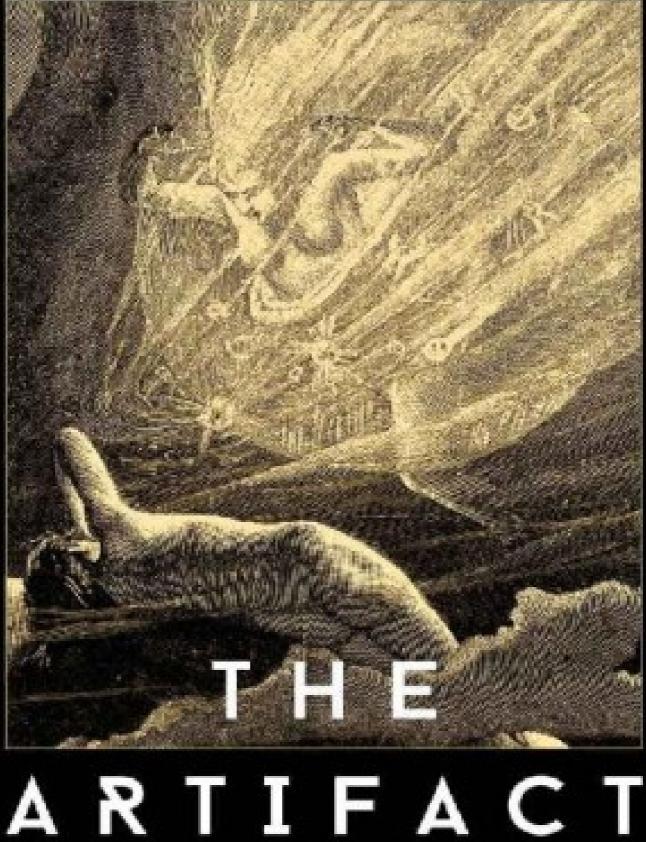
PETER CAWDR9 N INTERNATIONAL BEST SELLING AUTHOR



FIRST C Q N T A C T

The Artifact

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Cover art: Vintage illustration from The end of the world. iStockPhoto illustration ID:1330091748. La fin du monde. Premiere partie, Au vingt-cinquieme siecle, Les Theories, La Menace Celeste. On voyait dans ces figures allégoriques la Comète menaçant la Terre endormie. "We saw in these allegorical figures the Comet threatening the sleeping Earth." La Revue illustrée, 1890.

Quote

We are like butterflies who flutter for a day and think it is forever. Carl Sagan, Cosmos

Harat Zuwayyah

The wind sweeps across the desert, carrying dust and kicking up sand. Grains curl around the slopes of the dunes, rolling over them, slowly shifting them to the west. The motion of the Sahara is imperceptible. Dunes rise and fall like waves on the ocean, only at a rate of roughly a foot a day or the length of a football field each year.

For Professor Susan Taylor, this is the adventure of a lifetime. Far from restoring exhibits in the backroom of a museum in Cardiff or giving lectures to students, she's in the field. This is where she belongs. The unknown beckons her. Parched lips and dry skin are a badge of honor. The blistering heat is exhausting and yet strangely welcoming. She's as far removed from the rolling green hills of southern Wales as she could imagine, and yet she feels at home.

"Why are we here in Libya again?" James O'Connor asks from behind dusty ski goggles. "I don't get it. When you said this was about Egyptian archeology, I assumed you meant we'd be going to Egypt. What are we doing a thousand miles from Cairo?"

The scarf wrapped around his mouth and nose keeps the fine dust from his lungs. The blazing sun reflects off the deep tint of his scratched plexiglass ski glasses, hiding his eyes from sight. They're five hundred miles from the coast of the Mediterranean and almost a thousand miles from Tripoli, the capital of Libya. There's a helluva lot of sand between them and civilization.

"Everything and nothing," Taylor replies, feeling as though she's traversing ocean waves made out of sand. "We're exploring a possibility. Trying to get lucky. This might be a dead-end. Often, archeology is more art than science."

The aging US Army Willys Jeep they're driving slides sideways in the ruts that loosely define the hundred-mile track from *Al-Jawf* on the border between Libya and Egypt and the oasis of *Harat Zuwayyah*. One of the locals, a scrawny man called Masri, is driving, with O'Connor and Taylor sitting in the rear.

The antiquated US Army Jeep saw service in World War II some ninety years ago in the Italian campaign. The dry, arid climate of the desert has preserved the metal, if not the paint. Several coats have been applied over the intervening decades as the desert winds sandblasted the vehicle. The effect is such that in the corners of the footwell and under the dash, layer upon pancaked layer of paint has built up. Arabs are nothing if not resourceful and ingenious. To Western eyes, the Jeep might seem like a decrepit relic from another age, but to Taylor's native guide, Masri, its reliability is beyond question. Somehow, Masri has either sourced parts from junked Jeeps or fashioned his own. It seems he wouldn't trust his life to anything modern.

The Jeep is open to the sun. The windscreen is old and cracked, but it's probably third or fourth generation, not the original. The seats have been scavenged from some other vehicle and bolted into rails mounted on the chassis. The tires are from a truck, so they're oversized and change the ratio of the aging four-speed gearbox, but it also means they get more grip in the sand. As tempting as it is to want a modern Toyota Hilux 4x4, the Jeep is lightweight and nimble. They may be exposed to the wind, but they're able to skate over the dunes.

Professor Susan Taylor is blonde with blue eyes. The wind whips past her, but far from feeling cool, it's as though she's opened the door of a convection oven. She hides her eyes behind dark sunglasses and her hair beneath a *jilbab*—a long, flowing fabric that forms a hood over her head and wraps around under her chin. The loose folds of ornate cloth have strands of gold and silver woven into the blue material and cover her chest. They flap in the breeze. From there, the *jilbab* widens, wrapping around her to form a dress reaching down to her ankles. Although she'd prefer jeans and a tight T-shirt, the *jilbab* keeps her arms cool in the heat and keeps both the sand and the local men at bay.

Taylor likes O'Connor. He's expensive but utterly professional. O'Connor is a merc—a gun-for-hire.

Mercenaries are despised in the West but not in the Middle East. In North Africa, they attract no more attention than a goat herder or a carpet weaver. Rather than being seen as fighters, they're accepted as security guards and even considered as chaperones for Western women such as the professor.

Arranging security for the informal expedition was a nightmare. On one hand, it was clear Taylor couldn't go into Libya alone, but traveling with an armed team would attract unwanted attention. Taylor's chasing down an obscure lead, exhuming a pharaoh. She needs discretion. not An archeologist she knows working in Iraq recommended O'Connor, saying he was once a US Army sniper and served with UN peacekeepers in North Africa. He's worked as personal security throughout the Middle East for the past eight years for diplomats, petroleum surveys and even a medical team in the lawless Balochistan desert spanning the border regions of Pakistan, Afghanistan and Iran. He's known for being calm under pressure.

O'Connor is armed, but he told Taylor he hasn't fired his M4 in anger in years. The butt of his rifle rests on the floor of the Jeep, being positioned between his boots. The barrel leans to one side, pointing harmlessly at the clear blue sky. A condom stretched over the muzzle protects the barrel from grit and dirt. A bullet can easily punch through the rubber. Although it looks silly, the condom protects the gun from the danger of an obstruction causing a malfunction.

Even though there's nothing but sand dunes stretching into the distance, O'Connor keeps his gloved hand on the pistol grip of his M4 out of habit. The chamber is empty. The magazine is loaded with blanks. Back in Crete, he told Taylor that, in his experience, half-a-dozen shots are enough to make most men piss their pants and run, even if he's only firing blanks. Apparently, his flash suppressor has a modified blank fire adaptor built into it or something along those lines. Taylor always thought guns were simple, just a few bullets and a barrel, but O'Connor rambled on for the best part of an hour about his custom M4. He calls it *Betty*. He told Taylor his preference was to fire blanks first to see if anyone really wanted to dance. Besides, he said, killing someone, be that a bad guy or a bystander is a surefire way to piss off the locals and provoke a riot.

The Arabs of the deep desert live by the ideal of no-harmno-foul. There's a considerable difference between shitting one's pants under fire and taking a few rounds in the chest. Arabs can live with the former. The latter makes enemies in every other village as word spreads. O'Connor's got several loaded magazines, a couple of fragmentation grenades and flash bangs in his backpack, but most of the weight is dedicated to carrying water. If things get nasty, he said his plan is to make some '*noise*' and disappear among the dunes. From there, they'll hike across the desert at night. The professor's been briefed on evade-and-escape procedures, but they shouldn't be needed as the local tribes are considered friendly.

The Jeep slides sideways as it rounds the northern edge of one of the massive dunes. Dark, rough granite mountains come into view. Even though Taylor was expecting this, having studied the satellite footage, the sight still takes her breath away. The way the sun has reflected off the sand dunes over the past four hours has washed out her vision, leaving her in a world of muted colors. Even the sky seems to have faded and become pale, with the brilliant blue being muddied by dust in the air. Now, though, dark black granite rock formations rise from the desert, forming a barrier that protects the southern oasis.

"There it is," Taylor says. "Harat Zuwayyah."

"Beautiful," O'Connor replies, but the tone of his voice reveals he's being sarcastic. To her, though, it's magnificent. To her, she's traveling back in time. She's seeing one of the last untouched wildernesses on Earth. Barely a hundred people live in the region and only in the south. Not only does the desert encroach on the oasis, it passes straight through the village. Were it not for the hills and mountains diverting the wind, *Harat Zuwayyah* would be buried by sand.

Taylor isn't sure quite how Masri navigated the desert, following a trail that constantly shifts with the dunes, but he's brought her to the northern tip of the mountain range. Tire tracks appear in the sand and disappear on the bedrock, but this is the trade route. Once, thousands of years ago, it stretched from Cairo to N'Djamena in Chad, on the edge of the African grasslands leading to the jungle.

Somehow, a long, meandering line of trees separates the desert from the granite plains leading back to the mountains, declaring that life is possible in the Sahara. The trees are a curiosity. They're mainly scrawny palms and Cypress trees. Most of them are conifers with jagged branches and spindly needles, hardly casting any shade at all. They look as though they're clinging to the impossible—life itself. Someone planted them centuries, if not several millennia ago, and still, they stand as sentinels, warding off the desert. Occasionally, a lush date palm rises from the dusty soil. The wind is deflected by the mountain range behind them, keeping the dunes at bay and allowing the roots of these trees to reach for the scant moisture seeping up from an aquifer deep below ground. Life in the desert is nothing if not persistent.

When most people think of an oasis, they imagine pools of cool water in the desert. The bitter reality is that an oasis is simply a thin strip of land that's somehow avoided being buried by the desert sands. Dry riverbeds, or wadis, reach down from the dark granite hills. Taylor wonders when they last saw rain. A dried-up mud flat stretches to one side with cracks large enough to fall in. The Jeep drives over stony ground, passing under the shade cast by palms and thorny acacia trees. A quarter of a mile ahead, mud walls fight to keep the sand at bay and allow trees to grow in loosely defined properties.

Masri slows. Goats wander around, looking for anything green to eat. A goat herder shelters from the sun under a nearby tree. Women draw water from the village well, hauling up wooden buckets from deep beneath the Earth. When they finish, they place a wooden cover over the well. A few straggly bits of green grass grow beside the well, pleading for spillage from the women to survive.

Harat Zuwayyah is thousands of years old. No one knows for sure how long there's been a human settlement here in the

heart of the Sahara, and it may very well be that it has not just been humans that have lived among these ruins. There's no layout to the village. Crumbling mud walls loosely define boundaries, guarding olive trees and date palms. Vehicle tracks crisscross the open areas, marking not roads but the shortest route between the larger habitats.

Beyond the walls, most of the homes are made from mud brick, but occasionally, a sheet of rusting corrugated tin covers a roof. Sticks and branches form the roofs of huts on the roadside, allowing diffuse light to seep within and letting the heat escape. Aging, toothless men sit smoking tobacco and jabbering with each other. Kids kick a makeshift soccer ball around in the dust. Tightly bound rags hold the ball together. From the lack of height and distance with each kick, it's solid rather than hollow. The ball trundles across the ground as boys and girls scramble around, kicking at it and each other with their bare feet.

"Sheik Mohammed Ahmed's compound is just ahead," Masri says, pointing at an eight-foot high, rough, mud-stippled wall.

They round the corner and come to a halt in front of a set of closed timber gates. The wood is old and has rotted away close to the ground, leaving an uneven gap that, in places, is large enough to crawl under. Armed guards stand in the shade of the wall with AK-47s shouldered. Masri speaks to them in *Tedega*, the nomadic language of the southeastern Sahara. The guards laugh, revealing yellow teeth, and open the gates.

Taylor feels conflicted. She's arrived, but she feels uncomfortable. She's lost in a world that neither regards her nor cares for her expertise. Beyond the gates lies a culture she's read about and studied extensively, and yet she knows she doesn't understand the reality of life in the desert for these people. Their norms are now hers. She's at their mercy, and yet she needs to be here. She needs to find the lost tomb. The importance of her work overrides the fears she has for her own safety.

As Masri drives through the open gates, he tosses a package to one of the guards. It's tightly wrapped in plastic,

bound with duct tape.

"What was that?" Taylor asks as they drive into the compound.

"Kyriazi Frères," Masri replies, calling out over the sound of the Jeep engine. "Egyptian tobacco. These guards. They get nothing. No one remembers them, but I do. I know. Show them respect, and they will show kindness."

Taylor nods in agreement.

Dozens of trees rise from the sandy soil, obscuring the house, which backs onto the desert. There's a private well in the middle of the dusty field. For the Arabs of the Sahara, it's a status symbol. A low mud-brick wall forms the sides of the well, while a pail hangs from a pulley mounted on a timber frame. For life in the desert, this is opulence.

O'Connor is on edge. He's told Taylor about his *only-fire-blanks* strategy. She tries not to stare as he ejects the magazine with red tape wrapped around it, swapping it for one with blue tape. She's never asked him about his color coding, but she guesses it's to fake out anyone close enough to notice. He slips the blue magazine in, but he doesn't chamber a round. She's expecting him to glance at her, but he continues scanning the compound, which covers roughly two acres of land. There are side doors in the perimeter wall, some wooden, others made from plate steel. She can see the machinations of his mind. He's thinking about the various exits if things go wrong.

They pull up on the sandy patch in front of the sheik's house. It's a single-story mud-brick building, but there are guards on the roof with AK-47s in hand. They're hiding from the sun. Four wooden beams support a frame holding sticks and branches on the makeshift roof, providing them with scattered shade. O'Connor eyes them with suspicion.

The further the three of them go within the compound, the more she feels as though she's descending into a cave, and the walls are narrowing around her, closing in on her, making it difficult to breathe. Her decision to come here to Libya seemed simple enough when staring out of the narrow windows in her university office back in Wales, watching as rain lashed the glass. Reality is confronting. Guns aren't threatening so much as warning her of the need for protection. This isn't Cardiff. There are no police bobbies able to come to her aid. The AK-47s speak of pushing back against others, threatening to meet violence with more violence. It's a brutal existence that she has escaped in Britain, where civil society demands the rule of law over bloodshed.

Masri kills the engine and climbs out of the Jeep. Taylor follows him. O'Connor steps down onto the sand behind them.

"As-salamu alaykum," Masri says to the sheik, who's standing in the shade on the steps. Masri bows slightly as he speaks.

"Wa 'alaykumu s-salāmu wa-raḥmatu -llāhi wa-barakātuh," the sheik replies, but his eyes are on the professor's pale skin, not Masri. European women are like unicorns in the desert. Taylor's grasp of Arabic is rudimentary, but she recognizes his reply as speaking of peace and mercy. Like her local guide, she bows slightly in acknowledgment.

"Please. Come under the shade of my roof," the sheik says, surprising her with English.

"Thank you," she says, even though he directed his comment at Masri.

They walk into the house. An ornate rug covers most of the mud floor. Cushions have been set around the edge of the carpet. They're cylindrical rather than square, with golden tassels at either end. A slight breeze comes in through the open windows. The sheik sits at the southern end, which is the coolest spot, being furthest from the sun beating down on the mud brick walls. On either side of him, servants wave large flax fans. Their motion is slow, intended to circulate the air as a gentle breeze. Given they must do this for hours on end, it's exhausting work in the stifling heat. Sweat drips from their foreheads.

Taylor stands beside and slightly behind Masri. O'Connor remains in the doorway, standing sideways, eyeing both the main room and the grounds. "Please, take a seat," the sheik says, again averting his eyes from Taylor. The two of them sit on the right side of the sheik, leaving the center of the rug empty. Taylor is careful to allow Masri to sit closest to the sheik.

"The professor has come from afar, my sheik, having crossed *al-Bahr al-Abyad al-Mutawassit*," Masri says, referring to the Mediterranean by its Arabic name, the White Middle Sea. "She is from Cardiff, which is in Wales, a part of Britain."

"And the gun?"

"American."

"Of course he is."

For Taylor, there's an interesting dynamic at play. As she's an unmarried woman, the sheik won't talk to her, but he's happy to converse in English, knowing she can follow the conversation. He could speak to Masri in either Arabic or *Tedega*. In his own way, he's showing that it's custom rather than antagonism toward women that dictates his actions. It's somewhat contradictory, but Taylor appreciates he's being as open as he can with her based on his cultural and religious beliefs.

She whispers, "And the tomb?"

"And the tomb?" Masri asks.

The sheik claps his hands. "First, we drink. We eat. We salt our words."

Three women walk in from the backroom carrying silver platters. Like Taylor, they're dressed modestly. Their *jilbabs* are full-body, being made from a single piece of fabric, but they're plain. They're brown rather than black and have golden tassels like the cushions. The women place identical trays in front of each of them, serving the sheik first.

"My wives," the sheik says with pride.

The wife serving Taylor locks eyes with her. Her dark pupils are piercing. Although there's no way to know for sure what she's thinking, the chiseled expression on her face and

the intensity of her gaze makes it difficult for Taylor to maintain eye contact, but she does. She feels compelled to reach beyond cultural barriers. This woman is screaming at her without making a noise. For this particular wife, a strange British woman imitating the habits of an Arab must be perplexing. The wife looks as though she's a prisoner on death row. She crouches, placing the tray gently on the carpet in front of Taylor, but she lingers slightly longer than the other wives. Her fingers rest on the carpet as she steadies herself, still looking deep into Taylor's eyes. She longs to speak but remains silent. Taylor cannot begin to imagine what life in the desert must be like for a woman raised in the isolation of the Sahara. All this woman has ever known is the burning heat of the day, the bitter cold of the desert at night, the coarse, dry sand and mud walls around her. The woman rises, leaving Taylor to her thoughts.

"We drink," the sheik says, oblivious to the connection Taylor felt with one of his wives. He charges his cup, raising it up with a sense of pride and honor. It's a brass thimble that, to Taylor's mind, is closer to a whisky shot glass than anything else. The three of them knock back a lumpy, off-white liquid. At a guess, it's salted goat's milk, Taylor thinks, struggling to swallow what tastes like brine from the Dead Sea.

"And eat. Eat. Eat!"

"Shukran, yekather khairak," Taylor says, daring to address the sheik directly, thanking him for the meal and wishing the blessings of Allah upon him.

The sheik laughs softly, pointing at her as he addresses Masri in English. "She speaks like the *talib*."

"That she is," Masri says. Taylor knows the Arabic word *talib* means student or one who is still learning. She smiles politely. Her attempt to engage directly with him has been rebuffed. Her Arabic is good enough for the Egyptian markets but not for the desert, it seems.

Taylor picks up a slice of goat's meat from the silver tray. It's well-cooked but tender, curling over her fingers. She has to use two hands so the date paste smeared on top of the meat doesn't drip. The thin strip of goat's meat is salty but delicious.

The sheik asks, "Does she understand the salt?"

Masri leans toward her, saying, "Salt, it is like a blood bond in your culture. Out here in the desert, salt is life. You lose salt through sweat. It is as important as water to the tribe. Without salt, the heart, the kidneys, the liver—they die. It matters not how much water you drink if you have no salt. The body. The muscles. They seize."

"Ah," Taylor says, nodding.

She had heard of the salt covenant before, but she thought it was consigned to history. Regardless of culture, people have always needed to establish trust and form bonds to forge commitments with each other. It's the essence of society, and perhaps it's even more important in a place where society seems to break down due to the brutal, harsh conditions.

For thousands of years, Bedouin tribes have used the act of eating together as a way of unifying intent. For them, it is about establishing trust and opening their hearts. To someone from the West, where paper contracts with seemingly endless, litigious and often indecipherable conditions form the bonds between people, it seems naive. The salt covenant is too simple. There are no terms and conditions. But, she reminds herself, even among that handful of people who do read Western legal documents before signing them or clicking accept, few understand them, and even fewer can contest them. If anything, the simplicity of the salt covenant is refreshing. It speaks of trust over entrapment. It may be overly simple, but it's more practical and relies on reason rather than pedantry to resolve conflicts.

Taylor picks up one of the dates, balancing the salted goat's cheese on it, and eats, appreciating how the sheik is willing to trust her. Up until this point, she thought of trust as a one-way street. She's the one who needs to trust him—and without any motivation. There's no monetary gain for him, no financial incentives, but he's extending his trust, openly declaring that it runs both ways. This is a curious part of Arabic culture and one that surprises her with its simplicity and effectiveness. For all the advances of Western civilization, trust isn't one of them. When trust needs to be codified in contracts, it's clear trust has lost all meaning. The Arabs, though, have retained this important aspect of human relations.

"My life and yours," the sheik says, finally looking at her. He grips each of his forearms, making as though he is shaking hands. "We are one."

Again, Taylor nods but doesn't speak out of respect for his position and a desire to honor the culture of his ancient people. Inwardly, she's stunned by such an offer of protection from the sheik. He knew she was coming here. She sent word ahead of her interest in exploring the region. He's thought carefully about whether to support her or not, even though her outside influence is intrusive and could lead to others coming here, potentially disrupting his way of life. But trust rather than fear dominates his mind. For a patriarchal society steeped in tradition, there's a surprising degree of openness. He could have been defensive. He could have been dismissive. Instead, he's inviting. Taylor is impressed by his attitude toward something he cannot possibly understand. The sheik would have never seen a museum or even a city like Cardiff. He cannot possibly grasp how the West values knowledge, be that of the past or of physics calculations that reveal the future. She may have felt intimidated coming here, but he has resisted the temptation to feel intimidated by her presence or offended because she's a woman. Far from it, he's willing to encourage her expedition.

"And you," the sheik bellows, looking at O'Connor. "American! You must eat with us. You must be salted!"

Reluctantly, O'Connor steps into the room. His eyes dart between Masri and Taylor, looking to discern any subtle intent from their body language. Taylor smiles. O'Connor leans his M4 against the mud wall and picks up a piece of meat from Masri's tray. As he chews, he says, "Wonderful, thank you," but his words lack sincerity. He retreats to the doorway, although, out of respect, he doesn't pick up his M4 again. He leaves it within reach as he looks out at the sandy compound, watching the approach to the sheik's home. The gates are still open.

"And what is it this woman from beyond the great white sea wants with the tomb of the ancients?" he asks, addressing Masri with an inquisitive tone of voice.

Taylor whispers in Masri's ear.

"To protect and preserve, my sheik," Masri says. "She is a scholar. She seeks to understand the past, to honor the ancestors."

The sheik nods. "She comes a long way to a country unlike her own."

"Yes, my sheik."

"To the south lies the cemetery of my people, gathering us together for eternity in the desert. It has stood for as long as *Harat Zuwayyah* and the Sahara itself. It is holy ground. As the sands shift, so does life. Death is to be called to the dunes one last time."

Masri bows slightly at that point, so Taylor copies him, wanting to show respect.

"We rest in the shadow of *Jabal*. Its slopes contain *kuhuuf*, the place of shadows."

"Caves," Masri whispers under his breath, but Taylor recognizes the word.

"Bones lie there. It is sacred. But they are not our bones. Ours lie at the base of the mountain in the yard, fenced against the *abn awaa*."

"Jackals, "Masri whispers.

"These. Those in the hills. They are the bones of another. Those we do not know."

Even though the sheik is speaking English, Masri feels compelled to translate his intent as though she doesn't already understand the sheik's point. "They are from some other culture. Another time." "You fear not that it is *šayțān*?" the sheik asks. "This ancient tomb?"

"We fear not," Masri replies on her behalf.

Taylor nods in agreement.

Three months ago, setting out for Libya seemed like madness. Her father tried to talk her out of the trip, saying it needed to be a proper, fully-funded expedition. He told her to send someone else. She told him she'd go alone to avoid raising suspicions from the overly paranoid and corrupt Libyan government. You're not a man, he told her, which only made her more determined.

Mere hearsay is what her department head said at Oxford. He wanted to withdraw what little funding she had for the expedition, but she'd convinced the chancellor of the university that rumors of *The Blazing Star of the Sahara* were worth investigating.

Crumbling hieroglyphics from *Shaddah* and *Wadi Halfa* along Lake Nubia on the Nile recorded a meteorite striking to the West out in the desert in roughly 5000 BC. Normally, this would be little more than a curious historical footnote were it not for a caravan traveling from the citadel on the mound in *Sabhā* to *Luxor*. The traders left a bewildering account of a sphere that burned in the desert. They described it as being almost liquid, like a drop of water reflecting the desert around it.

Some accounts describe the star as reflecting light like a still pond. Although later accounts were contradictory, the star was said to have been set at rest to guard the tomb of a royal household, but the location was never mentioned. When Taylor heard of the discovery of an Egyptian tomb in southern Libya on the trade route, she couldn't help but wonder if the legend held true and the blazing star lay hidden with these bodies.

Like comets, meteorites have long been seen as harbingers of doom, but they're more instant. Whereas a comet will be visible blazing through the sky for upwards of a month, attracting attention, meteorites strike like lightning. Those that are large enough to reach the ground with force are rare in human history, but when they do strike, they get the attention of locals. For Taylor, this is a unique opportunity to align historical records with an actual astronomical event.

Normally, the remnants of a meteorite are lost. Either they explode high in the air, showering the ground with fragments almost indistinguishable from gravel, or they bury themselves in a crater. That records survived speaking of a silver orb fascinates Taylor. If she can substantiate the legend, *šaytān* would be a museum exhibit to rival the *Innaanganeq* meteorite recovered from Greenland. The local Inuit people in Canada used that particular meteorite as a source of high-quality iron in spears and knives for centuries. Eight fragments were recovered from the Cape York region in Canada, with the largest weighing in at thirty tons.

As with any legend like the *Blazing Star of the Sahara*, folklore arose, ascribing the meteorite as a work of *šaytān*. And, even now, the sheik clings to that notion. Christians aren't the only ones or even the first ones to ascribe evil to something they don't understand. Satan was the angel of light fallen to Earth, so it made sense to invoke him, but this meteorite predates Israelite and Christian writings by thousands of years, making that reference unique.

All the later accounts fail to describe the object as a sphere or as silver in appearance, describing it only as a fire that burned without consuming wood. Taylor takes that to mean these later accounts are part of oral history recounting the astronomical event in the language of the day. They were passed from generation to generation as a warning not to venture into the desert. For her, though, they're data points. They help clarify where she should look.

"Can he show us the cave?" she whispers.

Masri asks him, "Do you have a guide that could lead us to the *kuhuuf*?"

The sheik nods and rises to his feet, bowing to them.

"Yes, me."

It seems he will personally guide them to *šaytān*.

Satan

The drive to the southern tip of *Harat Zuwayyah* is less than four miles, but it takes almost an hour to cross the harsh terrain. The southern tip of the oasis has surrendered to the desert. Sand encroaches on the plain, reaching for the mountains and forming a sea of low-lying dunes. They're smaller than those in the Sahara itself but still steep. The prevailing wind curls along the dark granite mountain range and circles within the valley, allowing the dunes to form. The constantly shifting sand is soft, causing the wheels of their Jeep to sink and slide.

Masri guns the engine as they slip over the edge of a dune on an angle, with the open Jeep threatening to topple. Dust and sand are kicked up by all four wheels, forming a sandstorm around them and spraying behind them for easily twenty feet. Masri turns the steel steering wheel hard to one side, but the Jeep has so little grip it makes no difference. They're on sand, but they might as well be driving on black ice.

The jeep feels as though it's going to tip. O'Connor grabs Taylor by the shoulder, bunching her *jilbab* up in his gloved hand. He's got his pack but not his weapon, ready to jump from the Jeep. He drags her to the high side of the vehicle as it pitches.

O'Connor is up on his feet, with one boot on the edge of the Jeep. Taylor's bewildered. She follows more so because he's in danger of tearing the *jilbab* over her head. Beneath her traditional dress, she's wearing underwear, but it's European and resembles a bikini at best. Taylor's always enjoyed lace bras and streamlined panties, but she's regretting her wardrobe choices in the desert. Something conservative would have been more practical at keeping sand out.

The Jeep tilts. The right rear wheel lifts from the dune. Sand sprays out like water from the tires as the vehicle clears the rim of the mound. Masri is trying to traverse the sharp edge of this particular ridge line, but it simply collapses beneath the weight of the Jeep like a sandcastle crumbling beneath a wave at the beach. Taylor is terrified. One moment, she's rocking with the vehicle as it slips and slides within the ruts. The next, it feels as if she's going to tumble with the Jeep and be crushed by its weight.

O'Connor hauls her up. Before she knows quite what's happening, he hurls her away from the Jeep as it rolls down the slope. He lands on the sand behind her, with his boots sinking into the soft dune. Taylor face plants. Sand sticks to her sweaty cheeks. She turns, watching as the Jeep tumbles down the dune. Somehow, Masri has jumped clear further down the slope. All three of them could have been crushed to death under the quarter-ton steel frame of the Jeep. It might be lightweight compared to modern 4x4s and ideal for the desert, but it would have broken bones and crushed internal organs in a fraction of a second while tumbling.

The Jeep comes to a halt on its side. Dust swirls around the vehicle. Diesel leaks onto the sand.

"Goddamn it," O'Connor says, yelling at Masri and leaving Taylor lying on the dune. He picks up his M4, holding it by its stock, and grabs his backpack, slinging it over one shoulder. "What the hell are you doing, man? Drive around the dunes, not over them."

Masri points at the sheik's Toyota 4x4 ahead of them, pleading, "I was trying to catch up."

Whereas the sheik was working around the base of the dunes, Masri was taking a shortcut over the peaks.

"In one piece," O'Connor says, grabbing his hand and pulling him to his feet. "You're paid to get us to *Harat Zuwayyah* and back in one *fucking* piece. Got it?"

"Got it," a sheepish Masri says.

Taylor gets to her feet.

"I'm fine," she says, being facetious as no one has actually asked after her. She dusts herself off, beating her hands down her *jilbab*. As much as she doesn't want to, she performs a little dance on the side of the dune, trying to dislodge the fine sand that's worked its way under her *jilbab* and into her underwear. "Really, I'm fine. I'm okay."

No one replies.

O'Connor and Masri rush down the dune toward the Jeep. With each step, their boots disappear in the soft sand. The two men work to right the Jeep, grabbing onto its frame and tipping it sideways. The Jeep bounces on its spongy suspension as it rocks back on its wheels.

"What a fucking mess," O'Connor says, looking at the cracked, shattered windshield. The frame around the glass has buckled. O'Connor stands on the front passenger's seat and kicks at the glass, knocking it out of the frame entirely.

The sheik's 4x4 circles back around. It comes to a halt in front of them.

"Are you okay?" the sheik asks the men as Taylor approaches from the slope.

"I'm fine," she replies, not that anyone notices. She shakes her head. In England, she'd read the riot act to any man who treated her with such disdain. Here, though, it's not worth the effort. Besides, the sheik would probably just laugh at her again.

Masri turns over the engine, trying to get it to start. He plays with what she assumes is the choke.

"Don't flood it," O'Connor says, still angry at him. He walks around the side of the vehicle and removes the cap on the fuel tank. Leaking diesel has caused sand to cling to the metal. He dusts the sand away from the cap.

"I have gas," the sheik's driver and personal bodyguard says, but O'Connor has already retrieved the fuel can from the rear of the Jeep, where it's stored beside the spare wheel.

"We're running diesel," O'Connor says. "Masri is running this museum piece on a '66 Cherokee engine."

He pours fuel in as Taylor picks up her backpack from where it's lying on the dune. She opens the top and tips out the sand. Her camera is okay, as it's sealed in a carry box, but her clothes are covered in grit.

"Really, I'm fine. Please, don't fuss over me," she says, trying to inject some humor into how she's been ignored, but the men are too focused on the Jeep to notice her comments. She shrugs her shoulders and tosses her backpack on the rear seat. Taylor tucks a few loose strands of blonde hair back into the *jilbab* wrapped around her face.

The Jeep splutters into life. A black cloud bursts from the exhaust.

"Be careful, my friend," the sheik says from the cab of his 4x4. Sheepishly, Masri nods. They climb back in the Jeep and continue on toward the dark mountains rising above the plain.

Coming down from the dune field, they emerge on flat bedrock almost completely devoid of sand. Nothing grows to the south. There are no trees and not even a hint of weeds or grass. The two vehicles drive through an abandoned village. The walls of the settlement still stand, but the roofs are long gone, having been torn off either by storms or scavengers. Broken walls and fallen houses are now the domain of lizards and snakes, hiding in the shadows from the hawks circling overhead.

Further south, sand encroaches on the land again, but it's shallow, leaving nothing more than ripples on the bedrock. The prevailing winds have shaped this region for tens of thousands, if not millions of years.

The two vehicles drive past an abandoned gas station. A sign saying *Open* swings in the breeze, but it's a lie. The windows have been boarded up. Sand has accumulated on top of the lone pump in the forecourt.

Telephone poles are evenly spaced along a track leading south, but the wires that once linked them have fallen. Black cords droop down the length of several poles. Most of the poles have been stripped. Wire is a precious resource used to bind roofs. In the distance, the southern mountain range rises over the plain.

The cemetery is several acres in size and surrounded by a wall. Desert sand has blown up against the western rim, piling up against the mud bricks. It would be easy enough to walk up and step over the wall at numerous points. As they're approaching from high ground, Taylor can see hundreds of mounds lined up within the compound, each marking a grave. Beyond, a solitary mountain rises from the desert, being separate from the main mountain range that defines *Harat Zuwayyah*. From the 4x4 ahead of them, the sheik points. He yells above the sound of the wind whipping by.

"It is šaytān's kuhuuf!"

Masri says, "This place can only bring—"

"Shut up and drive." O'Connor is still angry about the accident.

Taylor is quiet.

The tension between the two men has been building since she and O'Connor flew into *Kufra* and met Masri at the airport. O'Connor wasn't impressed by Masri's insistence on driving from *Al Jawf* to *Harat Zuwayyah* across the open desert without so much as a compass. Masri may have trusted his instincts, but O'Connor sat there behind him with an old map of the region and a compass, watching each turn in direction. To be fair to Masri, his ability to drive through the sea of dunes was impressive. The trail would disappear for miles on end before reappearing over a rare patch of exposed bedrock. O'Connor, though, didn't breathe easy until the trees marking the oasis came into view. Taylor gets the impression O'Connor doesn't trust anyone he hasn't worked extensively with before.

Dust kicks up from behind the sheik's 4x4, so Masri drives slightly upwind, but this leads them over rough rocks scattered across the plain rather than in the tracks of other vehicles. O'Connor's lips tighten. He's on the verge of saying something to Masri. Taylor feels she has to lighten the mood. She touches O'Connor's arm, mouthing the words, "It's okay." She figures so long as he knows she's not bothered by the rough ride, he'll be content. She notices O'Connor sitting back a little in his seat, relaxing as much as he can, given the way the suspension rocks beneath them.

Taylor may have a Ph.D. in archeology, but she only has a limited knowledge of geology. She's not sure how ancient these granite mountains are, but the erosion suggests their age is measured in hundreds of millions of years. Given that there's so little rain, the rubble piled up on the slopes has accumulated over time periods that dwarf hominids, let alone humans. Shadows stretch from the cliffs. Crags and ridge lines run to the northeast, longing to reach the main range several miles away. Once, these hills would have been linked, but the desert sand whipped up by the wind has eroded all but the hardest granite. Dried-up riverbeds run to the base of the mountain, which must rise easily a thousand feet into the sky. The soil is dark, being set in contrast to the blinding sand of the Sahara.

The sheik leads them around the base of the granite cliffs to the southern rim of the isolated mountain, facing the wastelands that lead to Sudan and Chad. His 4x4 comes to a halt in a gully leading to a steep rocky incline.

"This is it. This is the *kuhuuf*," he says, getting out of his pickup and pointing at the mountain.

"I see it," O'Connor says, climbing over the edge of the Jeep as it comes to a halt beside the 4x4.

"I don't," Taylor says.

"There," Masri says, pointing at a fresh rockslide well over halfway up the mountain.

Among the stones and debris, there's a shadow. It's rough and irregular in shape and easily missed among the confusion of boulders.

"Oh, I see it," Taylor says, opening her pack and pulling out a smaller day-pack with her equipment. She grabs her camera and slings it over her neck, checking the battery life. Taylor grabs a quick picture of the mountain from below and snaps a few images of the surrounding barren plain. After replacing her lens cap, she says, "Okay. Let's go."

To her surprise, the men make way for her, allowing her to lead the team up the hill. It seems there's a tacit agreement among them that this is her area of expertise—not rock climbing as such, but exploring an ancient tomb. The men fall in line behind her, with O'Connor bringing up the rear. The sheik still won't talk to her, but occasionally, when she stops to survey her way over the rubble, he points, indicating what he considers to be the best winding passage up the mountain. Taylor's careful to take his advice when it makes sense, but she's not shy about going her own way when it seems prudent. Her decision-making passes without comment.

No one talks during the ascent. Masri and the sheik's bodyguard are both carrying radios slung over their shoulders. They're old, being roughly the size of a shoebox, but a little slimmer. While they're on the plain, they pick up the local chatter with ease. As the team climbs the mountain, working their way within the crevasses and slopes that have eroded over the centuries, the Arabic words coming over the radios begin to break up. The dense granite is interfering with the signal. Taylor finds the radio chatter annoying. She doesn't know why they're draining their batteries by keeping their radios on. The two men are on different channels, which is confusing as distant conversations come and go, often speaking at cross purposes. It's chaotic. Why does Masri care about the local radio traffic? She keeps her thoughts to herself and continues on up the slope.

The sheik's bodyguard has an AK-47 slung over his shoulder. In contrast, O'Connor is carrying his M4 as though he's ready to shoot someone. The barrel is pointing down at an angle, but the butt is resting lightly against his shoulder. What is he going to fire at? The occasional lizard hiding in the shadows?

Loose gravel slips underfoot. The mountain has eroded in tiers, forming ridges with cliffs and overhangs separating the

layers, stratifying the slope into segments. To move from one to another requires scrambling up the shale and rock to reach firm ground. Rather than heading directly to the cave, Taylor winds her way up the mountain. The men follow in single file behind her, rarely taking their eyes off their boots as they trudge on through the rocks.

Further up, the rough side of the mountain is clear of debris, making it easier to climb. Taylor stops on a narrow strip of granite that forms a low cliff. She takes photos of the view, capturing the truck and the Jeep hundreds of feet below them. The sun has passed its zenith and is slipping toward the horizon, but there are still several hours of daylight.

Taylor unscrews a bottle of water and takes a sip. She offers some to the sheik, who waves it away. The look in his eyes, though, is one of regret. Taylor raises the bottle a second time. Without saying anything, he takes it from her, offering her a slight nod before he pours rather than drinks from the bottle, not allowing his lips to touch the rim. Water dribbles down his beard. He hands the bottle back, and Taylor offers it to the others further along the line. The sheik's bodyguard shakes his head. Masri and O'Connor pull out their own bottles and drink.

"Not far now," she says, having caught her breath with a little rest.

Taylor takes a few photos of the approach to the cave before making her way along the ledge toward the opening. She leads with her camera, wanting to capture data for review later in case there's something she missed.

The cave is narrow. Debris from further up the slope has shifted and slid downhill, clearing away old rocks from the mouth of the cave while also displacing them and partially blocking the entrance.

Taylor crouches as she steps into the shadows. She takes a moment, allowing her eyes to adjust to the darkness. Scorpions scatter across the ground. Their tails are held high, with stingers ready to strike and their pinchers drawn.

"Wonderful," she mumbles.

Taylor pulls her *jilbab* up to her knees and ties the loose material in a knot. She doesn't want any scorpions finding their way past her boots. The thought of them becoming tangled in her *jilbab* and repeatedly striking her bare legs is terrifying.

The roof of the cave is low. Taylor crouches, moving deeper within the shadows. She reaches into her small daypack and fumbles around, looking for her light. Taylor mounts a battery-powered LED light on her forehead. The band reaches around the *jilbab* wrapped over her head, helping hold it in place as the fabric catches on the rough ceiling. Back home, she uses this light while fishing at night in the local estuary.

Taylor dons a pair of disposable plastic gloves. They're tight. They're sterile, being the kind used by surgeons. Even though this tomb has stood for thousands of years, there's a danger the oils in her skin could cause anything she touches to deteriorate. Technically speaking, she should be wearing a mask as well, as even breathing can affect ancient artifacts. In this instance, though, the cave is shallow, extending no more than forty feet from the entrance, and has been open to the elements for at least a few years. Given the short period of time she'll be exploring its recesses, her breath isn't likely to cause any issues. The gloves, though, are important. Microbial investigations of ancient remains can reveal astonishing insights like the existence of pollen or yeast, so it's important to avoid cross-contamination from her. It wouldn't do for someone in a laboratory to sample a linen cloth from thousands of years ago only to find trace amounts of Chanel No. 5 hand moisturizer on an ancient artifact simply because she was careless.

The account she heard in England about this cave came from Ali Mustafa, a university student from Sudan who visited the region several years ago. She met with him and talked at length about his experience. His recollection of hieroglyphics on clay tablets is what piqued her interest in a preliminary expedition. Finding hieroglyphs hundreds of miles from the Nile and so far from the Mediterranean coast is unheard of in Egyptian archeology. He'd made a rough pencil rubbing of a few of the symbols, which allowed her to date the tomb before the building of the Great Pyramids, setting it firmly in antiquity.

The sheik enters the cave behind her, followed by his bodyguard, then Masri, and finally, O'Connor. He, though, remains crouched in the entrance, blocking the natural light. He stares out at the blinding light of the desert, ignoring them.

Further in, the cave opens up, allowing them to stand.

Smoke drifts through the air, confusing Taylor. She sniffs, unsure of her senses, and turns to see the bodyguard holding a lit torch. Flames lick at a tar-soaked cloth wrapped around a branch. Light flickers around them.

