return to the team’s conclusions. It

appears that the alien who did the paintings must have died here on Mars a very long time ago, but thanks to the depth of the cave and the quality of the pigments used, the paintings have been preserved across the millennia. For now, the paintings are all we have. In a way, perhaps they are enough.

“Because of them, we have learned of the existence of an extra-terrestrial species, giving us our first proof that intelligent, technological life evolved elsewhere in the cosmos.” Nakamura began to pace back and forth along the dais. “Whether this species of alien is still alive somewhere or not, their existence in these paintings is very likely the evidence that so many have looked for. It shows that humanity’s place in the universe is not unique.

“It’s possible that further study will reveal what star system the aliens came from, or whether they occupied more than one star system at the time of their visit. However, we do know that this species had technology that we do not yet have, such as travel between the stars. The issue now before you, ladies and gentlemen, is what we do with that knowledge.

“As you may remember from the briefings you received when you approved the independent SETI experiments for Mars surface operations, our experts are divided about the effect the discovery of advanced intelligent life elsewhere would have on our world view. Some said that their example, or possibly their eventual help, could spur us on to a new era of discovery...”

Beckwith interrupted. “That was only the optimists talking, wasn’t it? Don’t I remember that there were other schools of thought?”

Nakamura, showing irritation for the first time, looked

directly at her and tipped his head. "You are right, Madam President. But please let me finish. Other experts fear that alien knowledge and technology, likely to be far more advanced than ours, would cause us to doubt and disparage our own achievements."

Nakamura paused to see if Beckwith wanted to respond, but seeing no gesture on her part, went on. "Some scholars have also suggested the possibility that the discovery of such advanced life could give rise to new religions and social movements on Earth and Mars, perhaps with unintended consequences for human society."

Beckwith nodded, looking at the Council members to see if anyone wanted to say anything. No one did, not even Oluseyi. She looked back at Nakamura, who continued. "You who govern us know better than anyone that our newly independent Mars Colony still defines itself in many ways by how it differs from Earth with its powerful and warring corporate states. Isn't it possible that our colony is too fragile at this early stage to deal with all the implications and consequences of this discovery?"

Forrest turned his attention to the Council members, some who were nodding in agreement.

Now Oluseyi spoke up, "As I said earlier, the top Terran corporate chiefs will probably all try to "offer" us their "help" when they learn of our discovery. But as usual, it'll just be an excuse to gain some business or political advantage over the other corporations." He paused to look at Beckwith, and then scoffed, "And if we don't accept their help, there will likely be all kinds of corporate claims from Earth. They'll say that—for the sake of all humanity—these cave paintings need their protection."

“Yes, Councilor,” Nakamura replied, “these are certainly concerns that my staff and I discussed after our preliminary investigation. And there are practical issues to consider as well. As I understand from Investigator Forrest, Mr. Ciotti only discovered the paintings because he was driven to solitude by the overcrowded conditions many Mars colony citizens experience. Currently, as you know, our infrastructure is barely able to sustain the number of people who emigrate to Mars. Can you imagine the drain on our limited resources when many others decide to join us, once news of the cave becomes public?”

Again, Nakamura had the attention of everyone in the room. “I hope you will agree with me that whether we announce this discovery to the public or not, is something that we will need to think through very carefully.”

Nakamura searched the faces of the Council to determine if his push toward caution was getting through. “So far, the knowledge that humanity is not alone in the cosmos is limited to a relatively small number of people—including the rescue team, Dr. Aleyn’s science team, the Chief of Police, and those of us in this room. Can we all keep this secret? Should we? Mr. Ciotti might well be kept in indefinite detention, but I’m certain Dr. Aleyn and his team will object to any restrictions on their freedom to study the paintings.”

Nakamura paused and Beckwith spoke up. “All good points. We don’t want to rush into a decision. But frankly, I also worry about the political fallout from our keeping this secret for an extended time. People will ask what gave us the right to control this discovery that affects everyone in the solar system.”

“Yes, Madam President,” Nakamura replied, “I share that concern. How long before our secret comes out? A week, a month, a few years? Will that short a time even matter for strengthening our colony’s hand in the political upheaval that might follow the announcement of the discovery?”

“On the other hand, if we announce the discovery soon, can we quickly find ways to restrict access to the site, so it is not damaged? We will need rules for letting in or keeping out our own citizens, as well as the flow of interested parties from Earth and elsewhere. Evidence of intelligent life could well be considered the heritage of all humanity, and any rules we set are likely to be challenged.”

Forrest looked from Nakamura to the Council members around the table. A few were just shaking their heads. Some appeared truly bewildered, overwhelmed with their sudden new responsibilities. It was going to be a long night.