"No, no, no," she says, but the bodyguard looks confused. "You have to put that out. You'll contaminate the site."

The sheik addresses his bodyguard, saying, "Do as she says."

Reluctantly, the bodyguard crouches and rolls the burning embers in the sand, snuffing out the torch.

"I have another light," she says, rummaging through her daypack.

Taylor sets a small camping LED lamp on a rock, throwing out ambient light for the others. Radios squawk. Words are spoken in Arabic, but the sentences are clipped and broken by interference from the rock. The bodyguard talks to someone, speaking softly, no doubt updating them on the location of the sheik. Whether his message gets through or not is difficult to tell as the reply is garbled.

"You see?" the sheik says, talking directly to her for the first time. Taylor is already standing in front of one of three bodies on a raised bed of rocks that line one side of the cave floor. She can see the mummified corpses quite well with her headlamp, but she appreciates that he's softening to her. Taylor switches her camera to video mode and kneels in the dirt. With one hand, she scans the camera down the length of the first body. Bones protrude from the aging linen strips.

"I'm seeing signs of natron salt, straw and sawdust," she says, lifting a thin strip of linen with a pair of tweezers. Taylor examines the lower rib cage and stomach of the first mummy. She's speaking for the video rather than those present. "Burial rites are consistent with the Early Dynastic Kingdom. The internal organs have been removed, wrapped and reinserted within the chest cavity."

The three bodies have been laid end-to-end within the cave, lined up against the wall. She moves to the second body and lays out a tape measure beside the corpse, leaving it in place as she stands back to take in the whole length of the mummy.

"Ah, this one appears to be a child. I make its height at a hundred and two centimeters or about three and a half feet."

She retrieves the tape measure and kneels on the rocky ground of the cave.

"The child has been interred with a doll resting on their chest. The straw body of the doll has disintegrated, leaving a fine coating of dust on the bandages."

Taylor maneuvers herself so as to take in the clay head of the doll from a number of angles, being sure to guide both the camera lens and the light on her head to pick up as much detail as possible.

"This is *Merimde* in style. Note the narrow forehead on the doll, the lack of any representation of hair, the rounded face, the tightly clustered nostrils appearing as little more than holes and the thin slit used for a mouth. Based on what I've seen in Cairo, this is *pre-Maadi* and definitely *pre-Naqada*. That places it in the early half of the fourth millennium BCE or Before the Common Era, which is consistent with the records of *The Blazing Star of the Sahara*."

Using the tweezers, she peers beneath the bandages, looking at the way the internal organs have been preserved and allowing the camera to catch glimpses of tightly bound packages.

"This is a wealthy family," she says, moving on to the last body. "There's no golden jewelry, but that could have been stolen over the centuries. I am seeing clay pots and tablets. There's a polished stone necklace, suggesting this final mummy was a woman. This is a naturally formed burial chamber for a family. Given the lack of any obvious injuries, such as those sustained in battle and the concurrent timing of these deaths, they probably died from an outbreak of disease. There may have been other fatalities, but only the wealthy family was interred and mummified."

The sheik nods. He stands well back, staying out of her way. Although he wouldn't admit as much, he's clearly impressed by Taylor's expertise.

"My initial survey recommendation is for follow-up with a professional recovery team. There's much we could learn about early *Merimde* culture from such a well-preserved site."

For Taylor, there are a number of perplexing details about the grave.

She says, "This cave would have been equally as difficult to reach thousands of years ago. The trade caravan must have camped in the valley for upwards of two to three months to properly prepare the dead for the afterlife. It's interesting that they chose not to take the bodies back to *Luxor* or *Wadi Halfa*, depending on where they originated. It's an arduous journey of hundreds of miles, but they were undertaking the overland route anyway. Perhaps they were on the outbound journey to *N'Djamena* and didn't want to turn back. Burying the family here must have been significant to them."

As she scans dozens of clay pots and tablets neatly arranged on shelves carved into the rock, she continues her analysis.

"Normally, a family of nobility would be laid to rest in a generational tomb on the Nile. Then there's the layout. Considerable effort was made to conform to the customs of the day and the mummification process, but the bodies were laid out in a line, from head to toe, instead of side by side. The child was placed in the middle, separating the parents."

Taylor understands that seemingly trivial details like these can reveal attitudes and cultural aspects long lost to history.

"For thousands of years, the Sahara has hidden these secrets among the rocks. Were it not for the landslide, this cave could have remained hidden for thousands of years to come."

In her mind's eye, Taylor can already see herself returning to *Harat Zuwayyah* next year with a full team of archeologists to properly document and retrieve artifacts. Exploring a grave that's over seven thousand years old is a career highlight for her. Getting formal permission from the government will take some wrangling with the British Foreign Office as well as the Libyan Embassy, but the video she's collecting will demonstrate that this site is worth the effort. She'll need to apply for easily a dozen permits from the Libyan federal government, which is crazy when this site predates any notion of Libya at all by thousands of years. If anything, this should fall under Egyptian authority, given the cultural nature of the site, but that will never happen.

Taylor recognizes the tablet Ali made a rubbing of nestled against the wall beyond the bodies. She's impressed by his restraint not to disturb the grave or remove the tablet. He clearly recognized the significance of the hieroglyphics. Several other professors he approached dismissed the idea of ancient Egyptian remains being found in southern Libya. Taylor can't wait to compare notes with him when she returns. He thought these were from the Middle Kingdom around 1500 BCE or perhaps the reign of *Mentuhotep*, but they're easily twice as old as that again. Taylor will give Ali full credit for the discovery as these are the oldest Egyptian remains found outside of the Nile and hint at a vast network of trade occurring far earlier than previously thought. The history books will be rewritten by this discovery.

She recognizes several inscriptions that talk about *The Blazing Star of the Sahara*, but she needs more time to decipher the exact meaning. Taylor adjusts the F-stop on her camera and takes several photos of the tablet.

"And *šaytān*?" the sheik asks, peering into the rear of the cave where the rocky ceiling lowers to waist height.

"Satan?"

Taylor turns. Her headlamp sweeps over the rocks and boulders, unsure what the sheik is talking about.

"Your light. You must be blind to see."

His choice of words isn't exactly inspiring. Being blind is not what she wants to hear, but she accepts the sheik has something more he wants to show her. It could be that there are glow worms or some other phosphorescent insects he wants her to see once her light is turned off.

Taylor reaches up and twists the knob on the side of her headlamp. Darkness descends. As O'Connor is standing in the opening, casting a long shadow through the cave, the only other light comes from the portable camp light she set up back by the entrance. Long shadows stretch around her.

Taylor blinks, unsure of what she's looking at. A red glow highlights the rocks at the back of the cave. Eyes pierce the darkness. The sheik steps back.

"It is as they said," he mumbles, clutching his hands in front of him. "The darkness reveals *šaytān*."

Taylor feels her heart race. Her rational mind says there's no such thing as Satan or the occult. And yet, here she is, face to face with something that has been sealed in this tomb for thousands of years. The hair on the back of her neck rises. Her fingers tingle. She steps forward with her gloved hand out in front of her, guiding her.

Two glowing red eyes stare past her at the shadowy form of the bodies lying in the tomb, watching over them. Her student Ali must have been using a flashlight and missed these haunting eyes.

Taylor wants to turn her light back on, but she resists the temptation. Washing out the view with a brilliant white light might make her feel better, but she needs to understand this phenomenon, not fear it. Her breathing quickens. What could have survived in here for thousands of years? She peers at the small screen on the back of her camera. It's recording the glowing eyes, but the image is grainy.

She edges forward, shuffling with her boots, pushing loose stones to one side in the dust. The cave narrows. Taylor crouches, feeling the jagged ceiling touching the *jilbab* wrapped over her hair, protecting her head. Darkness surrounds her. The eyes glow, pulsating.

Taylor reaches out with her free hand. Her fingers stretch toward the eyes, feeling for them in the dark. Her gloved fingertips touch a clay mask. She's gentle, probing the edges of the mask, feeling the shape of the nose, cheeks and mouth. She rests her camera on the rocks, pointing it roughly in the right direction, hoping it continues to catch the scene unfolding before her. With her other hand, she reaches up and turns on her headlamp, leaving the mask in place while wanting to get a good look at it.

Rough-hewn rocks have been pushed into a slope, hiding the back of the cave with rubble. The mask has been carefully wedged in place. Several hieroglyphic tablets have been positioned on either side of it, describing a curse and warning robbers to flee.

Being a natural formation, the cave isn't straight. Its jagged interior is crooked, with the rear curving to one side. No one would even see these glowing red eyes until they reached the final mummified body.

Taylor kneels before a full-size, adult *Merimde* death mask. It has been propped up with rocks holding it in place. Normally, this kind of mask would be cast from the deceased and placed over the bandages on the mummified head. Taylor didn't think anything of their absence from the three bodies, given how far the family was from the Nile. Not every expertise would be available within a trade caravan. As it is, she was surprised by the extent of the effort that went into the mummification of the family.

She swings her camera up in front of her and snaps photos from a number of angles. Behind her, the sheik positions himself so he can see what she's doing.

He asks her, "Why would *šaytān* be set to watch over these dead? What ill have they done in life?"

Taylor says, "They probably didn't think of it in those terms back then. But the glow. Where is that coming from?"

The sheik is intensely curious, coming around beside her.

"Here, hold this," she says, handing him the camera and leaving it recording.

Carefully, she removes the tablets and then a few of the rocks. Using her gloved hands, she holds the mask in place while pulling away stones, stacking them beside her on the floor of the cave. The mask is similar to the head of the doll on the young child. It lacks any personal attributes. It hasn't been molded or shaped after the deceased, even though it should have been.

Gripping the edge of the mask with both hands, Taylor pulls it away to reveal a glowing red line a quarter of an inch in height and easily three feet in length, disappearing beneath the rubble on either side. A silver orb reflects the light from her helmet like a distorted mirror.

"What the?"

Taylor's heart races. She places the mask on the floor of the cave, propping it up against the wall, and grabs her camera from the sheik. She double-checks that it's recording in high definition. The quality is a little lower than the 16K photos she's been taking of the bodies, but she needs to capture this as an event rather than an image.

"Is this it?" she asks with a tremor in her voice. "Is this the meteorite? How can it be? After all this time, is this *The Blazing Star of the Sahara*? The legends... are they true?"

Holding the camera in one hand, she dusts the top of the sphere with her other hand, allowing the silvery metal to catch the light and glisten like a star. With a soft touch, she knocks away the rocks resting in front of the sphere, revealing a perfectly smooth surface. The red ring running around the waist of the sphere has been tilted, being set at an angle of roughly sixty degrees by whoever placed the device here, but it clearly divides the artifact into two sections. "Ah, the orb is big. It's considerably larger than a basketball, a beach ball," she says. "Perhaps by two or three times. I make it at almost a meter in diameter."

Taylor struggles to make any other comparison. She's in awe of what she's uncovered. The artifact is pristine. Apart from the dust, it looks as though it was manufactured yesterday. The smooth silver surface is polished and free from any scratches, even though it's been encased in rocks.

"I—I don't know... How is this possible? After thousands of years? Seven thousand years?"

A firm hand rests on her shoulder, snapping her out of her thoughts.

"I hate to tell you this, doc," a gravelly voice says from behind her. She turns, looking up at O'Connor, who says, "We've got company. And not the kind you invite over for tea."

Haram

"Wait," Taylor says as O'Connor takes her by the arm and leads her back to the entrance of the cave. For her part, Taylor is in a daze. She's dumbfounded by what she's just seen in the darkness. It's a contradiction. It makes no sense. She offers no resistance, still trying to decipher what she saw at the back of the cave. O'Connor squeezes past Masri. Radios crackle, echoing softly off the rocks.

Taylor mumbles, "You don't understand."

"No, *you* don't understand," O'Connor says, staying in the shadows and pointing out at the desert. "We need to get the hell out of here and fast!"

"What? No. This is possibly the most significant find in all of history, eclipsing even the Rosetta Stone. We're talking about—"

O'Connor points at the desert. The sunlight outside the cave is insanely bright, causing her to squint. A buggy screams over one of the distant dunes out in the Sahara. The sound of its engine echoes off the hills. Its wheels clear the edge of the dune, kicking up a wall of sand behind it. Like something out of a Mad Max film, a soldier stands on the rear of the vehicle, mounting a heavy caliber machine gun fixed to the roll bars of the buggy. Wide, fat tires grip the sand.

A flag waves in the breeze behind the gunner, being mounted on a flexible pole reaching up over twenty feet. Such flags aren't uncommon in the desert. Being highly visible, they act as warnings for other vehicles, allowing two 4x4s approaching the same dune from either side to see each other while they're still in the trough of the dune. This flag, though, sends a chill through her. She recognizes it. Black material flaps in the wind. Instead of a skull and crossbones, the heart of the flag is dominated by a large white circle with Arabic writing. Originally, this was the ISIS flag, but since the fall of the Caliphate, it has been adopted by *Boko Haram*, a radical terrorist group whose name roughly translates to mean *Western society and education is forbidden*. Several more buggies mount the dunes, appearing and disappearing from sight.

Bursts of black diesel reveal a convoy of trucks following the buggies. They take a less direct route, working their way around the dunes.

"I don't understand," Taylor says. "*Boko Haram* operates in Chad and Sudan, hundreds of miles south of us. What are they doing here?"

O'Connor isn't looking at her or the convoy closing on the northern region of *Harat Zuwayyah*. He's staring back into the cave, peering past the sheik and his bodyguard, Ahmed.

Absentmindedly, O'Connor says, "They're after a high-value target."

"Who?"

"You."

"Me?"

"A white woman. Blue eyes. Blonde hair. A doctor. A professor. An educated woman," he says, but he's ignoring her, looking back into the shadows of the cave, which frustrates her. O'Connor says, "Do you have any idea how much mileage they'll get out of capturing you? The global media circus will go nuts."

"But... but how? How did they know I was here?"

O'Connor continues to ignore her. He's distracted. He looks back at the dunes. As one, the convoy turns by roughly thirty degrees, heading straight for the base of the mountain. As it was, they were going to pass by to the north, but now they're roaring over the sand and bedrock toward them. Dust billows behind the convoy.

"That scrawny bastard," O'Connor says, pulling a Swiss army knife from his belt and flicking out the main blade, which is barely four inches in length. He pushes past the sheik and his bodyguard, rushing toward the back of the cave.

"What? What are you going to do?" Taylor calls out, feeling more upset by the sudden appearance of a thin,

chrome-plated blade than a bunch of terrorists rushing toward them. It's the uncertainty she has that's set in contrast with his absolute conviction.

Masri is standing near the child's body. The camp light resting on the boulder casts shadows from his lanky frame across the rear of the cave.

"How much did they offer you?" O'Connor asks, grabbing Masri by the throat and shoving him against the cave wall. Masri drops the radio. His hands grab at O'Connor's hand, but he can't pry the American's fingers loose. "How much?"

"Not—money," Masri replies with eyes that go wide, exposing the whites and appearing to glow within the cave. "*Allāhu* '*akbar, almawt lilgharb*. Death to the West!"

Taylor steps up beside the two men, desperately trying to understand the dynamic at play and figure out what's going to happen next.

"Well," O'Connor says. "You were right about death."

He plunges the blade of his seemingly innocuous Swiss army knife into Masri's neck. As O'Connor has him by the throat, he's able to expose the main carotid artery under the man's jaw. O'Connor's strike is precise, sinking into the hilt of the knife. As he withdraws the blade, blood sprays from the side of Masri's neck. O'Connor releases him. Masri slumps to the rocks, grabbing at his throat, choking and gasping for breath.

Taylor feels physically sick. It's all she can do not to curl forward and vomit onto the rocks. Masri locks eyes with her, but there's no remorse, no regret, only bitterness and blood seeping beneath his fingers as he holds his throat. O'Connor cleans his knife on his shirt before putting it away. He, too, shows no emotion. Within seconds, a pool of dark blood spreads out from Masri's body, soaking into the sand. His eyes fade. His body trembles and then goes limp.

Taylor is manic. Shock reverberates through every fiber of her being. Tremors rush through the muscles in her arms and legs. Her fingers shake as though she were caught in a snowstorm. Not only has she seen a man brutally killed in front of her, but there was no hesitation, no discussion, no debate, no consideration of any other option. And Masri's death was graphic. Blood sprayed over one of the mummies, soaking into the aging linen bandages, desecrating an archeological site that has remained pristine for thousands of years.

"I—I—I."

"We need to get the *fuck* out of here," O'Connor says, growling like an animal.

The sheik stands beside them without a hint of emotion on his face either. For him, this is justice. His bodyguard draws back on the bolt of his AK-47, chambering a round.

The radio, lying in the dust on the floor of the cave, crackles with Arabic words asking for Masri and talking about buying carpet, which must have been the code phrase they used for the operation. When there's no response, they repeat their question, but the tone is subdued, knowing silence means the death of their spy.

O'Connor and the sheik stand in the entrance, pointing at the vehicles racing over the bedrock. The sound of engines screaming in anger echoes off the rocks. The bodyguard leans close, listening to the conversation.

Taylor is still standing in the glow of the camp light, staring at the sullen body. It's difficult for her to reconcile someone being alive and then dead in an instant. That Masri wanted to kidnap her still hasn't sunk in. Beyond the body, the ancient silver orb reflects the carnage around her. The glowing red band seems to pulsate, but that could be an illusion, a hallucination in the moment. Taylor's not sure.

She backs up, not wanting to turn her back on either the orb or the dead body. Feeling the rock wall with her gloved hands, she makes her way past the mummified bodies and back to the others. Sunlight spills in from the opening, telling her when she can turn around and look out at the clear blue sky. "I told you," the sheik says, looking grim. "It is *šaytān's kuhuuf*. No good can come from this cave."

He follows his bodyguard, creeping outside the cave and crouching out of sight behind a nearby boulder.

O'Connor has propped his M4 up on one of the rocks by the entrance to the cave, keeping it stable as he stares at the terrorists circling their vehicles in the gully.

"I don't like this," he mumbles. "There's a helluva lot of them, and only two of us with rifles."

"What's going to happen?"

No sooner have those words left her lips than she feels stupid. What a dumb question. They've come here to take them captive—dead or alive.

"What do you think about the distance?" O'Connor asks Taylor, ignoring her comment. He peers through the scope on his M4 while keeping his other eye shut. "I make that to be about four hundred yards. We've got low humidity. No wind. Firing from an elevated position, so there will be limited fall due to gravity. Should be a nice, straight, flat shot."

"I, um," Taylor says, looking at the way the convoy has pulled up next to their Jeep. There are two trucks, three dune buggies and several motorcycles, but only one of the buggies has a machine gun mounted on top. The soldiers ransack their gear, scattering their supplies on the sand. One of the men holds up some of her clothing. Another holds up one of her bras, laughing at the fine material and waving it about like a flag. An elderly man dumps O'Connor's pack on the ground. He jokes with the others as spare magazines and grenades scatter across the sand.

"Cover your ears," O'Connor says with a voice that sounds way too calm.

"What?" she says, only now noticing he's inserted dayglow orange plugs in his ears.

"Cup your hands over your ears," he says, still not looking at her. He's got the M4 pressed hard against the boulder in front of him while he's leaning against the cave wall, keeping himself as still as possible. His breathing slows.

Taylor clamps her palms over her ears and presses hard, blocking out the subtle echoes within the cave. The world seems to shrink around her.

O'Connor takes his time. His brow narrows. His nostrils flare. His finger slips within the trigger guard. He squeezes the thin sliver of steel with meticulous care. Even though she's expecting it, the resounding explosion that erupts from the M4 causes her to flinch.

Boom!

A shell casing flies from the breach. A fraction of a second later, the soldier standing on the back of the buggy with the heavy machine gun crumples. The barrel of the gun points at the sky as he sinks to the floor of the vehicle. Blood runs across the rear deck of the buggy.

Boko Haram soldiers scramble for cover, but they don't seem to realize where the shot has come from. The echo bounces off the mountains. O'Connor shifts his aim, taking his time as the terrorists scramble around like ants in the distance.

Ahmed starts firing his AK-47. Dust kicks up where his shots land. Bodies fall. O'Connor, though, is patient, lining up his next shot with care.

Boom!

Taylor can't see who O'Connor fired at as people are running everywhere within the broad gully, seeking cover behind boulders and vehicles. Several of those on motorcycles roar away from the mountain, racing out across the bedrock.

He missed.

No, he didn't. A body slumps from the passenger's side of the lead truck, falling face-first on the sand. Blood seeps out onto the rocks.

From behind vehicles and boulders, soldiers fire up at the mountain, but from the direction they're facing, they're firing wide. They don't know where those shots came from.

"Time to go."

"What? No," Taylor says, gesturing to the back of the cave. "You don't understand. That thing is not of this world."

"And if we stay here, we won't be of this world either. I'm sorry, doc. We cannot afford to get cornered in this cave. At the moment, we've got confusion down there. Once they coordinate, we're fucked."

He grabs her by the shoulder and pulls her with him through the entrance of the cave and out into the sunlight. As much as she doesn't want to leave, she doesn't resist. She knows he's right. The light outside is bright. Bullets crack and whiz around her, causing her to grimace and duck even though, intellectually, she knows it's pointless to react. Anything she can hear has already sailed past high and wide. Taylor knows she'll probably never hear the shot that hits her as anything more than a dull echo off the distant hills. The *whizz* and *cracks* she hears are near misses.

O'Conner pushes her ahead of him along the rocky ridge. The sheik leads the way. He's got a radio and is yelling into it as though that will help with the transmission. Ahmed brings up the rear. He faces backward, darting between rocks and boulders and firing sporadically at the soldiers below.

O'Connor brings her to a halt behind a boulder and points at the next cover some thirty yards away, where there's a flat expanse forming an overhang. From the angle, they won't be visible from below, at least for a while.

"Listen," he says. "Learn the difference between our fire and theirs. Ours is closer and louder. Their's echos. When you hear Ahmed fire two shots, run. While he's firing, they're taking cover. Understand?"

He looks back at Ahmed, who's lying prone on the rocky path with his AK-47 pointing down at the barren plain. O'Connor nods and calls out, "Twenty-eight and sixteen."

Taylor rushes over the loose rocks as Ahmed fires into the gully. Her boots slip. Gravel tumbles down the slope beneath

her. At one point, she's on all fours, scrambling for the distant ledge. Bullets strike the rocks around her, kicking up dust.

Taylor has her hands up, protecting her head on instinct, even though it makes no difference to a round that's on target. Instinct is all she has to rely on, even if it is futile. She's terrified. The sheer volume of sound echoing around her is overwhelming. It's intimidating. In those fractions of a second between shots being fired, silence descends, only to be drowned out by thunder breaking overhead a moment later. It is as though everyone in the world is shooting at her. She feels exposed. Helpless. She wants to curl up and hide behind a rock, but O'Connor's outstretched arm pushes her on, grabbing her shoulder and shoving her forward faster than she feels capable of running. Her boots stumble on the rocks.

On reaching the ledge, O'Connor pushes her flat on the stones. He turns and aims his M4 over the edge and fires, giving Ahmed and the sheik cover so they can run to join them. Taylor watches from the lip of the flat stone. No one drops, but she notices fuel leaking from the rear of one of the trucks. He's shot at the fuel tank. She doubts it was out of any desire to make it explode as diesel isn't flammable. Epic explosions are the domain of fancy movies, not real life, but by crippling their means of escape, O'Connor's getting those soldiers to doubt themselves. At some point, they're going to have to disengage—with or without any of them as hostages or trophies, bodies to be displayed before the cameras. Taylor can see what O'Connor's trying to do. He wants them to reassess their ability to flee without being caught.

Even if the sheik can't raise anyone on the radio, the sheer amount of nearby gunfire has to be ringing alarm bells for the men of *Harat Zuwayyah*. They won't take kindly to *Boko Haram* attacking their oasis unprovoked, and even less so once they realize the sheik is in the crosshairs.

"Twenty-six and thirteen," O'Connor calls out without any explanation.

Down below in the gully, someone mounts the heavy caliber machine gun on the back of the dune buggy and begins firing at Ahmed as he rushes along the track toward them. There's a distinct change in not only the frequency of gunfire but the resounding boom echoing across the plain.

Ka-chunk, ka-chunk, ka-chunk.

Whereas before, bullets kicked up puffs of dust on the hillside, now boulders crack and break open around them, showering them with rock fragments. Thunder seems to rumble through the clear blue sky. The gods themselves are screaming in anger.

The sheik slides in beside Taylor. He's out of breath. His face is covered in grit.

O'Connor returns fire as Ahmed runs toward them with his head low and his body crouched. Puffs of dust explode around him. O'Connor fires off six or seven rounds aimed at the machine gunner on the buggy. As the gunner is in the open, he's an easier target than the four of them on the mountainside. One of O'Connor's shots finds its mark, and the soldier spins, falling from the back of the vehicle onto the sand. There are still dozens of men scattered along the gully firing up at them. Several of them have begun trying to flank the team, rushing up the mountain, wanting to get to the same level as them.

The echoes around Taylor are chaotic, confusing and deafening. It's as though a wasp's nest has fallen, and hundreds of angry hornets have taken to the air.

Ahmed dives the last few feet, skidding on the pebbles as bullets ping off the rocks around him.

"You okay? You good?" O'Connor asks.

Ahmed offers a thumbs up and grins with missing teeth.

O'Connor says, "I make eighteen and thirteen."

"Thirteen and eighteen," Ahmed replies, reversing the numbers. It's only then that Taylor realizes the two men are keeping track of each other's ammo.

The sheik is sitting slumped against the rocks at the back of the ledge with blood dripping from his left shoulder. He's talking into the radio. The raised antenna sways as he struggles to hold the heavy, military-grade radio to his ear. Ahmed rushes to his aid, staying low and scrambling on all fours as bullets continue to strike the rocks above them.

"Are you good?" O'Connor asks, crouching as he approaches the sheik. "Good to go?"

The sheik nods, but the blood soaking through his clothing suggests otherwise.

O'Connor kneels in front of him, saying, "It's not going to take much to send these guys running. Their main gunner is dead. I clipped at least one of the commanders in the truck and punctured the fuel tank. All they need is a good scare, and they'll flee back to Sudan."

Ahmed fires his AK-47, but he's firing along the ridge rather than down into the gully. Several of the terrorists have reached the ledge. They're still several hundred yards away, but they're using the boulders and rocks for cover as they move toward the cave and then toward the four of them on the granite outcrop.

Ahmed yells after each shot, counting down his ammo. "Twelve... Eleven... Ten."

"My men," the sheik says, struggling to speak. "They come."

"We need to keep moving," O'Connor says, pulling the sheik to his feet. "If we can get over the top of the ridge, we'll be out of sight and facing north. I can't see them shifting their attack to the other side of the mountain, not with your men inbound."

He props the aging man up. O'Connor signals with his hand, gesturing for Taylor to creep over.

"Take him."

"Me?" Taylor replies, looking at the sheik, who must come in close to twice her weight.

"Unless you want to fire the M4?"

"No, no," Taylor says, draping the sheik's arm over her shoulder. He drops the radio. She pauses, wondering if she should crouch and pick it up. Before she can react, O'Connor grabs it and slings it over his shoulder.

"See that rocky outcrop?" he says, pointing up the slope at an angle. "That's the main ridge. Make it over that, and you're safe."

"Done," she says, determined to play her role in getting them out of danger. Taylor may not be able to fire a rifle accurately. She may be uncomfortable around violence, but she's nothing if not stubborn. She hoists the sheik's arm high over her shoulder, grabs his waist with the other hand and lifts, taking at least some of his weight as she begins scrambling across the rocks.

Going uphill, even at a slight angle, is exhausting. Rocks shift beneath her boots with each step, threatening to topple her and send her tumbling down the mountain. Her right ankle twists within her boot, but she refuses to fall. Within twenty yards, her lungs are burning, her heart is beating out of her chest, and her thigh muscles feel like jelly, but she drives herself on. The sheik's feet drag on the rocks. He's struggling to stay conscious, forcing her to take more and more of his weight. Sweat runs from her forehead, stinging her eyes. Bullets crack around her. Rocks break. Clouds of dust erupt from the mountainside, but all she can see is the crest of the ridge.

Taylor wants to stop and rest, but there are no boulders to provide cover. And Taylor knows her limits. Once she stops, she won't be able to start again. It won't be a question of will but rather the failing endurance of her body. She forces herself to take the next step, watching the fall of her boots on the rocks. Taylor can barely breathe. No matter how hard she tries, she can't draw in enough oxygen. Her muscles scream at her, demanding she stop, but she drives her thighs on. Her calf muscles feel as though lead weights have been attached to them, dragging them down.

Blood seeps through her *jilbab*, sticking to her skin. It's warm. The sheik is losing a lot of blood, too much blood. He moans, mumbling in Arabic about stopping.

"Laa," she replies in Arabic, offering a firm no. She follows up with every possible term she can remember for absolutely not. *"Balash... mostaHeel... Insha'allah... estiHala... mish mowafeqah... fi al-meshmesh..."*

The sheik laughs at the way she brutalizes her pronunciation of the Arabic language. That last phrase is something she learned about harvesting apricots in Egypt. He's the one that's supposed to be delirious, not her, but hearing her speak, fumbling through her limited Arabic phrases, gives him strength. He pushes off the rocks with more vigor.

Taylor loses sight of where she's going. She can't raise her head to look for the ridge. With the sheik's arm and shoulder weighing down on her back, it's too much effort. All she can see is the rhythmic fall of her boots beneath the folds of her *jilbab*. It's all she can do to ignore the crack and boom of gunfire behind her and keep moving.

She's waiting for the inevitable, dreading a bullet cutting through her leg muscles or torso like the blade of a sword. Her mind is shutting down under the stress. Her thoughts fade. Instinct drives her on. She finds a rhythm to her footfall, allowing her to lose herself in the motion and continue pushing on. Her steps seem robotic.

Rocks shift beneath her, slipping away from her boots and causing her to stumble. Taylor's on the verge of tumbling forward, but falling forward makes no sense. The mountainside opens out behind and below her, not in front of her. But her orientation has changed, confusing her. It's only then that she realizes she can no longer step up. Every step in front of her is a step down. Without being aware of it, she has crossed the main ridge. Her legs give way, and she collapses to the loose rubble with the sheik falling beside her. The two of them slip and slide for a few feet, disappearing beyond the ridge. Rubble rolls down the northern side of the mountain.

In the valley below, she can see the rectangular walls of the cemetery to the north, along with the abandoned village with dozens of mud walls devoid of roofs. A dust cloud is being kicked up by at least a dozen vehicles racing over the bedrock. The sheik's men are rushing to their aid. Taylor waves with her arms high above her head, not that anyone would spot her without binoculars.

"We did it," the relieved sheik says, lying back on the rocks under the blazing sun. "We made it... You... You are *qawiun*... You are strong."

Taylor isn't so sure. She feels blank. Empty. Exhausted. Her mind can barely process the fact they're safe. Physically, mentally and emotionally, she's spent.

Seconds later, O'Connor appears beside them, quickly followed by Ahmed skidding to a halt on the loose rocks. O'Connor is pumped. He's brimming with energy. Sweat mats down his hair. Dust and dirt mars his face, but he's grinning. He squeezes her shoulder, congratulating her. She nods but can offer no words in reply.

"Two and zero," O'Connor says to the sheik's bodyguard.

Ahmed replies, "Zero and two."

O'Connor pops his head back over the ridge, resting his M4 on the rocks and fires twice.

"Zero and zero," Ahmed says.

"Zero and zero," O'Connor replies, sliding back beside them. He pops the magazine out of his M4 and looks at the bare spring loader. He shakes his head. "Should have carried my pack up the mountain."

"You couldn't have known," Taylor says, leaning forward with her elbows resting on her knees. Her mind is rebooting. A sense of relief washes over her.

"Goddamn it, Masri," O'Connor says, striking the rocks beside him with the butt of his M4.

Down below to the north, the vehicles rushing to their aid split, circling the mountain from both sides. It'll take those going east an extra ten minutes to engage, but when they do, they'll trap the *Boko Haram* fighters in a pincer movement. Those going west pull up by the base of the fallen shale and rocks on the edge of the mountain and begin firing at the raiding party. Whereas O'Connor and Ahmed were strategic, conserving their ammo, the sheik's men unleash hell. They're going for the shock factor. They burn through their rounds as though they were fireworks on the Fourth of July, with several of the men firing on full automatic. From where she is, Taylor can't see the troops they're shooting at, and she doubts the accuracy, but the goal is to repel the attack and force *Boko Haram* to retreat.

O'Connor climbs back to the ridge and peers through the scope of his M4. Taylor crawls up next to him.

"They're running," he says. "Pulling back."

"Al-Hamdu lillāh," the sheik says. "Praise be to God."

The gunfire subsides as the sheik's men drive the terrorists into the dunes of the Sahara. The villagers follow in their 4x4s but quickly circle back to the gully. Whereas before, the southern region of the oasis was barren, now there are dozens of vehicles crisscrossing the plain. Dust clouds follow them across the sand.

"Let's get you down from here," O'Connor says to the sheik. He and Ahmed carry the sheik between them. They cross the ridge and retrace their steps down the slope as several of the sheik's men scramble up the mountainside to help. O'Connor and Ahmed have their rifles slung over their backs with the barrels pointing in the air.

Taylor follows behind them, watching her footing as the loose gravel shifts with each step. If anything, going down is even more difficult than charging up the slope. She's not out of breath, but her leg muscles ache. Her calf muscles tremble. She holds her hands out to steady herself and avoid falling.

They reach the overhang, where they sheltered from the heavy caliber machine gun. Although the men continue on without pausing, Taylor can't. Her life almost ended on this narrow ledge. It seemed bigger when she was lying prone on the rocks. Blood soaks into the dirt where the sheik sat against the slope. Brass cartridges litter the ground. Several of the boulders behind her have clean holes in them. To the untrained eye, it's as though someone drilled into them with a masonry bit. She sweeps aside the dust, examining a crushed metal round embedded in the rock, knowing it will remain there for centuries to come.

Rather than heading along the terraced layer toward the cave, O'Connor leads Ahmed and the sheik down toward the gully, walking on an angle.

Taylor points at the cave, saying, "I'm going to-"

"It is *šaytān*," the sheik says. "It will only bring misery."

"It's important," Taylor replies, unsure how else she can explain the strange artifact to the old man. She feels conflicted. Their lives are more important than any archeological find, at least to them personally, and yet she can't abandon the glowing silver orb at the back of that dark cave. She can't risk it falling into the hands of *Boko Haram*.

For thousands of years, it has lain beneath the rubble, silently watching over an Egyptian tomb, waiting to be discovered. Had this artifact been found even a century ago, no one would have known what it was. Confusion would have reigned within the archeological community. Most would have considered it fake. Humanity wouldn't have had either the tools or the intellect to decipher the artifact. The advent of the jet age and the cultural phenomenon of UFOs and Roswell would have focused attention on the possibility that this artifact might have had an extraterrestrial origin. Oh, how the artifact would have changed the debate back then. And she wonders, is humanity ready for it now? Are humans ready to accept that they're not alone in the universe?

"Leave it," the bodyguard says.

Leave it?

She can't.

The scientist in her demands she examine it and explore the possibilities. If she's right, if this is the fabled *Blazing Star of the Sahara* that burned without consuming wood, if this really is the result of some extraterrestrial intelligence seeking to explore Earth, then the world needs to know. Taylor finds strength where before she was ready to collapse. She heads along the rocky path toward the cave. O'Connor turns his back on her and continues helping the wounded man down the mountainside. The contrast between them could not be more stark.

The Singing Sands

Wood crackles in the campfire. Sparks rise into the night, drifting with the wind and lighting up the dunes that surround them. Shadows dance across a nearby rock formation. The cracked granite is a stark contrast to the smooth curves of the sand.

"Who knew the desert could be so damn cold," Taylor says, crouching close to the flames. She holds out her hands, warming her fingers.

"Everyone," O'Connor says, sitting opposite her on the other side of the trough between the forty-foot-high dunes. "Literally every nomadic Arab knows that."

"Okay, wise guy," Taylor says, shaking her head. She folds her legs in front of her, tucking her feet under her thighs for warmth.

"It is crazy," he says, cleaning his M4. O'Connor has laid out a sheet of canvas on the sand and has disassembled his gun, laying the parts in front of him. He has a small bristle brush and scrubs each of the parts as he talks. "No trees. No buildings. No humidity to trap the heat. And you think it's cold now? Wait until around four in the morning."

"Does it snow in the Sahara?" Taylor asks, shivering and feeling as though it's a very real possibility.

"Yes," O'Connor says quite enthusiastically. "I've seen snow in Algeria."

Behind her, the dune groans. For Taylor, it's an unnerving sound. She always thought the desert would be quiet as there are no birds or insects, but the dunes hum with a low buzz. And it's irregular, reverberating around them. Sometimes, it feels as if someone's mumbling in her ear. The rumble is alienesque—like nothing she's ever heard anywhere else on Earth. It sounds and feels unnatural, but it's entirely normal. As the desert cools, the dunes contract, sending tiny landslides of sand rolling into the troughs at the base between dunes. At times, it sounds like water cascading over a waterfall. Other times, it's as though someone is blowing over the lip of a Coke bottle, generating a hum. Intermittent rattles fall like footsteps, making her think someone's creeping down toward them.

Taylor turns, looking up the slope into the darkness.

"Alghina' ramal," O'Connor says. "The Arabs call it the singing sand."

Behind her, to her right, it sounds as though someone has a reed of grass perched between their lips and is blowing softly. Taylor fights the urge to turn and look, knowing O'Connor, sitting opposite her, can see the empty dune behind her. There could be a swarm of bees back there, perhaps buzzing within a hive, but she knows there's nothing but sand.

"And we're safe here, right?" Taylor asks, chewing on a date bar. "Safe from *Boko Haram*?"

O'Connor points north with his cleaning brush. "We're about fifty miles south of the main route between *Al-Jawf* and *Harat Zuwayyah*. The dunes here are larger, making the going slower. If they're looking for us, they're looking up there, where speed plays a factor. They're going to assume we want to flee as fast as we can."

"And we don't?"

"No. Never do what your enemy expects," O'Connor replies, returning to cleaning his gun. "They're going to run a dragnet through *Al-Jawf*. They'll be watching the road north to *Jalu*. They'll have soldiers at the airport in *Kufra*."

"So what are we going to do?" Taylor asks, realizing they're almost a thousand miles from Cairo.

"We go south."

"South?"

"We exit Africa through Sudan."

"Sudan?" Taylor says with utter disbelief. "That's where they wanted to take me!"

"Exactly. It's the last place on Earth *anyone* is going to be looking for you."

"But... but..."

"We'll refuel at the gas station in *At Tallib*, south of *Al-Jawf*. Then we'll hit the desert. There are airports at *Al Ghaban, Kawa* and *Wadi Halfa*."

"But they're on the Nile! They're at least five hundred miles east of here!"

"Yep, they are," is all O'Connor offers in reply.

Taylor leans forward, resting her head in her hands as the desperation of the moment sinks in. Yesterday, she flew into *Kufra* just outside of *Al-Jawf* in a single-engine prop plane that threatened to drop out of the sky. The thought of being so close to an airport and yet unable to fly out of the region is frustrating, but she knows he's right. Desert Arabs like the sheik differ from those in the cities, where money holds more sway than honor.

"We'll be fine," O'Connor says. "But we need to be smart. We need to avoid towns and villages. We can't leave a trail."

Taylor nods.

"Is it worth it?" O'Connor asks, pointing at the back of the Jeep.

Without hesitation, Taylor says, "Yes."

"What the hell is it?" O'Connor asks. "You don't believe all that stuff the sheik was saying, right? Calling it *šaytān*."

"No," Taylor says. "But he is right to think it's not of this world."

"What is it? Can you show me?"

Taylor gets to her feet.

"Sure."

Up until this point, she hasn't given a second thought to the artifact. Since the ambush, her focus has been on survival. She assumed O'Connor had seen the device, but he never strayed from the cave entrance for more than a few minutes. After the firefight, on returning to the cave alone, Taylor stripped Masri's body of his *thobe*, a traditional ankle-length Arab robe. Although these are normally white, Masri's was a light brown, probably to hide dirt and stains, making it more practical. Bloodstains from his severed neck artery had soaked into the shoulder, leaving dark blotches in the material. Taylor wrapped the artifact in the *thobe* as though it were a sack, slung it over her shoulder, and carried it down the mountainside. Dragging the sheik over the ridge was easier than carrying the artifact. She had to stop several times to rest. Being roughly three feet in diameter, it was bulky as well as heavy. Setting it down with ease rather than dropping it to the rocks took considerable restraint on her part. Her muscles pleaded with her just to drag the dumb thing down the slope, but her academic professionalism demanded she treat the artifact with care.

Down in the gully, the focus was on the sheik. Although there are no hospitals within several hundred miles of *Harat Zuwayyah*, the nomadic Arabs have an effective desert aid program. Dozens of makeshift emergency centers are scattered throughout the region. They rely on ambulances that look like something from the 1930s, but they're stocked with modern medical supplies. Within an hour, one of the aging vehicles with a rounded roof and exaggerated wheel arches pulled up in the gully. The rear doors were opened. The sheik was laid gently on a trolley with an oxygen mask over his mouth and nose.

Taylor dumped the *thobe* in the back of the Jeep, bunching the cloth over the artifact and turned her attention to the sheik. Since then, she and O'Connor have been on the move. She's so exhausted that she's barely given the artifact any more thought.

Taylor grabs the *thobe*, bunching it in her hands and hauling it up. The damn thing is insanely heavy. It's all she can do to drag it over the side of the Jeep and prevent it from pulling her down to the sand. The artifact swings into her leg, still hidden from sight by the thick material. O'Connor watches her with interest. He could offer to help with the weight, but she can see there's a sense of awe in his eyes anticipation. He's reassembled his M4. He lays it to one side as Taylor approaches the campfire. She swings the artifact as she walks, keeping it in line with her right leg, and then slowly lowers it onto the sheet O'Connor used to clean his gun. Once it's resting on the cloth and sinking slightly into the sand beneath the thick material, she lets go of the *thobe*. Taylor unwraps the artifact with respect rather than care.

Flames reflect off the polished chrome surface.

"Can I?" he asks, reaching out with his fingers.

"Sure."

"It's warm," he says, lightly touching the smooth surface and letting his fingers run over the curve. For Taylor, it's interesting to observe the way he reacts to the device. Given he's normally so assertive and confident, there are doubts in his mind. He runs his fingers down to the thin rim running around the waist of the sphere. The alien device is leaning at an angle but still glowing in a soft red color.

"What is it?"