Forrest knew he would do whatever Mars Office asked of him, but he was certainly glad not to have to make the decisions that were now required. Like the summer dust devils out on the martian plains, this discovery was certainly going to stir things up for all of them. When Ciotti had pushed that emergency button in the cave, it wasn’t just his own isolation he was ending.

After the Mars Colony had declared independence, they all thought they would have time to establish a new order of things on the red planet. And, no less important, time to fashion a new relationship with Earth under rules and conditions they could control. But Ciotti’s discovery, and the decisions the Council now made, would put Mars center stage in human history much sooner than anyone had anticipated.

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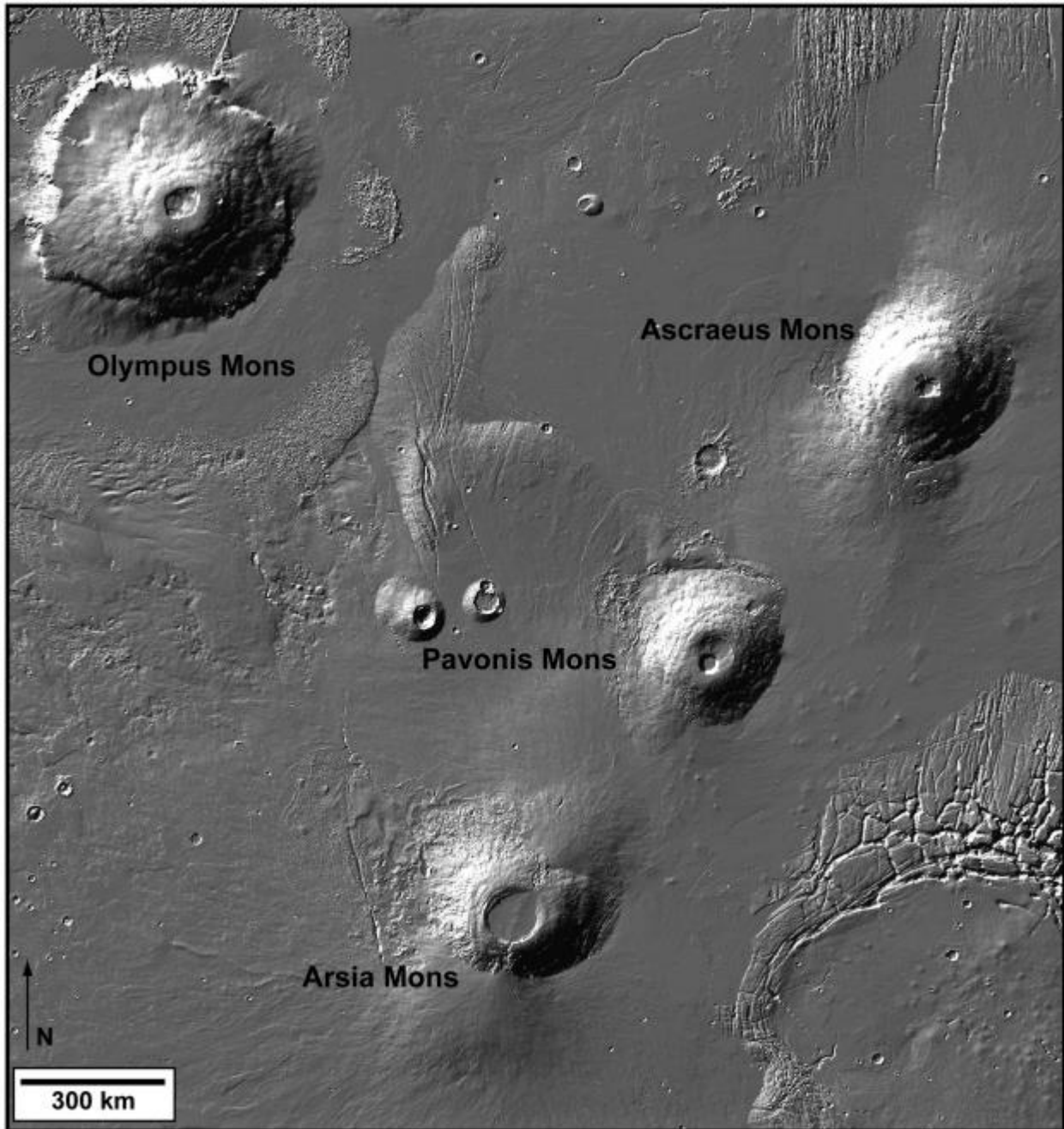
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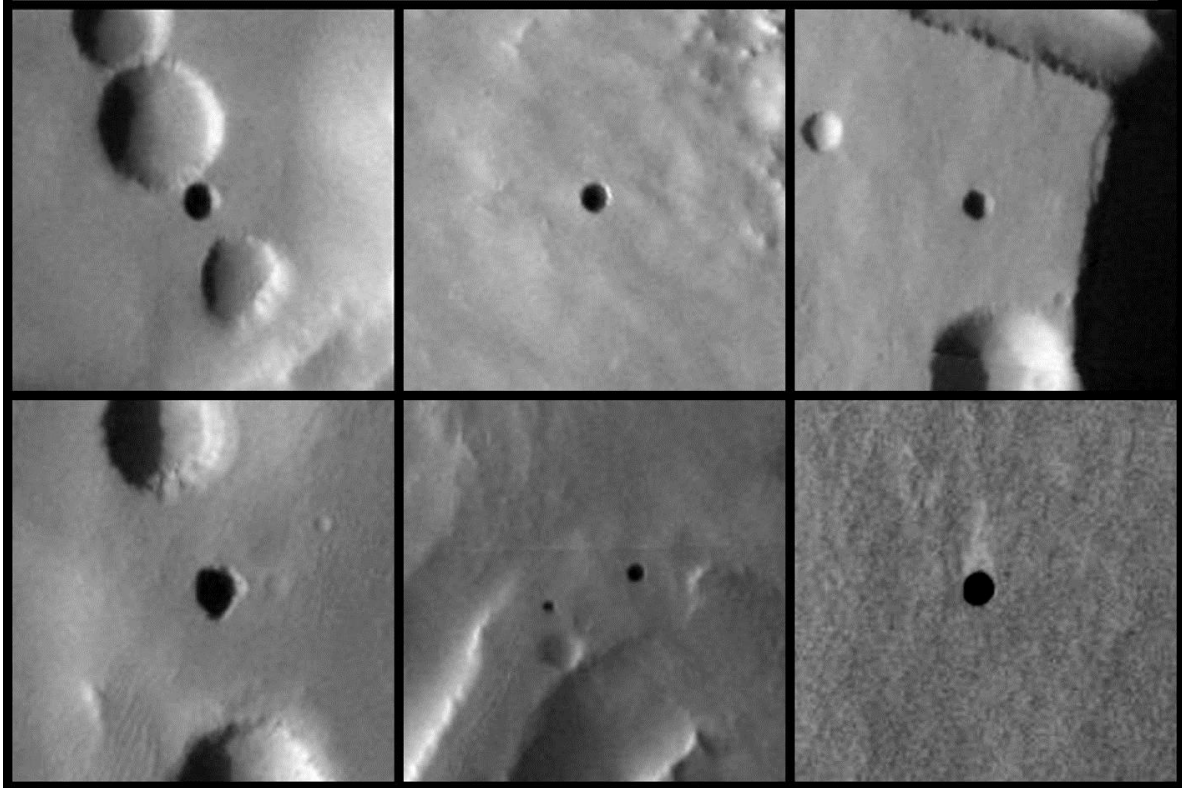
Andrew Fraknoi is Chair of the Astronomy Department at Foothill College and a senior educator on several outreach projects at the Astronomical Society of the Pacific. He is the lead author on a college textbook series, *Voyages through the Universe*, and wrote *Disney's Wonderful World of Space* for 5th graders. In the 1980's, he was scientific editor on two collections of science articles and science fiction stories published by Bantam Books, called *The Planets* and *The Universe*. In 2007, he was selected as the California Professor of the Year by the Carnegie Foundation for Higher Education. The International Astronomical Union has named asteroid 4859 *Asteroid Fraknoi* to honor his contributions to the public understanding of science. While he has kept a topical index to science fiction stories with good astronomy on the web for many years (<http://www.astrosociety.org/scifi>), this is his first published science fiction story.

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The Giant Volcanoes of Mars



The four giant volcanoes on the Tharsis bulge, a plateau near the equator of the planet Mars. The three volcanoes in a diagonal row are directly on the bulge, while the largest mountain, Olympus, is off to its western edge. Arsia Mons, where the story takes place, is almost 12 miles high, and measures around 270 miles in diameter. The big opening (caldera) at the summit is about 72 miles wide; the entire metropolitan Los Angeles area could fit inside. (NASA image and map)



These six close-ups, taken with the THEMIS camera on the Mars Odyssey Orbiter, show skylights (openings) into the flanks of the giant Arsia Mons volcano. The diameters of the round features range from 100 meters (328 feet) to about 225 meters (738 feet). Each could be the opening to a cave or even cave system below. (NASA/JPL-Caltech/ASU/USGS)