Taylor drops to her haunches and leans over the spherical mirrored surface, taking a good look at the artifact.

"Perfect," she replies. "And after almost seven thousand years, that's impossible."

"What do you mean?"

"Look at it. That surface is as smooth as a billiard ball. It's perfectly round—like a gigantic ball-bearing. And there are no scratches. After all of these years, the surface should be rusted and pitted."

O'Connor pulls his hand away, reacting as though he's been stung by a surge of electricity. "You really think..."

"This is *The Blazing Star of the Sahara*," Taylor says. "I'm sure of it. It *fell* to Earth long before the pyramids were built."

"And it's alien?"

Taylor nods.

"And the light?" O'Connor asks, pointing at the narrow band running around the silver orb.

"It's been glowing for thousands of years, I guess."

"How is that possible? What could do that?"

"There are radioactive elements that can provide a steady stream of particles for thousands of years. We use plutonium on our space probes because it has a half-life of about ninety years, meaning it's only lost half its strength in a century."

"But this?"

"I dunno. Physics isn't my jam. Ah, uranium has a half-life that's measured in billions of years, so there are elements that could easily power this thing for a few thousand years."

"What does it do?" O'Connor asks, leaning in and examining the narrow trench circling the orb, looking for any clues. There's a small hole at the top of the artifact, set at ninety degrees to the band around the middle. It's as though the artifact is a mirror image of a moon or planet, with an equator and poles.

"That," Taylor says. "That is the question. We've found an alien artifact. It's been here on Earth for thousands of years, but why? Where did it come from? Who sent it? And what's its purpose? Why has it been lying dormant in the desert all this time? What is it waiting for?"

O'Connor laughs. He sits back, leaning into the dune. Sand runs around his elbows.

"Alien. We've found a goddamn alien machine!"

"Yep," Taylor says, dropping onto her ass beside the fire. Like him, she leans back on the dune, not only to get comfortable but to see the artifact in the light of the flickering flames. The mirrored surface distorts and reflects the dark night around them, capturing the fire, the dunes and the stars above, forming a surreal view of reality.

"Well, shit," O'Connor says, packing up his cleaning equipment. "This changes things, huh?"

"It changes everything," Taylor says. "We need to get this out of Africa and into the hands of scientists." "And you think *Boko Haram* is going to let that happen?" O'Connor asks. "Hell, if they hate you, imagine what they'd do if they got their hands on this thing."

"They'd destroy it."

"And leave no evidence it was ever here. Not a trace."

"We have to get it out of here," Taylor says, feeling her heart race.

"We're safe for now," O'Connor says. "We're only a few miles from *At Tallib*. Tomorrow, we'll refuel and then head for the Nile." He stows his equipment in his pack. "For now, you need to get some sleep."

"I'm not tired."

"You're so tired you don't even know it," he says, sticking two thin, extendable poles in the sand about eight feet apart. O'Connor unfurls a flimsy nylon sheet between them, using ropes and pegs to secure the sheet, forming a makeshift tent. A stiff wind will knock over the lean-to, but Taylor doesn't complain. O'Connor buries the far end of the sheet into the dune, securing it with a few more camping pegs. Taylor leaves the artifact lying on the *thobe*, reflecting not only the flames of the fire but the stars above it. O'Connor stretches out a canvas sheet beneath the nylon shelter, using it as a ground mat.

Reluctantly, Taylor rolls out her sleeping bag on the slope beneath the nylon sheet. O'Connor lays his M4 on its own mat beside his sleeping bag, keeping it within reach while also keeping it off the sand. After saying goodnight, he turns away from her and the flicker of the fire. Within minutes, he's snoring softly.

Over time, the fire dies down. Wood glows rather than burns, smoldering as the cold of night descends. Taylor lies there staring at the alien artifact, looking at the way it reflects the night around it, hiding its secrets within. Above them, the stars are brilliant, shining like diamonds scattered across the sky. The clarity with which they glisten is like nothing she's ever seen before. There's no moon. The black of night seems to stretch into eternity. And the stars.

For the first time in her life, the stars are alive.

Flatbread and Dates

Taylor wakes to sweat running down her forehead. She squints, blinded by the bright sunlight reflecting off the dune opposite her. The lean-to is still in the shade, but the lower side of it has collapsed, obscuring the Jeep from view.

"What time is it?" she asks, working her arms out of her sleeping bag. Last night, she pulled the drawstring close around her neck to avoid sand and grit, along with any prickly desert creatures seeking warmth for the night. It takes a bit of squirming before she gets her arms free. Taylor wriggles out of her sleeping bag and onto the ground mat. A light scattering of sand sits on the canvas, having rolled in off the dune. Taylor's aware that desert vipers and scorpions are attracted to heat at night. She's cautious. They may not have made it inside her sleeping bag, but they could be beneath her pack or sheltering under the edge of the ground mat.

She sits up, ruffling her hair. She grabs a swig of water to wash away her dry mouth and looks around. O'Connor's pack is lying next to hers. The fire is long dead and partially swamped by the shifting sand.

As they camped in the trough between dunes, their campsite has been in the shadows for most of the morning. The sun has only just cleared the ridge, which is what woke her, but that means it must be at least ten or eleven in the morning. O'Connor was right. She needed sleep—a lot of sleep. And now, she needs to pee.

"Damn, it's hot," she says to O'Connor, keeping her back to the gully, being polite but not really wanting to engage in any kind of discussion before she's relieved herself. Being English, decorum demands good manners. O'Connor doesn't reply. The nylon lean-to has shifted with the sand overnight, with the far side having slid down, blocking her view of the rest of the camp. She can hear O'Connor moving around the Jeep. He's probably rustling up something for breakfast and didn't hear her mumbling. Or perhaps he's also being polite and giving her some time to prepare for the day. She puts on her *jilbab*, securing her hair behind the material and wrapping it around her head. As much as she'd rather wear Western clothing, the *jilbab* is practical in the desert, and she needs to fit in with the locals, at least as seen from a distance.

Taylor turns her back to the fallen nylon sheet and O'Connor beyond it. Her motion is subtle, but she's sure he'll take the hint and give her some space. She never was a morning person. Coffee. Damn, she needs some coffee. At the moment, she'd settle for a caffeine hit from a mouth full of instant coffee granules if she could. Coffee was the one thing she forgot to bring with her, and as each day passes, she regrets that inattention more and more.

She shakes each of her boots upside down, checking for creepy crawlies before slipping her feet into them. Taylor does up the laces and grabs some paper napkins she liberated from the Business Class lounge in Athens for use as toilet paper. Quietly, she creeps away from the camp, heading up toward the rocks exposed by the dunes. She's not fooling anyone. O'Connor is probably grinning, watching her from behind, knowing she's answering the call of nature. He's polite, though, not saying anything.

Once Taylor's relieved herself behind a boulder, she watches as a lizard hunts insects among the dark rocks. Where there are lizards, there are snakes. That's the crazy thing about the desert. Scarcity is the only constant. And the scarcity of food and water means the predator-prey lifecycle is particularly narrow and vicious. If that lizard is hunting insects, something else is hunting him, either a snake or a hawk.

Taylor stands and pulls her underpants up beneath her *jilbab*. Before she steps forward, she notices the sand beside her shift in a surprisingly smooth manner. Normally, sand cascades in waves. Here, though, it moves in a sideways ripple. It takes her eyes a few seconds to spot the horned viper approaching the lizard. Its camouflage is so effective that she can only see it when it's in motion. As soon as it stops, it seems to disappear into the sand. It's as though it sinks out of

sight. Her heart races at the realization the viper was less than two feet away from her as she crouched behind the boulder, but it only ever had eyes for the lizard.

Taylor watches with morbid fascination as the snake edges closer to the rocks where the lizard is busy devouring a fly. The viper withdraws its head, arching it in close to its body as its tail coils into its chest. Taylor blinks, and the snake has the lizard. The speed with which it struck is unnerving. She edges her way past the snake as its jaws crunch on the lizard, slowly devouring the still-quivering legs and tail.

She reaches out, touching the boulders on either side of the narrow ravine as she makes her way back to camp. Her eyes are on her boots, looking for any other vipers or scorpions that might have taken up residence among the rocks.

"You are not going to believe what I just—"

Taylor stops mid-sentence. It's only now that she's looking back at the camp that she can see the entire trough opening out between the dunes. The crumpled lean-to sits to one side, with part of the dune having shifted, pulling it down the hill. Two packs sit near the blackened logs of the fire, which are partially covered in the shifting sand. But it's what's missing that grabs her attention. The artifact and the Jeep.

"No," she says, running forward past the camp to the point where tire tracks mark the departure of the Jeep. Taylor runs her hands up through her hair, mumbling, "No, no, no, no, no. This cannot be happening."

Sand shifts beneath her boots. She turns, looking around at the campsite, struggling to comprehend not only what has happened but the implications for her. O'Connor has fled with the alien artifact, abandoning her in the middle of the scorching desert.

"That bastard!"

She stomps her feet and screams, clenching her fists and leaning forward, facing the harsh Sahara sand. Her nails dig into her palms. But she heard him just moments ago. Taylor doubts herself. She heard O'Connor moving around the camp when she first woke. Damn it, she thinks, the goddamn singing sands. What she heard was the shifting dunes. Fuck! Panic seizes her mind. A sense of impending doom settles upon her. She feels as helpless as a newborn babe.

"Okay, think, Susan. Think. What now? Gather your thoughts, woman. Compose yourself. Breathe."

She closes her eyes for a moment, squeezes her eyelids shut, and takes in a deep breath. It doesn't help. It should, but it fails to quell the anxiety welling up within her.

"Okay. You can do this," she says, followed by an exasperated, "Do what exactly?"

She sighs.

"They're out there looking for me—all of them—looking for a pale-skinned, blonde, blue-eyed woman. I stand out like a goddamn rainbow unicorn here in the Sahara. The first person that sees me—the very *first* person—if there's a bounty on my head, they're turning me over to *Boko Haram*. Fuck. Fuck. Fuck!"

Taylor storms back to the lean-to, which has continued to collapse as the sand shifts under the blazing sun. Rather than forming a rectangle, it's slumped into a triangle. She sits in what little shade there is and drags the two packs over next to her.

"All right," she says, composing herself. "He took his gun or rifle or whatever the hell that thing is, but he left his pack. Why did he leave his backpack? Perhaps he forgot it. Maybe he thought it was still wedged in behind the driver's seat."

As O'Connor's pack is on the far side of the lean-to next to her backpack, it would be easy to overlook. Taylor rummages through his pack, pulling out items and taking inventory of what she has available to her. There are several magazines with ammunition loaded in them. O'Connor has covered the opening with clear plastic and a rubber band to keep sand and grit out. She lays each of them methodically beside her for no other reason than to clear her thinking.

Taylor pulls out a handgun. She holds it with two fingers, dangling it by the pistol grip, keeping her hand well away from the trigger, and lowers it to the mat beside her as though it were a horned viper, mumbling to herself as she lays it flat on the canvas.

"I guess that's loaded. How do you tell?" She turns the gun around on the mat, pushing it with her fingers as though it were a snake or a knife, looking for any telltale latches or switches, trying to see how it opens. "I guess you just point it, squeeze the trigger, and it fires, right? Is that all there is to one of these things? I mean, it looks easy enough in the movies."

Who is she talking to? No one, and yet talking helps steady her nerves.

Taylor pulls out a fragmentation grenade along with a flash bang that looks like one of the old bug bombs used to fumigate a home. Apart from the big-ass pin at the top, it could be a can of fly spray with the label removed, exposing the silver metal beneath.

"I'm finding a lot of ways to kill myself," she says, placing the grenade carefully beside her. Then she finds a bag of glucose sweets at the bottom of the pack. They're the kind of hard candy she used to get at the beach. They're as hard as rocks but loaded with sugar. She untwists the plastic wrapping and pops one in her mouth.

"Hmm," she says. "He never mentioned these."

In the side pouch, Taylor finds a pair of binoculars that fold together down the middle for ease of storage.

"Ah, finally, something that won't kill me."

She adjusts the spacing of the binoculars, removes the protective caps and stares through them, looking up at the rocks where she relieved herself.

"All right. This is good."

Taking inventory of things is a good distraction for her overactive mind. She feels productive even though she isn't. It's an illusion, and intellectually, she knows that, but emotionally, she needs to feel as though she's making progress.

"Okay. What next? Be practical. Take action. Do something. Anything."

Taylor pulls a tube of sunscreen from her pack and smears it on her face and the back of her hands. If anything, she looks even paler with the cream on her cheeks. She rubs it in, but she's put on a bit too much. Although, in the Sahara, there's probably no such thing as too much sunscreen. She wipes her hands on a dirty shirt in her bag.

While she's putting the sunscreen away, Taylor spots her phone. Before leaving the United Kingdom, her dad insisted she get the latest Starlink satellite phone. It's a modified Android phone with two large, swappable batteries and a twist-up aerial that's roughly a third the size of the phone itself.

She can call her dad. Yes! She can get help!

Taylor's fingers hover over the power button. Rather than having the phone in standby mode, which still drains power, she's had it switched off for the past few days to conserve the battery life. She can call her dad and, and, and... And what?

"Fuck," she mumbles to herself, role-playing a conversation she does not want to have with her father. She stares down at the dead phone in her hand, saying, "Oh, yeah. Hi, dad. It's me... Umm, where am I? I'm about eight hundred miles from nowhere in the middle of the goddamn Sahara... Ah, where exactly? Have you heard of *Al-Jawf*? Neither had I. Well, I'm in the dunes southwest of there near an even more obscure village called *At Tallab*... I mean, this place is literally at the end of the road. From here, there's nothing but desert... Oh, and that security guy? Remember the one you warned me about? Yeah, he fucked off with the Jeep, the water and an alien artifact... You think I'm joking? About him? The water?

Or the artifact? Can you send in the Marines to get me? We have Marines, right? That's not just the Americans."

She sighs.

As tempting as it is to power on the phone and call her father, she knows it's not a solution and would only frustrate both of them with nothing but anxiety. It would take days, possibly upwards of a week, before the British government would swing into action. The Foreign Office would contact the Libyan embassy about a missing archeologist only to be told there's no such person in the country, certainly no one that has obtained an official permit and formally registered with the Libyan government. Having sailed across the Mediterranean from Crete, she and O'Connor entered Libya through the port of Tobruk. Clearing customs was as easy as folding a US\$100 bill inside her passport. There were no computers, no fingerprint scans, no facial recognition, no ink stamps thundering down on one of the blank pages within her passport, and no records entered into a database or even a written ledger. Her passport was simply handed back to her as the crisp, clean greenback was slipped into a sweaty shirt pocket.

Taylor gets up and climbs the dune with the binoculars dangling around her neck. Sand shifts around her boots. With each step up, she slides back almost as far, sinking into the dune up to her ankles. What seemed easy at the bottom of the dune is exhausting as she approaches the rim. At the top, the wind has sculptured a thin blade of sand into a crest. She leans into the slope and rests her elbows on the dune, peering through the binoculars into the distance. Even with her thick *jilbab* on, the sand feels hot, radiating into her forearms.

O'Connor set up their camp on the edge of the dunes. From here, the desert slowly decreases in height. Ahead, a vast plain opens out, exposing bedrock to the harsh sun. Off to one side, she spots a goat herder resting under the meager shade of what looks like a dead tree as several scrawny goats forage on a low hill. Not far from him, the carcass of a camel lies crumpled on the rocky plain. The bones are white. What remains of the hide has stretched tight across the ribs of the poor animal. Its leg bones have been picked clean by carrion birds, probably vultures or hawks.

"Well, that's promising," she mumbles to herself, trying to cling to gallows humor.

In the distance, through the shimmering haze rising off the scorching hot bedrock, Taylor can see a village. That must be *At Tallab*, where O'Connor was going to get fuel. From memory, the road leading north will pass through *Al-Jawf*. She's got to get up there if she's going to escape from the desert. She can't risk traveling during the day, but if she conserves the water in her bottle and travels on foot at night, staying parallel to the road, she could reach the airfield at *Kufra*.

When Taylor flew in, she saw farms to the east drawing water from deep bores drilled beneath the desert. They had circular fields, with crops growing only where their mobile watering arms could reach. That will mean there are workers on the move throughout the day, which, unfortunately, increases the chances of her being spotted. The problem with *Kufra* and *Al-Jawf* is that there are no dunes. It's sandy but flat for miles, meaning there's nowhere to hide. Taylor is going to need to find somewhere close to the airport so she can observe how it operates and figure out how she can smuggle herself on board a flight out of Libya.

She lowers the binoculars. Who is she kidding? She's going to get caught. It's just a question of when and by whom. Even if she could somehow miraculously smuggle herself on board a flight, how would she know where the plane was going? The damn thing could be flying to N'Djamena, the capital of Chad or Khartoum in Sudan as much as Tripoli or Cairo. She might as well be playing blackjack blindfolded in Vegas.

"Fuck."

A truck trundles down the road toward *At Tallab*. In the back, soldiers stand with AK-47s slung over their shoulders. There are only a few of them, but they're holding onto the

back of the cab to catch the breeze kicked up by the motion of the truck itself.

Boko Haram might be the worst of her worries, but they're not the only danger out there. The Libyan army isn't an army in the modern sense of the word. They're more like thugs in uniforms. Then there's the police. If Taylor's caught hiding on a plane, she could be arrested, and Libyan prisons aren't exactly known for their hospitality. She could be beaten, raped or killed—or all three in any order.

Taylor peers back through the binoculars at the trees rising from the desert, examining the mud walls of compounds and the rock walls of date farms. She needs water. She's going to have to creep in there after dark and draw water from a well. But what about dogs? Arabs are known for keeping mongrels to warn against thieves. Her best strategy will be to wait until at least two or three in the morning when, hopefully, even the dogs are lost in a deep sleep.

From beside her, a voice whispers, "What are you looking at?"

Taylor jumps. The binoculars go flying. Sand cascades through the air. She loses her footing and slides down the dune. Before she can stop herself, she tumbles. Her arms flail around as she tries to bring herself to a halt. As Taylor falls, the dune collapses around her, threatening to bury her in the shifting, sliding sand. Taylor ends up half-buried in the hot sand, upside down and spitting dust from her lips.

O'Connor comes running down beside her, bringing the rest of the dune down on top of her.

"Are you okay?" he asks with what seems like genuine concern.

Taylor looks up at him in a fit of rage and anger. She clambers to her feet with sand caught in her *jilbab*, weighing her down. She swings her arms, trying to hit him, but he simply backs up, leaving her swinging at the air and spraying sand from her sleeves.

"What are you doing?" he asks, confused.

"Me?" Taylor yells with blonde hair poking out from around her *jilbab* and sand stuck to the slather of white sunscreen on her forehead. "What am *I* doing? You! What the hell are you doing? You left me. You abandoned me." She stomps her boots. "You stole the artifact."

"The artifact?" he asks, still confused by her misplaced anger. O'Connor points at the fallen side of the lean-to where the dune has collapsed, causing one edge of the nylon sheet to fall to the sand. There, beside the flimsy material, she can see the ruffled *thobe* worn by Masri. Like the lean-to, it's been partially buried, but the twisted end of the garment curls over a circular object hidden from sight. Roughly half of the material is visible above the sand.

He says, "I wasn't sure it should be left out in the sun, so I moved it into the shade."

"Why did you leave me? Why didn't you tell me where you were going?"

Taylor steps forward, pounding her clenched fists on O'Connor's chest, but it's a feeble effort, one no longer driven by anger so much as frustration and resignation.

"I tried," O'Connor says.

"You could have woken me."

"I tried to wake you."

"Why didn't you wake me?"

"I shook your shoulder. You groaned and waved me away."

"You could have left me a note."

"I did," O'Connor says, pointing at a loose bit of white paper that's blown over near the remains of the fire. "I stuck it on top of your backpack, weighing it down with a rock."

"Oh," she says.

"I thought you'd hear the Jeep start," he says in his defense. "I had to leave before the break of dawn, and you were out for the count."

"I was tired," she says, sighing.

O'Connor hugs her. He puts his arms around her and holds her tight, saying, "I would never leave you."

"You promise?" she says, unable to prevent tears from running down her cheeks.

"I promise."

She leans back, breaks the hug and wipes her eyes. Sniffing, she says, "So, where have you been?"

O'Connor laughs at how quickly she's shifting subjects. Even though his face looks scruffy with patches of hair growth after not having shaved in several days, he smiles warmly at her.

"*At Tallab.* I'm sorry I took so long. I had to fake them out. I circled almost twenty miles to the south and over to the east so anyone watching would see me approaching from Sudan, heading into rather than out of Libya."

"Smart," she says, nodding, unable to make eye contact.

"I bought fuel and water and then headed up toward *Al-Jawf* before cutting northwest into the Sahara."

"Away from here," she says, nodding. "Smart."

"Then I circled back. I got back here as soon as I could."

"You did," she says, reaching out and placing a friendly hand in the center of his chest for a moment before letting her fingers fall away from his sweaty shirt. The crumpled hood of the Jeep is visible between the dunes about thirty feet from the camp. Rather than driving it back into the soft sand, O'Connor has parked it on a patch of gravel and bedrock that's been exposed by the wind.

"So," she says, pretending nothing untoward or interesting has happened at all. "What's the plan?"

"Well, I picked up some flatbread and dates for lunch. We'll wait until sunset and then head south into the desert."

Taylor nods. She feels stupid. She panicked. She assumed the worst. She let herself down.

"Hey," he says. "Everything's going to be all right."

Taylor's not so sure.

Sahara

With the sun disappearing below the dunes, casting long shadows over the desert, they break camp. Taylor packs up the lean-to and carries the backpacks over to the Jeep.

On the outside of the antique vehicle, beside either footwell, there's a spade and an ax. They're mounted sideways, just as they were in World War II. From the look of them, they haven't been used since then, as their metal surfaces have been painted drab olive, matching the Jeep. O'Connor grabs the spade and buries the remains of the fire. Taylor moves the passenger's seat so far back that it butts up against the rear seat. She places the artifact still wrapped in the *thobe* in the front footwell. It barely fits. There's no room for her feet, but it's nestled in and won't move. She figures she'll rest her boots on either side or perhaps on the device itself, which she hopes isn't sacrilege to whatever alien culture sent the artifact here.

O'Connor layers strips of duct tape over the headlights of the Jeep, leaving only a tiny slit to allow light to shine on the ground immediately in front of them. Then he walks back down the gully and grabs two freshly chopped trees, dragging them along with him.

"What's with the bushes?" Taylor asks, still standing beside the Jeep. She watches with curiosity as O'Connor ties the two scrawny trees to the rear of the vehicle. They're easily twenty feet long and sprawl out behind the Jeep with their branches twisting on the sand.

"They'll hide our tracks," he says, sweeping his hand along as though it were a broom.

"Ah. Nice."

Taylor hops in the front seat as O'Connor conducts one last walk through the camp to make sure they haven't left anything behind. She doubts it's out of frugality so much as leaving anything that could identify them. While he was in *At Tallab*, O'Connor loaded the Jeep up with gas cans and plastic water containers stacked on the back seat. He's fixed a cargo net over them so they don't topple sideways out of the vehicle. Once the camp is empty, he uses a branch to sweep the sand, hiding their tracks. Given the way the sand shifts down from the dunes, by tomorrow, no one will know they were ever here.

O'Connor uses duct tape to stick a compass to the dash. He taps it, saying, "In the desert, sound carries a long way— especially at night. From here, we'll head straight south until we're well beyond the village. We'll stay in the trough of the dunes to avoid noise leakage and then cut to the east after about twenty miles."

"Okay," Taylor says, nodding, not sure what she can add to his reasoning.

"All right," he says, hopping in the driver's seat and resting his hand on the ignition key. "Are you ready for this?"

"I'm ready," she says, sitting in the passenger's seat and straddling the artifact with her *jilbab*. She finds it comfortable to prop her boots up on the dash and lean back in her seat.

O'Connor puts the Jeep in gear and heads down between the dunes, staying in the trough. The branches drag behind them, obscuring their tire tracks.

"We're driving in an L-shape. It's an evade and escape technique," he says. "We call it a dog's leg. Basically, the shortest route is often the most dangerous, so instead, we take the long way. And hopefully, our change in direction will throw any pursuers off our scent."

"Do you think anyone's going to follow us?"

"I don't know. It depends on whether the villagers in *At Tallab* bought the deception. They'll talk. Everyone talks for a few dinars. If *Boko Haram* are offering hard currency like US dollars, they'll sell us out in a heartbeat."

"But they saw you going the other way."

"Yeah, but how many Americans do you think there are in these parts?"

"So they'll know it was us."

"Oh, they'll know. The question is whether they'll know where we're going. Being this far south already, they'll be confused. But they may think it's a feint to fake them out. They'll assume we refueled in the south as a distraction and then headed north toward the coast."

"Do you think they'll buy it?"

"I wouldn't."

"What would you do?" Taylor asks as dark shadows stretch across the desert. Above them, the sky fades from blue to black, with the setting sun dipping below the horizon. Night falls fast in the desert. The Jeep slips in the soft sand.

"I'd split the search team in two and send them north and south."

"So we're not out of trouble yet."

"Oh, no," he says, pulling a piece of dried camel meat from the bag shoved between their seats. "Want some jerky?"

"No, I'm fine."

As night descends, the stars rise in the clear sky.

For Taylor, the stars of the desert are a delight. She can understand why ancient civilizations were fascinated by them. Before the advent of lighting, oil lamps and bonfires were a poor imitation of the stars. From her apartment in Cardiff, Taylor has a view south over the bay, but the streetlights and cloud cover mean only the brightest of stars are occasionally seen. And they struggle to compete with the golden arches of a McDonald's sign and the bright lights scattered along the motorway. Out here, though, the true majesty of the stars is apparent. Like the granite mountains of Harat Zuwayyah, they're chaotic and untamed. They speak of vast distances and other worlds. The heart of the Milky Way has been burned into the sky. Thousands of light-years from Earth, clouds of dust obscure even the brightest stars, but the tight cluster of lights fights off the darkness. Perhaps if she'd been raised under clear skies, she might have become an astronomer rather than an archeologist.

As they're not following a track, O'Connor has to weave through the dunes. The Jeep slides with the shifting sands, but he's careful not to gun the engine, keeping the noise to a minimum.

Darkness surrounds them. Their headlights are feeble. There's no moon. The only light comes from the stars, and roughly half of them are blocked out by the shadows of the dunes towering over them.

"As we descend onto the bedrock, keep your eyes peeled for boulders," he says. "The last thing we need is a broken axle."

"Will do," Taylor replies, sitting forward in her seat and peering into the distance as they leave the dune field and drive out onto the rocky plain. She positions her boots on either side of the artifact, with one boot resting on the rim of the Jeep. O'Connor drives slowly over the loose rocks. Taylor can see the aging speedometer needle shaking back and forth between ten and thirty miles an hour, leaving her guessing they're doing about twenty.

O'Connor taps the compass, watching as its needle slowly changes direction, indicating they're going east. Radium glows softly on the various points of the compass along with its fine needle.

O'Connor may have put a little too much duct tape over the headlights. Taylor doesn't say anything, and she doesn't want to second-guess him, as if it worries him he could stop and remove some of the tape, but for her, it's terrifying. Rocks and boulders come out of nowhere. As she looks ahead, she sees nothing but darkness, and then suddenly, jagged stones appear in the feeble headlights. O'Connor seems to be able to sense them as he steers rather than swerves at the last moment. They wind their way across the bedrock over the hours.

To their left, there's a soft glow on the horizon, marking the last remnants of civilization for the next five hundred or so miles.

The Jeep rocks back and forth on its aging suspension, causing them to sway as they drive over the rocky ground. The

desert is featureless, nothing more than a vast open expanse. Time and space become immaterial. They could be driving on a treadmill, as it feels as though they're going nowhere. Neither of them speaks much. O'Connor is focused on what little he can see ahead of him. Taylor is lost. She's so far beyond the narrow country lanes and lush hedgerows of Wales that it feels as though she's an alien exploring some other world.

"Oh, and keep an eye out for any gullies," O'Connor says out of nowhere as though he were completing a thought from earlier. "We don't need to be driving into any holes in the ground. They'll appear as little more than dark shadows."

"Everything's a dark shadow," she replies.

O'Connor points to the right, saying, "We've been following that dried-up riverbed for the last half hour now."

"Oh," she replies, not having noticed it until he pointed it out.

"There will be wadis and gullies feeding into the old riverbeds around here. We've just got to—"

O'Connor slams on the brakes and turns hard away from the dried-up riverbed, avoiding a crevasse leading from the plateau into the darkness. He drives inland for a few minutes before descending into a shallow depression and out the other side.

"It's going to be a long drive, isn't it?" Taylor says.

"It'll be easier once we hit the open desert. But, damn, it's tough not following a track. It would be much easier if we could sit our wheels in the ruts worn by others."

"It sure would," Taylor replies, bouncing in her seat.

They drive on. Eventually, the rocky ground gives way to sand flats, allowing them to drive faster. There's a gentle undulation to the desert. Rather than dunes, they're driving over low-lying waves of sand reaching up not more than a few feet but spaced roughly thirty to forty feet apart.

"Welcome to the sea."

"The sea?"

"The Arabs call this *abhur*, the vast expanse of the sea. It means to be surrounded. They also use the term $muh\bar{t}$, meaning to be immersed in the ocean. For them, there was no difference between dry sand and salt water. Both are inhospitable deserts."

"Huh," Taylor says, followed quickly by, "Oh, I think we just lost one of the bushes."

O'Connor brings the Jeep to a halt and backtracks on foot to grab the spindly tree from where it lies on the sand. He ties it behind the Jeep again, securing it with more rope.

"It's important, huh?" Taylor asks.

"Yep," he says as they continue to drive on with only a feeble glow coming from their headlights. "The easiest way to track us is from the air. They'll have spotters with binoculars looking for fresh tire tracks in the sand. The more we can do to hide them, the better."

Taylor nods, taking a sip of water from her bottle. She's tired. Her head nods a few times as she dozes off, but the seats in the Jeep don't have headrests, so the motion of her head jerks her back awake.

"Not too long now," O'Connor says, pointing at a soft glow on the far horizon. "I'm just looking for a riverbed or gully in which we can camp for the day."

The sun lights up the sky long before it peers over the horizon. Reds, pinks, yellows and blues bring joy to the desert. Taylor is fascinated. Dawn is like a Picasso painting being brought to life. When the sun does rise, it's as though there's an explosion in the east. Shadows stretch across the Sahara. Waves of heat wash over them.

"There," O'Connor says, pointing at a low mound ahead. As they drive closer, they descend into a shallow riverbed coming off an elongated hill. They park in the shade of a rocky outcrop. Together, they drape the canvas over the Jeep and stretch the nylon sheet between the vehicle and the rocks, forming a shaded area roughly ten feet wide on the grit and sand scattered over the bedrock. Taylor rolls out her sleeping bag, using it as a mat. While she's preparing to rest, O'Connor has the shovel out and is spreading sand and small rocks on the canvas as well as the hood of the Jeep, wanting to obscure it from view from the air.

Taylor is so tired she can barely think. She takes a sip of water and collapses on top of her sleeping bag, with sweat already forming on her brow in the growing heat of the day. She's asleep within minutes.

Hunted

It's insanely difficult to sleep during the day in the stifling heat and blinding light of the sun. There's no wind. Taylor peers out at the rocky gully, watching as mirages form in the radiant heat. She could swear there's a pool of water not more than a hundred yards away at the bottom of the riverbed. It's cool and blue and inviting. Her mind tells her it's real. It's not, but it takes everything she can do to roll over and ignore the sight. O'Connor is snoring, which is infuriating, but she can't fault him. She's jealous. Taylor spreads her legs apart along with her arms, trying to cool down. She closes her eyes again, knowing it's futile, but somehow, she drifts into a slumber.

Hours pass like seconds. Taylor's sleep is broken by the buzz of a fly. She wakes to the revulsion of the damn thing crawling over her cheek. With a swift motion, she swats her face and misses. Well, she didn't miss her cheek. The fly, though, simply repositions itself to her forehead, forcing her to sit up and wave her arms around like a madman. And just like that, her sleep is over.

The shadows have shifted. Now, they extend from the other side of the gully. It's late afternoon. O'Connor stirs. He peers at her with one eye. She's about to tell him to go back to sleep when she hears a soft drone.

"There's a plane."

O'Connor sits up, rubbing his sweaty hair. "Single engine. It's local."

"They're looking for us."

"They're not going to find us."

A muffled boom resounds through the air. It came from somewhere nearby, perhaps a quarter of a mile away, but no further.

"What was that?" Taylor asks.

O'Connor retrieves the binoculars from his backpack.

The plane's engine grows louder, buzzing like a swarm of angry bees. To her, it sounds as though it's about to fly directly overhead.

A shadow passes over them. Further down the gully, something drops to the rocks. Whatever it is, there's a red ribbon attached, fluttering as it thuds into the dirt. Seconds later, there's an explosion. Taylor watches in horror as a small dust cloud rises within the creek bed.

"What the hell?" she says, feeling manic and getting to her feet. "They've found us!"

She's about to step out from under the nylon shade when O'Connor grabs her by the forearm and pulls her back.

"They haven't found shit," he says. "They're fishing."

"Fishing?"

"It's an old Arab trick from the First World War."

"What?"

"Back then, the British were trying to take the Congo while the Germans were in Burundi. The Krauts paid Arabs to fly their biplanes low over native settlements, dropping bombs in gullies and riverbeds. They weren't trying to hit anyone. They were trying to smoke them out. If anyone broke cover, they'd know where they were and would send in ground troops."

"So that's what they're doing here?"

"Yes. Someone's got a box of old grenades and is playing games."

The plane flies on, following the riverbed, crossing it at regular intervals and dropping more grenades.

"There's not a lot of places out here to hide," O'Connor says. "This ain't the jungle. They figure we've got to be close."

"Well, they're right," Taylor says, peering out from beneath the shade at the rear of the plane as it flies into the distance. "This is good news," O'Connor says.

"Why?"

"It means they're going to rule out this area as already being searched. Someone somewhere will be crossing this spot off their map."

"Ah, yes. That is good."

"But it does mean we're being hunted. They must have given up on the northern route. They're shifting their focus south."

"And us?"

"We need to keep moving. The more distance between us and them, the better."

"Agreed."

"As soon as night falls, we'll move out."

O'Connor sits with his back against the rocks, facing the wheel arch of the Jeep. Taylor sits opposite him, with her back against one of the tires. She bunches up her sleeping bag, using it as a cushion.

"What can you tell me about it?" O'Connor asks, nodding toward the thick folds of the *thobe* in the passenger's footwell. There's no reason to hide the artifact anymore. Taylor could unwrap it, but that she doesn't is telling. She doesn't feel comfortable with their discovery. Not yet.

"Ah, I'm not sure what to say," she replies, twisting around and looking at the spherical shape hidden by the bloody material.

"You're a scientist. You must know something."

"Hah," Taylor replies, laughing. "It doesn't work like that."

"Well, how does it work?"

She smiles. His question runs at multiple levels. O'Connor is naturally curious. He's intelligent. Not only has he helped her retrieve the artifact, but he's risked his life to protect both her and it. He deserves answers, even if they're largely speculative.

"Okay," she says, resting her elbows on her knees, which are scrunched up in front of her. "Let's see... What do we know...?"

O'Connor sips water from his canteen, listening intently.

"There's a concept in science—hell, it's science fiction, really—it's an idea. And it might fit. The artifact we found might be what's called a Von Neumann probe. Basically, it's a robot that can clone itself."

"So that thing is like a 3D printer? It can make copies of itself?" he asks, pointing and raising an eyebrow.

"Probably not that thing, but it was made by something that could copy itself."

"I don't understand. Why is that important?"

"Space is big. Insanely big. It's like the Sahara scaled up to a stupendous size. There's a whole lot of nothing out there. Then, occasionally, there's a star and a bunch of planets, but even that's misleading.

"99% of the mass in our solar system is in the Sun, which is crazy when you think about it. Mercury, Venus, Earth, Mars, Jupiter and Saturn and all the rest amount to a mere 1%. The planets are nothing compared to the Sun. And yet the Sun itself is small compared to the sheer distance between stars, let alone the entire galaxy."

"So the sun is like an oasis," O'Connor says, with his brow narrowing. She can see he's not sure where her point is leading, but he's trying to equate it to the desert.

"Kind of," she replies. "The Sun is like *Harat Zuwayyah*. It's a mountain range in the vast desert of space, but not every granite outcrop has an oasis like Earth."

"Ah," he says, nodding.

"So the question arises: if you're an advanced alien race, how do you explore outer space? How do you know where to go? You're looking for somewhere like Earth. Planets like Mars and Venus are interesting, but they're little more than rocks. Gas giants like Jupiter and Saturn are pretty, but what you really want to find is life."

"Okay," he says.

"There are hundreds of billions of stars in the Milky Way alone. And they're widespread, spanning a hundred thousand light-years. You're looking for a needle in a very large haystack, so how do you tackle something like that?"

O'Connor is quiet. Taylor can see he's concentrating on her words.

"You can't go everywhere, but you need to search every nook and cranny."

"So you make robots that can clone themselves," he says, returning to her earlier point.

"Yes. You can't go everywhere, but they can. And they'll spread like bacteria. The time scales are immense but not absurd. Even if they're only traveling at 1% of the speed of light, within half a million years, they will have reached every star in the galaxy."

She shifts on the hard ground, trying to get comfortable as she leans against the Jeep.

"So that's what this thing is?"

"I don't know. Our artifact is a bit small," Taylor says, pointing over her shoulder at the strange device behind her. "It's probably a local probe made by one of these machines. I imagine once one of these self-replicating Von Neumann probes reaches the Oort Cloud or somewhere on the edge of the solar system, it makes a bunch of smaller drones and sends them to each of the planets."

"Ah," O'Connor says, nodding.

"There are probably several of them on Earth and Mars, etc., but this is the first one we've stumbled across."

"So what does it do? That one?" O'Connor asks, pointing at the cloth draped over the alien machine. "I don't know," she replies. "I mean, we use aircraft to drop sonar buoys to monitor whales and submarines, so I guess it's kind of like that. It collects data and sends it back."

"So it's a sonar buoy?"

"Maybe," Taylor says. "I think so. I mean, I don't know. I'm guessing."

O'Connor laughs. "Oh, no. You're not guessing. I guess when betting on craps in Vegas, but not you. You make *educated* guesses. That's very different to me. You'd understand the odds. That's far from a blind guess."

Taylor appreciates his confidence in her. She says, "Whoever built this thing is patient. I mean, we think it's been here for a long time, buried in the desert for thousands of years, but as it is part of a process of galactic exploration that spans the best part of a million years, it's probably designed for extreme longevity. The time it's been here in the Sahara is nothing by comparison."

O'Connor shakes his head. He's got a grin on his face. "Is it listening to us? Like right now?"

"I don't know. Maybe," Taylor replies, shrugging. "It's powered up."

"And that's good?"

"We can learn much more about it as a working device than we could if it was broken."

"But what's it doing?"

Taylor shrugs.

O'Connor points at the nylon sheet above them with sand sprinkled over it, dulling the sunlight that seeps through.

"Are they going to come down here? You know. In a UFO?"

Taylor laughs. She shouldn't. It's a fair question, especially given the cultural infatuation both Americans and the English have with UFOs/UAPs.

Grainy camera photos and blurred, shaky videos have captured the public's imagination for over half a century without turning up a single piece of actual hard evidence, despite the assertions of conspiracy theorists to the contrary, claiming that the US Government has warehouses full of crashed alien spacecraft and decomposing bodies. They seem to forget that the government is lousy at keeping secrets. There are always leaks and whistleblowers. And the insistence on a conspiracy seems at odds with the Pentagon releasing UFO/UAP footage. If that was actual footage of alien spacecraft rather than something legitimately unknown, wouldn't the government want to keep it top secret as part of their sinister global cabal? Taylor has always thought there's life beyond Earth, but she's less than impressed by the overactive imagination of humans trying to conjure up fairies at the bottom of the garden.

"No," she says, shaking her head. "They're not coming down here."

"How do you know that?" he asks.

It's a good question. How can she be so sure of herself?

Taylor's not sure where to begin in response to that. "Well, I..."

O'Connor is sincere. He says, "We've all seen the videos, right?"

Taylor raises her hand, not wanting him to scoot down a rabbit hole. She, too, has seen her share of infrared gun camera footage on YouTube. But it's the leaps of logic that leave her shaking her head in disbelief.

A brilliant white flare turns sideways as it's chased by a fighter jet, and people lose their minds. But unidentified means precisely that—not identified—i.e., not alien. If it were alien, it would be identified. That's an identity. Inevitably, someone will debunk the video, pointing out that automated image stabilization caused the glitch or that the altitude, heading and speed indicators on the video itself can be used to conduct simple trigonometry, proving the jet's circling a balloon. But no one gets excited about boring explanations. No one wants

their UFO/UAP balloon to be popped. They just rush to the next unexplained incident, clinging to it as though it were explained by one thing and one thing alone—aliens.

And yet, here she is, sitting in the desert with an alien artifact.

Has Taylor fooled herself? Is that sphere really alien? Or could it be something else? Or is her situation really that different from those videos? Has she jumped to conclusions just like others have on YouTube? Are her conclusions justified? Or does she feel defensive simply because she's the one making them? How is her response any different from someone claiming this video or that is of an alien spacecraft? But what other explanation could there be for the artifact?

"They're not coming down here," she says in a measured tone of voice.

"Why not?"

"Because they're probably not up there to begin with. Whatever this thing is, it's been sitting in that desert cave for an awfully long time—for thousands of years. Whoever made it is no longer around."

O'Connor picks up on the lingering doubt in the word *whoever*. "Hang on. Whoever? Are you saying it's not alien?"

"I'm saying that's one possibility. It's a distinct possibility. To my mind, it seems like the only possibility, but if there's one thing I've learned in life, it's that I'm easily fooled. We all are. Hell, optical illusions fool us all the time."

"But what else could it be?" O'Connor asks, and Taylor can see that, like her, he's scrambling for a rational answer. Humans like certainty. Black and white is always preferable over grey. And this is the problem, she thinks. When there's a lack of certainty, humans gravitate to either black or white rather than accepting the uncertainty of a dull, lifeless grey. Questions *need* to be answered, even if there aren't any answers just yet. Certainty is a placebo. Certainty provides comfort even if none is to be found. She says, "Roughly a hundred years ago, sponge divers in the Greek Isles found a Roman shipwreck. Now, finding coins and clay pots from two thousand years ago is routine in that part of the world, so even the local museum didn't think too much about the find until someone spotted a set of rusted gears in a metal box among the debris. They looked closer and found thirty different intertwined gears arranged in a precise order.

"What they'd found was the first ever computer. But it wasn't like any computer you or I have ever used. It was an analog computer that could only do one thing: calculate the position of the sun, moon and planets, but it could do that with astonishing precision. Over five hundred years, its calculations would only stray by a single degree."

"Okay," O'Connor says, genuinely intrigued by her example.

"The problem was... this technology, this kind of clockwork precision, wouldn't emerge in Europe for another fifteen hundred years! And even then, our first clocks were child's play by comparison. The Antikythera mechanism was *thousands* of years ahead of its time."

"Ah," O'Connor says, wagging a finger. "Aliens, right?"

"Aliens," Taylor says, grinning. "Yep, there have been plenty of people over the years that have jumped to that conclusion, but the truth is, there were some very smart astronomers back then using good old-fashioned math to understand the universe around them."

"And that's actually more plausible, huh?" O'Connor says.

"Exactly. So this thing in the Jeep—the artifact—it could be another Antikythera mechanism. I mean, it's much, much older, and it seems to be running on its own power, but we don't know that it's been running all that time. We might have accidentally triggered it when we entered the cave."

O'Connor looks a little confused. "So you don't think it's alien?"

"I think there's a distinct possibility it's alien as it matches the description of *The Burning Star of the Sahara* falling to the desert, but I could be wrong. I'm willing to be wrong. As a scientist, I want to learn what's right and not push my own agenda. I have to be willing to change my mind as more information comes to light."

"Well, I think it's alien," O'Connor says, slapping his thighs and getting to his feet. It's only now that Taylor realizes darkness has fallen around them. The brilliance of the sun has been replaced with the muted tones of the early evening.

She joins O'Connor, climbing out from under the nylon sheet. Above them, the first stars of the evening are visible. Venus shines low on the horizon, glowing in the warmth of the setting sun. O'Connor peels back the canvas tarpaulin covering the Jeep and dusts it off as he folds it up.

Taylor helps him pack up camp. As she rolls up the nylon sheet, she says, "Like you, I think it's alien. But I could be wrong."

"Well," he says. "Let's find out if you're right."

Sudan

"Do you think they've given up?" Taylor asks.

"No," O'Connor replies, tightening the straps on the cargo net holding their fuel and water on the back seat of the Jeep.

A warm glow fades on the horizon, marking the setting sun. Shadows grow around them, lengthening and deepening. Stars appear. Night descends.

"Maybe they're dumb," O'Connor says, using the branches to cover their tracks around the makeshift camp. Taylor's already in the front seat of the Jeep so she doesn't inadvertently leave more boot prints in the gully.

"Boko Haram? You think they're dumb?"

"I mean, I hope they're dumb. Flying out here looking for us during the day was dumb."

"Why are they still after us? Why won't they just let us go?"

O'Connor says, "What started out as simply good business has become rather personal for them."

"So what would be smart for them?" she asks as he works around her side of the Jeep, swaying the branches back and forth to disrupt their footprints.

"A night flight. Looking for us during the day might seem like the smart thing to do, but we can camouflage ourselves. At night, though, with an infrared camera like FLIR, we'd be visible for easily ten miles. The terrain out here is so flat they'd pick us up driving on the plateau within minutes. All they have to do is wait for the desert to cool, and we'll stand out like white paint on a black canvas."

"Well, here's hoping they're not that smart."

Before they leave the gully, O'Connor says, "I'm going to lean your seat back so you can get some sleep."

"Oh, no. I'll stay awake with you," Taylor replies, not wanting any special treatment because she's a woman.

"I get it," he says, speaking as though he can read her mind. "You don't want any special treatment because you're a woman."

"Well," she mumbles, not wanting to admit she was just thinking that.

"Listen. You sleep during the night. I'll sleep during the day. That way, there's always one of us awake."

Taylor's not convinced. She's sure he's just being nice. She doesn't want to be a burden. She wants to contribute and not be a freeloader. O'Connor reaches beside her and lowers the seat back at a thirty-degree angle.

He hands her sleeping bag to her, saying, "Besides, good luck getting shut-eye while we're on the move."

"Yeah, I was just wondering about that," she says, laughing.

O'Connor secures the branches at the back of the Jeep, leaving them dragging along the ground, and climbs in the driver's seat. The Jeep starts with a pop and a roar.

"The diesel quality back in *At Tallab* is a little dubious," he says by way of explanation.

They drive out of the gully and up onto the plateau. The incline is steep. Rocks shift beneath the wheels of the Jeep, but its low center of gravity and oversized engine allow it to prevail with a roar from the exhaust. They head east. Slowly, rocks give way to pebbles, grit and sand, allowing O'Connor to drive faster. As it is, though, he leans forward, holding the steering wheel low and watching for indentations and bumpy corrugations in the sand. These are caused by the wind rather than rain and act like thousands of speed bumps lined up in front of each other. Occasionally, the Jeep slides sideways as they descend into a depression where soft sand has accumulated over the centuries. O'Connor guns the engine, and they ride out the other side.

"It's difficult to believe we're on Earth," Taylor says, making small talk under the bright canopy of stars stretching overhead. "It's like another world out here, huh?"

"It's like we're on Mars."

"Minus the spacesuits."

"But not minus the cold," Taylor says, wrapping herself in her sleeping bag. She should climb into it, but she feels it would be too constricting in an emergency, so she unzips it and uses it as a blanket. That, however, allows the wind howling past as they drive through the desert to creep beneath her sleeping bag. She has her boots up by the dash, resting on top of the artifact still wrapped in the *thobe*.

"What do you think their home world looks like?" O'Connor asks, and Taylor notes that they've both returned to the assumption the artifact is alien in origin rather than being the work of some ancient human. To be fair, she can't see it as anything other than alien, either.

"I don't know. I mean, there are a few points we can speculate on."

"So speculate," he says, and she can see he wants to pass the time chatting idly.

"Okay, well, they must have sight."

"Why?"

"Ah, well, they can see the stars. You wouldn't travel to the stars if you couldn't see them and marvel at them, wonder about them."

"Fair point," O'Connor says. "So they're not as blind as a bat."

"Bats aren't blind."

"Wait. What?" he says, laughing and leaning forward on the steering wheel for a moment and stealing a glance sideways at her. "Hang on. This is bigger news than the alien artifact. You're kidding, right? Bats are blind, aren't they? They use sonar and stuff."

Taylor laughs. "Nope. In fact, they can see better than us at night."

"Damn," he says, steering around a few boulders and searching for soft sand. "So all the screeching—"

"Echolocation," Taylor says, correcting him.

"But that's still happening, right? They make noises to find things in the dark."

"Yes, but it's not the only way they find insects. They can see as well as hear them."

"Oh," O'Connor says. "But these aliens?"

"I don't know. Maybe they have echolocation as well. It's impossible to say, but they can't be blind."

"And you know that because..."

"If all they had was echolocation, they'd never have seen the stars and never found the impetus for leaving their world and traveling into space."

"Seems reasonable," O'Connor says as the stars light the way before them.

In the dark of night, being several hundred miles from the nearest city, there's no light pollution. The stars shine with a brilliance seldom seen by modern humans with all their billboards, skyscrapers and city lights. With the masked headlights on the Jeep only illuminating the desert for about twenty yards, the stars have no competition. And they don't twinkle, not like they do back in the United Kingdom. That's another point that fascinates Taylor. The lack of humidity gives the stars stunning clarity. As her eyes have adjusted to the dark, she can make out flickers of color. There are pinks and reds, yellows and cool blues among the fine pin-pricks of white light.

O'Connor points at some of the stars rising over the horizon. "Where do you think they came from?"

"Not there," Taylor replies. She points at a variety of random stars, picking them out as she speaks. "Or there. Or there. Or there."

"So where did they come from if not from there," O'Connor says, playing along with the game and pointing at some other random star.

"Well, that one's Mars," she says, chuckling. "So they definitely didn't come from there."

"What about that one?" he asks, swinging his hand to the other side and pointing up.

"Nope."

O'Connor shakes his head, but he's grinning. Taylor can see he's intensely curious and doesn't want to doubt her, knowing there's clear reasoning behind the point she's making. The bounce over a low dune, forcing him to slow down before speeding up again.

He's playful, saying, "Okay, Professor Dr. Susan Taylor from the University of Wales. I give up. Where did they come from?"

"I don't know," Taylor says, waving her hand in front of her and gesturing at several thousand stars high in the night sky. "But I doubt it was any of these stars."

"Why? How could you possibly know that?"

"I can't, but statistically, it's improbable."

"Improbable, now there's a fancy word. Why is it improbable, professor?"

"Those stars are too close. There are several hundred *billion* stars in our galaxy alone."

"And?"

"And on a night like this, at best, we can see less than ten thousand."

"So?"

"So, everything you can see is less than one percent of the stars in the Milky Way. It's a lot less. I'd have to do the math to be sure, but I think it's several places beyond the decimal point. The stars we can see are a rounding error compared to all of those that are in our galaxy. And don't get me started on the universe as a whole. But as for the stars we can see with our naked eyes, they're like looking at a couple of leaves falling from an oak tree. We're not seeing the whole picture. And we're kidding ourselves if we think we do."

"So you don't think the artifact came from any of these stars?" he asks, waving his hand before him.

"Probably not. It could have come from the other side of the galaxy. The chance that its overseers just happen to be near us is unlikely."

"Why?"

Taylor likes his persistence. "They found Earth. That probe landed here."

"Crash landed," he says, smiling and taking delight in correcting her.

"Crash landed here thousands of years ago. I assume it's broadcasting something, reporting back that it found a planet with life."

"Right. So?"

"So it's been doing that for at least seven thousand years. Most of the stars you can see out there are within about five thousand light years of us. If the artifact came from any of those stars, I'd expect to see a follow-up mission or something similar. Let's say, hypothetically, if it was from a star three and a half thousand light years away from us, then their equivalent of the Apollo missions should be about to arrive on our doorstep."

"But that's not happening."

"No," Taylor replies. "UFOs and UAPs notwithstanding."

"Ah," he says, nodding in agreement. "So the likelihood is it's from far further afield?"

"I think so, but this is something I'm sure NASA and ESA will explore in much more detail."

"It's interesting," O'Connor says. "Really interesting. Here we are, in the middle of the desert, with what's probably the most significant archaeological find in history, and no one knows about it." "Yet," Taylor says.

"Do you think they'll make a movie out of this?"

"Hah," Taylor laughs. "Oh, yeah, because there's nothing more gripping than following a Jeep as it drives over hundreds of miles of open desert at night."

"You've got a point there."

Ahead, dunes loom in the darkness.

"Oh, that doesn't look good," Taylor says.

O'Connor stops the Jeep short of the rising sand. He gets out and spreads an old-fashioned map over the hood of the Jeep. Taylor joins him. He uses a flashlight and checks a GPS unit to confirm their location. The wind ruffles the edges of the map. Taylor holds down the leading side of the map so he can examine it without it blowing away.

"We're here," he says, putting his finger in the middle of nowhere. He aligns the compass with magnetic north, shifting the map beneath it so it represents the lay of the land.

"And where is here?"

"*Al 'Aweinat*," he says. "It's a depression—an ancient lake bed. If we follow the floodplain south, we can avoid the dunes to the east. From there, it's a straight shot across the plateau to the Nile."

"Are we close?" Taylor asks. As soon as the words leave her lips, though, she knows she's being utterly naive.

"About as close as your stars," O'Connor says. "But we're making good time. And we're not lost."

They climb back into the Jeep and head southeast, following a broad, dried-up riverbed. The ride is smooth. O'Connor keeps to the soft sand. Within a few miles, Taylor starts to nod off. She doesn't want to and fights the sensation, but her eyelids are heavy.

O'Connor is kind. "Get some sleep."

And he's right. Sleep will be good for her, and she can return the favor during the day, letting him sleep. Taylor turns sideways in her seat, resting her feet on top of the artifact, and leans back with the sleeping bag wrapped around her. The sway of the Jeep and the constant rattle of the engine have her drifting off to sleep within minutes.

Taylor wakes to the sensation of the Jeep turning sharply as O'Connor drives into a ravine. The sun has risen, but the air is still cool. The azure blue of the sky is surprisingly bright, causing her to squint.

"Good morning," O'Connor says. "Welcome to Sudan."

"How long was I out?"

"About seven hours," he says, bringing the Jeep to a halt beneath a cliff with an overhang. Taylor helps him unload their gear. They cover the Jeep with the canvas tarpaulin so it's not obvious from the air. O'Connor rests the branches they've been dragging behind them on top of the canvas to further hide the shape of the vehicle. The ends of the twigs and various branches have been worn sharp by friction as they were pulled through the desert. Originally, they were over twenty feet in length. Now, they're less than ten feet long and much easier to handle.

Once again, the two of them stretch the lightweight nylon sheet between the Jeep and the cliff, securing it on an angle using climbing spikes nailed into the rock face. It takes almost an hour before they're both sitting in the shade, munching on stale flatbread and dried dates for breakfast.

"Do you know what I haven't done?" Taylor asks him, taking a swig of water from her canteen.

"What?"

"Thanked you."

"Me?"

"You saved my life. You're still saving my life."

"That's my job."

"I'm not sure you're getting paid enough."

"Oh, I charge by the mile," he says, winking.

"How far have we come?"

"Since *Harat Zuwayyah*? I'd have to check the GPS, but I think we've covered three to four hundred miles. *Shaddah* is less than a hundred miles east of here on the Nile."

Taylor smiles. For the first time since the cave, she feels upbeat. They're going to make it.

"And from there, we can fly out of the country?"

"I've been thinking about that," O'Connor says. "Tell me, just how well do you think your little toy is going to fare going through an X-ray machine or whatever the hell they use as a security scanner these days?"

"Oh, no."

"Oh, yeah. And it's not just a question of: will it be safe? What do you think some underpaid, brain-dead, muscle-bound customs agent is going to make of your artifact? Do you really think they're going to let you take that thing on an international flight?"

"No," she replies, feeling a wave of anxiety rise within her. "What are we going to do?"

"Well, we need to get somewhere safe. That's step one, right?"

"Right."

"Step two is to get NASA involved."

"Or ESA."

"NASA or ESA. Whatever. But we can't do that until we're somewhere friendly."

"Agreed. So how do we do that?" she asks.

"We head to the Port of Sudan."

"Port? As in ships?"

"Sailors don't ask any questions that can't be answered with money."

"Okay," Taylor says, nodding. "And then what?"

"Then we have options. We've got Mombasa in Kenya, the Seychelles, Pakistan, India, Sri Lanka. There are lots of friendly ports. We just need to get to the coast and look at what's passing through the Red Sea. Hell, we might get lucky and get a berth on a container ship heading north through the Suez on its way to Italy or Greece."

"That would be nice."

"It would," O'Connor says.

"I'd rather fly."

"Me, too, but your little trinket is going to attract way too much attention—and attention from the wrong people."

Taylor nods.

"Understood. Okay, by sea it is."

Bedouin

Taylor's bored. She doesn't know how O'Connor can sleep in the sweltering heat of the day with flies buzzing around. He's got his shirt off and has wrapped it around his head, acting as a sleeping mask, blocking out the light. Sitting there, using her sleeping bag as a pillow while she leans against the cliff they've sheltered under, she runs sand through her fingers, watching as it pours slowly back to the ground.

O'Connor has positioned them under a south-facing cliff in a rocky wadi, keeping them in the shadows as the sun reaches high in the sky.

Taylor has unwrapped the *jilbab* from her head. Her hair is sweaty. She's still wearing the traditional Arab dress, but she's pulled it up to her mid-thighs and is sitting with her bare knees in front of her, trying to cool down. The sheik would not approve. His wives, though, would kill for such freedom. Oh, for a breeze.

She sips water from her canteen. It's like drinking from a hot water tap. Damn, what she'd give for some ice cubes.

Taylor's aware there's a cultural disconnect between her expectations and reality. Somewhere out there, she knows her mother and father are probably sitting on the porch of their home in southern Wales, reading books or watching the news on an iPad. They're retired. For them, life has a pace that meanders, matching the gentle warmth of the summer sea breeze blowing in from Swansea. Her dad will make the afternoon pot of tea; he always does. He'll leave it sitting for five minutes before pouring a cup for him and Mom. And they'll sit there chatting about something, wondering when they're going to hear from her. But they're oblivious to the scorching reality that is the Sahara. They simply would not be able to grasp the harsh reality of life in the desert. To them, it would be insane. Why would anyone live in Sudan, Libya or Chad? Oh, there's the clichéd argument that this is where they were born, but are there not forests along the Nile? Isn't life on the coast preferable? Where fishing can sustain a family?

Why would anyone live in the desert? Why would anyone abide in an oasis such as *Harat Zuwayyah*? As it is, even for her, having visited Egypt twice before, journeying to *Harat Zuwayyah* in Libya redefined the term oasis. She'd imagined it as a... well, an oasis, when it was nothing like the picturesque image of palm trees swaying over a pool of water surrounded by sand. Far from being a place of escape or sharp contrast with the desert, *Harat Zuwayyah* was only a few degrees removed from the Sahara itself. If the dunes were 100% desert, *Harat Zuwayyah* seemed to come in at around 98%. And as for the dried-up riverbed she finds herself sheltering in, it's difficult to believe water ever ran over these rocks or if it ever will again.

Why would anyone live in the Sahara? Taylor feels the answer lies in the tenacity of humans to adapt and endure regardless of hardship. With enough repetition, hardship becomes normal. Her parents wouldn't understand. To them, the desert might as well be one of the seven circles of hell. But to men like the sheik and his wives, it's as natural as the lush, rolling hills of Dorset, where she used to vacation each spring. If anything, were they to walk the coastal tracks and be buffeted by frigid winds blowing in from the English Channel, they'd long for the sweltering heat of *Harat Zuwayyah*. To them, the desert sands are as inviting as the tussock grass she longs to tread on again.

Time drags. Sitting still for hours on end is torture for Taylor. Her bottom aches. She shifts from one cheek to another, trying to get comfortable but failing miserably. There's something to be said for couches and chairs. And, oh, for an innerspring mattress. When her head hits the pillow on returning to her apartment in Cardiff, Taylor's going to sleep for a week. It'll be like drifting on a cloud.

As the Jeep is parked longways in front of her and draped in canvas to avoid being visible from the air, Taylor can lean forward and push back the cover from the passenger's seat. She peels the *thobe* back, exposing the artifact, and then leans against the rock wall behind her. For a few minutes, she just sits there looking at the smooth, silvery surface of the orb sitting in the footwell of the Jeep. "What *are* you?" she asks in a soft voice. She's not expecting an answer, and she doesn't get one. Besides, she's more concerned about not waking O'Connor. She speaks with a soft voice.

"Why are you here?"

The smooth, polished metal reflects the surroundings, but not like a bathroom mirror. The curve distorts the image like a fisheye lens. Taylor can see why the ancients described it as seemingly liquid. For them, the closest analog would have been the way light reflects off still waters, but the curved surface results in a stretched view, one that would have been entirely foreign to them.

"Are you alpha and omega?" she asks, drawing on a Christian reference that didn't exist for most of the time the artifact has been on Earth, but it's all she can equate this device to in the depths of her mind.

"Are you the beginning and the end?"

She's searching, reaching within her own understanding, wanting to pry open the secrets of the artifact.

"You've been here since the dawn of our civilization. But why? And now? What happens now that we've found you? Understood you? What comes next?"

She picks up a handful of sand, allowing it to run slowly through her fingers as she thinks aloud.

"Who made you?"

She rubs the grit in her palm. The coarse texture helps ground her in the moment.

"And for what purpose?"

Taylor doodles with her finger, tracing patterns in the sand with her nails, sculpting zen-like arrangements in the soft grit. Her eyes dart between the waves formed beneath her hand and the silver orb.

"That's what I don't understand. I get that you're interested in life. I would be, too. If I could, I'd send out probes to study life elsewhere. But isn't it futile? How long do

your overseers live? Will they ever hear of the third planet from the Sun with its curious primates? Or did they build you for their children's children's children?

"And if you were sent here to catalog life on Earth, why did they send a solitary probe? Why not send something like a rover? We have them on Mars. I guess you've got a presence there too. But what can you accomplish being stuck in one place?"

She smooths her palm over the sand, wiping the slate clean and begins twirling her finger in a spiral motion, lost in thought as she talks to the artifact.

"You've been here since the beginning of our civilization. Are you the end? Regardless of how you came here, you're what they planned for. You're the culmination of a strategy that has unfolded over what? A million years? The effort must have been colossal, so why you? Why send you? Why not send something else? Something bigger? Something that interacts with us?"

Taylor feels as though she's on the verge of peering beneath the surface of the artifact and seeing its inner workings. Perhaps that's it. Perhaps that's what needs to happen. If they can place the artifact in an MRI scanner or a CAT scanner, they can look at its internal components and better understand its role in the extraterrestrial exploration of space—because that has to be its ultimate purpose.

"Our greatest feat of exploration was Apollo. When the Eagle landed on the Moon with its gold foil and spindly legs, no alien watching could have imagined that tiny cabin started out on top of a three-stage rocket reaching over 360 feet in the air. When two astronauts kicked at the lunar dust with their oversized boots and planted the US flag, no one watching could have imagined it took half a million people to get just two humans up there! And no one watching would realize it took those half a million people the best part of a decade's work for Neil and Buzz to visit the Moon for less than a day. And that's you, isn't it? I look at you, and I can't see *them*. I can't begin to imagine all it took to get you here. And yet, here you are."

Taylor sips her water.

"And even this," she says, gesturing toward the silent orb, tipping the top of her canteen toward the strange device. "This isn't you. Not all of you. This isn't what tore through the night sky thousands of years ago. You had to be encased in something. You must have been. You needed to survive not only entry into our atmosphere but plummeting into the desert sands. You had to have emerged from something, just like Neil and Buzz stepping out of the Eagle."

She wipes her hand over the sand, clearing away the spiral pattern and begins drawing concentric circles. Doodling is a way of unleashing her mind.

"What must they have thought when they found you? Who was the first to arrive at that smoldering crater? I don't think it was the Egyptians. And I don't think you landed at *Harat Zuwayyah*. No, I suspect you were found by one of the nomadic tribes. Perhaps they bartered or traded with the Egyptians. Perhaps the Egyptians thought they were gathering an exotic treasure to lay before the pharaoh. But then the chief died on reaching *Harat Zuwayyah*. He and his family. Was it the water there? What disease plagued them? And you. You were blamed for the tragedy. They saw you as a bad omen: *šaytān*. And so the myth was born. They may have buried you in that cave, but the legend never died."

Taylor watches as a scorpion trundles over the rocks beneath the Jeep. It's moving away from her and O'Connor. She loses sight of it as it scuttles out from beneath the shadows and into the harsh sun, heading toward the rocks on the far side of the gully.

"And what legends will we form? Will we, too, fear you? Should we? What will our pharaohs think as they stare into your distorted reflection? Will they see you or only themselves?

"Our scientists are more than the priests of old, but I wonder if they, too, will be in awe of you and unable to see you for what you are. And what are you?"

She draws concentric circles in the sand with her finger.

"Are you here to lead us or deceive us?"

To her surprise, as if in response to her question, a bell sounds outside in the gully. It jingles.

Taylor pulls her *jilbab* around her head, partially out of a desire to fit in with Arab culture and partially to ward off the oppressive sun. She gets to her feet, grabbing the binoculars as she steps out into the dried-up riverbed. The banks of the gully are no more than thirty feet in height, but the wadi is roughly a hundred feet wide, covered in rocks and debris. It hasn't rained here in a very long time.

The bell rings again, echoing off the rocks, making it difficult to pinpoint its location. If anything, it's haunting. The gentle chime drifts in the stifling air. Were it not for the silence of the desert, she probably wouldn't have heard it. Locating where it came from, though, seems impossible. The soft tinkle of metal bounces around her, coming from all directions.

Taylor feels as though it's slightly louder to the left. She scrambles up the loose rocks, slipping and sliding as she grabs at the bank, searching for hand holds. As she draws level with the plateau, she's left staring at a goat. Long, floppy ears droop in front of her. The animal bleats, chewing cud, and turns away from her. The bell around its neck chimes softly.

"Well, look at you," she says, watching as the goat waddles off along the edge of the bank, looking for scraps of grass pushing through the rocky ground. As if in response to her comment, almost in defiance of her kind greeting, a run of feces drops from the animal's rear, falling like a string of dark pearls. The goat shakes its tail, waggling it a little too enthusiastically. Taylor laughs.

"It's nice to meet you too."

She remains out of sight, crouching beneath the rim of the riverbank and peering out across the plateau. Taylor raises her binoculars and watches a young boy with a herd of goats. A few strays have wandered away, but he doesn't seem to be bothered by them foraging afar.

As she scans the horizon, she sees traditional tents shimmering in the heat. They're entirely unlike the camping tents she holidayed in while touring Wales. Instead of forming a dome or a triangular shape with a central pole, they're rectangular, with poles leaning on various angles to keep the fabric taut over a wide area. Women appear every now and then, moving between dwellings and the camels sitting in the shade of the tents. For Taylor, it's a glimpse into antiquity. Oh, they probably have some modern conveniences, like plastic buckets and water purification tablets, but beyond that, they're living the way Arabs have for thousands of years. What would they make of the artifact? To them, it would be a novelty but one with little to no practical value. It might as well be another rock.

Taylor scans to the south. Stones of various sizes cover the bedrock for as far as she can see. The landscape is barren and without any features. With no clouds in the sky, she might as well be on another planet. If she held up a piece of red cellophane in front of the binoculars, she could convince herself she was on Mars.

What does the artifact make of the Sahara? For a planet teeming with life, it could not have landed in a worse location. Okay, if it splashed down in the Pacific and sunk to the bottom of the Marianas Trench, that would have been worse. Or perhaps the slopes of the Himalayas. But the lush tropics in Asia, the jungles of Africa or the Amazon would have been better representations of life on Earth than the Sahara. Even though the desert looks lifeless to her, there must be soil microbes that would signal the presence of life to the artifact. Microbes are found *everywhere* on Earth. As much as humans pride themselves on their mastery of the planet, it's really a microbial world. Humans are latecomers.

The goat wanders back past her, searching the slope for spindly bits of grass. As she's on the south side of a mound rising from the desert, the hillside must catch the dew overnight, giving the scrawny plant life just enough moisture to grow before being eaten by goats. What a vicious place. And yet life clings to the desert. The goat's bell rings softly as it trundles past her. Taylor peers through the binoculars, looking at how mirages form out on the edge of her vision, creating pools of water that simply don't exist.

What does the artifact see when it scans Earth's surface?

Taylor has dozens of questions buzzing through her mind.

What is the artifact looking for? Simple life? Complex life? Intelligent life? What instruments does it have to sample its environment? And what is it going to do when they take it from the Sahara to a boardroom in Cardiff or Houston? NASA will want to lock it away in a sterile, clean room, but is that really such a good idea? From a biological perspective, it poses no threat, not after seven thousand years. Should we limit its ability to detect life? Would that send the wrong message? And what messages is it sending? And where? It's small. What distance can its transmitter cover? There must be limits. It couldn't span the galaxy, could it? Is it using the electromagnetic spectrum, or have the aliens devised some other means of sending information through space and time? Why haven't we detected its emissions? Or have we-but we've missed them among all the other noise being pumped out by airport radars, cellphone towers and satellites? What frequency is it using? It has to be something that avoids all the chaos thrown out by stars like the Sun, or it would get lost in the noise. And Earth is rotating. The artifact would only be able to send its signal at certain times of the day, possibly in short bursts. Have these ever interfered with human communication?

Taylor is lost in thought. A shadow falls over her, blocking out the harsh sun. She lowers her binoculars. Sandals kick at the dust in front of her. She looks up into the eyes of a boy not more than eight years old. He's wearing a blue turban wrapped around his head and a baggy *daraa*, being a tunic designed to allow air to flow around his arms and legs.

"Ah, hello," she says, raising a friendly hand.

The boy yells in alarm and runs back toward the camp, which is easily four to five hundred yards away across the rocky plain. Dust kicks up from his shoes. He calls out over and over again, repeating the same thing, but Taylor doesn't understand his language.

"Fuck," she says, turning and slipping down the embankment. Grit slides beneath her boots.

O'Connor is already on his feet, having heard the commotion. He's bare-chested and brandishing his M4.

"What happened?"

"A kid. A boy," Taylor says, pointing at the rim of the plateau. "He saw me."

"What were you doing up there?" O'Connor asks, racing up the loose rocks.

"I—ah—there were goats."

"Goats?"

"Their bells. I heard their bells. I went to investigate."

From within the gully, O'Connor rests his elbows on the plateau and stares through the telescopic sight of his M4.

"Don't," Taylor says, feeling a rush of adrenalin surge through her body at the thought of O'Connor shooting the child in the back. She touches O'Connor on the shoulder. "Please don't shoot him."

"I wasn't going to shoot him," O'Connor says, turning and looking at her with disbelief. "I was getting a good look."

"Get a good look with these," Taylor says, handing him the binoculars. O'Connor rests his gun on the plateau and peers through the binoculars.

"You didn't seriously think I was going to kill him, did you?"

"Well, I—I don't know," Taylor replies, feeling stupid.

"I'm a bodyguard, not a murderer. I don't shoot anyone not shooting at me. Particularly not kids. And never in the back."

"I... I'm sorry."

O'Connor doesn't reply. He lets her comment hang in the air like the stifling heat. The sun is vicious. Sweat runs down Taylor's forehead, following the curve of the *jilbab* wrapped around her face. It soaks into the fabric covering her neck. O'Connor peers through the binoculars, taking a good look around the plain before settling on the camp.

"Bedouin."

"Is that good or bad?" Taylor asks.

"Well, it's better than Boko Haram."

In the distance, a group of men gather outside the tent. The boy points back at the mound and the sunken riverbank. The goats ignore them. O'Connor steps up onto the plateau, leaving his rifle lying on the bank. He waves his hands high over his head.

"What are you doing?"

"Allaying their fears."

"Their fears?" Taylor asks. "What about my fear?"

O'Connor turns to her and holds out his hand, gesturing for her to climb up and join him on the plateau. Reluctantly, she accepts and steps up beside him. He waves his hands a few more times, and one of the men repeats the motion in the distance.

"Okay, time to meet the neighbors."

"We're going over there?"

"We have to. This is their land. We're intruders. We need them to know we're no threat. That we're not bandits."

He turns and climbs back into the gully with his M4 slung over his shoulder. Taylor follows. O'Connor is helpful, holding out his hand and helping her down the rocky slope. They pack up the camp, tossing the canvas in the back of the Jeep.

"And this is a good idea?" Taylor asks.

"It's an idea," O'Connor replies. "We're about to find out if it's good."

He starts the Jeep, adding, "Make sure that thing is out of sight."

"Oh, yeah," Taylor replies, bunching up the *thobe* and twisting it into a loose knot.

They drive down the riverbed, bouncing over bumps and cracks. O'Connor spots a collapsed section of the bank and guns the engine, driving up out of the wadi and onto the plateau. He turns toward the Bedouin camp. His M4 is hidden out of sight, lying sideways behind the front seats with the muzzle behind Taylor's seat back. O'Connor has a sidearm in a holster, but it's covered by the loose folds of his clothing.

"I didn't see them this morning," he says. "They must have arrived after us. Nomads like these will have circular routes they follow over a period of months, weaving between waterholes and feeding grounds. They can't stay in any one place too long as their goats will strip the vegetation. They'll probably only be here for a few days before moving on."

The two of them drive slowly toward the Bedouin camp.

"If anything happens, take cover behind the Jeep. When night falls, head east. Travel only in the dark. Never during the day. You'll lose too much water through sweat."

Taylor swallows the lump in her throat, realizing he's giving her instructions on what to do if he's captured or killed. Personally, she thinks he's being overly optimistic, thinking she'd be able to somehow get away when he couldn't. She's never felt further from her home in Cardiff. The green hills of Wales will never look as majestic as the day she drives back across the bridge spanning the broad River Severn. And clouds —there will be white, fluffy clouds drifting across the sky. Taylor misses clouds. To her Mom and Dad, it would seem like a strange thing to miss, but the sharp, blistering blue of the sky over the Sahara is intimidating. Clouds bring water. Water brings life. Driving back into Cardiff will be like arriving back on Earth, only never having left.

As they approach, an elderly man with a turban calls out, "Assalamu Alaikum Wa Rahmatullahi Wa Barakatuh." O'Connor brings the Jeep to a halt and replies with an almost identical but formal response. "Wa Alaikum Assalam Wa Rahmatu Allah Wa Barakatuh."

"This is good," he says softly before getting up out of his seat. "A lengthy appeal to Allah and peace has real meaning in this part of the desert."

Taylor goes to get out of her seat as well, but he adds, "Wait here."

"Men's business, huh?"

"Men's business," he replies.

O'Connor greets the old man. They lean into each other, taking the other by their shoulders and touching their foreheads. This is followed by a slight touch of the nose, rubbing softly from one side to the other as they mumble in Arabic.

The old man invites O'Connor into the shade of the tent. Taylor sits there roasting under the heat of the sun. Minutes seem like hours. She hangs her head, trying to keep her face out of the blazing sun. She's got sunscreen on, but it's so hot the light around her seems to burn like a laser. As the artifact is in the footwell, she has her legs up, resting on the device, with her knees in front of her. Her *jilbab* covers her legs down to her ankles, where the modest Arab dress is met with hiking boots that have traversed the Brecon Beacons in Wales along with the Scottish Highlands.

Tiny fingers reach for her. Taylor blinks, seeing a child of not more than three holding out her hand toward her.

"Where did you come from?" she asks, reaching out in response, but the young girl is snatched by a woman in a blue *Galabeya*. It's a long, flowing dress with no waistband. Golden swirls have been embroidered around the neck. They reach down the length of the dress, curling around the hem. Rather than wearing a tight-fitting headpiece like Taylor, the woman has a shawl draped loosely over her head and shoulders, hiding her hair from sight without binding it in place. The woman clutches the child to her chest with one hand, lifting her *Galabeya* with the other as she turns and rushes away from the Jeep, mumbling in Arabic. She runs into one of the other tents. From the shadows, women and children watch Taylor. She raises her hand slightly, offering a friendly wave. One of the older women steps out into the sunshine and beckons Taylor over to the tent. O'Connor is nowhere to be seen. On one hand, Taylor doesn't want to leave the artifact exposed. On the other, she's cooking in the oppressive heat.

She steps down from the Jeep and walks to the tent. Heat rises from the bedrock. Oh, what she'd give for an arctic blast sweeping down across the Irish Sea and over her favorite hiking area of Snowdonia. She'll never complain about the cold again.

The woman offers a truncated greeting in Arabic. It's nowhere near as formal as the one exchanged between the men, but Taylor responds in kind. Her accent, though, is painfully different, causing a few of the young girls to giggle.

Although this tent is smaller than the men's refuge, it's still easily forty feet in length and twenty feet in width. Poles jut out at different angles, keeping the low-hanging material taut. Taylor crouches, taking off her sunglasses and letting her eyes adjust to the shadows. The women are seated on an ornate carpet laid out on the bedrock. There are circular pillows and bedrolls, allowing them to recline. Taylor's Arabic is rusty, but she translates their words into English in her head as they speak. With everyone speaking at once, it's difficult for her to keep track of the conversation.

"Please, have a seat."

"You have come from afar?"

"You wear the *jilbab*, but it is not yours. It sits too loose on your shoulders."

"Have you come from beyond the land? From beyond even the great sea?"

"Your skin. It is pink. And your eyes. They are as the sky."

"Have you come from the other side of the world?"

"Have you flown like a bird?"

Someone pats the carpet. Taylor sits, wondering which question she should address first. One of the older women comes over with an ornate blue scarf. She crouches, laughing as she pulls back Taylor's *jilbab* from around her head and exposing her sweaty hair.

"It's no good here. It is too hot. You need the damask."

Several of the women gasp at the sight of Taylor's blonde hair, although she's pretty sure it's wet and matted and looks awful. The old woman drapes the silk scarf over Taylor's head so the embroidered rim sits off her forehead with the garment resting on her shoulders.

"Much better."

"It's much cooler," Taylor replies, reaching up and feeling the fine silk. The shawl is made from a breathable material and already feels more comfortable and practical. "Thank you."

Several of the women speak too quickly for Taylor to translate in her head, so she apologizes, asking them to repeat their questions.

"Amana wants to know where you're from. She wants to know what you are doing in the great desert."

Taylor smiles. "It's kind of obvious I don't belong here, huh? I'm from the United Kingdom."

"Kingdom?"

"Ah, England. Britain. Well, I'm from Wales."

Although she's trying to be helpful, mixing English words into Arabic sentences doesn't help.

"Why did you come here?" the old woman asks, placing a wooden board in front of her with flatbread and an assortment of figs and dates. Someone hands Taylor a wooden cup of water, which she drinks in a single motion. Crushed mint leaves flavor the drink, making it refreshing even though it's warm. "My job," Taylor says, picking up one of the dates. "I look for old things in the desert. I study the past."

The women gathered around her are intensely curious. The matriarch says, "The past?"

"Thousands of years in the past," Taylor says, enjoying the enthusiasm lighting up the faces of the women surrounding her. They're fascinated by her life. For them, she's come from nowhere, suddenly appearing in their tent, speaking of life beyond the desert. For Taylor, it feels as though she's at home. Physically, she couldn't be further from British life and culture, but she's surrounded by women who just want to share their excitement for life. They chat for hours, talking about everything from children to flying on airplanes, shopping for dresses in the markets, dating, wearing makeup, jewelry, schooling, and even menstrual cycles. Nothing is taboo. Taylor feels at one with these women.

As the sun sets and a cool wind begins to blow, O'Connor appears by the opening of the tent.

"Having fun?" he asks, speaking in English, and for a moment, Taylor has to think about the translation into Arabic as she slowly unwinds her mind from her time with the women.

"They're wonderful. Delightful."

"And they've given us some good intel," O'Connor replies as she joins him, stepping out into the cool of the twilight. "The Sudanese have an army post about ten miles due east of here. If the Bedouin hadn't warned us, we would have driven right into them."

"But the army's good, right? They're not like *Boko Haram*."

"They're worse than *Boko Haram* as you never know whose side they're on. They may look like soldiers, but they're mercs. They'll put a bullet in your back for a Grant."

"A Grant?"

"Fifty US dollars. Life is cheap out here."

The Nile

The Bedouin send them on their way with goat's cheese, diced tomatoes, herbs and pulled goat's meat wrapped in freshly baked, flat sourdough bread. Taylor is astonished by the light, fluffy texture. At first glance, the bread seems to resemble a tortilla, but it's slightly thicker and has tiny bubbles formed by fermenting yeast, making it similar to a pancake, although without being sweet. As night fell, she watched with fascination as the women cooked the bread on large, flat stones set on the edge of the coals. How they regulated the temperature is beyond her, but the taste of the bread is magnificent. It's soft rather than stiff, soaking up the moist goat's cheese. Taylor's in the middle of the desert, sitting in a World War II Jeep, and yet she's eating a dish that could grace the menu of any swanky riverside restaurant on the banks of either the Thames or the Seine.

O'Connor speaks warmly with the Bedouin chief before starting the engine and putting the Jeep in gear. Taylor waves goodbye with genuine affection as they drive southeast to avoid the military outpost. A few of the kids, including the young goat herder, run alongside them for roughly fifty yards, cheering them on as they drive into the darkness. Behind them, Taylor can see the camp's bonfire lighting up the night. Shadows move between the tents as Bedouin life shifts from a relaxed day to a productive night.

In just a few hours, Taylor's view of this desert people has been utterly transformed. Like most folk in the West, she thought of the Bedouin as trapped by the circumstances of their birth, but there's a genuine joy that surrounds the nomadic tribe. Far from pity, they deserve respect. They love the traditions of life that have surrounded their people for thousands of years. For them, civilization may not be comprised of smartphones and rocket launches or chicken cutlets wrapped in plastic at the supermarket and a cafe latté from Starbucks, but they are no less civilized. Theirs is a simple life, but one full of warmth and community. If anything, their emotional ties run deeper than those of the nuclear family in the West. They value each other over money. The challenge of milking goats might not be as appealing as picking up milk from the gas station, but the Bedouin are content.

"What did you talk about?" Taylor asks O'Connor as they follow a depression in the bedrock leading down to a flat, sandy region.

"Everything."

"Me, too," Taylor replies, feeling as though she's known the women of the tribe for years, not merely an afternoon.

"They wanted to know about what happened at *Harat Zuwayyah*."

"Really?"

"Apparently, *Boko Haram* has been crowing about their success. They said they were fighting infidels in the mountains. They told the Bedouin they fought off a squad of US Marines hiding among the rocks."

"They know marine means water, right?"

"Yeah, Zuwayyah's a long way from the coast." He laughs.

"What did you tell them?"

"I told them there were only two of us with guns. And that they ambushed us."

"And?" Taylor asks.

"And the chief laughed. He said *Boko Haram* are liars, bullies and cowards."

"All bullies are cowards."

"He wanted to know every detail."

"Every detail?" Taylor asks with concern in her voice.

"Don't worry. I didn't tell him about the artifact. He wouldn't have cared anyway. He wanted to hear about the fight. He knows the sheik. He was worried about him, having heard he was wounded. And so I told him about a scrawny woman from Wales dragging the wounded sheik to safety over the ridge line." "Scrawny?" Taylor says with mock outrage, tapping his arm lightly in pretend protest. "Who are you calling scrawny?"

"The chief was impressed. He was going to invite you into the men's tent, which is an honor, but you'd already joined the women."

"They were wonderful."

"It's a different kind of life out here, isn't it?"

"It is."

The two of them make good time on the flat expanse of the eastern Sahara. Occasionally, O'Connor has to negotiate the dark recesses of a canyon, checking maps and following the rim until he reaches open ground. After three days on the run, Taylor finds the tapping of the aging diesel engine strangely comforting, especially when they're on a plateau and O'Connor maintains a steady speed. She wraps herself in her sleeping bag, but again, she resists the temptation to zip it up and simply tucks the loose fabric around her body. They're driving through the desert at night. If anything goes wrong, she doesn't want to end up fighting to get out of a sleeping bag.

Taylor drifts off to sleep. After a restless few hours spent bumping around in the seat of the Jeep and feeling lost in a haze, she wakes to sheep bleating and cars idling. The sun peeks over the horizon, painting the sky brilliant shades of red, pink and yellow. Taylor stretches, taking in their surroundings. They're driving along a dusty track, following several other vehicles, all of them in equally dilapidated states of disrepair. Rust has eaten through the flimsy sheet metal panels of a Toyota Hilux in front of them. The back of the pickup seems to be held together with duct tape. Bullet holes scar a Mercedes Benz from the 1970s. They're trundling along so slowly that a herd of sheep and goats can meander at ease between the various vehicles, wandering on and off the track as a farmer calls out to them, waving a stick around to get their attention.

"We're here," she says, sitting up and stretching her arms high above her head. "We're somewhere," O'Connor says, smiling. He points at a map tucked into the gap between the seats, saying, "Can you check that road sign? We should be heading south toward *Kubtot*."

"Sure." Taylor grabs the map. She points across green fields at a broad river meandering through the desert. "Is that the Nile?"

"The one and only."

"Oh, it looks good. Sooooo good."

"I know, right? That's no mirage!"

The Nile passes in and out of view. Dirt mounds rise and fall as they drive along the rough track. Fields vary from parched to radiant green depending on whether they have irrigation. Low stone walls appear and then crumble before reemerging from the desert further down the road. Mud huts shelter families already busy with the day. Women carry clay pots on their heads, walking back from the village well.

"Ah, according to that sign, we're driving south past Ghard Binna."

"Good, good," O'Connor says as they finally clear the flock and begin to accelerate. They've joined an informal convoy. Several of the trucks ahead of them have signs for *Médecins Sans Frontières*, which translates to Doctors Without Borders. Taylor recognizes them as a humanitarian organization working outside the bounds of any particular government to bring medical assistance and vaccines to the poor.

The track is bumpy. Potholes have formed over centuries in this part of the world. Most of them have been filled in countless times by the locals, leaving rough gravel in sections of the road. Taylor looks at the map.

"There's a highway running parallel to this track." She points away from the Nile, out over the low dunes. The raised, concrete road is just visible as a flat expanse against the desert beyond.

"And it's empty," O'Connor says.

"Exactly," Taylor replies, confused. "It's perfect. We could make great time on the highway."

O'Connor points at the Hilux bouncing over the undulations on the track ahead of them, asking, "Why aren't they on the highway? Or the medics ahead of them?"

"I don't know."

"Because it attracts too much attention from the government."

"Oh."

"Countries like Sudan operate on two levels: community and corruption. Drive down that road, and you'll be stopped for a '*toll*' every ten to fifteen miles. At established inspection points, you'll have freight confiscated."

"But not on this road?" Taylor asks, confused. She can see a military truck racing down the highway across the open fields.

"There's a tacit agreement to ignore the back roads used by the locals. Our friends up there—*Médecins Sans Frontières* they know the route. They know when to jump on and off the highway. If they're on this dirt track, it's safe."

"I don't get it," Taylor says. "If the army is going to stop you on the main road, why wouldn't they also stop you on this side track?"

"Because the army isn't a thing. It's made up of people. And people have homes, farms, families, parents, grandparents, children. For all the talk of ideology and corruption, soldiers know people need feeding. They know medicine needs to be delivered. They know they'll suffer if they come down too hard. Corruption is a fine balance between greed and stupidity. And they ain't stupid enough to bite their own hand."

O'Connor reaches behind the seat and pulls out a bunchedup black robe.

"I picked this up in *Kerma* while you were asleep," he says, dumping the clothing in her lap. "Put it on."

"What?" she asks, unfolding the dark material and examining it. "A *burga*?"

"We're about to drive into a Subsaharan Arab town. The last thing I need is for them to see me escorting a blondehaired, blue-eyed European woman. It'll raise too many questions. And it will get back to *Boko Haram*. You have to realize you're a unicorn in this part of the world."

"Oh, I know," she replies with frustration in her voice.

Reluctantly, Taylor pulls off her *jilbab*, revealing her sweat-soaked bra and shorts and then quickly slips the *burqa* over her head. Taylor has to rise from her seat slightly to slide the material under her butt. She has to shift it around to find the mesh screen that allows her to see and breathe.

"This is awful," she says, adjusting the headpiece so it fits tight over the crown of her skull. She positions the mesh squarely over her eyes, nose and mouth. "I hate it."

"And the gloves," O'Connor says, plopping something in her lap.

"Gloves?" she asks, looking around and realizing her peripheral vision is almost entirely gone. Not only can she not see anything on either side of her, but even things directly in front of her have disappeared. She has to lower her head to see the black lace gloves he's dropped into her lap. She slips them over her fingers.

Taylor asks, "How long am I going to have to wear this thing?"

"I don't know," he replies. "Until we get out of the country. It'll be days, not years."

The word *years* stings. For Taylor, this is a disguise. For millions of women in this part of the world, this is normal. This is their lives. The only time they're not wearing a *burqa* is when they're in the privacy and seclusion of their own homes.

Being Western-educated, Taylor doesn't understand how any woman could surrender to such subjugation. She understands that for some, it's forced, but for most, it's voluntary. They're devout. They believe in the writings of the prophets. They want to be modest before their God. For her, though, it's oppressive. Others may not see it that way, but it's like any choice in life; the most important part of any decision is whether it's really a choice and not coerced. Taylor cannot imagine being that dedicated to an ancient religion, but those women who wear the *burga* probably can't imagine being dedicated to something as intangible as science. To them, a loss of faith would be a hardship, while to her, it's freedom.

Peering out from behind the veil, Taylor finds the mesh acts as though it were a dirty pair of sunglasses. It takes a few minutes, but slowly, her eyes adjust to the view, and she begins to block out the mesh.

They drive into the city of *Dongola*, straddling a bend in the Nile. There are no houses as such, only compounds. Each home is surrounded by six- to eight-foot-high mud brick walls. Lush green trees line the side alleys, but there's little to no grass among the sandy grit. The spacing between homes is irregular. Unlike the Western world, where shared boundary fences separate one property from another, in Sudan, land is separated by barren ground or meandering alleyways. Most of the roofs are made from rusting corrugated sheet metal. Occasionally, they pass what must be the equivalent of an apartment complex as numerous homes rise within block-sized compound walls. Shipping containers have been converted into shops. Scorch marks from an oxyacetylene torch define the openings for windows, with some of them offering drivethru service on the dusty side of the road. Men wearing turbans stand around drinking tea and coffee from thimblesized cups. They watch the antiquated Jeep drive past with idle curiosity.

For Taylor, the deep green of the trees is refreshing to behold, but their presence seems contradictory given the dry, dusty, arid dirt around them. Their roots must reach deep beneath the surface to moisture seeping up from the water table surrounding the Nile.

O'Connor continues to follow the trucks carrying supplies for *Médecins Sans Frontières*, and Taylor inherently understands why. He's a westerner. The assumption is that he's providing security for the convoy. It allows them to drive through the town and past Sudanese soldiers milling around in the intersections. Far from being menacing, the soldiers are functioning as low-level police. Their presence is enough to deter crime—well, any crimes they're not committing.

Weeds grow against the walls of the local hospital. A pharmacy is attached to the nearby mosque. The trucks turn into the compound, and O'Connor drives on, having lost them as a shield.

There are a few street signs, but most of the side streets are unmarked. Sometimes, a number painted on a wall provides a guide, but Taylor's unsure whether the numbers are counting houses or street routes. There are no road signs, speed limits or traffic lights—and no markings on the road. People drive wherever they can. Most of the streets are one-way, but Taylor gets the impression that's by force rather than design as occasionally a car pushes the wrong way down the street, swerving against the oncoming traffic and hugging the edge of the road.

They turn onto a broad main street running the length of the dusty town. There are no curbs or footpaths. Cars overtake on the inside of other vehicles, rushing by within inches of the buildings. Pedestrians cluster by the occasional tree growing beside the compound walls before braving a road crossing.

Rickshaws dart between the traffic at breakneck speeds. Their tiny engines scream in anger. With only three wheels and a flimsy metal frame capped by a canvas awning, they're lightweight. The drivers throw them around. Passengers cling to the railing inside the various multicolored cabins, swaying as the rickshaws defy the honking horns of cars and trucks.

As their Jeep approaches the market in the center of the town, the road is blocked by the sheer number of people walking between stalls. The traffic splits, with some of the drivers braving the congested rickshaws and others diverting down a side street to go around the block. O'Connor pulls over on the wrong side of the road. He parks so close to a mud brick wall he can't get out of the Jeep on the driver's side. Instead, he clambers up on the hood.

Standing there with his boots denting the sheet metal, he says, "Wait here. I'll be right back."

"Where are you going?"

"To get us a ride out of here. I know a guy who knows a guy who knows someone else, and I'm hoping that someone else is here in the market. For the right price, they'll fly us out of here without any questions."

From behind her *burqa*, Taylor nods. O'Connor drops down into the dust at the edge of the road and disappears into the swell of the crowd.

A monkey screeches from the top of a nearby tree, baring its fangs and howling in anguish. An Arabic man in a traditional *Tob* dress with the loose ends of the fabric tossed over his shoulders scolds the monkey from below. He shouts at it, holding out a leash as though that's somehow enticing to the monkey. The poor animal is terrified by the noise of cars and the chatter of the market. Taylor has no idea what the man was doing with the monkey, but there's no way in hell it's coming down until it's quiet—which might be never given the bustle within the market.

A woman staggers next to Taylor, bumping into the Jeep. Like her, the woman's wearing a full *burqa*. She reaches out, grabbing at the wheel arch on the Jeep to steady herself as a man pushes her, yelling at her. The comparison with the monkey is not lost on Taylor. The woman shuffles through the dust.

Taylor grits her teeth. Her muscles go tense beneath the folds of fabric that make up her *burga*.

"You dumb mule," the man says as the woman straightens, dusting off her dress. He pushes her ahead of him and past the Jeep, treating her like cattle. Her body language is telling. She lowers her head, looking only at the sand and dust that's accumulated along the edge of the road. Her back is stooped. He grabs her upper arm and jerks her back next to him, scolding her.

"You stupid donkey!"

The woman flinches, expecting to be struck. From behind her *burqa*, she lowers her gaze. She can't make eye contact with him. And it's at that moment that Taylor realizes this transcends culture. She's seen this in England. This isn't about religious subjugation or a woman's role in Sudan. It isn't about anything the poor woman's done wrong. It's not even about the physical disparity between men and women. It's about power. Assholes and authority go together like peaches and cream. He hates her because hate is all he has. Whether it's a sweltering market on the edge of the desert or an angry drunk in a pub in Cardiff, the mentality is the same: a desire for control. Cruelty needs no impetus. There's no reason to anger. It's only ever satisfied by inflicting pain.

"Leave her alone," Taylor snaps. No sooner have those words left her lips than she knows it's a mistake. In the United Kingdom, she might be able to break *the bystander effect*, where most people will shy away from helping a victim in a crowd, hoping someone else will act first. Although no one wants to speak up, calling the abuser's bluff puts *them* on the spot, embarrassing them. In Sudan, though, the social dynamics are different.

"What?" he says, releasing the woman and wheeling around to face Taylor. She's still seated in the Jeep. The M4 is behind the front seats with her *jilbab* draped over it, hiding it from sight, but what is she going to do? Is Taylor going to go all *Rambo* on this hulking guy? That's not likely. Besides, the barrel of the gun is immediately behind her seat, not the stock. There's no time to fumble around with something that would only ever be a bluff.

Taylor holds out her gloved hands, appealing for reason.

"There's no need for this," she says in stilted Arabic.

To her horror, though, she's inadvertently exposed the pale, white skin on her forearms.

"You!" He marches toward her. "You are not *rafiq*. You are *'ajnabi*. You are *sharir*!"

Taylor backs up in her seat. He's identified her as a foreigner, calling her a sinner. She's on the verge of jumping over into the driver's seat to put some distance between them when he grabs her and hauls her out onto the road. Before she knows what's happening, she's lying sprawled on the dusty rocks. Taylor scrambles to get back to her feet, but the *burqa* pulls tight against her knees. The knitted headdress built into the *burqa* shifts as she scrambles, plunging her into darkness. One moment, she's staring at boots on the street. The next, she can see only the dark folds of fabric in front of her face.

"And this?" he yells.

Taylor struggles with her *burqa*, twisting it around so she can see again. The man is pointing at the footwell of the Jeep. To her horror, the folds of the *thobe* wrapped around the artifact have shifted as she was dragged from the vehicle, exposing the alien device. Its smooth, curved, mirrored surface glistens in the sunlight, reflecting the crowd around them. There are gasps. The artifact is silver in appearance and perfectly round, setting it in stark contrast to the rough mud brick wall beyond the Jeep and the straggly tree with the monkey. The artifact screams of being from another world.

"This is *haram*," he says, but he's not looking at her; he's turned his attention to the crowd. He's an actor on stage, following a script. "It is not natural. It's cursed."

"No, you don't under—"

A boot connects with her ribcage, spinning her over onto her back. Men laugh—plural. They shout at her, calling out obscenities. Taylor scrambles to her feet. The loose fabric of the *burqa* has shifted again, blinding her once more. She has no idea where the mesh is in relation to her eyes, let alone where the Jeep is parked. Her only sense of orientation comes from her throbbing rib cage, telling her the brute is somewhere to her right. She wheels around, grabbing at the *burqa* and twisting it so she can see out through the mesh. Taylor wants to rip the damn thing off, but pulling it over her head and exposing herself in a bra isn't going to help.

The man grins. He's speaking so rapidly in Arabic that Taylor cannot make out individual words. Where the hell is O'Connor?

Taylor peers through the mesh of the *burqa*. She gets the layout around her. The woman is over in front of the Jeep. She's backed up against the wall. Several men in similar clothing have rallied around the asshole that threw Taylor to the ground and kicked her. Most people walk on, ignoring them. As tempting as it is to hold out her hands and appeal for mercy, there's no way to de-escalate the situation. This asshole is in a position of power—physically, culturally and even in terms of religious and civic laws. There's no way he's going to be reasonable.

Taylor grabs her dress, bunching up the thick material draped over her thighs and lifting the hem so her bare legs are visible.

The man stops. He's shocked to see her pale skin and oversized boots.

"What is this?" he says, but Taylor hasn't exposed her legs to shock his sensibilities. She's defending herself the only way she knows how. With the *burqa* raised, she steps forward and launches her leg up, kicking him in the groin. Taylor played soccer as a teen, starring as a winger. She never made the national team, but she did get to represent Wales in the Under-18s. Her specialty was corner kicks. If his groin were a football, it would be spiraling through the air and heading for the goal some thirty yards away by now. Her favorite shot was picking out an attacker on the far side of the goal and setting them up for a header. This guy won't be able to walk straight for a week. He's lifted off the ground by the force of her kick and falls to the dust. He rolls beside the Jeep, clutching his groin with both hands and howling like the monkey in the tree.

The men around him roar with laughter, which surprises Taylor. She was expecting them to pile into her. She had already accepted a beating was worth it to see at least one of these assholes rolling in agony. She backs up against the rear wheel of the Jeep, trying to keep as many people in the crowd visible as she can. She fears being sucker-punched on the back of the skull and knocked unconscious. From behind the mesh of the *burqa*, it's impossible to see everyone at once. She swings her head from side to side as one of the men helps the injured guy stand. The woman rushes to Taylor's side and grabs her hand, pleading with her, but in a dialect Taylor barely understands.

The man gets to his feet, but he remains keeled over. He can't straighten. His friends pat his back, still laughing and joking with him, calling him a fool.

The injured man addresses Taylor. "You bitch! You will die!"

Threatening to kill her is a mistake. It tells Taylor she only has one option. She has to strike. If it's kill or be killed, Taylor has no compulsions about mercy. Mentally, she's lining up a free kick from the backfield on her home soccer pitch, picking out a striker beyond halfway, ready to send the football sixty to seventy yards down range on attack. She's going to put this guy's head into orbit. He'd better have a good dental plan because he's going to need it.

"I will kill you," he splutters, leaning forward and spitting on the dirt. "I am—"

Before he can threaten her any further, the barrel of a gun is pushed into the back of his head. Even though he's doubled over and facing the ground, he realizes what's happening.

In a calm voice, O'Connor speaks in Arabic, saying, "I would think very carefully about your next words if I were you."

On seeing a handgun, the crowd parts, forming a rough circle easily thirty feet in width. The man finally releases his groin, but only to raise his hands over his still crouched head. Another local man is standing beside O'Connor. He's wearing a traditional Arabic dress, but his turban is pitch black. He seems to command respect from the crowd. O'Connor grabs the injured man by the back of his robe and forces him to straighten. He gestures with his gun, waving for the woman beside Taylor to walk over to them. Somehow, from the context of everything that's unfolded, he's pieced together Taylor's actions and realized she was defending this woman.

Sheepishly, the woman in the *burga* approaches him.

"Listen carefully," O'Connor says, pushing the barrel of his gun into the base of the man's skull, just beneath his ear. "I will say this once and once only. I am *Khartoum Easaba*. You understand?"

The man nods rapidly.

"Our eyes are everywhere. You understand?"

Again, the man nods.

"One hair... and you will be fed to the crows. You understand?"

The man nods, only this time, his motion is deep and with conviction. The man with the black turban grabs the injured man and hauls him to one side, pushing him into the crowd. He speaks rapidly to him, but Taylor can't make out all of his words. He seems to be reiterating what O'Connor has said while mixing in half a dozen Arabic swear words.

"Are you okay?" O'Connor asks. As Taylor was watching the others, the limited visibility from behind her *burqa* meant she didn't even see him step up beside her. O'Connor takes her by both arms and repeats his concern. "Are you hurt?"

"I'm a little sore," she says, knowing she'll have bruised ribs for the next few days. "But I'm okay."

He pats the passenger's seat, saying, "All right. Let's get you out of here."

The man in the black turban joins them by the Jeep.

"The price just doubled, you know that, right?" the stranger says, laughing.

"Oh, I'd expect nothing less," O'Connor says, joking with him.

"Just like *Darfur*, huh? The dumb American can never leave well enough alone."

"Hey," O'Connor says, throwing his arms open. "This time, it wasn't me."

The man with the black turban takes O'Connor by the upper arm and says, "Well, it's good to see you again, even if you're still complicating my life."

"What can I say? I pay well," O'Connor says, grinning.

"The *faru al'arnab* will watch her," the man says, looking at the point where the woman disappeared into the crowd. "She will be fine."

"Thank you, my friend."

On driving out of the market, O'Connor keeps to the alleyways running parallel to the main road. Although they're narrow, the Jeep is small enough to squeeze past trees and parked cars along the track. For Taylor, it feels claustrophobic to be hemmed in by high mud brick walls with little to no ability to turn the vehicle around.

Kids kick half-flat soccer balls around in the dust. Women in *burqas* wash clothing by hand. They work together, with one woman stirring clothes in a metal vat resting on a grate over hot coals, while others slap the clothing on rocks, beating the material to rinse the water away, while still others hang the clothing on communal lines stretched high over the alley.

"What was all that about?"

"I should be asking you the same thing," O'Connor replies.

"He was going to beat her. His eyes. I could see the hate. He would have killed her. Perhaps not right then and there, but he would have."

"Well, the rabbits are watching him now."

"Rabbits?"

"Street urchins. The *Easaba* pay them for information—to keep tabs on people."

"And who are the *Easaba*?"

O'Connor looks across at her briefly, saying, "They're like the mafia. Only better. Or in some cases, worse."

"And you know them? You've worked with them before?"

"I was a peacekeeper in *Darfur*," O'Connor replies as they drive across a side road and head into another dusty alley. "Back then, you either stood by and watched civilians being killed, or you slipped a few truckloads of humanitarian aid to the *Easaba*, and they meted out justice their own way."

"You funded rebels? Criminals? Terrorists?"

O'Connor laughs. "This ain't England, doc. There is no black and white in the desert, only a dusty, sandy grey. Besides, they'd get those supplies one way or another. Bartering was a far better option than bleeding out in an ambush on some abandoned back road. I wasn't going to die for a few sacks of grain and some basic medical supplies. And it kept the peace, so I figured it was within our remit."

Taylor is silent.

O'Connor says, "But you. What you did was dumb."

"I know," she replies. "It's just..."

"Yeah, I get it," he says. "It's tough to look the other way, huh?"

"Yep."

"And that thing?" he asks, pointing at the artifact in the footwell of the Jeep, still wrapped in the *thobe*. Once again, Taylor has her boots up on top of it, partially covering it with her *burqa*. Her seat is all the way back, allowing the spherical orb to fill the gap in front of her seat cushion. Even though it's covered, there's no hiding the smooth, curved shape.

O'Connor says, "You've got to be careful exposing that thing to these guys. There's no telling how they'd react to something alien. It could really freak them out."

"I know," Taylor replies reluctantly.

O'Connor asks her, "What do you think that thing made of the market?"

"It would have seen us as bees in a hive," she replies. "Like ants swarming over a nest."

"Not much difference, huh?"

"Nope."

They cross a concrete road, continuing to follow the back alleys through *Dongola*. Chickens scratch at the dust, looking for insects. The scrawny birds rush into crooks and gaps in the walls as they drive on. The alleys are only roughly parallel to the main road and meander around walled compounds. Over the course of a mile, they drift further away, but O'Connor doesn't seem bothered by the deviation. They must be going roughly in the correct direction.

"So what's the plan?"

"Mohammad said there's a lot of buzz about the ambush up in *Harat Zuwayyah*. Seems *Boko Haram* isn't impressed at being shot at. It doesn't seem fair to them. They've put a price on our heads."

"A bounty?"

"Fifty thousand dollars. US dollars. Each."

"And you're not worried about Mohammad selling us out?"

"Nah, he knows *Boko Haram*. They'll never pay. They're just trying to flush out the game. Anyone that tries to claim that bounty will get a handshake, a warm, friendly thank you, and a bullet in the back of the head."

"But he can get us out of here?"

"For ten grand, yes. He just doubled the price to look after your friend."

"Ten *thousand* dollars? US dollars? You're maxing out my funding. You know that, right?"

O'Connor doesn't reply.

"Well, I hope we're flying first class."

O'Connor laughs. "Oh, you're going to love this flight."

As they reach the outskirts of the city, the layout of compounds and houses becomes more irregular, resembling those scattered around *Harat Zuwayyah*. There are large swaths of dusty, open ground between the dwellings. The grid shape of the city dissipates into a patchwork quilt of diagonal tracks weaving their way through the sand. Out to their left, Taylor can see the empty highway with its raised concrete road. Soldiers stand in a hut to one side, operating a toll booth roughly five hundred yards from them.

After a few miles, they cross the main highway, driving up the steep berm onto the concrete. From the way dried mud and sand have been spread on the concrete surface, it's clear this informal crossing is in regular use. They drive up, over and down the other side. The Jeep struggles to get out of a drainage ditch running parallel to the highway. The antiquated vehicle slides sideways in the soft sand as O'Connor revs the engine, working with the gears to gain traction. Once they're back on the plateau, the airport is visible in the distance. Although most of the planes are aging Cessnas, there are a few larger cargo craft sitting on the taxiway. Low-lying sand dunes surround the airport, encroaching on the flat concrete runway.

O'Connor drives over a steep curb, dropping down into the parking lot behind the hangars and warehouses lining the airport. He pulls up at the far end of the lot.

"Well, thanks, old girl," he says, turning off the ignition and smiling as the engine splutters and dies. "You've served us well."

"Girl?" Taylor says, trying to give him some side-eye from beneath her *burqa*, but she fails to get his attention. She gets out of the Jeep and stretches her legs.

"Yeah, she's a beauty, huh?" he says, getting out and tapping the hood. "If only she could talk and tell us the tales of her time here in the desert."

Taylor notices he leaves the keys in the ignition. She wonders who'll find the Jeep and where it'll end up. How many more years does she have in her? Decades? Given the industrious nature of the Arabs, she'll probably end up with her engine running a water pump and her hood forming the door on some compound.

O'Connor grabs his M4.

"Here," he says, lifting the hem of her *burqa*.

"What are you doing?" she asks, batting at his hand.

"Hide this beneath your *burqa*. They won't search you."

"Modesty has to have some benefits, I guess," she says, taking the gun from him and slipping it beneath her dress. She

wriggles her arm out of the sleeve and beneath the *burqa* so she can slip the strap over her shoulder. Once the gun is hanging along her side beneath the *burqa*, she turns to look at him. O'Connor pats her dress, looking at how the material shifts and moves. For Taylor, his hands are intrusive, but she understands what he's doing. Hiding a weapon of war has to be convincing.

O'Connor straps a handgun to the inside of his ankle, pulling his trouser leg over it.

"Isn't that supposed to be on the outside?"

"Beats a quick pat down," he says, tucking in his shirt and exposing the sidearm in the holster on his hip.

"And that?" Taylor asks. "How does that beat a pat down?"

"It doesn't," he replies. "It's the sacrificial lamb."

"Ah."

O'Connor rests Taylor's pack on the ground, leaning it against the Jeep, saying, "They're going to rummage around in there. Make sure there's nothing you don't want the world to see."

"Oh, we're waaaaaay past that," Taylor says, trying not to laugh. "But what about the artifact?"

"Security here is for show," O'Connor replies. "It's theater. Well, it's theater everywhere. Airport security keeps honest people honest. It doesn't do much for anyone with any actual intent. Especially if they've got greenbacks to splash around."

"And the artifact?"

"They're being paid to look the other way. They'll log seizing a handgun and conducting a thorough security search, but their senior managers have already passed down word that we're to be sent through without incident."

"And how much extra did that cost?" Taylor asks.

"You're worried about the bill?" O'Connor asks, laughing. "Seriously? You're in possession of a priceless artifact from another world, and you're worried about my expense account?"

"Well, when you put it like that," she says.

"Let's get you out of here," O'Connor says. He reaches into the passenger's footwell and grabs the twisted end of the *thobe*, hauling the artifact out and over his shoulder. He's got his backpack on. The bulky artifact bumps into the frame, and Taylor reacts, ready to grab the alien device if it rolls out of the *thobe*.

"Relax," O'Connor says. "I've got this."

For Taylor, this is a pivotal moment. Her life, along with the continued existence of the artifact, has been in O'Connor's hands ever since she retrieved the strange alien machine from the cave, but this is the first time she's physically surrendered it to anyone. It feels wrong to let go. Trust is difficult to define. She has no doubt O'Connor will look after the alien device, and she's only a few feet away, but it feels as though she's losing control. But what control has she ever had? What control *could* she have over an alien artifact that's been on Earth for thousands of years? Its existence eclipses her life. Her anxiety is hubris, and she knows it.

They walk toward one of the buildings. From inside, one of the staff opens the door for them. Several scrawny security officers direct them to a fold-up table that's been hastily erected in front of the floor-to-ceiling windows looking out over the airfield. A single-propeller aircraft pulls up not more than fifty feet from the door. Its engine sounds like a nest of angry hornets.

"Bags here," an officer says from behind the table, tapping the scratched surface with a baton. O'Connor dumps his backpack on the table. Given it's full of ammunition, Taylor's expecting it to be much lighter when it's handed back. She places her backpack down with care next to his.

The officer raises his chin, looking at the artifact wrapped in the *thobe* hanging over O'Connor's other shoulder.

O'Connor shakes his head. "Not this one."

"I see. I understand," the officer says, opening O'Connor's backpack and laying out the magazines, hand grenades and flash bangs as though they held no more interest than items of clothing. To Taylor's amazement, he repacks them and closes the top of the pack. He doesn't look in any of the bulging side pouches.

"The sidearm. It is forbidden."

O'Connor doesn't say anything. He simply pulls the gun out of the holster and places it on the table. The officer picks it up and examines it, pops out the magazine and checks that the breach is empty. He hands it off to another officer beside him.

"And that's it? That's all? You have nothing else to declare?"

"That's it," O'Connor says with an ancient alien artifact hanging over his shoulder as though it were entirely invisible.

The officer nods his head to one side, signaling O'Connor can take his pack and head to the waiting plane. Taylor stands there a fraction of a second too long. She's waiting for her pack to be searched. It takes her a moment to realize the sham is over and that she should follow O'Connor.

"Oh, okay," she says awkwardly, grabbing her pack and following him. "Thank you."

Thank you for what? For taking a bribe, she figures.

She rushes out onto the concrete runway behind O'Connor. Over the sound of the engine idling, she calls out, "How much did that cost?"

"A grand," O'Connor replies. "And a gun. They like their guns."

"Well," she says. "It was worth every penny."

O'Connor tosses his pack into the back of the open plane. It slides to the rear of the flat deck.

"Where are the seats?" Taylor asks.

"We got a ride. That's all we need."

"So, no champagne before take-off, huh?"

O'Connor laughs. He rests the artifact on the deck of the plane and clambers inside before dragging the spherical device to the rear and securing it behind a cargo net along with his pack.

Taylor goes to climb in, but the deck of the plane is level with her chest. She needs stairs or a step. She lobs her backpack up, and O'Connor stows it, but she struggles with how to hoist herself up into the aircraft. The M4 beneath her *burqa* clanks against the side of the plane.

"This is going to be—"

"Awkward?" O'Connor asks, crouching and offering her his hand.

"Undignified," she replies, accepting his hand. He hauls her up, but not without scraping her against the side of the plane as he does so. She pushes with her free hand and swings a leg up, getting one of her boots on the deck. The M4 protrudes from beneath her *burqa*.

"You can take that out now," O'Connor says as she gets to her knees with the barrel of the M4 scraping on the scratched metal deck of the plane. Taylor steals a glance at the security officers in the building. They're watching the two of them with bewildered curiosity. They must know she's not an Arab, and this is no ordinary flight, but with greenbacks lining their pockets, they don't care.

Taylor crouches within the cramped confines of the cargo bay and turns side-on so she can slip her arm out of her *burqa* and free the M4. O'Connor stows it with the packs.

"Okay, we're all set," he says, sitting on the deck of the plane and holding onto a leather handle on the fuselage. The pilot is seated in the cockpit. He turns side on to them, speaking in Arabic, but Taylor can't make out his words over the sound of the engine revving up to speed. He holds a thumb up, and O'Connor repeats the gesture back to him. The pilot releases the brakes, and the plane turns, following a taxiway out toward the runway. Over the roar of the screaming engine, Taylor yells, "Aren't we going to close the doors?"

"What doors?" is the reply that's shouted back at her. And to her horror, she realizes he's right. There are no doors on either side of the plane. She grips a leather strap next to her, but it's old and fraying. It wouldn't take much to tear it from the fuselage.

The propeller kicks up sand and dust, clearing the runway behind them. To Taylor, it's like being caught in a sandstorm. Dirt and grit swirl before her. For once, she's glad to be wearing a *burqa*. The wind causes the material to billow, but she shifts her position, trapping the edge of the fabric beneath her legs and avoiding the worst of the dust and dirt. O'Connor has a bandana wrapped around his nose and mouth. He squints, trying to keep the grit out of his eyes.

The aircraft turns and accelerates, racing down the runway. The wheels bounce on the rough concrete, and then there's an abrupt calm as the plane lifts into the air. The aircraft rises several thousand feet into the sky before turning to the east. Taylor is damned if she's going to sit there in her *burqa*. She pulls the crown from her head and wriggles free.

"What are you doing?"

"Breathing," she replies. As she only has a bra and shorts on underneath, she keeps the fabric of the *burqa* wrapped over her chest, but it feels liberating to have her peripheral vision back. She tucks the loose folds of the *burqa* under her armpits.

"You need to put that on when we land."

"Yes, Dad," she replies. For now, she wants to enjoy the view. She's never been this far south along the Nile before.

The plane banks, and they get a stunning view of a blue river winding its way through the sullen desert for easily fifty miles. On either side of the Nile, greenery clings to the river. For the most part, it's square patches of cultivated land, but there are sections of forest and a few orchards. Although it was intimidating at first, having the doors open provides them with a spectacular view of southern Sudan. "Beautiful, huh?" O'Connor says.

"It sure is," Taylor yells in reply. "Look at the way the sunlight reflects off the water. The ancients called it the Nile because that means river of light. At night, in the desert, it's always dark, except when you're near the Nile. Then, the smooth waters reflect the light of the stars and the Moon."

"Huh," O'Connor says.

"For us, it's not such a big deal, but back then, when all they had were oil lamps and campfires, living by the Nile doubled the light on the darkest of nights. The Nile came to represent light and life."

"That's pretty cool," O'Connor says.

"Where are we going?" Taylor asks, suddenly realizing she's boarded a plane without any idea of its destination. She assumes they're still heading for the port, but she has no idea. She hopes he's wrangled a flight to Cairo but doubts that.

O'Connor points at the horizon. "The Port of Sudan on the Red Sea."

The Nile remains visible to them to the south as they fly over the desert. The river meanders through the arid landscape. Villages dot the Nile, but everywhere else is as barren and desolate as the Sahara. It's clear the Nile provides the only chance for life to flourish within Sudan. They fly over rock formations similar to those of *Harat Zuwayyah*, but there's no sign of any habitation. These mountains lack the artesian groundwater of the Libyan oasis.

The engine splutters and coughs. For a few seconds, plumes of black smoke billow from the front of the aircraft. Taylor grips the leather strap with both hands as the plane staggers and dips before regaining its altitude.

"Well, that was fun," she says nervously.

"Think of it like a rollercoaster," O'Connor yells in reply.

"No parachutes, huh?" she says, only half joking. Not that she'd know how to put one on, let alone use one. How hard can it be to pull a ripcord? She looks around, not seeing anything like the bulky shape of a packed parachute.

"We'll be fine."

"Will we?" she calls out over the sound of the wind curling within the cargo bay.

"We're not flying a brick," O'Connor says. "If the worst happens, we can glide."

"Into those granite mountains?" she asks, pointing out of the open door as her hair swirls around her face.

O'Connor grins. "Looks as good as anywhere to land."

"How old is this thing?"

"It's reliable."

"How old?" Taylor asks, repeating her question. His vague, noncommittal answer suggests he knows. Given how careful O'Connor is with his planning, she's sure this is a detail that wouldn't have escaped him.

"Mohammad said it's a 1967 Piper Single Engine Prop Cherokee."

"It's a museum piece!"

"Well, it's an Arab knock-off of a museum piece," O'Connor replies, joking with her. "Built from spare parts."

"This thing is older than my dad."

"So was the Jeep," he says.

The desert is replaced by a series of rugged, empty mountains that seem to stretch on forever. After an hour of coughs and splutters from the engine, Taylor spots a deep blue on the horizon.

"That's not a mirage, right?"

"Nope. That's the Red Sea, separating Africa from the Arabian peninsula."

For the first time since she arrived in *Harat Zuwayyah*, Taylor feels a sense of relief. They've made it. Then she tempers her expectations. They've made it to a port that will allow them to exit the country quietly. There's still a long way to go, but they'll be beyond the reach of *Boko Haram*.

"And from here?"

"Once we're on the ground, I need to go to the port office. Mohammed is trying to get us on a freighter bound for Mombasa. Kenya's an old colony. It has strong ties to the West. From there, we've got options. We'll head inland to Nairobi, where we can go to the British or the American Embassy. It's your call."

The plane banks, giving them a stunning view of the port and the hundreds of streets and alleyways weaving between mud-brick homes and buildings. The azure blue of the Red Sea is breathtaking. There are multistory buildings near the port, which is surprising given everything she's seen over the last week. For a while there, it was as though two-story buildings had never been invented. Now, their mere existence is a token of civilization returning.

"American," she says. "We'll take it to the Americans."

"You're sure?"

"I'm sure," she replies. "No, I'm not. The British. We'll take it to the British Embassy."

As the wheels of the plane touch down on the concrete runway, O'Connor laughs, saying, "Well, you've got plenty of time to make up your mind. It'll take us a few days to round the Horn of Africa and reach Mombasa."

"America," Taylor says, changing her mind yet again. In reality, she knows he's right. She has plenty of time to deeply consider her options, but to have options is exciting. She wants to learn all she can about the artifact, and she's excited to share this remarkable archeological find with the world. O'Connor hires a taxi to take them from the regional airport on the south of the city to the Port of Sudan. It's a short drive, but this close to the coast, the heat and humidity are unbearable. The vicious sun radiates through the sheet metal roof of the aging vehicle. Sweat soaks into Taylor's *burqa* as she sits in the back seat with the artifact beside her, still wrapped in the *thobe*. There's no air conditioning. All of the windows are down, but instead of a cool breeze, the wind rushing past is like a blast furnace. They pull up on the side of a main road.

"Wait here," O'Connor says, getting out on a busy street. He darts between cars and trucks beeping their horns at him and rushes up the stairs of an old colonial building with an English title engraved into the sandstone: *Sudan Port Authority*. At a guess from the architecture, the building dates back to the 1930s when England dominated the region.

The taxi driver is chewing *khat*. His cheeks bulge with mushed leaves. He's tall and thin. His mustache rocks beneath his nose as his jaw crushes the narcotic plant leaves of the *khat*, grinding it between his molars and breaking it down with his saliva. The slow release of the *khat* gives him an almost constant high. He eyes Taylor in the backseat, staring at her in the rearview mirror. The one saving grace of the *burqa* is men cannot tell where women are looking. Taylor can watch his every move while keeping her head tilted to one side, making as though she's idly watching cars driving down the street.

"You flew in, huh?" he says, breaking the social taboo of men talking to women outside of their families. Taylor ignores him, reinforcing the cultural norm and taking advantage of her ability to hide behind the *burqa*. The *khat* is making him overconfident.

"What is the balloon?" he asks, gesturing at the artifact. To describe it as hidden by the *thobe* is like draping a blanket over a camel and calling it camouflaged. There's no disguising the vast spherical shape that takes up most of the back seat. "Why do you have this thing? It is not luggage."

Taylor lowers her gaze, staring at bloodstains on the back of the seat in front of her.

He says, "What is *aimra'atan jamila* doing with *alshaytan al'ajnabiu*?"

His choice of terms is telling. Calling her a beautiful woman when she's hidden behind a *burqa* is probably intended as flattery, but it comes across as creepy, while calling O'Connor a foreign devil is revealing. O'Connor's already pushed a bunch of dollar bills into his hand to pay for discretion. The driver has strong feelings toward outsiders. However, he's assuming she's Sudanese. He's letting down his guard, wanting her to rat out O'Connor. Taylor's happy to let the Arabic cultural silence of women ignoring strangers play out. She shifts in her seat slightly. It's her way of letting him know she's heard him but won't respond with anything other than body language. She keeps her lace-gloved hands in her lap, making sure the black folds of fabric on her arms cover her wrists so he doesn't realize she's European.

"They are sharun, you know. Sharir."

Taylor has no doubt about who's wicked, and it's not O'Connor. The driver reaches under the steering column, resting his fingers on the key in the ignition. The engine is dead. He's on the verge of starting it, but not to fire up the air conditioning as there is none. He's thinking about driving off with her in the back.

Taylor's pulse races. She knows what he's thinking. He's wondering if he should leave with her before O'Connor gets back. Kidnapping is easy in Sudan. Within seconds, he could be winding his way through dusty back alleys with her screaming in panic.

Taylor rests her hand on the door handle, ready to throw the rear door open and jump out of the car before it gets up to speed. The traffic is heavy, not giving him much room to pull out onto the road, and that must be one of the factors he's weighing. He's got to start the engine, throw the car into drive and dart out onto the street. That gives her valuable seconds in which to react, precious seconds to escape, mere seconds she may not have again.

Taylor thinks carefully about her motion. She'll leave the artifact. That's a worry for another time. For now, she needs to get out of the car alive. A few seconds could mean the difference between life and death, and she's not being paranoid. Kidnappings are common in Sudan, and they rarely end well. Taylor figures she could make it across the road before he could jump out of the vehicle and grab her. From there, she can at least make it inside the Port Authority building, screaming for help.

"La," she says, followed by *"Aintazar,"* telling him not to start the car.

The driver's fingers pause in response to her stern words. He's trying to gain a glimpse into the future. Can he do it? Will he be quick enough? Is she worth the risk? She's valuable to someone. Someone other than O'Connor, as he's clearly a bodyguard. The driver knows she's important to at least one Westerner, but who is she? Is she the wife of someone wealthy? Is she on the run? Could there be a bounty on her head? How much money is sitting in the back of his taxi? Little does he know, the real treasure is wrapped in the *thobe*.

If he makes his move, what happens next?

Taylor's sure she can get out of the car before he accelerates, even if it means tumbling on the road and scuffing her hands on the rough concrete. Given the size and weight of the artifact, though, dragging it out with her in fractions of a second might be impossible. And even if she does get it out of the vehicle, in the rush, she's likely to lose her grip on it as it falls from the seat. If the damn thing rolls into traffic, it could be destroyed by a truck rushing past.

Taylor is defiant. If his hand is going to rest on his knee beside the ignition key, hers is going to sit on the armrest by the door handle. She drums her gloved fingers, making their position obvious while keeping a close eye on the sleeve of her *burqa*, lest it slip back and expose her skin.

But what about the artifact? Being realistic, she realizes she's probably not going to have enough time to drag it with her. If he flees with that, will she ever see it again? What will others make of it? They'll have no idea what they've snagged. At best, they might sell it on the black market as a novelty, wanting to lure in some wealthy collector. But they could easily destroy it. Lacking understanding, they might fear it. Although the artifact is thousands of years old, it looks new. They might think they've recovered some kind of advanced US drone or foreign weapon. They might push it through the channels used to smuggle drugs to Europe. The Russians, Iranians and Chinese will pay handsomely for recovered US technology. They'd buy the artifact in a heartbeat, thinking it was some kind of advanced probe, and it is. It's just not American. If Taylor loses the artifact, she loses everything. She grips the bunched-up end of the *thobe* in her other hand, resolving to drag it with her, even if it means losing valuable seconds getting out of the taxi. She's going to tumble onto the road with the weight of that thing careening into her legs. She only hopes she doesn't fall out into the traffic.

The driver eyes her with suspicion. She eyes him from behind the mesh of her *burqa*, turning to face him. There's no pretense from either of them anymore.

"You are with him?"

Taylor doesn't want to reply, and not just because she's trying to hide behind obscurity. Every time she speaks, she risks him picking up on the subtle inflection in her speech, betraying her as a foreigner. She nods, which is in line with the modesty of women in Sudan.

"He is your haris wasi?"

Again, she nods. It's highly unusual for an Arabic woman to have a Western guardian, but his thinking seems to be shifting. His curiosity is getting the better of him. Even though she's wearing a *burqa*, it's plain, having been purchased from a local village on the Nile. It lacks the adornment of the rich, which must lead him to conclude it's a disguise, and it is, but not of some imagined wealthy background. "Your *haris wasi*. He is taking a long time. Are you sure you can trust him?"

She doesn't respond.

"You can trust me," he says, staring at her in the rearview mirror. "We are one. We who are from Sudan. We are *'ukhuat w 'iikhwat*."

He's fishing, trying to figure out if she's local. This guy might have brothers and sisters, just as he suggests, but given how sleazy he is, she doubts even they trust him.

Taylor keeps her head still. She clenches her fists.

Where the hell is O'Connor? As that question flashes through her mind, she regrets her dependence on him. She's alone. She's always been alone, even in a crowd. She can't rely on him to turn up at the last moment and push the barrel of a gun into someone's neck. She needs to be strong. Strength is more than muscle. If she can't make it out of the car, she decides she'll throttle this guy, choking him from behind. She'll use her fingernails as claws. But strength is more than violence. All too often, that's all strength is portrayed as in films, but violence is a poor substitute for actual strength. It's a copout. Strength is found in poise, in words, in reason, in attitude, in honor, in civic laws, in society, in honesty. Throwing punches might make for good cinema, but it's a failure of strength, not a triumph. She sits back in the seat, raising her head and sitting proud, portraying confidence and strength. He notices. He sees he cannot intimidate her and cannot lure her with lies. She might be wearing a *burga*, but her posture tells him she won't be pushed around. Kidnapping her would be a mistake.

The driver asks, "What is he doing?"

Taylor speaks with defiance, projecting strength. "It is none of your business."

The driver seems embarrassed by her rebuke. He turns away from the mirror, lowering his gaze. His hand returns to his lap, leaving the key in the ignition. Taylor breathes deeply in relief. She keeps her hands in place, though, with one near the door handle and the other on the *thobe*. The thought of being kidnapped and ending up being shuffled between "safe houses" while some kind of ransom is negotiated does not thrill her. It's chilling to realize she's been mere seconds away from a life-altering criminal act. He might have relaxed. She hasn't. Should he spring into action, she's launching herself out of the door. He must realize this as he tries to defuse her anxiety. Whether his words are genuine or not is impossible to tell, especially as his mind is tainted by the *khat*.

"You are safe," he says. "With him and with me."

Liar.

Taylor nods in response, but every muscle in her body is coiled, ready for action. Her legs are tense, already pushing against the floor of the car in anticipation of springing out of the door. She cannot take her eyes off him. The noises fade around her. The bustle of men on the sidewalk and the rush of trucks screaming past the open window are merely a background hum.

The front passenger door opens, causing her to flinch and react. Taylor throws the rear door open. One leg is off the seat, and her boot is already hitting the road before she realizes it's O'Connor climbing in the front of the taxi. She's dragged the *thobe* over and is about to haul it out along with her when she comes to a halt.

O'Connor looks surprised. "Are you okay?"

"Fine," she says, pushing the artifact back across the seat and climbing in the taxi. With a grumble, she says, "Where have you been?" As if she doesn't know.

O'Connor is confused. He exchanges glances with the taxi driver, who shrugs, feigning innocence.

Taylor closes the door behind her. She didn't imagine that —none of that. The driver might be playing it cool, but she knows how close she came to losing her freedom and possibly her life to a loose cannon who would have happily pushed her into a criminal network for a few lousy dollars. Next time, she's going into the office with O'Connor—and the artifact!

The Red Sea

The taxi driver drops them in front of the Port of Sudan. Although it was less than a five-minute drive from the downtown Port Authority building, for Taylor, it felt like hours. Having been locked in a stare-down with the Sudanese driver over her freedom, she feels on edge. O'Connor seems to sense her discomfort but doesn't say anything in front of the driver.

The port has been built on reclaimed land and is dead flat. The two of them get out of the taxi. O'Connor pays the driver handsomely, much to Taylor's disgust. She hoists her backpack over one shoulder and the artifact in the *thobe* over the other. Damn, it's heavy.

"Hey, I can take that," O'Connor says, walking up beside her as the taxi pulls away.

"I'm fine."

"You," O'Connor says, trying not to laugh. "You are not fine. There's steam coming out of your ears."

He holds out his hand, gesturing for her to give him the artifact. They're several hundred yards from the dock, facing a port full of shipping containers stacked up to six stories in height. Begrudgingly, Taylor relents and hands it to him. As stubborn as she is, she's not too proud to know she would be utterly exhausted walking for the best part of a quarter of a mile to the ship.

"What happened?" a genuinely confused O'Connor asks, glancing at the taxi as it turns back onto the main road.

"He was going to kidnap me."

"What???"

O'Connor turns to face her, but all he can see is the black mesh of her *burqa*. Behind the veil, tears well up in her eyes. There's a moment of hesitancy on O'Connor's face. Taylor can see the doubt. On one hand, he wants to get on board that ship and get the hell out of Sudan. On the other, she can see he doesn't want to be dismissive of her concerns. He's searching, trying to probe her emotional response, wanting to understand how serious the threat was to her life. For her part, Taylor doesn't feel the need to justify herself. She's a single European woman in Sudan. She's easy pickings when isolated.

O'Connor reaches out and gently touches her shoulder, saying, "I'm sorry. I—I wanted that damn taxi to wait, so I left you with him. I should have brought you with me. That was stupid."

Taylor's relieved to see how quick he is to realize what could have gone wrong. It would be easy for him to brush off her concerns, but he's been around the Middle East long enough to know fleeting moments can have long-lasting ramifications. Taylor was a coin toss away from being abducted.

With a trembling voice, she says, "He sat there with his hand on the ignition."

O'Connor shakes his head. He understands.

Taylor says, "We stay together, right?"

"Together," O'Connor replies, turning and walking into the container lot with her.

Pickup trucks drive by, racing between the narrow by stacked formed shipping alleyways containers. Occasionally, a ten-story high mobile crane rolls past. These broad machines are designed to pick up containers and move them around the port. Workers in hard hats watch the two of them with idle amusement. An American with a shouldered M4 and a woman in a black *burga* make for a curious pair in Sudan, not to mention the crazy sight of a large spherical object wrapped in a blood-smeared thobe. Row upon row of shipping containers form artificial walls and narrow passageways. The shade is a welcome relief from the oppressive sun.

The far side of the container lot is dominated by massive cranes towering over the water, ready to load or unload a ship. Gulls drift on the breeze. To one side, there's a low-slung container ship moored against the wooden buffer running along the concrete slabs that make up the port. A sailor standing beside the gangway sees them and waves. For Taylor, it's an amusing response. He's a teen. He's as excited as someone waving to their girlfriend in a crowd, only there's just the three of them on the vast dock. And they can see each other quite clearly. O'Connor offers a brief wave in response as they walk across the open concrete slab toward the ship, which is easily 75 yards away. Heat radiates off the concrete, matching the ferocity of the scorching sun above.

"There she is," O'Connor says. "*The Heart of Kisumu*. She does the loop from Dar es Salaam in Tanzania to Mombasa, Aden in Yemen, Dubai and Karachi. The *Heart* transports tea, coffee, fruits and nuts to the Arabian peninsula and Pakistan, returning with electronic goods and clothing."

"And we've caught her on the way back?"

"She had a problem with her ballast pumps and came into port for repairs. From here, she'll round the Horn of Africa. Our first and only port of call is Mombasa."

"Nice," Taylor says, appreciating this might be a lengthy sea voyage, but it's direct. And there are no customs agents or security officers on the dock. No questions are being asked.

"Master O'Connor?" the sailor says in English as they walk up to the gangway.

O'Connor pulls out his passport, offering the sailor a quick glance at it for ID but not surrendering it. He doesn't mention Taylor. She's wearing a jet-black *burqa*, but she might as well be invisible. As for her passport, as best she understands it, it's buried somewhere in the sands of *Harat Zuwayyah*. She's not sure if the *Boko Haram* soldiers snatched it from her backpack or if it simply fell out on the dusty ground as they waved her bras around like flags, but she hasn't seen it since then. She checked all the pockets in her backpack while the two of them were driving across the desert, and it was gone, as was the four thousand US dollars she had secreted away in an obscure side compartment. O'Connor pockets his passport and follows the sailor up the gangway.

The Heart of Kisumu is an old freighter. Is anything new in Africa? Rust stains blend in with the dark red paintwork, but they leave telltale smudges on the hull leading down to the waterline.

"The captain is ready to depart," the sailor says as several other sailors head down to the dock to release the heavy ropes securing the vessel.

The young sailor leads them along a narrow walkway, past row upon row of containers to the wheelhouse at the stern of the ship. The five-story-tall white structure is barely visible above the containers. He opens a watertight door, and they step over the lip into a dark corridor.

"This way," he says, turning and leading them up a steep ladder. "The mess is on this level. Your cabin is another deck up."

After winding through a few more narrow corridors, the sailor pushes open a steel door and beckons for them to go ahead of him. Their cabin is located on the starboard side of the ship, with portholes opening forward and to the side. There's a breeze, but it's hardly cool.

"Thank you," O'Connor says, putting his backpack down on the floor and lowering the *thobe* to the mattress of a bunk bed. He looks relieved to be free of the weight of the alien device. The back of his shirt is soaking wet with sweat.

"Captain Freeman has asked you to remain in your cabin until we clear port. Then you're welcome to join us on the bridge."

"Understood," O'Connor replies.

The sailor leaves them, closing the door behind him.

"And where's my cabin?" Taylor asks, already knowing the answer. O'Connor pats the upper bunk.

"Oh, no," she says. "You get the breakneck fall. I get the lower bunk."

"Sure," he says, swinging his M4 down from his shoulder and leaning it against the sink by the toilet in the corner of the cabin.

"You're no travel agent, are you?" she says, resting her pack on the lower bunk next to the *thobe* and rummaging through it. "You keep missing the memo about First Class."

"Hah! This is about as classy as it gets in Africa," he replies, running water in the sink and splashing his face. While his back is turned, Taylor hoists the *burqa* over her head and dumps it on the floor. She slips on a T-shirt.

"That's better. That's so much better."

She looks at O'Connor, who's staring at her in the mirror, having watched her the whole time. Privacy is not going to be a thing for the next few days.

O'Connor climbs up on the top bunk and lies on the mattress with his head sinking into the pillow.

"This is soooo much nicer than the desert."

"First Class," Taylor replies. She stands by the open porthole on the side of the cabin and watches as the ship pulls away from port. Tug boats push against the hull, churning the water behind them and kicking up silt. Muddy water billows by the pier, obscuring the otherwise blue sea.

"Farewell, Sudan," she says, looking out at the drab city and the desert beyond. Mountains rise in the distance, obscured by the haze.

The Heart of Kisumu pulls out into the channel. After sailing out of port, they pass the oil refinery. Taylor spots a plane descending to the airport. She feels an immense sense of relief that the danger and uncertainty of being on the run is behind them. From here, it's five days to Kenya, and then they'll be in the protective custody of either the British or American embassies and able to return to England or possibly the US.

Taylor's been so focused on survival she's barely thought about the impact of the artifact on the world at large. Once news of it reaches the mainstream media, it is going to become *the* talking point for eight billion people. The artifact's existence challenges the notion that Earth is unique among the trillions of planets in the galaxy.

How common is life? How common is complex life? Technological life? How many times has life arisen? Even with this device, there's no way of knowing, but the answer is at least twice within the Milky Way. And if life has arisen twice within one unassuming spiral galaxy, how many times has it arisen within the hundreds of billions of other galaxies scattered throughout the universe? Has it arisen hundreds? Thousands? Millions of times? Life might not be as common as the stars, but suddenly, it is far more common than anyone dared imagine. No one will ever look up at the night sky the same way again. They'll look at the stars, knowing someone else is looking back.

Although her speciality is archeology, Taylor feels she has valuable insights into the alien artifact. Not only has it been a part of human history for thousands of years, it represents the history of an alien intelligence. There's no way to know how old it is or even if its creators are still alive. Is it a relic? A beacon? An encyclopedia? A means of communication?

Once she surrenders the artifact, she loses control of it, and that scares her. Taylor doesn't want to admit as much, but watching as the azure waters of the Red Sea pass beneath *The Heart of Kisumu*, she feels a sense of trepidation. Her rational mind says to trust other scientists. Her heart tells her this is beyond all of them. Although she's looking out into the bright sunlight, she feels the future is dark. There are no stars to guide them and break through this black night. All she knows for sure is that the artifact is the product of some other intelligence, and that will challenge humanity.

Archeology is often thought of as the study of dead cultures, but it is about understanding the way in which human intelligence has progressed over thousands of years. Taylor's doctoral dissertation was on Queen Nefertiti. She's studied her so much she feels she understands her motives.

Nefertiti may have worshiped the sun god Aten. She may have believed and prayed for the afterlife, but she had to cling to more than religious superstition. She ruled with reason. Egypt was the wealthiest nation on Earth at that time, and she sought to consolidate that by building a new capital. Whereas most historians focus on her beauty, Taylor saw a woman seizing the opportunity to bring change. To her, that's the true mark of intelligence. Surrendering to the status quo is easy. Embracing change requires vision and endurance. Few women have had that opportunity throughout history. And now, the alien artifact challenges human intellect. Will it become a curiosity on display in the Smithsonian? Or will it give humanity a chance to meet intellect with intellect and inspire change?

There's a rap on the metal door. O'Connor stirs, swings his boots down from the bunk and drops to the floor. Taylor opens the door. The young sailor that met them by the gangway looks surprised to see her, and it takes her a moment to realize he's *never* seen her before. To him, she's a stranger. She's not the obscure monolithic human hidden beneath a black garment that walked up the gangway. Suddenly, she's a person. She has hair and eyes and skin—all of those things denied her when shrouded by the *burqa*.

"Oh, ah. The captain will see you now."

"Wonderful," Taylor says. Being out of the *burqa*, she feels she can finally speak again. There's freedom in being herself.

O'Connor walks up beside her and gestures for her to go first, which is a stark contrast to when she was wearing the *burqa* and would have to follow behind the men. Taylor runs her hands up through her hair several times, using her nails as a brush to sweep back her long, sweaty locks and at least look partially respectable.

O'Connor locks the door behind them. Taylor didn't even realize there was a key to their cabin as she never saw it from behind the veil of the *burqa*. He tests the handle once locked. It's nominal security. Someone somewhere onboard will have a master key capable of opening any door on the ship, but there's got to be some trust on her part. After all, the two of them are trusting the crew with their lives simply by boarding *The Heart of Kisumu*.

The sailor leads the way.

They walk onto the bridge, and Captain Freeman turns to face them.

"Welcome," she says, holding out a hand to Taylor first.

Captain Freeman is an African woman with dark, oily skin. She's wearing a company uniform with an ornate veil draped over her head and shoulders, but the silky material is well clear of her brow. Taylor spots bobby pins holding it in place in her hair. A golden thread runs around the edge of the silk material.

"Captain," Taylor says, shaking her hand warmly, delighted to see a woman in charge. Most of the crew are men, but there's a woman on the radio desk with a pair of headphones clamped over her ears. She's talking into a microphone as she studies a nautical chart.

The captain says, "They told me there was a woman fleeing *Boko Haram*, so I delayed our departure. But I must say, I was expecting an Arab, not a European on the run from those thugs."

"I'm Professor Susan Taylor from the University of Wales in Cardiff."

"A professor?"

"Of archeology."

"And what brings you to Sudan?"

"I was in Libya examining a tomb from one of the early Egyptian dynasties, probably from around five thousand BC."

O'Connor says, "Things got a little hot out there in the desert."

"Boko Haram, huh?" the captain says.

Taylor says, "They're not fans."

The captain laughs. "No, they're certainly not. Well, it's good to have you onboard. Stuart here will check in with you twice a day to see if you need anything. You're welcome to explore the ship, but please stay out of the engine compartment. There's an observation deck above the bridge that gets a sea breeze. I highly recommend it."

"Thank you," Taylor says.

She and O'Connor return to their cabin. Taylor empties her backpack, stowing her clothing in the drawers by the bed.

"Showers are just down the hall," O'Connor says, hoisting a towel over his shoulder and picking up some not-so-clean clothes. He's got a bar of soap in his hand.

"Is there a laundry?"

"Directly opposite the showers."

"Oh, good," Taylor replies, pulling her clothes back out of the drawer and dumping them on the table. "I might put on some washing and call my dad."

O'Connor nods and hands her the key to the cabin before he leaves.

Taylor takes all of her spare clothing, including her *burqa* and dumps it in a washing machine. It feels good to twist the handle and hear the sound of water running and the agitation of an old-fashioned washing machine beginning to sway. She hoists herself up on a dryer and powers on her satellite phone. The battery has faded to 18%, but she can charge it now she's onboard *The Heart of Kisumu*.

"Hey, Dad," she says seconds after hitting the speed dial for *Home*.

"Sue? Susan?" From the other end of the phone, a muffled voice yells, "Mary, I've got Sue on the line." Followed by her mother calling out, "Well, put her on speaker."

"How are you? Where are you?" her father asks.

"We've been worried sick about you," her mother says before she has a chance to reply. "I'm fine." Taylor thinks carefully about what she will and won't say to her parents. Besides, it's difficult to compress the last few days into a handful of sentences, but they sure will make for some fascinating anecdotes around the dinner table when she gets back to Wales.

"You should have called. You were supposed to call us," her mother says.

"I'm calling right now," Taylor says, trying not to laugh, even though all she's been through is in no way funny. "I'm in the Red Sea."

"The Red Sea?" her father replies with a sense of awe that suggests he's trying to place exactly where that is geographically.

"Off the coast of Sudan. I'm heading for Kenya."

"Kenya?" her mother blurts out. "I thought you were in Libya?"

"I was, Mom. From there, I traveled through the Sahara into Sudan, and now I'm on a ship heading to Kenya."

"Why are you going to Kenya?" her bewildered father asks.

"I need to get to the British Embassy there."

"Are you in some kind of trouble?" her mother asks.

"No, Mom. Everything's fine. Honest."

"Did you find what you were looking for?" her father asks.

"Yes," she replies, desperately wanting to tell them about the artifact but knowing it would be a mistake and drastically overcomplicate the discussion. "I found a tomb that's roughly seven thousand years old. I've got photographs, video and even a few trinkets."

Trinkets is the closest Taylor will allow herself to talking about the artifact.

"Once I've handed them over to the embassy, I'll be on the first flight back to England. I promise."

Her father asks, "Why are you giving them to the embassy? Shouldn't they be going to a museum?"

It's a good question and one that hints at the underlying complexity of what she's actually dealing with.

"Africa is a wild place, Dad. The Sahara... well, it's more than a desert. It's living history. It's—oh, you would have loved the Bedouin. They were amazing. Anyway, I'm getting off track, and my phone is running out of battery. I just wanted to call and tell you I love you and that I'm fine. I'm safe. I'm on my way to Nairobi. I should be back in England in about a week. Okay?"

"Okay," both of them answer at once, followed by her dad saying, "Love you too."

"All right. Bye for now."

"Bye, sweetie," her mother squeezes in before she can end the call.

To Taylor's delight, there was a distinct change in the tone of voice used by both her mother and her father during the call. At first, their words were strident and low-pitched. By the end, they were relaxed. She's put them at ease.

Taylor looks up. O'Connor is standing in the doorway to the laundry compartment. He's got a towel wrapped around him and his clothing bundled up in his hands. His hair is slicked back. His muscly, hairy chest glistens in the sunlight coming in through the porthole.

"What?" she says in response to the cheesy grin on his face after hearing the end of her call.

"Nothing," he replies, dumping all of his clothing, including what he was wearing today, in the washing machine beside hers. He adds some powder and turns it on, cranking the dial to a cold 30-minute cycle.

Taylor drops down from the dryer, saying, "My turn for a shower."

Sunscreen

On their second day at sea, *The Heart of Kisumu* passes through the *Bab al-Mandab Strait* between Yemen at the tip of the Arabian peninsula and the obscure, tiny country of Djibouti, bordering Eritrea, Ethiopia and Somalia in North Africa. The waterway is barely fifteen kilometers wide, meaning both land masses can be seen from the bridge of the ship. It's one of the rare places in the world where two entirely distinct continents can be seen at once.

Taylor lies on one of the deckchairs that have been bolted to the observation deck above the bridge of *The Heart of Kisumu*. In rough weather, this prevents them from being knocked off the five-story tall wheelhouse, but the downside is the chairs can't be moved around. A roof extends above the stairwell leading up from the main corridor, but depending on the position of the sun, it only shades roughly half of the deck. A metal railing runs around the rooftop. What the *Heart* needs is a swimming pool, Taylor thinks, reclining on the chair with her legs out in front of her. Oily sunscreen glistens on her skin. With a cool breeze blowing, the sun feels glorious. There's something therapeutic about sunbathing. From where she is, she can see both desert coastlines. The azure blue of the sea separates the barren, rocky shores. The water glistens like opals.

"Why do they call it the Red Sea?" a voice asks from behind her.

"Oh, hi," Taylor says, turning side on to see O'Connor sitting on the deckchair next to her. "Ah, red means south?"

"South?"

"Yeah, the sea isn't named after a color but rather a direction. Before they had a word for south, the ancients used colors for orientation. And as this sea lay south of the Mediterranean, it was called the Red Sea, meaning the sea to the south."

"Well, that's confusing."

"Humans have always been confusing," Taylor replies, smiling. "We're a complicated species. As logical as we think the term *south* is, it's no more or less logical than using a color. Both words are simply placeholders used to express an idea."

"Do you think it understands us?"

"The artifact? I don't know," she replies. "Hell, we have a hard enough time understanding each other on this tiny water world we mistakenly call Earth. There are easily seven or eight thousand languages on this rock. That's seven or eight thousand different words for *south*."

"Yeah, that's not confusing at all," O'Connor says.

"Can you rub some sunscreen on my back?" she asks, sitting up and turning away from him. Taylor's got her t-shirt draped over the back of the chair and her shorts rolled up to the top of her thighs. She chose her plain bra over the lacy one, so it looks more like a bikini top. Now it's time to roll over and let the sun soak into her back.

"Sure," he says, taking the tube from her and rubbing the cream on her neck. He works it into her shoulders and the muscles running over her collarbone. As strong as his fingers are and as pleasant as it is to be touched by his hands, he's not laying on sunscreen. He's giving her a back rub. Taylor closes her eyes, enjoying the moment.

Lips touch softly at her cheek.

"What are you doing?" she says. Taylor spins sideways, turns around and shoves him. As O'Connor is sitting forward on his deckchair, he rocks back, shocked at being pushed.

"I—I'm sorry, I kissed you. I shouldn't have—"

Before he can say any more, Taylor grabs his shirt and pulls him in toward her, planting her lips firmly on his. Within seconds, their mouths open and their tongues touch. Taylor reaches up with her hand, holding him by the jaw as she kisses his lips passionately, then she pulls away as abruptly as she leaned into him. "That," she says, getting to her feet and grabbing her tshirt from the back of the chair. "That's a kiss!"

"I—ah."

O'Connor blinks rapidly in the bright sunlight, which causes her to smile. It seems the big, bad, tough bodyguard is not used to being taken off-guard. Taylor slips her shirt on, grabs her towel and the sunscreen and walks toward the stairs leading down to the bridge.

"And what is this? Between us?" he asks, still sitting on the other deckchair.

"Red. South. Call it whatever you want. It's complicated."

O'Connor laughs. He shakes his head in disbelief.

Taylor smiles, adding, "And it's fun."

"Oh, it's certainly not boring," O'Connor says, swinging around on the deckchair and stretching out his legs in the sun.

Taylor leaves him sitting there. Even with sunscreen, there's only so long her fair skin can stand up to the blazing noonday sun. It would have been nice to lie there on her stomach for a while, but she's got plenty of time before they reach Mombasa. She decides she'll come back up here again tomorrow.

The Horn of Africa

On the third day of their voyage, *The Heart of Kisumu* rounds the Horn of Africa. Captain Freeman told Taylor they'd pass roughly twenty miles from the coast. From the bridge of the container ship, the coastline is visible, but it's nowhere near as spectacular as the *Bab al-Mandab* Strait. She can't see Somalia, but there is a dull sandy haze on the horizon, marking land.

"Two days out," the captain says. O'Connor ignores her. He's not looking at the coast. He's staring down through the broad windows at the deck of the container ship, drumming his fingers on a nearby console.

"Is everything okay?" Taylor asks him quietly.

O'Connor ignores her, turning back to the captain. "How long have you known?"

The captain looks defensive. She stutters. "W-What?"

"How far out are they?" he asks, pointing at a sailor down on the deck. A fire hose runs along the edge of the walkway to a raised platform where it's connected to what looks like one of the water cannons Taylor's seen mounted on top of fire engines in England. Back there, they're used to spray water forty to fifty feet in the air when fighting house fires.

"When were you going to tell us?" O'Connor asks.

"Tell us what?" Taylor asks, confused.

"About the pirates," O'Connor replies, looking the captain in the eye.

"Pirates?" Taylor counters, turning to face the captain.

"I didn't want to alarm you," the captain says. "We may yet pass without incident."

"But you've been warned?"

"MVRS Hamilton just docked in *Socotra*. Her master spotted them about ten miles south of us. But that was yesterday. They will have returned to *Eyl* by now, possibly even *Mogadishu*. I've got my crew on standby, that's all. There's nothing to worry about."

"Yet," O'Connor says.

"We're taking precautions."

"May I?" O'Connor asks, pointing at a pair of binoculars resting on one of the desks. The captain holds out her hand, gesturing that he's welcome to look through them. O'Connor removes the caps and stares into the distance, slowly scanning the ocean and peering out at the horizon.

"I don't understand," Taylor says. "Why are you using water cannons? If they're pirates, why not shoot them?"

"Because that ups the ante, and they'll shoot back," O'Connor says. "And there ain't a whole lot of places on a ship to hide. Once they get onboard, they'd hunt us down and shoot us like dogs."

"He's right," the captain says. "Our best strategy is to outrun them."

"And the water cannons?" Taylor asks.

The captain says, "If they're taking on water, they're slower, and they think twice about the journey back to *The E*. There's a lot of ocean out there."

"Are there any warships in the area?" O'Connor asks, lowering the binoculars.

"No. The Brits are in Aden. The Yanks are up in the Gulf of Oman. Four or five hours, and we'll clear the danger zone."

"What are you carrying?"

"Several million dollars' worth of TVs, computers and white goods."

"Juicy target," O'Connor says. The captain doesn't reply. He returns to scanning the ocean with the binoculars. Two other officers are also peering through binoculars, watching for pirates.

"We'll be fine," the captain says. Down on the deck, the sailors stationed on either side of the container ship spray their water cannons out over the sea. White jets of high-pressure water reach forty to fifty yards before fading and becoming a fine mist. From the chatter on the bridge, they're conducting a drill. All around the ship, water sprays as though from fountains, but the port side region just in front of the bridge is a blank spot. O'Connor taps Taylor's shoulder and points.

"A chain is only as strong as its weakest link."

Several sailors work with the water cannon down there, unfurling a second fire hose leading back to the wheelhouse. They're doing all they can to get the port cannon working.

"Contact," one of the officers says, pointing. "I make a speedboat off to starboard. Three miles out. South by Southwest."

"Confirmed," another officer with binoculars says.

"Steer south by east, bringing us around to hard east," the captain says. "Open up the engines. Radio our position to *Socotra* and tell them we have a potential pirate contact inbound."

"Yes, ma'am."

O'Connor takes Taylor by the arm, but she's reluctant to leave the bridge. She pulls against him, wanting to stay. Her heart is racing. Panic seizes her mind. It's the sense of helplessness. They're isolated and alone in the middle of the ocean.

Quietly, O'Connor says, "They've trained for this. We need to let them do their jobs. Being here won't help. We'll only get in the way."

"But..."

He leads her out into the hallway.

"What are we going to do?" she asks.

"There's nothing we can do," he replies. "It's all up to them now."

"What will happen to us?"

"They're after the ship and its cargo. Not the crew. Not any passengers."

"But the artifact?"

"The cabin's locked. They don't know what's in there. There are hundreds of rooms, compartments, and storage areas on this vessel. They're not going to search the whole ship. They're focused. And they're expecting laptops, not alien artifacts."

"So we hide," Taylor says, seizing on that idea. "We take the artifact, and we hide in the bowels of the ship."

"We don't want to hide," O'Connor says with a sense of calm Taylor cannot understand.

"Why not?"

"We want them to know we're here, that we're part of the crew and passengers. We want them to see us as ordinary. We're nobody special. And we want to be offloaded at the nearest port. We want to leave the ship and its cargo in their hands. We do not want to be trapped below deck."

"Okay, okay," she says, sweeping her hair behind her ears.

"But you should wear your burga."

"Of course," she says, not liking that suggestion but accepting it. "Blend in, right?"

"Disappear into the background. We want them to think we're innocent bystanders. We don't want them to look twice at us. We need to be wallflowers."

"Wallflowers," she says, nodding.

Words are registering in her mind, but the meaning behind his point is elusive. Taylor hasn't felt this vulnerable since the ambush at *Harat Zuwayyah*, but even back then, being chased by *Boko Haram*, there was a sense they'd escape. She knew the sheik's men were coming. Back in the Port of Sudan, when the taxi driver was thinking about kidnapping her, she still had a sense of agency. She had options. She knew what she could do. She could scream for help. She could throttle him from the backseat. She could leap out of the taxi. Out here in the middle of the Arabian Sea, she's at the mercy of the captain and her crew. And she fears for the artifact. Even if O'Connor is right and the pirates allow them to offload at the nearest port without taking them as hostages, they're not going to let her waltz off the ship with a massive silver orb in her hands.

"I'm worried," she says, following O'Connor down one of the angled ladders between the decks. He doesn't reply. Whether that's because he didn't hear her comment over the drone of the engines coming through the superstructure of the ship or because he doesn't want to admit the same, she's unsure. And, honestly, she doesn't want to find out.

They head to their cabin. It's hot and humid. It's always been hot and humid onboard *The Heart of Kisumu*, but the mental anxiety Taylor feels heightens her discomfort. Her sweat feels icky. O'Connor grabs his handgun but not his M4. Taylor whips her shirt off. O'Connor is oblivious. He's counting rounds in the magazine. Taylor wants to question him about his strategy, but, to be fair to him, he probably doesn't have one. Yet. He's keeping his options open. As Taylor's putting on her *burqa*, slipping it over her bra, gunfire breaks out. Bullets rattle against the hull of the vessel, startling her.

"They're shooting at us! You said they wouldn't shoot at us!"

"Hey, it's okay," O'Connor says. He taps the outer wall. "This is a quarter-inch steel plate. They're bluffing, okay? They're flexing their muscles, that's all. They're just trying to scare us."

"Well, it's working."

"Try not to let them get to you. They're roaring like a lion in a thicket. It's about projecting strength. They're saying, look at me! I'm powerful. They're not shooting at anyone. This is all a bluff. They don't want to kill us. They want the ship."

"How do you know they don't want to kill us?" she asks, looking down through the mesh of her *burqa* at her lacegloved hands and trembling fingers. "If they kill us, they're going to piss off a lot of people. The Kenyans. The Americans. The British. The Saudis. These pirates don't want that kind of heat. They're greedy. They just want a few TVs and a bunch of laptops to sell on the black market."

"You're so calm," she says.

"Oh," he says, holding out a not-so-steady hand for her to see. "I'm not that calm, but I understand what's happening."

"Good, good," Taylor says. She marches to the porthole and peers out at the vast expanse of the clear, blue ocean. White tips dance on the waves. "What am I looking for? A skull and cross bones? *The Black Pearl*?"

O'Connor laughs. "Speedboats. Small, fast speedboats with long-range fuel tanks built into the hull. Four or five pirates per boat."

"Speedboats?"

"They're nimble. Fast. And they have a small radar profile, so they're hard to spot. These guys don't need a big ship. They're looking to *steal* a big ship!"

Taylor sits on the bunk bed beside the artifact.

O'Connor says, "Stay here. Keep the door locked. Whatever happens, stay quiet."

"What? You're leaving me?"

"You've got running water. You've got a bathroom. You'll be fine for a few days."

"No," she says, getting to her feet. "Together, remember? We stay together."

"I need to help them," O'Connor says, standing in the doorway. "The crew has to stop them from boarding the ship. Once the pirates get up on deck, it's all over. If I can help keep them from getting up here, we might just get out of this in one piece."

"You could be captured. You could be killed."

"I'll be okay," he says, closing the door behind him.

Taylor jumps to her feet and rushes out of the cabin behind O'Connor. She locks the door and lifts her *burqa*, stowing the key in the pocket of her shorts. What is there that she can do to help? Nothing. She'll only get in the way, but she can't sit in her cabin, hiding behind the door, afraid of her own shadow. She has to do something.

"What are you doing? Go back inside."

"No," she says, looking like a submissive Arab woman dressed from head to toe in black but sounding very much like a defiant Western woman. She's strident. Her response is emotive rather than logical.

"You'll only get in the way."

"Maybe I can help."

O'Connor waves her away and heads down to the main deck. He must know any further argument would be futile. Taylor follows him, although she needs to hold her *burqa* up slightly to be able to navigate the steep ladder. Since when were religious garbs practical? Be that Muslim, Christian or otherwise.

The wind howls past the open hatchway. O'Connor turns and runs to the faulty water cannon. He talks with the sailors there. They leave him with the cannon and return to the pump on the outside of the wheelhouse, trying to get it working. Water is flowing, but it's not under pressure.

Taylor leans into the wind as it whips along the narrow walkway. Salt spray moistens the air. She glances over the steep side of the ship, looking at the long, straight fall to the sea easily fifty feet below them. Waves wash up against the hull as the ship pushes through the ocean.

A small inflatable boat with a steel hull races alongside *The Heart of Kisumu*. It bounces on the wake of the ship, kicking up spray. Several other small boats approach further along the ship, but the water cannons by the bow deter them. Jets of whitewater saturate the lead speedboat, forcing it to pull back. Not only are the cannons dousing them with water, they're making it impossible to maneuver through the white

haze of water droplets hanging in the air. This close to such a large ship, that is stupidly dangerous, and the pirates pull back. Self-preservation is a powerful motive.

Beneath O'Connor, though, another speedboat keeps pace with the ship, riding up and over the waves thrown out by the bow. The driver yells over a bullhorn, but his accent is clipped, and the sound of the horn is harsh, making it difficult to understand what he's saying beyond the word *stop*! And that's not happening. *The Heart of Kisumu* is not stopping until the pirates have stormed the bridge.

One of the men in the back of the speedboat hoists a grappling hook high in the air. It grazes the hull and falls back to the water. No sooner has it splashed into the ocean than two men beside him haul the rope back in, coiling it at their feet. How they can maintain their balance as they rock with the waves is beyond Taylor.

Machine gun fire rakes the side of the hull again. The lead speedboat has pulled back near the one immediately below them. Bullets slam into the plate steel. The sound is deafening, like thunder breaking overhead, but Taylor understands the purpose is to intimidate, not to kill.

The grappling hook is thrown again. It curls through the air and catches on the edge of the walkway not more than twenty feet from her. The pirates cheer.

High-pressure seawater surges through the water cannon. O'Connor turns it on the closest speedboat, but the flow is not consistent enough to wash the pirates away. The water cannon surges and then fails. Two of the pirates begin climbing the rope attached to the grappling hook.

"Get the hook," O'Connor shouts at Taylor. "Throw it back!"

"Right," she says, overcoming her bystander paralysis and shifting from watching the pirates while feeling somewhat bewildered to actively resisting the attack. She runs to the hook. A single piece of rope curls down the hull to the speedboat. It's been knotted every three feet, giving the pirates purchase as they climb. Looking down, she can see them scrambling to get on board. Taylor grabs the grappling hook and lifts, but she's trying to lift not only the weight of the steel hook and the rope but the two men climbing the rope. It simply will not budge. Try as she may, she can't get it to shift by an inch, let alone raise it high enough to unhook it.

"It's stuck," she yells. "I need a knife."

O'Connor and the sailors are too busy yelling at each other to hear her. They're trying to get the water cannon firing on full power. Salt spray rushes through the air in a fine mist whipped along by the wind. Taylor's *burqa* billows around her. O'Connor aims at the men climbing up the rope ladder. He soaks them, but the cannon isn't strong enough to knock them off the rope.

The closest pirate is no more than fifteen feet away and has an AK-47 slung over his back. His muscles glisten with the water washing over them as he climbs. His eyes are set on Taylor. Whether it's murder that courses through his veins or hatred, the intensity of his stare terrifies her, but this is not the same woman that drove into *Harat Zuwayyah* with naive, simple intentions. This is a woman who has been shot at, chased across the desert, assaulted in a rural market and had to stare down a kidnapper. She's not angry so much as defiant. She decides she's no victim.

Taylor looks around, scrambling for something to use as a weapon. Thick fire hoses run along the walkway, making it difficult to move quickly without stepping on them. They're inflated and under pressure as pumps draw seawater up through the ship to be sprayed out of the cannons. There's a limp hose. Taylor grabs it. The brass fitting at the end is heavy. She hauls it off the deck, bunching up the canvas folds of the hose and rushes back to the edge.

A hand appears on the railing. Fingers grab at the steel. Taylor slams the brass fitting over the pirate's knuckles, and he howls in agony. Blood squirts across the walkway. The Somali pirate shouts profanities. Although he's injured, he's still got a good hold on the rope with his other hand. He pushes with his thighs, driving higher before reaching out again with bloody fingers. O'Connor fires his handgun, but he's not shooting at the pirate. With the swell of the ocean, it's too risky, but that he's switched to using lethal force is alarming. If the pirates take the ship, they'll kill him. He fires wide, wanting to scare or perhaps distract the pirate. He's too far away to rush to Taylor's aid. The sailor next to O'Connor aims the water cannon at the pirate clambering over the railing.

Torrential rain surges over Taylor and the pirate, soaking them. Salt spray blinds her, stinging her eyes. The strength of the water is akin to standing directly beneath a waterfall. It strikes like thousands of tiny pebbles. And, as quickly as it has come, it fades, with the pump failing again.

Taylor goes to slam the end of the hose onto the pirate's fingers once more when his bleeding hand grabs the billowing edge of her *burqa*. He yanks the cloth, pulling her hard against the railing. Taylor struggles as he climbs higher, grabbing at her, but the shifting cloth of the *burqa* blinds her as the facial mesh twists sideways. His fingers clamp around her forearm like a steel vice. He lunges up, drawing level with her. Even though she can't see him, from his motion, she can sense he's about to swing his leg up and over the side railing.

The pirate lets go of her for a brief moment, but from the way he shifts his weight, she can tell he's working to get a better grip, perhaps by grabbing her shoulder. As she's been pulled hard against the railing and is leaning over the edge of the ship, she could easily tumble into the ocean so far below.

As his fingers release, Taylor makes her move. Arabic women might be modest. She isn't. She has no desire to drown wearing a *burqa*. Taylor shimmies backward out of the garment as his hand grabs at the black material.

The pirate rocks back, no longer having hold of her as an anchor. Taylor swings her arms up, clearing herself of the *burqa* and flipping it, folding it over his head. He lashes out with his free arm, but he's been blinded by the *burqa*. The wind wraps the material around him like a veil.

Within a split second, Taylor lines him up. She clenches her fists, spreads her legs wide, braces herself on the deck, and twists from her hips, lashing out and punching him in the head. She connects with his jaw. He folds backward, losing his grip and plummets into the sea. Taylor leans forward, watching as he collides with the second pirate and cartwheels through the air, splashing in the ocean. She watches for him to surface, but he's sucked beneath the draft of the ship.

The other pirate works his way up the knots in the rope, racing to reach her. O'Connor gets the water cannon working. He fires it, and a jet of high-pressure water sprays through the air, lashing the second pirate. The torrential spray is overwhelming. The pirate clings to the rope but, within a few seconds, loses his grip and falls into the ocean. The speedboat pulls back, and someone plucks him from the sea as O'Connor continues to saturate them with water from the cannon.

Taylor is soaked. The salt spray in the air is like rain falling from a cloudless sky. She cheers as the two speedboats pull back, being doused by other water cannons on the stern of *The Heart of Kisumu*.

"Well done," O'Connor says, rushing over to her.

"Well done to you, too," she says.

"Looks like that *burga* finally came in useful."

Standing there with her wet hair matted down over her face, wearing nothing more than a lacy bra and shorts soaked with salt water, she smiles.

"Together, huh?"

"Together," O'Connor says, smiling in reply. He holds out his hand, holding it high with his palm open. Taylor slaps her hand against his.

"Hell, yeah!"

Kenya

The Heart of Kisumu makes the port of Mombasa within another two days. Dawn breaks over the Indian Ocean. Taylor is still on a high after defeating the pirates at sea. No one back home is going to believe her. Here she is, sitting in her cabin beside an alien artifact wrapped in a bloody *thobe* at the end of her bed, and it's the adventure of fighting off pirates that dominates her mind. Her brother is going to want to hear every detail.

"Time to lose the *thobe*," O'Connor says, pulling a blanket off the top bunk.

"Yes, yes. Of course," she replies. "Discretion, right?"

"And the dried blood smells," he replies, tossing the *thobe* in a plastic bag and tying the bag in a knot.

"Ah, okay," she says, laying the blanket down on the mattress and rolling the artifact into the center. Between them, they fold the blanket around the alien device, tying a knot with the four corners that hides the strange device from view.

Outside, cranes tower over the ship, lifting containers high above the deck and out onto the dock. A knock at the door announces the arrival of the customs officer. O'Connor opens the heavy steel door, but only partially. Taylor and the artifact remain out of sight. O'Connor hands the officer a wad of US dollars with a rubber band holding it together. The officer hands him a sheet of paper with an oversized, official stamp on it and leaves.

"That's it?"

"That's it," O'Connor says. "Congratulations! You just cleared customs in a Commonwealth country with an alien artifact in tow."

"If only airports were that easy."

For Taylor, the best part of being onboard *The Heart of Kisumu* has been access to the showers and laundry facilities.

There's nothing like clean clothes, especially after the dust and grit of the desert.

O'Connor stows his M4 in his backpack. The barrel sticks out of the top, but he wraps a ragged bit of blue ribbon around it and mounts a gay pride flag on it. The flag is only four inches high by roughly six inches in length, but it has the colors of the rainbow along with a sideways triangle, including the colors for trans folk and queer people of color.

"Really?" Taylor asks, intrigued.

"Hah," he says. "You'd be surprised how easy it is to distract people. And just like that, a gun barrel becomes a flag pole. Nothing more. Assumptions are a wonderful thing in my line of business. People look at that and don't see a mercenary with a rifle. They see a gay man bubbling with pride."

"But you're not—"

"Would it matter if I was?"

"No, no. Of course not."

"Camouflage is more than khaki blotches on a pair of trousers."

"But Arabs, even Africans—they have antiquated ideas about gay folk."

"They do," he says, hoisting his pack on his back. "But it doesn't matter. What matters is that they underestimate me. Besides, nothing is going to change without representation."

Taylor is more surprised by his last comment than the flag itself. This is more than an off-the-wall approach to camouflage in plain sight. He's eloquent. He's thought about this in detail. He's said this before. She doesn't want to pry, but from the language he's used, it's clear he knows someone who's not only gay but has been persecuted without cause and in need of allies. She gets the feeling he's repaying a debt. Perhaps once, he should have been an ally but faltered, and now he's standing strong.

O'Connor is a delight. He doesn't need to care about something as obscure as gay rights, particularly not in Africa.

But he's not trying to impress anyone. Whoever it was, it's clear it was someone close to him, probably a brother or sister or perhaps a cousin. And whoever it was, they'll never know about his stance here in Kenya. They won't see this small flag flying on his backpack. Given his military service and the combat he's seen, they'd probably be shocked to see him being this openly supportive. It seems out of character, but perhaps it's not. Maybe this *is* his character. A big, macho tough guy like him with a pride flag that represents not him but those he cares about—damn, that takes more courage than facing bullets back in *Harat Zuwayyah*.

Taylor can't stop grinning. "You're... You're..."

"I'm what?" O'Connor asks, trying not to laugh as he grabs the blanket and hoists the artifact over one shoulder.

"You're unexpected."

"I like being unexpected," he replies. "Besides, most people will go out of their way to be kind and considerate once they see the flag. And those that don't will show themselves to be assholes sooner rather than later—and that tells me everything I need to know about them."

Taylor picks up her backpack, saying, "Well, I guess it diverts attention from the artifact."

"Now you get it," he replies as they step out into the walkway.

In the confines of the hallway, O'Connor has to hold the bulky artifact in front of him, clutching at the blanket and moving like a woman who's nine months pregnant. Taylor grins, shaking her head. The two of them head down the ladder to the main deck and step out into the sunshine. Once outside, O'Connor adjusts his grip and swings the artifact up on one shoulder. Taylor's tempted to offer to help, but he's got it under control.

O'Connor is unlike anyone she's ever met. She knew he was professional. He was expensive to hire but came with a bunch of recommendations from other expeditions. He certainly proved his worth in *Harat Zuwayyah* and in

outsmarting *Boko Haram* in the desert. And he's right. No one is going to think twice about the gun in his backpack or the massive circular object slung over his shoulder in a blanket. All they're going to be thinking about is that flag and what it means to him or what they *think* it means to him.

Captain Freeman is over by the gangway with a cup of coffee in her hand. For her, unloading is a relaxed time as the dock workers scurry around securing containers. She sips her coffee, watching as the two of them approach.

"Hey, we made it," she says warmly.

"We did," Taylor says, reaching out and shaking her hand.

"And you've got a pirate's tale to tell as well."

"I do," Taylor replies. "Thank you."

O'Connor reaches out and shakes the captain's hand as well, saying, "Thanks for having us onboard."

"Oh," the captain says, hesitating slightly and seeing the gay pride flag fluttering on the end of the maypole-wrapped barrel of his M4. Her tone of voice changes slightly. "Ah, of course. It's been a pleasure having you onboard."

Taylor struggles not to smile.

They head down the aluminum gangway, holding on to the railing as the metal flexes beneath each step.

Taylor laughs, saying, "That flag is like a cloak of invisibility."

"I told you, right? No one thinks twice about what it's attached to, and no one sees the big old alien sphere hanging over my shoulder."

They take a taxi to the center of the city and pick up a car at a local rental agency. O'Connor was right: the receptionist at the rental car desk was courteous and almost fell over herself to be helpful after seeing the gay pride flag draped over his pack. She gave them a free upgrade to a large station wagon. O'Connor lays the backseats flat and positions the artifact between their two packs, using them to hold it in place. He extends a couple of seatbelts, using those to help secure the device so it doesn't roll around. Taylor is impressed by his diligence.

As they drive out of the city, she says, "Hang on. Can you pull over up there?"

O'Connor puts on his turn signal and parks on the side of the busy city street.

"Is everything okay?"

"Everything's fine. Wait here."

Taylor jumps out and runs into a store with a sign declaring it to be a tobacconist. She emerges a few minutes later with a white, nondescript plastic bag stuffed full of candy, packets of Doritos and a few cans of soda.

"Ah, civilization," she says, dropping back in the passenger's seat of the car and offering O'Connor a Coke.

"And air conditioning," he replies, pulling out into the traffic and turning onto the freeway.

As they drive further from Mombasa, the concrete barriers separating them from oncoming traffic slowly morph, disappearing into a raised median strip, then a painted minilane and finally a muddy ditch. The lane markings vanish entirely within ten miles, but the road is still ostensibly four lanes, with two heading north and two south. At times, they're driving three vehicles abreast. Roadside huts sell fruit and vegetables in the dust.

"Hey, clouds," Taylor says, pointing with the enthusiasm of a child. "Look at the clouds!"

"The clouds?"

"I missed clouds—out in the desert."

O'Connor laughs. "Everyone misses something out in the desert."

"What did you miss in the Sahara?"

"Beer."

"Okay, that's not quite the same, but I get it."

She opens a bag of Doritos and offers it to him.

"Thanks."

"How long until we get to Nairobi?" she asks.

"Seven, maybe eight hours, depending on traffic."

"This is exciting. We've done it! We've made it. We're in the clear."

"We are," O'Connor replies, smiling.

They drive on, talking idly about the countryside. Taylor desperately wants to see elephants or giraffes, but all she spots are aging cars and trucks, weeds on the side of the road and the occasional gas station. Eventually, the road drops down to a two-lane highway with only a yellow dotted line separating them from oncoming traffic, although the locals treat the gravel on the side of the road like an extra lane.

The dirt is red, which is a welcome splash of color after the dusty sands of the Sahara. Thorn bushes grow up through the barren ground. Central Kenya is almost entirely flat. Rusting village huts whip by on the side of the road. Acacia trees spread their thin, green canopies out, providing shade to cattle. Birds soar on the thermals, circling high overhead as they search for prey. On reaching the grasslands, the red soil is hidden by vast waist-high stretches of seemingly dead grass swaying in the breeze.

And on they drive.

O'Connor clears his throat. "So, where are you going? To the British Embassy or the American?"

You is a telling term on O'Connor's behalf. For a week now, it's been *them*. It's been *we*, not *you*. Her mantra has been to stick together, but he's right. His job is coming to an end. His mission was to escort her safely to Libya and back, although back where was never actually specified. The implication was back to civilization, and he's done that admirably. What happens next? When does his contractual obligation come to an end? And what beyond that? Simply parting ways feels shallow—hollow. Taylor wants something more, but she's not sure what. Friendship? Perhaps something else? What more could there be? And it's not just a matter of what she wants or what he wants, but fitting into each other's lives. They're from different worlds. Life in windswept, dreary, rainy Cardiff would drive O'Connor stir-crazy. And her? Could she be content with him going away on some other dangerous assignment to Kazakhstan or Morocco?

She's distracting herself. Typical Sue Taylor, she thinks. Trying to solve all the problems in the world with just a few thoughts. Relax. Let go of your anxiety. Let things play out naturally. Don't force the issue.

"Ah, British," she says after a few seconds. "I feel more comfortable with my own country having the artifact."

"Well, they do have good form with ancient artifacts," he says, which she takes as a reference to the plunder of Greek, Roman and Egyptian artifacts for the British Museum over the centuries.

Ouch!

It's a blunt comment but an honest one. The refusal of the British government to return significant cultural artifacts like the Elgin Marbles taken from the Greek Pantheon continues to be contentious. Even their name is misleading. They're named after Thomas Bruce, the 7th Earl of Elgin, who *stole* them and not their point of origin, the Acropolis of ancient Greece. Apologists say they were removed to preserve them against the ravages of war. And to be fair, there was considerable destruction and looting, but to overlook the looting of Elgin himself, who bribed officials to remove the marbles, is to whitewash history. He looted the sculptures so other people wouldn't loot them. How gracious and selfless of him. Regardless, there is no war there now. There's no reason the marbles could not be returned to the culture that birthed them and cared for them for over two and a half thousand years.

Taylor says, "I'm losing control either way, huh?"

"Yep."

"Damn."

"You need to be ready for what comes next."

Taylor is silent.

"At some point, this will move beyond you, and you'll be left on the sidelines. Oh, it won't be malicious, but this is bigger than either of us, right?"

"Right."

There's silence between them for a few minutes.

"What would you do?" she asks.

"Oh, no," O'Connor replies, looking across at her and taking one of his hands off the steering wheel. He waves a finger at her. "Nope. Not me. You can't ask me what I'd do."

"Why not?"

"Because I'm not a scientist. You are. You're supposed to tell *me* what we should do."

"It's not that simple."

"Why not?" he asks.

"Because you're right. At some point, I'll lose control, and the question then arises: who takes control from me? Who decides what is done to the artifact?"

"Scientists, right?"

"Scientists work for governments," she replies. "Oh, scientists are good at exercising their independence, but governments are equally as good at stacking the deck in their own favor."

"What do you think they'll make of it?" O'Connor asks, keeping his eyes on the road.

"At first, it'll be a curiosity. A novelty."

"But?"

"But eventually, they're going to realize it's a threat."

"I don't understand."

She says, "Whether it's the UK, America or Sudan, governments represent the pinnacle of power within a country, but the artifact speaks of something bigger than any one country, something bigger than our species, bigger even than our planet. We need to understand what it means to Earth as a whole. And not just here and now. What it means in the long term. Someone sent that thing here. They sent it for a reason."

"And that reason is?"

"I don't know," Taylor replies. "And that's the problem. No one knows. We can guess, but how do we know for sure what the intent is of an alien civilization operating at arm's length over a period of thousands, perhaps millions of years?"

"But it's going to be good, right? I mean, this is like a calling card. It's like, what are those things we send to Mars?"

"Rovers."

"Yeah, the ones that drive around collecting rock samples."

"Only it's not like that," Taylor says. "It could have easily been, but it's not. For thousands of years, the artifact sat in that cave."

"Doing what?"

"I don't know. Nothing. Everything."

"So what is it?"

"That's what we need to figure out."

"Well," O'Connor says. "I can't help you with the British, but if you want to speak to the Americans, I can get you in touch with the head of security at the embassy."

"You know him?"

"Her," he replies. "Captain Lisa Withers. We served together in *Darfur*."

Taylor thinks about her options for a moment. She's in an impossible situation. Without a crystal ball, she has no way of knowing what the future holds. Her gut says she should stay with her own kind and hand the artifact over to the United Kingdom, but America will become involved at some point. The *special relationship* between the UK and the US means all high-level intelligence is shared. Taylor cannot imagine the British government sitting on the artifact without telling the Americans. The US has NASA, but the European Space Agency is equally as proficient, if not as high profile. At some point, scientists from around the world are going to become involved in the analysis of the artifact. Perhaps it is best to start with the Americans as they have NASA and SETI.

"Okay," she says. "Let's talk to her."

Coffee

As they approach the outskirts of Nairobi, O'Connor hits the speed dial on his phone. The call is relayed over the speakers within the car.

"You've reached my personal number. Leave a message, and I'll ignore it... Oh, you're still here. Why? Ah, you want to leave a message? I never check my messages, so fuck off."

"Lisa. It's me. James O'Connor. Listen, I'm in Nairobi. I need to talk. Call me. Please."

The call ends. Taylor says, "Well, she sounds delightful."

"It's bluff and bluster. Too many telemarketers, I guess."

"So, will she check her messages?"

"No, but she will see the call came from me."

"And that will be enough?"

"I hope so."

Lush green trees rush past on the side of the road. Bridges lead them over streams and rivers. The occasional shantytown of the open plains is replaced with modern duplexes that wouldn't be out of place in southern England. The difference is they're surrounded by fences made out of sheets of corrugated metal. The sheets are of differing heights and widths and are in different states of weathering. Paint peels off them, exposing rust beneath. They're a makeshift solution to separate the poor from the middle class and then the middle class from the rich. At points, the sheet metal fence leans precariously. Steel props prevent it from falling.

"You've reached my personal number. Leave a—"

O'Connor ends the call, saying, "Come on, Lisa. Pick up."

Locals wander along the dusty track to nearby shops. Motorcycles weave in and out of the traffic. Multistory buildings appear set back from the road along with advertising signs, a sure indicator of civilization. Kids spit on passing cars from the safety of a pedestrian overpass. They laugh and point. So long as they're not dropping rocks, it's all just a bit of fun.

"You've reached my—"

O'Connor hangs up without saying a word.

Kenya is a welcome relief from the deserts of Libya and Sudan. Lush green trees are a delight. Taylor is enjoying the explosion of life around them. From the window of their passing car, it's chaos in Nairobi, but people's lives are unfolding on the side of the road as they barter for vegetables or repair a flat tire.

They reach the Nairobi Express Way, which is a raised toll road with barely any vehicles on it, regardless of direction. Out of her window, Taylor can see the original highway is still in use below them. Cars and trucks jam the lower road. Motorcycles race along the gravel edge, dodging pedestrians. Intersections are parking lots. Horns sound. Beggars wander between cars, offering mangos and bananas to hungry drivers. And up above on the Express Way, they drive on without another car in sight. If there's a more apt analogy for the twotier system in Africa, Taylor's not sure what it is. The toll road lords over the highway, separating the classes. Is this what the artifact will see? How humans fragment into selfish in-groups? How humans despise themselves, coming up with artificial constructs to distinguish between them? As nice as it is to make great time on the raised freeway, Taylor hates herself for being part of the others.

"You've reach—"

"For fuck's sake, Lisa. Pick up," a frustrated O'Connor says as they approach downtown. He turns to Taylor, saying, "Can you check Google Maps? Most of the embassies, including the UN, are north of Karuru Forest, which is the next exit."

"Ah, sure," Taylor says, opening her phone and bringing up a local map. She's not sure what they're going to do beyond standing outside the embassy gates with an alien artifact in their hands. That's sure to raise a few eyebrows but they'll be dismissed as kooks. The phone rings with an incoming call.

"Lis—"

"What the *fuck*," is the response over the speakers.

"Lisa," O'Connor says.

"What the hell are you doing in Nairobi, and why the hell are you calling me?"

"It's complicated."

"It's *always* complicated," an exasperated Lisa replies.

"Listen, I'm five minutes away. Can we meet? Catch up over coffee?"

"You want coffee? A *fucking* cup of coffee? After all we've been through? After dumping me on a beach in Algiers?"

O'Connor says, "I've got Dr. Susan Taylor in the car with me. She's an archeologist. You need to hear what she has to say."

A bitter voice replies, "You always were good at hiding under rocks."

"Lisa, please. I wouldn't call if it weren't important."

"No. You wouldn't," she replies, but it's not a resounding endorsement; it's condemnation. There's anger in her voice. "5th Avenue Café. Girgiri Drive. Opposite the embassy."

"Got it," he replies, looking over at Taylor, who's nodding, having tapped the café's name into her satellite phone. "We're on our way."

"And James," Lisa says, seconds before hanging up. "Don't make me regret this."

In the silence that follows, Taylor says, "Well, you certainly do have connections."

O'Connor hangs his head slightly. His lips tighten. He's thinking carefully about what he's going to say in reply to her.

"It's... It's the past, right? That's what you study. You can document the past. You can't change it."

"No, you can't."

"And that's my problem. The past is forever catching up with me, and there's not a damn thing I can do about it."

Taylor is silent.

They turn off the toll road and wind their way through the suburbs. The US Embassy in Nairobi is set well back from the road to protect it from car bomb attacks. Coming down the hill, they see concrete barricades and steel fences before the Stars and Stripes rise above the greenery on a white flag pole. A circular drive loops around in front of the main building within the embassy. Marines stand to attention. Their rifles, though, are not for display. Security cameras on fifty-foot poles watch the approaches as well as the meandering six-foothigh concrete wall around the rear of the compound.

O'Connor pulls into a driveway opposite the embassy and heads around the back of the 5th Avenue Café. It may have the name *café* in its title, but it's a high-end hotel with a restaurant and small café attached, and is clearly used by dignitaries as what café needs a beefy bouncer in a dark suit and sunglasses standing by the door? And he's for show, of that Taylor's sure. His presence sends a message: *we take security seriously*. There would be layers of security in place, both passive and active. She spots several more security cameras, only these are identical to those around the embassy. Coincidence? No. Not likely. And for every security measure she notices, she knows there are four or five she probably misses. What are they going to make of a silver orb from another world? Taylor reaches over the back of her seat and tugs at the blanket, making sure it's secure.

"Nervous?"

"Oh, yeah," she replies. "Up until now, we've hidden this thing from sight. This is the first time we're actually going to show someone what we've found. And, yeah. I have no idea what they're going to think about this thing."

O'Connor parks. He reverses the station wagon so the rear is up against some low-lying bushes. Beyond them, tables have been placed around a broad, tiled area outside the main café. O'Connor has parked next to the corner table, which is barely in the shade.

After getting out, they sit at that particular table, looking through the rear window at the backpacks and the artifact still hidden from sight.

"And she's going to be able to help?" Taylor asks.

"She's head of security," O'Connor says. "If we can convince her this is for real, she'll make things happen."

A waiter comes over and takes their order, surprised all they want is coffee. He clarifies, asking what type of coffee they'd like. Latté? Cappuccino? Macchiato? O'Connor is grumpy. "Just coffee. Black and strong."

Taylor raises a finger, contradicting him. "With almond milk and a teaspoon of sugar."

Their drinks arrive in oversized mugs. It's several more minutes before a blonde woman in a sharp US Marine uniform marches over to them. Her hair has been meticulously pulled back in place with bobby pins. O'Connor gets to his feet sheepishly. He's not expecting a friendly welcome.

Captain Lisa Withers steps up to him and taps him on the cheek. She's playful. She hasn't hurt him, but it's clear there's unresolved tension between them.

"That's for Algiers!"

"Yeah," he says, not contesting her point. "That's fair."

And before he can say anything more, she grabs his jaw and kisses him on the lips, saying, "And that's for *Darfur*."

Taylor smiles. It wasn't a passionate kiss so much as a smooch, but it seems to capture the contradiction between them. O'Connor seems to get the old one-two treatment more often than he'd like. Captain Withers looks Taylor over, scanning her from her face to her boots as she draws some kind of assessment of her.

"What sort of trouble have you got yourself in this time?" she asks O'Connor, swinging a chair around and straddling the

seat back as she faces them. O'Connor sits down. He sips his coffee as though nothing out of the ordinary has happened.

"Ah, we found something in the desert," Taylor says, feeling she should take the initiative and speak up.

"Which desert?"

"The Sahara. We were in Libya—"

"You stole an archeological find from Libya?"

"It's not like that," O'Connor says. He pushes a button on the car keys. The rear of the station wagon opens, rising automatically on hydraulics and revealing the backpacks along with the curved bulk of the artifact hidden beneath the blanket.

"And you're still pulling that gay pride stunt, huh?" Lisa says, pointing at the flag on the barrel of his gun.

"You'd be surprised how well it works," he replies. "Even now. With you." He turns to Taylor and says, "Show her."

Taylor gets up and pushes between the branches of the bushes into the parking lot. She opens the rear passenger door and leans in, untying the blanket. It feels strange to be uncovering the artifact, exposing it for anyone walking past to see. Taylor drapes the ends over the packs, allowing the silver orb to catch the sunlight reaching beyond the awning that extends over the café. The artifact has rocked slightly to one side. The thin, inset rim running around the middle is currently set at an angle of about thirty degrees. Which way is up? There's an equator and two poles on the strange device, with openings at what would equate to the north and south poles. One is slightly larger than the other, but the artifact could be upside down for all she knows. Taylor touches the slick, mirrored surface. She's not sure why, perhaps because it beckons to her. Her fingers glide over the silver orb, fascinated by the way the smooth curve hides the complexity within. By showing this to a captain in the US Marines and the head of embassy security, she and O'Connor are setting off a chain of events neither of them can comprehend. Where will this moment lead? If anything, this moment is more scary than any she faced in the desert. She shuts the rear passenger door and returns to the table, leaving the open back of the station wagon raised.

"Nice trinket."

"It's seven thousand years old," Taylor says, sitting down again at the table.

"That?" Lisa asks, pointing, and it's only now Taylor realizes the way O'Connor has parked the car means the open back of the station wagon obscures the view of the nearest security camera. Nothing is haphazard with him. Every step is calculated. As much as Captain Withers seems hostile, Taylor has no doubt O'Connor is making a deliberate, reasoned decision to show her the artifact. She's his point of entry into the embassy. And for Taylor, that's a point of transition to the scientific community.

"That," O'Connor says, "has been hidden in a cave in *Harat Zuwayyah* for thousands of years."

"You?" Lisa says, looking at him with disbelief. "*Harat Zuwayyah*? That was you?"

O'Connor nods. "Two against about fifty."

Lisa laughs. "The way *Boko Haram* tells it, they were ambushed. They said they were up against hundreds of American soldiers."

O'Connor chuckles. "Yeah, the number goes up every time I hear their version of the story."

"You know they have footage?"

"What?"

"Oh, they're playing the victim. They said the attack was unprovoked. That you fired first."

"I did," O'Connor replies. "I figured they hadn't driven across hundreds of miles of open desert to invite us to a picnic."

Lisa laughs. "They said they were set upon by American special forces, which, of course, has confused the hell out of everyone here in the embassy. And a sniper. They showed a heavily edited clip, but some guy firing a fifty-caliber machine gun takes one in the chest. Then one of their heroic leaders slumps out of the cab of a truck with blood dribbling from his mouth."

"M4 at four, maybe four-fifty," O'Connor says, brimming with pride. "First shot was lucky. Then I was working off puffs of dust to zero in the range."

"Nice," Lisa says, holding out a clenched fist. O'Connor grins and fist-pumps her.

"It was dicey there for a while. Things got ugly."

"Any engagement you can laugh about is a win."

"Um," Taylor says, not wanting to interrupt their reverie. She points at the open back of the station wagon.

"Okay, so what is that thing?"

Lisa is relaxed. That's good. She's ready for a debrief on *Harat Zuwayyah* over a few cold beers. O'Connor's got her right where he wants her. It's the look in his eyes, the narrowing of his brow, the tightening of his lips that reveals his thinking. Taylor wants to blurt out her thoughts, but she knows they'd be a confusing mess of verbiage. What's needed is something succinct.

O'Connor leans forward, lowering his voice as he says, "It's alien."

"What?" Lisa says, laughing and rocking back on her chair. As the seat is reversed, with the chair back in front of her, she's in danger of toppling backward. The legs of the chair rock beneath her as her legs flex. When neither O'Connor nor Taylor joins her in the joke, her face goes stern. "You're fucking with me, right?"

O'Connor holds his hands out wide with his palms open to the sky. "Would I fuck with you?"

Taylor grimaces. Given the apparent history between them, that's probably not the best question to ask, but somehow, he gets away with it.

Lisa lowers her head, glaring at him. "Sweet Jesus. You're serious."

Taylor turns her phone sideways and brightens the screen. She shows Lisa some of the footage she took from within the cave, holding the phone in landscape mode to allow the captain to see more detail. After a few seconds, she stops the video. Images alone aren't going to convince the captain.

"We were investigating reports of an Egyptian tomb in Libya."

"Libya?"

Taylor turns her empty coffee mug around on its saucer. She's nervous. She's fiddling. She desperately wants to say the right thing.

"You have to realize that the tomb we found predates most of Egyptian civilization. No pyramids had been built at this point in time. The Sphinx was probably under construction, but it's difficult to tell. At this point in history, Egypt was a convenient collection of settlements on the edge of the desert, not a nation. There were no cities. Towns and villages lay dotted along the Nile, reaching deep into North Africa. There were trade routes with the fertile west coast. *Harat Zuwayyah* was an oasis, somewhere they could replenish water along the trail."

"And this tomb?" Lisa asks. She points in the back of the station wagon. "How does it relate to that? Because that thing looks brand new."

Taylor jogs the video forward, offering it as evidence. "It was at the back of the tomb, buried in rubble."

"How do you know it's not fake?" Lisa asks. "I mean, it looks like some kind of retro '50s mirror ball. You know, the kind that hangs in dance halls."

"The tomb was only just found by locals. One of my students conducted the initial survey about eighteen months ago. He discovered the mummified remains of a wealthy family, but the artifact lay much further back. He was careful. He didn't want to disturb the tomb. He never saw it. He documented what he could and informed me about the location of the tomb when he returned to the United Kingdom."

"He could be pranking you."

"He could," Taylor admits. "But what's more likely? That he manufactured a seemingly perfect metallic sphere, dragged it hundreds of miles into the desert, hid it at the back of a cave that's been overlooked for millennia and could be ignored for centuries to come? Or that it was there all along?"

"There have been elaborate hoaxes," Lisa says. "The Piltdown Man. It took decades for that to be exposed as a fake."

"It did," Taylor concedes. "And maybe you're right. Maybe this is a hoax. And maybe not by my student but by someone else who knew the site would eventually be explored. But the tomb is in such an obscure location. Anyone planting a hoax there would have to be stupidly patient."

O'Connor says, "Either way, the only way we'll know for sure is if the artifact is properly examined."

Lisa nods. She likes that point. She taps the table in front of her. "Evidence. Hard evidence. That's what everyone wants, right? UFOs. UAPs. Alien bodies and autopsies. There are enough goddamn videos out there, but there's never any real evidence. Nothing's ever pushed in front of a scientist."

O'Connor says, "But this... This is real. This can be examined."

Lisa asks, "Can I touch it?"

O'Connor looks to Taylor for permission. She says, "Sure. Although I don't know what you expect to learn from it."

"If it's real," Lisa says, rising to her feet and pushing through the bushes. "If this really is something from another world... damn!"

She opens the rear passenger door. As the back seats have been laid flat, she leans in, peering at the artifact with curiosity and examining it from a few angles. Her fingers glide over the slick, metallic surface. "It's warm."

Taylor says, "It's got its own power source."

With that, Lisa abruptly withdraws her hand. She leans back against the front seat, asking, "What do you mean by that?"

"The band around the middle," Taylor says. "It's too bright out here, but at night, it glows red."

"So it radiates. It's radioactive?"

"No," Taylor says, not liking the loose use of that term. But she needs to be honest. She follows up with, "I don't know."

Up until now, Taylor hasn't given a second thought to any potential hazard posed by the artifact, but Lisa's right to be concerned. If there's a power source there that can last for thousands of years, there's the potential for some kind of radioactive leak. It could be deliberate as an exhaust or accidental, coming about with metal fatigue over time.

Lisa closes the car door and returns to her seat.

"What do you think?" O'Connor asks.

"Me? I don't know what I think. It's strange, that's for sure, but is it alien?"

"Yes," an overconfident O'Connor replies.

"Will you help us?" Taylor asks.

"Help you? Do what?"

"We want to get this into the hands of NASA."

"Wait," Lisa says, pointing at the ground. "Not here, right? You mean, you want to send this thing state-side?"

Taylor nods.

"Oh, no! No, no, no. Not without knowing what we're dealing with."

O'Connor says, "But how can we know what we're dealing with if we don't get support from NASA, SETI and any of the other acronyms out there?"

Lisa says, "I can't put that thing on board a plane without knowing it doesn't pose a threat. Look, I know it's not likely. I know it's paranoid thinking, but maybe, just maybe, *Boko Haram* planted that thing in that cave, knowing you'd grab it. And it's a bomb or something. Conventional. Chemical. Biological. Dirty bomb. I don't know. But it could have a pressure switch set to activate as you descend into a US airport, exploding over a major US city."

Taylor hangs her head. She's got no retort. Lisa's right to be concerned, but her concerns aren't warranted. At some point, every security system in the world relies on trust. Walk through the metal detectors and body scanners at an airport, and although the most obvious weapons have been eliminated as possibilities, there's still a degree of trust involved. People can be strangled with a belt. They can be clubbed with boots or stabbed with stilettos. A sweatshirt can be used as a blindfold. A bottle of wine from duty-free can be wielded like a baseball bat. Swing hard enough, and a briefcase will knock someone out. What's the solution? Ban everything? Or accept that there needs to be a degree of trust? Keep the obvious stuff out, but accept the risk that comes from metal fountain pens potentially being plunged into someone's neck. To Taylor's mind, the artifact doesn't pose any risk, but how can she convince Lisa of that? She sighs.

"Lisa," O'Connor says.

"It's a possibility."

"You're paid to think about these things," O'Connor says. "I get it, but that's not what's happening here."

"How do you know? You don't."

Taylor breathes deeply, knowing this is the first of many objections she's going to face over the discovery of the alien artifact. Humans are risk averse, but risks are difficult to quantify. Risks are emotional. No one fears driving to the beach, but everyone fears sharks in the water. The reality is the act of heading down the highway at 65 MPH is far more dangerous. Far more injuries and fatalities occur on the roads, but the human brain is hardwired for the sensational, not the mundane. Sharks are scary. Car's aren't.

Given what happened with 9/11 and the way airplanes transformed into weapons, Lisa's concern were is understandable, but that was a long time ago. And risks can hide in plain sight, going unnoticed. Drowning in a rip current at the beach is far more likely than dying from a shark attack, but no one is afraid of being pulled out to sea by an undertow. At the height of the pandemic, more people died from COVID each day than died on 9/11, but there's no memorial built for them. Some mock those still wearing masks after the worst of the pandemic, but they won't bat an eyelid at removing their shoes and belts when boarding a plane because safety is performance art. Humans are lousy at understanding actual risks.

Taylor pushes her hands together, almost as though she's offering a prayer as she speaks.

"We've stumbled upon what could very well be the most significant archeological find in all of history. One that doesn't originate on Earth. One that isn't the result of human intelligence. One that redefines our understanding of life and the universe at large. This could help us unlock the mysteries of the cosmos. The artifact could put us in contact with intelligent beings on some other world."

"You really believe this," Lisa says, turning her head sideways and looking in the still-open back of the station wagon.

"It's not a question of belief," Taylor says. "It's about evidence. That's what you said, right? Well, there it is! You're looking at hard evidence. I don't want to believe this. I want to explore the possibility. I want to follow the evidence, but I can't do that from here in Africa."

Lisa nods. "Okay, to be safe, we run it through the embassy's security X-ray."

"No," Taylor snaps a little too forcibly.

"No?" a confused Lisa says. "Don't you want to see what's inside it?"

"Yes, but..."

"Before I put that thing on a plane, I need to know it's not going to explode."

"X-rays are highly energetic," Taylor says. "We have no way of knowing how they might affect the device. They could damage it. When examining this thing with something like an X-ray machine, we need to start small and slowly bring up the power. I—I need someone from NASA to make that call. I couldn't risk accidentally destroying the artifact." She pauses for a moment, searching for the right words to say. "It's—It's working. It's not just that this is an ancient alien artifact from another world. It's operational."

"And what is it doing?"

"I don't know."

Lisa rubs her temples. She sighs. "Give me something to work with. I'm trying to help you guys."

"And you are," O'Connor says, wanting to mediate between them. "Get us on a plane. Get us in front of the scientists at NASA."

Lisa hangs her head. Her eyes close for a moment. She shakes her head softly. "I knew. Damn it, I knew this would happen. The moment my phone rang, and your caller ID came up, I knew it was going to be bad news. I just knew it."

"Lisa, please," O'Connor says, laying his hands flat on the table. He stretches his fingers wide. Taylor can see the desperation in his gesture. He's powerless. She's not. Taylor's mind is already running to the next step. Even though she's lost her passport, the British Embassy should be able to help repatriate her. Perhaps she needs to roll the dice and put the artifact in a crate. Maybe she could ship it as mechanical spare parts or by labeling it as a piece of scientific equipment. That might be enough to get it past customs through slower, more conventional means, like ocean shipping. She'd have to be patient, but that might be the only way to get the artifact out of Africa.

Lisa purses her lips.

"I'll meet you at the Nairobi airport tomorrow morning at six. There's a weekly flight between here and the Dover Air Force Base in Delaware. We have a C-17 Globemaster transporting diplomatic communiques, furniture, files, spooks, interns—lots of dumb shit. I can get you on that flight without any questions being asked, but I need that thing in a crate or a box. I need it out of sight."

"Understood," O'Connor says.

"Be warned. It's not a pleasant flight."

"But it's a flight, thank you," Taylor says.

"I'll get in touch with a science desk within the State Department and have someone meet you on the other side."

"Understood," O'Connor says a second time, sounding unusually formal.

Captain Withers gets to her feet. She turns to Taylor, saying, "Watch him. He's a good man, but damn, does he overcomplicate things."

Taylor smiles, saying, "Yes, he does."

The captain walks off, leaving them alone at the table.

"Happy?" O'Connor asks.

"Happy," Taylor replies. "Thank you."

"Okay, let's find somewhere nice for the night."

"Ah, just one thing," Taylor says, raising a finger. "Do all the women in your life slap you and then kiss you?"

He raises an eyebrow and refuses to reply as he gets up from the table. Taylor watches O'Connor with curiosity as he walks over to the bar and pays for their coffees. He's not what she thought when she hired him in Europe. She was after muscle, not brains, but he's got both. And persistence. A lot of persistence. At some point, they're going to part ways. Not here. Not now, but eventually, his services will come to an end. And then what? What need does she have for a bodyguard in America? Taylor gets the feeling he'll move on once she's safely in the US. For her, though, this has been more than a paid relationship. He seems to sense that, too.

As he walks back to her, he says, "So, what next? I guess we need to find a hotel."

"And do some shopping."

"Shopping?"

"Have you looked at what you're wearing?" Taylor asks. "Come on. It's time for a new wardrobe."

O'Connor groans.

After dropping the rental car off in the center of Nairobi at five in the morning and slipping the keys into a metal collection box, they take a cab to the airport. The driver is a little confused when O'Connor asks to be dropped at a security gate on the industrial north side of the airport instead of at the passenger terminal on the south side of the runway. Questions are answered with cash. Curiosity is assured when two Europeans with an oversized trunk as baggage sneak around like spies, but discretion only costs around a hundred US dollars.

Dawn breaks as they stand on the side of the road not more than twenty yards from a security checkpoint with a lowered barrier. Cars come and go, waving IDs at the airport police. Taylor and O'Connor stand on the gravel beside the road, looking rather conspicuous.

"They're used to this."

"Are they?" Taylor asks, feeling like a criminal.

While shopping for clothes, she found a leather trunk that's only just large enough for the artifact. The trunk is ornamental. It's intended for use as storage at the foot of a bed, with the lid doubling as a seat, and is finished in colonial styling. Dark black leather straps with brass studs wrap over the trunk. The lock looks real but is fake. It pops open with a slight squeeze. The trunk was big enough that they could fit one of the backpacks inside, along with the contents of the other jammed in around the artifact as packing. If anyone opens the trunk, they'll see clothing strewn around. Lift a few new African dresses out, and there's a massive silver orb. At the bottom of the trunk, O'Connor's M4 has been stashed along one side, but he emptied the magazines and left the grenades in the hotel room. Housekeeping is going to have conniptions when they find his arsenal neatly lined up on the desk by the phone.

O'Connor's 9mm Glock and a couple of loaded magazines have been stowed in a pouch inside one end of the trunk. For Taylor, it's a curious inclusion. To her, a gun is a gun. Regardless of whether it has a long barrel or a pistol grip, it's an instrument of death. She wanted to quiz him about the inconsistency of keeping one gun intact while disabling the other, but she thought better of it. She knows Americans have a unique relationship with their guns. At a guess, he probably draws the line at weapons of war, although to her, that would include the Glock.

Headlights sweep over them and the leather trunk behind them as a U-Haul truck approaches in the low light of dawn.

Lisa leans out of the passenger window, joking with them and saying, "Get in losers! Don't you know? We're going to the United States of America! Well, you are!"

O'Connor laughs. The driver jumps out and opens the sliding rear. The two men lift the trunk into the back of the truck. O'Connor offers Taylor a hand, helping her up into the vast, empty sheet metal box that makes up the rear of the truck. The driver slides the roller door down, sealing them in utter darkness. Taylor feels for the trunk and sits on it. O'Connor brushes against her as he sits on the other end.

The truck trundles toward the gate, rocking as it hits a pothole.

"Is this going to work? How is this going to work?" Taylor asks as anxiety wells up within her.

"Relax."

"I've got no ID."

"You don't need ID," O'Connor says as the truck comes to a halt in front of the security gate.

"But those guards. They saw us climb in the back."

"Those guards are going to take one look at Lisa's ID and wave us through. Besides, she does this all the time. They know her."

"And they don't care that we're hiding in the back of the truck."

"They know the drill," he replies as the truck pulls forward. "They didn't see anything." The truck drives on, but the quality of the road improves, making it a smooth ride. As they're turning in a wide arc, Taylor figures they're already on the airport apron or one of the taxiways. The whine of engines and the pungent smell of jet fuel exhaust fills the air. The truck comes to a halt, and the rear roller door is opened.

O'Connor jumps out. Taylor is more reserved, sitting on the rim and lowering herself rather than falling to the concrete slab.

"Is this it?" one of the ground crew asks, pointing at the trunk.

"That's it," Lisa replies. "And these two."

She signs a sheet of paper on a clipboard as an articulated airport loader backs down the ramp of a C-17 aircraft not more than fifty feet away. A hazard light flashes along with an audible warning, beeping as the vehicle turns on the concrete and then drives up to the back of the truck. The leather trunk isn't that heavy, but a couple of the ground crew climb on the truck, drape a cargo net over it and place it on a pallet set on the loader.

With the fanfare of its flashing light and loud beeps, the loader backs up and drives onto the C-17 ramp, taking the artifact into the cargo hold. For Taylor, this is a pivotal moment. After fleeing *Boko Haram*, driving through the desert and fighting off pirates, the strange alien device is finally in the hands of the US Air Force. They may not know what they're transporting, but they're protecting an extraterrestrial machine that has sat inert on Earth for thousands of years. This is it. This is the end of one journey and the beginning of another, one that will lead the artifact before the scientific community.

O'Connor is unduly concerned with the leather trunk. He's overprotective, walking up the ramp beside the loader and talking with the loadmaster as he secures the trunk along with the rest of the cargo.

"Hey," Lisa says, walking up next to Taylor. Oh, here it comes, she thinks. It's Lisa's tone of voice that gives it away.

Lisa's about to step out of her professional capacity into a personal one. If it's to give Taylor a warning about O'Connor, she need not bother. Taylor's a big girl.

Standing there in the warmth of the rising sun, Lisa says, "He's a good man."

"He is."

"Listen... take good care of him, okay? He's big and tough and doesn't think he needs anyone, but that's a front."

Taylor nods, unsure how she should reply.

"He'll take a bullet for you, but not rose petals on the bed..."

"You did that?" Taylor asks.

"I did that."

"And?"

"And he struggles with stuff like that. He's not one to open up, but he's a big softy at heart."

"It scares him, huh?" Taylor says, unable to make eye contact with Lisa. She looks down at her boots. She has to force herself to raise her gaze to meet Lisa's soft eyes.

"In a good way. It's the kind of scare we all need from time to time." Lisa reaches out and squeezes Taylor's shoulder affectionately, adding, "Have a good flight."

"I will. And thank you."

Lisa reaches up and touches the side of her forehead, offering an informal salute before turning away and walking across the taxiway toward one of the hangars.

Taylor jogs up the open back of the C-17 transport aircraft. The metal ramp is sturdy. The US Air Force airplane is in a different league from the decrepit single-engine aircraft they flew across Sudan. For the first time, she feels confident about the future. The loadmaster shows them where they'll be seated and goes through the safety procedures, something else that was sorely lacking from Air Sudan. The leather trunk has been mounted on a pallet and has a cargo net and canvas straps securing it in the hold, which, to her surprise and delight, makes it seem as though it belongs here. The rear of the plane closes, and the C-17 taxies for takeoff. The whine of the engines grows to a roar as the plane thunders down the runway and lifts into the air.

"You good?" O'Connor asks.

Taylor smiles. "I'm good."

"Good," he replies, bunching his jacket up as a pillow as they reach cruising altitude.

Unlike commercial aircraft, the C-17 has seats lined up along the side of the fuselage. There are no rows running across the plane, just a bunch of seats with their backs against the outer skin of the aircraft. If the worst seats on a regular flight are described as cattle class, military flights would be rodent class. The seats are narrow. Instead of cushions, canvas stretches between the aluminum frames. The seat backs resemble the webbing used on the cargo net holding the leather trunk in place. If Taylor shifts in her seat, she can align the canvas straps behind her so they don't dig into her shoulder blades, but to call it uncomfortable is an understatement. How long is this flight? Taylor wants to ask O'Connor, but he's already thrown his legs up and turned to face the fuselage.

It's morning. How can O'Connor go to sleep? Didn't he just sleep a full night in a hotel? To be fair to him, it's been over a week since she got a decent night's sleep. And last night, she was tossing and turning, overthinking things, trying to solve all the world's problems before dawn. This is probably the first time he's been able to let down his guard.

Within minutes, O'Connor is snoring. That she can hear him over the constant hum within the C-17 Globemaster is surprising, but he's sawing logs in his sleep.

The loadmaster checks the straps on the various items in the cargo hold. One of the flight crew comes down from the flight deck. She walks over to Taylor and raises a finger to her lips as though there's a need to be quiet in an aircraft that sounds like an aging washing machine shaking violently on a spin cycle. Taylor follows her, curious about the secrecy, but it seems she doesn't want to disturb O'Connor.

"This way," she says, opening the cockpit door for her.

"Dr. Taylor," either the pilot or copilot says, turning sideways in his seat and offering to shake her hand.

"Ah, hi," Taylor says, taking his hand.

"I'm one of your pilots, Captain John Sanders," he says before gesturing to the pilot in the opposite seat. "And this is Captain Jane Brookes."

Captain Brookes offers a quick wave, but she's talking into the microphone attached to her gray headphones. Her voice is clipped and emotionless, rattling off details to someone over the radio.

Taylor feels overwhelmed in the cockpit. Stretchy cords extend from plugs on the ceiling. The actual cockpit windows are quite small, with the control panel demanding attention in the form of seemingly hundreds of dials, switches and levers. To her untrained eye, the dials in the center panel seem to be duplicates of each other, repeating several times with only subtle differences.

"Captain Withers asked us to look out for you during the flight," Captain Sanders says.

"Lisa?"

"Yes. She's had us carry some strange cargo over the years and a bunch of no names, so we know her well."

"No names?"

"Spooks. Spies."

"Ah."

"But she's never had us transport an archeologist and an ancient Egyptian artifact."

Taylor feels her throat constrict. Her heart races. A cold sweat forms on her brow.

"We're not carrying a cursed Mummy or anything like that, are we?" he asks, joking with her, and Taylor has to force herself not to look alarmed. She focuses on smiling and appearing warm and friendly.

"Oh, nothing like that," she says, trying to look relaxed.

"Listen, we heard you guys just came in from an epic trek across the Sahara, and Captain Brookes wanted to make you feel welcome."

The captain waves again. She raises her eyebrows slightly, but it's clear she's listening to someone talking over the radio as she returns to that conversation every few seconds.

"Sleeping in the cargo compartment is impossible, but we've got a bunk up here."

The captain points at a control panel running along the inside of the aircraft, curling overhead. It takes Taylor a moment to realize he's referring to what looks like a bench seat beneath the panel.

"It's a storage locker, but we use it for naps on long-haul flights."

He hands her a comically small pillow.

"Oh, um. Thanks," she says, taking it from him.

The captain turns away from her, so she sits on the seat and then lies down. It feels strange trying to sleep on such a narrow stretch of foam, but she closes her eyes. The pilots continue talking over the radio and to each other in calm, measured tones. Their voices are like the drone of the airplane itself. Their words form a kind of white noise. Taylor didn't think she was overly tired, but within minutes, she's fast asleep. The next thing she knows, a gentle hand is rousing her from her slumber. She blinks and sees the woman who escorted her to the cockpit waking her.

"We're thirty minutes out."

"Oh, okay," Taylor says, sitting up and yawning.

"Good evening," Captain Sanders says.

"Good evening. And thank you," a sheepish Taylor says, getting to her feet.

Out of the cockpit, she can see farmland stretching for miles over rolling hills, but it's lush and green. Pockets of forest dot the land. Rivers amble between country fields. The setting sun lights up the land. There are villages down there linked by roads lined with hedgerows.

Taylor braces against the roof, asking, "Where are we? I thought we were going to America."

"Oh, we are," Captain Brookes says, looking over her shoulder as she talks to Taylor. "Or you are. We'll land here in England and change crews."

"England?" Taylor says with utter disbelief washing over her. "We're in the United Kingdom?"

"Yes," the captain says as though she's surprised by Taylor's confusion. "We're refueling in Mildenhall."

"Mildenhall," a flabbergasted Taylor says, pointing out of the cockpit window. "That's Mildenhall?"

"Ah, that's Ipswich, but we're on approach to Mildenhall."

"I—I live that way," an excited Taylor says. "Maybe a hundred miles that way. Over in Cardiff."

Captain Brookes smiles at Taylor's enthusiasm. "Well, welcome home, Dr. Taylor."

"Oh, thank you. Thank you so very much," she says, waving as she leaves the cockpit.

The landing gear on the C-17 lowers on hydraulics, which sounds unnerving. The way the wind whips around the wheels is like a vacuum cleaner switching to full power.

O'Connor is sitting in one of the uncomfortable seats with his feet up on the cargo.

"We're here. We're here!" she says.

"America?" a surprised O'Connor says.

"England!"

"England?"

Taylor can barely contain herself. "They're landing here in England. They're refueling. They're changing crews."

"Oh," he says, not quite sharing her enthusiasm. "Okay. And?"

"And we can get off here," she says, sitting down beside him and putting on her seatbelt.

"You want to get out here? Not in the US? Not with NASA?"

"I-um. Yes. No. I don't know. Yes, I want to stop here."

O'Connor smiles and shakes his head as he says, "Okay."

The C-17 Globemaster banks as it descends. The loadmaster checks everyone is seated and strapped in as they line up on final approach.

"And you're sure about this?" O'Connor asks. "You don't want to hand this thing over to NASA?"

Taylor says, "Cambridge is just literally down the road from here. And we have Oxford. And ESA. ESA is only a few miles south of Oxford. And they'll include NASA in the discovery. Oh, and there's my mum and dad. You'll get to meet my mum and dad!"

From the confused look on his face, she can see he doesn't quite equate her folks with either of the universities or the European Space Agency.

"My dad's retired, but he was an English lecturer at Oxford. He's got connections there. He can get us in front of the right people."

O'Connor looks skeptical.

As they're within the cargo hold, there aren't any visual clues about their altitude. Although the landing is smooth, with only a slight hop as the wheels touch down, the screech of the tires takes Taylor by surprise. The nose lowers, and the craft decelerates before coming to a halt and turning onto a taxiway. Once the aircraft has come to a halt, O'Connor gets up, saying, "I'll talk to the loadmaster and get us off-loaded."

"I'll call my dad," Taylor says, pulling out her phone and hitting the speed dial. She presses her phone against her ear in a feeble attempt to block out the whine of the ramp being lowered at the rear of the plane.

"Dad. It's me! I'm back in the UK... Yes, yes, just touched down... Listen, does George still work for ESA? Dad, I need you to pull in a few favors for me at Oxford. Who do you know there...? Why? We found something out there in the desert... Look, I know this sounds crazy, but I found something in the Sahara. Something that shouldn't have been there. Something that didn't belong in an ancient Egyptian tomb... I know it sounds mad, but it's something that doesn't belong on Earth. It's a machine. It's thousands of years old, but it looks like it rolled off an assembly line yesterday... Dad, come to Oxford. Help me get this thing in front of the right people... Wonderful. Thank you... Okay, I love you too."

They walk down the ramp onto the concrete.

"Are we doing the right thing?" Taylor asks O'Connor. He doesn't reply. He simply grins as if to say, since when is that a consideration? Taylor asks, "I mean, this isn't illegal, is it?"

O'Connor says, "This is a refueling stop with a crew changeover. There are no formal customs requirements as the crew will remain on base and rotate out on the next flight."

"What about us?"

"We were supposed to get back on board. As it is, we've been informally told to wait in the barracks until the UK customs officers arrive tomorrow morning."

"But I don't have a passport and—"

"Relax. This is a US Air Force base. Its security is designed to keep people *out*, not to prevent them from leaving."

"So what are we going to do? Walk out of the front gate?"

O'Connor jangles a set of car keys in front of her.

"The loadmaster is a friend of a friend."

Taylor laughs. "When it comes to you, everyone on the planet is a friend of a friend."

"Uh, something like that," O'Connor replies, smiling. "Anyway, all he wants is a full tank of gas when we bring her back."

O'Connor and the loadmaster joke around as the cargo net is removed from the pallet. They each grab one of the straps on the leather trunk and walk it toward one of the hangars as the refueling gets underway. Taylor follows along behind them, listening to their conversation.

"Withers says you were the one at *Harat Zuwayyah*. Shit got real, huh?"

"It was touch and go for a while there," O'Connor says, indulging the loadmaster's curiosity as a tacit form of social payment for helping out. "Being the dumb fuck that I am, I only took a single magazine up the mountain. We weren't expecting any trouble. Certainly not a raiding party from *Boko Haram*. I'll tell ya, there's nothing more heartbreaking than staring through a scope at a terrorist laughing as they dump your spare ammo on the sand."

"And you fought them off by yourself?"

"There were two of us with weapons. Me and a local bodyguard carrying an AK-47 with iron sights."

"No scope?" the loadmaster says in surprise.

"Nope. How the hell he hit anyone with that thing is beyond me. The kick into his shoulder was visible as he lay prone on the rocks. And the dust that thing knocks around when it expels empty shells. Damn. He might as well have been holding up a bullseye for them to aim at him."

"How long was the engagement?"

"I dunno. Felt like hours. It was probably less than five to ten minutes. We jacked up the side of the mountain, counting down our rounds, and darted over the ridge. Then the cavalry arrived." "The cavalry?" the loadmaster asks, but from the way he uses the word, Taylor can tell he's thinking of US soldiers coming to the rescue. O'Connor corrects that notion.

"A bunch of farmers driving pickups with their teenage sons standing in the back, firing AKs on full auto from over the cab."

The loadmaster laughs. "Well, if it works."

"Exactly. It wasn't shock and awe so much as fireworks on the 4th of July, but the terrorists retreated to the dunes."

The three of them exit through the rear of the hangar and out into a parking lot. The loadmaster folds down the rear seats in his hatchback, and they slide the leather trunk in.

"It's Egyptian, right?" he says, followed by the words Taylor has dreaded hearing. "Can I see it?"

"It's surrounded by packing," O'Connor says, only partially lying as the artifact is covered by a blanket and a few dresses. "Not much to see."

O'Connor rests his hand on the lid of the trunk, making as though he's about to open it. Taylor's heart races. It's one thing for the loadmaster to lend them his car. It's another to be smuggling a potentially dangerous alien artifact between countries.

"It's hermetically sealed in plastic," Taylor says, bluffing. "We need to be careful it doesn't deteriorate in transit."

"Ah," the loadmaster says, accepting that. He turns and shakes O'Connor's hand, followed by Taylor's, saying, "Well, take care."

"We will," Taylor says, beaming with a smile as he walks off.

O'Connor jumps in the left side of the car, while Taylor hops in the right. For a moment, O'Connor sits there staring at the blank dash and closed glovebox in front of him, stunned, holding the keys out in his right hand.

"Ahhh," he says.

"How about I drive," Taylor says, sitting in front of the steering wheel. She holds out her hand for the key. O'Connor drops it in her palm.

"Yeah, probably a good idea," he says, resting his fingers on the dash and still getting used to the dissonance of the steering wheel being on the other side of the car. "So, what's the plan?"

Taylor drives out of the parking lot and along the main road. Ahead, the boom gate raises as she approaches. US soldiers wave a friendly hello as they drive through.

"We'll head to Oxford. Grab a hotel for the night. And then head to the Department of Astrophysics in the morning."

As they turn onto the motorway, O'Connor says, "You realize we just smuggled an unknown alien device into your country, right?"

Taylor smiles at him. "Along with a bunch of weapons that are illegal over here."

"Oh, yeah. That, too."

Oxford

"The streets here are so narrow," O'Connor says as they walk through Oxford, taking in the brisk morning air. For Taylor, being back in England is invigorating. She'll never take the lush green oak trees for granted again, or the aging stone buildings. She's seen enough of the Sahara for one lifetime.

She leads O'Connor to the Tree Artisan Café, only a couple of streets away from the Oxford University Department of Astrophysics. Her mother and father are waiting inside. Taylor overhears her dad recounting the stories she told him over the phone while he was driving in from Cardiff. The name *Heart of Kisumu* hangs in the air. Her folks rise from their seats as the two of them enter.

"Mom. Dad. This is James," Taylor says, suddenly aware she's blushing like a thirteen-year-old schoolgirl introducing her new boyfriend.

"It's nice to meet you," her mother says in the same friendly tone of voice she reserved for all of Taylor's teenage high school crushes.

"I—um," Taylor says, sweeping her hair behind one ear as the two other gentlemen at the table get to their feet. Her father introduces them.

"This is Dr. Alexander Brown, head of the astrophysics department at Oxford. We play golf together."

"And I always let him win," Dr. Brown says, being jovial and shaking both of their hands.

Dr. Brown is very white. His skin is pale, and his hair is silver. His eyebrows reveal the original color of his hair as being almost jet black, making them the most astonishing feature on his face. His eyes border on a light blue color. At a guess, he's in his late fifties or early sixties. He's trim and fit and wearing a pair of corduroy trousers that are grossly out of fashion, along with a tweed sports jacket with leather patches on the elbows. His most endearing feature is a blue polka-dot bowtie.

"It's a pleasure," Dr. Brown says. "Your mother and father speak highly of you."

"As all parents do," Taylor replies, smiling warmly.

Her father says, "And this is Dr. Newsome from ESA."

"Grant," Dr. Newsome says, shaking both of their hands. "And I always beat your father at golf."

Dr. Newsome is in his mid-thirties and wearing a suit without a tie. He's got short-cropped black hair and a receding hairline that leaves the center of his hair in a V-shape extending over his forehead. If he's ever worn his hair in a side part, it's impossible to tell to which side it would have fallen. Unlike Dr. Brown, who is clean-shaven, Dr. Newsome has one of the ubiquitous five-day shadow beards so popular with hipsters. He must run a beard trimmer over it, as the beard length is as meticulous as his haircut.

They take their seats.

"And James?" Dr. Brown asks, gesturing to O'Connor, clearly curious about her companion.

Taylor cuts in. "This is Dr. James O'Connor from Berkeley."

"And he's a doctor in?"

"Astrophysics," Taylor says, blurting that out before thinking about the implications. O'Connor looks mortified. A waiter comes over, offering some welcome relief as he hands out menus.

"So, Dr. O'Connor," Dr. Brown says, but he looks suspicious. It's the lack of introduction from O'Connor himself that causes his dark eyebrows to narrow.

"James, please," O'Connor says.

"What took you to the Middle East on an archeological expedition?"

O'Connor looks down at the menu with a blank expression on his face. Taylor exchanges glances with her father, who has a frown on his face, expressing his displeasure at the way Taylor is lying to his colleagues. She can see him pursing his lips, on the verge of saying something but clearly not wanting to ruin the moment.

"We've been dating," Taylor says, still speaking on behalf of a flustered O'Connor. "I talked him into accompanying me on my crazy adventure."

"Oh, and she really is crazy," O'Connor says, smiling and only half joking. Taylor senses his comment is directed at her, not at Dr. Brown. "It's like dating a female Indiana Jones."

"And so what was it you found?" Dr. Newsome asks. "What is it you want to show us?"

To her surprise, O'Connor takes the lead.

"An artifact. A silver sphere roughly a meter in diameter with a glowing red band around its waist."

"And you think this...?"

"I think this warrants investigation," O'Connor says. "What are the odds of finding a functioning, pristine metallic machine in a seven-thousand-year-old Egyptian tomb?"

"It could be fake," Dr. Brown says.

"And we could be living in a simulation," O'Connor replies, to which Dr. Brown nods in agreement. From the way he scrunches up his lips, it's not that Dr. Brown thinks they're actually living in a computer simulation but that he agrees with O'Connor's broader point about hypotheticals being curiosities that need not always apply.

Taylor holds out her phone, saying, "This is the video I took during the discovery."

Showing them footage from within the cave distracts the two scientists from their objections and gets them to focus on the possibility of an alien artifact with a bit more gravitas. The footage begins with mummified bodies lining the side of the darkened cave. Taylor jogs the video forward to when she removed the *Merimde* mask with glowing red eyes at the back of the cave, revealing the dusty, mirrored surface of the artifact.

"And the locals knew of this thing?" Dr. Brown asks.

"They knew something was in the cave, but superstition prevented them from exploring this deep. They saw the glowing death mask at the back of the cave and called it *šaytān*. I think it was placed there to ward off tomb raiders."

Dr. Brown says, "Well, it would certainly get me to think twice about desecrating a grave."

"And you have it? Here? This artifact?" Dr. Newsome asks, pointing at the table in front of them. "You got that thing through customs?"

"It's sitting in the back of the car," O'Connor says with a straight face, ignoring the question about how the artifact came into the country.

Dr. Newsome laughs, shaking his head with disbelief. "So you're telling me, you've recovered an alien artifact from the Sahara desert? And it's sitting in the back of your car here in Oxford?"

Taylor says, "I'm telling you we recovered an artifact of unknown origin from North Africa."

Dr. Brown nods, liking that distinction.

"And yes," Taylor says. "It's in the back of our car. It's wrapped in a blanket inside a leather chest."

"Hot damn," Dr. Newsome says. "I mean, if this thing is for real..."

"I know, right?" Taylor replies, allowing her enthusiasm to run for a moment.

Dr. Brown says, "So we're assuming this is real?"

Dr. Newsome replies, "Even if it isn't. Even if it turns out to be a fake and we've all been fooled by some elaborate hoax, it's a wonderful thought exercise."

"It is," Dr. Brown says, agreeing with that point.

He takes the phone from Taylor, examining some of the photos she took of the artifact while she and O'Connor were heading toward Sudan. As these photos were taken during the day, the lighting is much better than in the cave. Taylor used notes written on cardboard to include her thoughts on each photo, mounting them in front of the artifact.

Is the artifact modeled after a planet?

(with poles and an equator)

"I haven't seen these," O'Connor says, peering over at the photos on the tiny screen.

"You were asleep."

As their escape was far from assured back then in the Sahara, Taylor wanted to gather as much data as she could, so she laid out a tape measure in front of the sphere, propping the artifact up on the passenger's seat of the Jeep. She wrote hurried notes on scraps of cardboard and laid them in front of the strange device as she took hundreds of pictures of the mirrored orb. Dr. Brown flicks through the duplicates, wanting to see each unique angle and her different comments.

The north-south orientation has the smaller hole on top.

(Based on how the artifact was found in H.Z.)

There's a close-up photo of the inset band around the middle of the artifact.

There are tiny, irregular marks within the equator

(a deliberate choice set in contrast to the smooth sphere *itself*)

Rather than moving the artifact, Taylor stepped around the Jeep taking photos from different angles. She remained close enough that the curved, mirrored surface filled most of the shot.

They made a deliberate decision to use a reflective surface

The interior is hidden, while the artifact reflects the world around it

As she's reused the cardboard, on subsequent shots, the old comments are visible with lines drawn through them and new comments written beneath them.

The lack of scratches is curious, given its age

No sign of corrosion

The waiter returns, interrupting them. Taylor's mother says, "Lattes to go, thanks. And a bunch of Danish pastries. We'll eat as we walk."

No one objects.

Once the waiter has left, her father says, "So this thing is a probe, like Pioneer or Voyager, right?"

"Right."

"I don't understand. If they could send out these things to all corners of the galaxy, then they could have colonized the galaxy at the same time. Why only send out probes when you can visit in person?"

"Time," Dr. Brown says. "They could have arisen while dinosaurs were still stalking Earth, or while *Homo sapiens* were still fooling around in caves. To them, our planet might have been interesting but not compelling. Perhaps they thought Earth was a place to keep tabs on."

Dr. Newsome says, "Perhaps it's a test."

"A test?" Taylor replies, raising her eyebrows, surprised by the concept.

"Yes. I think so. I think you're on to something by comparing this to a celestial body like a planet or a star, with poles and an equator—as that's deliberate in the design. I mean, assuming this thing is legitimate... Imagine an intelligent alien species seeding the galaxy with probes, wanting to find intelligent life. You don't just *find* intelligent life. A planet that today is teeming with microbial life might not have any intelligence for another million years."

"Or another billion," Dr. Brown says.

"So if you're waiting for intelligence to arise, you set a test. When a species can rise to meet that test, you know you're ready to talk."

"Makes sense to me," O'Connor says, and Taylor can see he's trying to inject himself into the conversation at those points where he can say something safely. He's not going to pontificate on the nature of the artifact or its creators.

"So they're looking for intelligent life," Taylor says.

"Just like us," Dr. Newsome says.

"I like this," Dr. Brown says, "It's better than our approach."

"How so?" a curious Taylor asks.

"Our problem is that we're looking for Earth-like planets, but that's a mistake."

"Why?"

"Because Earth itself wasn't an Earth-like planet until recently. For most of its history, it looked nothing like what it does today. There have been at least *two* snowball periods where the planet looked more like Europa or the icy moon Enceladus than Earth. There have been lava Earths, dense cloud-covered Earths, purple Earths, and snowball Earths. So I get their strategy. Send out a bunch of probes and wait to see if someone replies."

"It makes me wonder how many worlds they've surveyed," Dr. Newsome says. "And how long these probes last. I mean, how long was this thing on Earth before it ended up in that tomb?"

"There have to be engineering limits," Dr. Brown says. "I can't imagine something like this lasting for more than ten thousand years."

"So there's something out there making them and distributing them on a regular basis?" Dr. Newsome asks. "That sounds like a lot of effort to go to in order to keep tabs on a planet that may never have intelligent life."

"It does," Dr. Brown agrees.

"And that worries me," Taylor says.

Before anyone else can respond, O'Connor asks, "Why?"

"Because it seems intrusive."

Dr. Brown picks up on her concern, saying, "And we don't know their intent."

"I can understand it," Dr. Newsome says. "If life is abundant elsewhere. Simple life. If microbial worlds are a dime a dozen, then they'd be using these to filter out the noise and focus only on intelligent life."

"But is it?" a skeptical O'Connor asks. "Is life abundant elsewhere?"

"Life is just chemistry. It's complex chemistry, to be sure, but that geochemistry becomes biochemistry seems to be a given. Life formed quite quickly here, back when Earth was hellish. So why couldn't it do the same elsewhere?"

"We're still in our infancy when it comes to exoplanets," Dr. Brown says. "Simple life could be the norm."

Taylor says, "They'd have to be incredibly patient to wait for intelligent life to arise."

Dr. Brown says, "Yes and no. It's easy to say, oh, look—it took 3.8 billion years to go from the first single cell to humans walking on the Moon, but that misses a critical point. It didn't *have* to take that long. We're looking at only one timeline ours. So we think nothing much happened until the Cambrian Explosion, roughly six hundred million years ago. And then, the wheels were set in motion for complex animals that would eventually lead to hairless primates wielding stone axes.

"But we *know* there are other possible timelines. Complex life didn't have to wait all that time. Even here on Earth, complex life arose far earlier than we originally thought, somewhere around 2.2 billion years ago, but it was snuffed out. If that particular extinction event hadn't happened, human-like intelligence could have evolved billions of years earlier for some other species. My point is when we draw upon Earth as an example of life thriving on a tiny planet in outer space, we have tunnel vision. We're assuming there was only one way for us to evolve."

"This is fascinating," Dr. Newsome says. "An alien probe arriving on Earth, looking for intelligent life. I love it!"

"It's an intriguing possibility," Dr. Brown says, agreeing with him, and looking down at the photo of the silver artifact glistening in the sunlight on her phone.

Taylor feels uncomfortable with how quickly both Newsome and Brown are rushing to embrace the existence of a device they haven't actually examined yet. Her concern is that their expectations might cloud their judgment.

She says, "We have to be careful about reading too much into the artifact. In archeology, we struggle to identify the purpose of hominid artifacts. We might find a tiny statue of a bird carved out of bone in a grave, but was it a toy, a piece of jewelry, or a god? Perhaps it was a talisman for fertility or to bring luck when hunting.

"With a gap of forty thousand years, it's often impossible to tell, but we must try to understand the intent. Why did someone idle their time away carving a bird from a bone? It clearly held value to them, but why? Does it hold sentimental value? Is it an idol? Were they superstitious? Perhaps it was something to ward off evil spirits? Or was it a teaching device, something to warn the next generation that when these particular birds migrate, they too should move to warmer climates? Were birds revered in that culture, or was it just this one family that enjoyed whittling away at them in their spare time?"

Dr. Brown says, "So you think there could be some other hidden intent behind this artifact?"

"I think we need to keep our options open. It's too easy to go down the rabbit hole on this. There are dozens of possibilities, but only one is correct. Our problem is—which one?"

Dr. Newsome says, "Fair point."

The waiter comes over with their coffee in disposable cups and hands them a few brown paper bags with grease stains indicating there are pastries within. Taylor's dad thanks him and heads to the cash register to pay.

"Can we see it?" Dr. Brown says.

"Let's go and see it," Dr. Newsome says, and Taylor notes they have an almost childlike enthusiasm for something that, minutes before, they were ready to dismiss as a fake.

"Better yet. Bring it into my lecture hall," Dr. Brown says. "Let's rally the staff and get a good look at this thing."

The Lecture Hall

O'Connor is unusually silent as the two of them walk back to the car on the outskirts of Oxford.

"Is everything okay?" Taylor asks as they hop in the hatchback.

"No," he replies, staring at a dashboard and glovebox that, to him, should hold a steering wheel. Taylor can see the discomfort on his face and the way he doesn't turn to make eye contact. He's not happy.

"I'm sorry," she says.

"For giving me a Ph.D. in physics?"

"Astrophysics," she replies, trying to be playful as she corrects him. "Look, it's not a big deal."

"It is a big deal because I'm not that—at all. And once they figure that out..."

"I just wanted..." Taylor doesn't complete her sentence. O'Connor doesn't try to guess at her intent. Deep down, she's not sure why she lied to Dr. Brown and Dr. Newsome. "I guess I didn't want you to feel left out of the conversation."

"I felt stupid," O'Connor says.

"But you're not."

"Listen," he says, pointing at the exit to the parking lot. "Let's get this thing up to the lab or lecture hall or whatever it is, and I'll go."

"You're leaving me?"

"I'm returning the car," O'Connor says in his defense.

"Stay," she says, reaching out and resting her hand on his forearm.

"This isn't my fight. Hell, it's not even a fight. I'm a fish out of water."

"I trust you," Taylor says, releasing his arm. "I trust your instincts. Okay, so you're not an astrophysicist, but you're

smart. You're intelligent. I trust your judgment."

O'Connor is quiet.

"I need you," she says.

He lets out a solitary laugh. "You don't need a bodyguard in Oxford."

"I need a friend."

Reluctantly, O'Connor nods. "Let's get the artifact into that lab and take things from there."

Although he hasn't agreed to stay, Taylor accepts the uncertainty in his answer. He's as out of place in Oxford as she was in the dusty backroads of Sudan. They drive along the narrow streets and pull into a loading dock at the back of a four-story hall built in the 18th century. Dr. Brown is waiting for them. He directs them to park in a loading zone out of sight from the road, telling them it's never checked and saying he parks there all the time. The look on O'Connor's face isn't convincing, but he opens the rear of the car and drags the leather trunk up over the lip of the hatch. Dr. Brown takes one side, and they walk to a set of double doors and up the broad, internal stairs to a lecture hall marked: *Astrobiology and Astrophysics*.

Inside, Dr. Newsome is setting up several video cameras on tripods. The two of them rest the trunk behind a desk in the center of the lecture hall. Numerous physics equations have been sketched on the multiple whiteboards built into the front of the room. The seating layout is tiered, with fifteen rows reaching back to an antiquated projection room at the rear of the theater. There are two aisles with black, non-slip rubber on the steps. The desks are wooden and old, with scratches on the varnished surfaces.

O'Connor opens the leather trunk, lifting the lid and leaning it back against the desk. The two professors are visibly surprised to see floral dresses laid out within the box.

"Oh, those are mine," Taylor says, pulling the dresses away.

Beneath them, a gay pride flag has been draped over a circular object hidden by a thick blanket.

"And that one's mine," O'Connor says to the two very surprised professors. He adds the word, "Camouflage."

"Oh, ah, yes. Of course," Dr. Newsome says. "Clever."

O'Connor removes the flag and peels open the blanket, exposing the smooth, chrome surface of the artifact. Dr. Newsome peers through the eyepiece on the video camera and zooms in as O'Connor pushes back the blanket. Dr. Brown is wearing blue disposable plastic gloves. He waves a Geiger counter over the trunk. Although there's a slight buzz from the machine, it's no more than when he initially turned it on.

"It's clean. Let's get it up on the bench," Dr. Brown says. Together, he and O'Connor reach into the trunk and lift the artifact out, placing it on the wooden bench.

"Okay, this is interesting," Dr. Brown says. "There's a large, flat opening at the bottom, but I suspect that's for stability as it sits nicely on that rim. Also, from lifting it, I can feel it's weighted toward the lower hemisphere. The center of gravity is below the ring running around the middle."

Dr. Newsome says, "So this way is up."

"Precisely."

"All right," Dr. Newsome says, pointing at a laptop set on one of the desks. "I've got a bunch of people from ESA online, and Jonathan from JPL in California is up. It's the middle of the night for him, but he's keen to lend his expertise and support."

Several people in lab coats roll a bunch of equipment into the room, positioning various carts on the side of the lecture hall.

Dr. Newsome says, "Oh, look. Toys!"

Dr. Brown says, "I raided the main lab. We've got a finegrain infrared scanner, a portable spectrometer, an acoustic resonance scanner, sub-millimeter radar imaging and a micro-CT scanner capable of 3D rendering." "Nice."

"If this thing is fake, we're about to figure that out very quickly."

Taylor's nervous. "And none of this is intrusive, right?"

Dr. Brown says, "The infrared is passive, as is the spectrometer. The others use low-level electromagnetic radiation, but these aren't your airport security blasts of a bazillion X-rays looking for weapons. We can dial the sensitivity up or down depending on what we detect."

"Good, good," she says as O'Connor drags the trunk out of the way.

Leather benches have been set along either side wall of the platform at the front of the lecture hall. They're old. Rather than sitting in one of the rows where students would during a lecture, O'Connor sits on the bench off to one side of the stage. He stays out of the discussion. Taylor's waiting for him to disappear. For now, though, it seems he's as curious as everyone else.

"Is this it?" an elderly man asks, walking in through one of the side doors and working his way along the front row, taking a seat on the aisle. Several more men and women walk into the lecture hall. They all take seats near the center of the room, wanting the best view they can get as Dr. Brown and Dr. Newsome talk with the technicians setting up the monitoring equipment. Taylor joins O'Connor off to the side.

The bench seats are rigid. They're covered by leather cushions, but they're not overly comfortable, being intended only for use by lab techs supporting a lecturer.

"This is where it gets real, huh?" O'Connor says, shifting on the seat.

"Oh, yeah. There's no fooling these guys."

Already, someone has 3D-printed chocks to set around the artifact so it can't roll over if it's accidentally knocked. The four chocks are interlinked and surround the base, leaving roughly an inch between them and the device itself. Even

though the artifact is quite stable, should it be bumped, it's not going anywhere with those set around it.

The lab technicians prepare their equipment, surrounding the artifact with various monitoring devices like spotlights at a football stadium. To Taylor, several of the transmitters and receivers look reminiscent of the radio antennae on 5G towers. Whatever their internals may be, like the artifact itself, their equipment is hidden behind a smooth, featureless cover.

Black cords are attached to the slick, silver metal surface of the artifact with suction cups. The ends look like those of a stethoscope. Wires lead from each of the monitoring devices, snaking across the floor to a central, portable control panel mounted on a cart. One of the techs crouches, using duct tape to secure the cables so no one trips over them. Two scientists stand before the console, watching the inputs and discussing the results with those on the video call. Dr. Brown stands silently behind them as they adjust switches and twist dials. Occasionally, he points at their screens, asking questions about the results.

After the best part of an hour, Dr. Newsome comes over, carrying a computer tablet.

"Well, we've started slowly with the infrared scans and have progressed to mapping the interior. And we're monitoring the artifact to see if it reacts or responds to any of our equipment. So far, it's quiet."

He shows O'Connor a graph that has a single, off-center hump and a bunch of red dots scattered along a curve.

"As you can see, we're getting a tight match with theoretical values. There's nothing alarming. It's not reacting at all."

"Interesting," O'Connor says, touching his chin with his hand and appearing lost in thought. It's a bluff. Dr. Brown calls Dr. Newsome away, wanting him to join the discussion happening online while those in the audience talk excitedly with each other. Apparently, the results are being shared in real-time, allowing others to participate in the discussion. "Interesting, huh?" Taylor says once the two of them are alone again, echoing O'Connor's comment.

O'Connor says, "As far as squiggles go, it's one of the best I've seen. And it's got all the best colors!"

Taylor gives him a playful thump on the arm. "Hey, I'm glad you stuck around."

O'Connor smiles. "Someone's got to protect you from *Boko Haram*. I hear they're a real threat here in Oxford."

Taylor grins.

An image appears on the large TV screen on the far side of the lecture hall. It's a transparent schematic diagram of the artifact, revealing onion-like layers within the alien device. Each curved layer is divided into what appears to be petals. Whoever's in control of the image rotates it and zooms in, isolating various layers and looking at the clustered lines resembling computer circuit boards. The edges of the various petals are jagged and differ from each other. It's as though they fit together like a jigsaw puzzle.

Dr. Brown walks over with Dr. Newsome, saying, "Well, it's going to take confirmation, but it looks like your artifact is legit. We've got isotope ratios in the metal that don't match terrestrial samples. That suggests it's not from around here."

Dr. Newsome says, "And the rim around the middle appears to be made from low-background steel."

"Low-background steel?" Taylor asks, unsure what he means.

"Since the advent of nuclear weapons, all modern steel is contaminated with radionuclides. It can't be avoided. Trace amounts in the atmosphere are enough to contaminate steel when it's being forged."

O'Connor is surprised by the notion. "Is that true? So, all steel is radioactive? Everywhere? In everything?"

"Above natural levels, yes. It's slight but detectable, being the result of all the atmospheric testing in the fifties and sixties." "And that still affects us today?"

"Yes."

"But this?" Taylor asks.

"If it was made on Earth, it was built before 1945—or at least built from metal forged before 1945, like iron taken from a sunken warship."

"And how likely is that?"

"It's not."

Taylor claps her hands together, saying, "So we have an alien device!"

"We have questions," Dr. Brown says, smiling. "A lot of questions."

Dr. Newsome says, "A lot more questions than when I woke this morning."

Dr. Brown says, "But I don't get it. Why didn't they send something mobile? Why send a small inert sphere? Why not send something capable of exploring a world teeming with life? Why not take samples and analyze the results? Even if this thing is only testing for intelligence, it should be actively sampling, not passively waiting."

"Waiting for what?" O'Connor asks.

"Exactly. I think we're missing something fundamental about the nature of the artifact itself."

Taylor agrees, saying, "Yes, as that will tell us something about the intent behind it. Understanding its function might reveal why it was sent here in the first place."

Dr. Newsome says, "We need to ask: is it autonomous? Or is it purely about data acquisition? Like a computer blindly recording audio and video. Or is it able to interact with us? Is there some kind of alien artificial intelligence that will allow us to talk to it?"

Before Taylor can respond, Dr. Brown says, "It could be a time capsule. A message in a bottle. Something intended neither to transmit or receive but rather to inform." Taylor raises a finger. She goes to speak when Dr. Newsome cuts her off, asking, "Why aren't they broadcasting? Doesn't that strike you as strange? I mean, here they are with a presence on Earth. They have the technology to reach us from anywhere within the galaxy using what's presumably a Von Neumann probe, so why be quiet? Why not talk to us over the radio as well?"

Dr. Brown says, "The artifact is akin to sending out an RSVP wedding invitation without a return address."

Dr. Newsome says, "It's like finding a treasure chest but not knowing where it's come from."

Taylor's frustrated. "I—"

Dr. Brown says, "And what are they doing now? We know what they did back then. They built this thing. Whether that's a hundred thousand years ago or even just at the point this probe reached Earth seven or eight thousand years ago, think of the kind of technological progress we've made in that time. How much more could they make in the same time? They're starting well ahead of us. Their current tech must be radically more advanced than this."

"So where are they?" Dr. Newsome asks. "Why aren't they here? Why only send a probe? I mean, think of where humanity will be in seven thousand years' time and ask yourself, what have they accomplished *beyond* this probe in that time?"

Dr. Brown says, "Even if they don't want direct contact, they should be setting up an observation post on the Moon or colonizing Mars."

Dr. Newsome says, "Questions. So many questions."

Taylor finally manages to squeeze in a comment, saying, "And so few answers."

"Answers may not be too far away," Dr. Newsome says. "I've got James running a few Python scripts on the shape of those internal circuit boards. We think they fit together in a predefined pattern. Given the structure, there's nine to the power of nine possible combinations, or about one in four hundred million possibilities, but we can crack this with some clever code. We can solve this puzzle."

"And then what?" Taylor asks.

"Then it does something."

"Does what?"

Dr. Newsome shrugs.

Dr. Brown says, "I think we need to brainstorm this with the team. What do you think, Dr. O'Connor?"

"Me?" a nervous-looking O'Connor says, pointing at himself.

"Yes. You."

Taylor doesn't like where the conversation is going. Dr. Brown seems perplexed that O'Connor didn't even try to join in the discussion about solving the mystery of the artifact. The professor's demeanor has changed. It's as though he's suspicious, but why single out O'Connor? What does Dr. Brown stand to gain? What is he playing at? His eyes betray him. Given O'Connor's lack of interest in the scans and the results everyone else is poring over, Dr. Brown seems to sense something's wrong. Is he going to expose O'Connor as a fake?

Two Plus Two

Dr. Brown walks out into the middle of the lecture hall and stands in front of the artifact. He claps his hands, getting everyone's attention.

"All right. Preliminary results are in. But let's talk about what we know for sure before we get into any kind of conjecture. To start, I'd like to hear from Dr. O'Connor."

Taylor and O'Connor exchange a quick glance at each other.

"I—um," Taylor says, raising her hand and interjecting, wanting to protect O'Connor from scrutiny. "But..."

"With all due respect to your astonishing archeological discovery," Dr. Brown says, addressing her, "Dr. O'Connor is an astrophysicist. He was there with you in the cave. I'd like to hear his considered opinion. What does Berkeley's finest have to say about the artifact?"

Taylor's heart races at a million miles an hour. Brown smells a rat. He's looking to humiliate and expose O'Connor. Whereas the desert was O'Connor's domain, asshole academics are hers. She knows precisely what Dr. Brown is looking to accomplish regardless of the seemingly kind smile on his lips. He wants to upstage her and take academic control of the artifact.

Being a woman, Taylor has had to contend with the arrogance of men in academia for years. Misogyny has always struck her as an insane asymmetry between people that's emerged from history for no good reason. Her dad rolls his eyes at the term *patriarchy*, saying there's no such thing, but she's seen the cultural bias that has men overconfident in themselves while women are taught to doubt themselves, even though, at an intellectual level, there's no difference between them at all. The difference is in schooling, and not the kind with a teacher at the front of the room. Taylor has tried to explain to her father that there was never any conscious decision on his part or that of any other man to lift up her brother while questioning her ability, but that bias existed

regardless. To her mind, it borders on an instinctive, reflexive reaction. Perhaps once, deep in antiquity, it was justified, but not anymore. Perhaps once, women were so preoccupied with birthing children year after year that they didn't have the bandwidth or freedom of men, but those days are long gone.

Dr. Brown looks directly into her eyes. That he addressed O'Connor but has focused on her is telling. He knows O'Connor's a fake. And he knows Taylor's the one that put him in this fraudulent position. He's making a power move. In his mind, it's nothing personal. He probably thinks he's ensuring the artifact is treated with professionalism. He's looking to discredit not only O'Connor but her. With just a few words, he's going to sideline her and have her removed from the project. Oh, she'll still be credited with the discovery, but she'll be embarrassed and quietly shuffled out of sight, which, for him, is convenient. He'll become the lead investigator by default.

Taylor stutters. "Wh-Wh-"

O'Connor cuts her off, speaking in reply to Dr. Brown as he gets to his feet.

"You want to know what I think? What my reasoned opinion is?" he asks as he walks forward across the stage.

What the hell is he doing? Taylor wants to grab O'Connor and pull him back into his seat while mumbling, "*Sit down*." She doesn't want him to embarrass himself or her, but O'Connor is already striding toward the front of the lecture hall.

"Perhaps start with the equation on the whiteboard." Dr. Brown says, pointing behind O'Connor. "You'll recognize it, of course, as being a summation of *all* known physics, combining the work of Schrödinger, Einstein, Newton, Maxwell, Dirac and others. Tell me, what insights do you have into this?"

O'Connor slows his approach to the center of the room, clearly intimidated by the equation on the board behind the artifact. Taylor swallows the lump rising in her throat. She wants to run and hide. Dr. Brown asks, "Will our alien friends have something similar?"

Quiet descends on the lecture hall. There are easily a hundred scientists and engineers in the seats. O'Connor looks at the board, saying, "I... ah... Okay... Let's see what we have here..."

Taylor is as nervous as hell. She rubs her sweaty fingers together as she glances around the room. Dr. Brown might have malicious intent, but none of the other attendees do. They're all happy to give O'Connor their attention.

Taylor's heart is pounding in her chest. This is *Harat Zuwayyah* all over again, but instead of *Boko Haram* coming after her, it's a seasoned silverback, or at least that's the social station she's struggling against if she were a gorilla in the wild. Dr. Brown is the head of the tribe. O'Connor may have been able to pin down soldiers back in the desert, lying in the rubble on the side of the mountain with his M4, but this is far more accurate gunfire. Dr. Brown is lining up a kill shot on both of them. Taylor, though, has no options. She can't speak out. She can't intervene. She has to trust O'Connor's instincts to smell a trap.

O'Connor turns his back on the artifact and waves his hand in front of the equation on the whiteboard.

"Anyone that can send probes around the galaxy is going to find this child's play," he says, which is a good start in Taylor's mind.

O'Connor picks up a whiteboard marker and twists off the cap. He's stalling. Taylor shrinks in her seat, knowing he got one good point in, but the more he talks, the more exposed he'll become. Her brows rise, her cheeks tighten, and her eyes bulge as she tries to get his attention, but he's looking elsewhere around the vast room, making eye contact with the attendees in the lecture hall. *Sit—the—fuck—down* screams across her red face.

"What do I see here?" he asks no one in particular, with his back again turned to the audience. He taps the whiteboard with the marker. "I see structure. I see carefully reasoned relationships between things."

Things? Taylor feels as though she's being sucked into a black hole.

"I—I see several hundred years spent distilling the complexity of the universe down into a single equation."

O'Connor looks nervous. There's a tremor in his voice. He turns to face the audience again. He's stalling. Dr. Brown is sitting on the other side of the lecture hall. He has his arms folded across his chest. His body language screams *bullshit*, but for now, he remains silent. O'Connor is tiptoeing through the academic equivalent of a minefield. Dr. Brown is waiting for him to step on the firing mechanism and trigger the detonator. *Boom!*

"What do I see?" O'Connor asks with a loud snap of his fingers, which surprises everyone seated around the lecture hall. "I see high school math!"

He taps the board with the end of his marker again.

Dr. Brown leans forward on his seat. He squints, trying to understand what O'Connor means. No one speaks.

In the stunned silence, O'Connor explains his reasoning.

"I mean, look at this... It is easy to get caught up in the complexity of the equation and lose sight of what we're really dealing with here. But there's addition. There's subtraction. There's multiplication. That's elementary school math, right? It's not until high school that we get into powers, but look, there's also division.

"This is *not* as complex as we think. It's about relationships. This is added to that. This over here is divided by that. These things are multiplied together. The importance of the equation lies in how one aspect relates to another, and I think we lose sight of that. We get so caught up in the miniature that we lose sight of the big picture."

Taylor swallows the lump rising in her throat. For someone that's bullshitting their way through a physics discussion, O'Connor's focused on a valid point.

"People get intimidated by all the squiggles and the fancy Greek characters, but I think the real heart of this equation never gets any more complicated than high school math."

Around the lecture hall, scientists and engineers nod in agreement.

"And that's the danger we face with the artifact," O'Connor says, feeding off their support. "It's too easy to get sucked down into the weeds and lose sight of the big picture when it's really quite simple. We need to keep this simple. It's too easy to overcomplicate First Contact."

There's a murmur of agreement as people take notes and use their phones to snap photos. O'Connor steals a glance at Taylor, who offers a slight, worried smile in response.

"Ask yourself this question," O'Connor says. "What would Einstein say were he here today? What would Schrödinger's opinion be? Or Oppenheimer's?"

Taylor's pretty sure O'Connor's burned through the only scientists he knows and the few he remembers from the list Dr. Brown rattled off. Einstein because, well, everyone knows Einstein. Schrödinger is famous for having a cat, although few understand what he was getting at with his thought experiment, while Oppenheimer is famous as the father of the atom bomb and as a film that raked in numerous Oscar awards. Beyond them, she's reasonably sure he'd struggle to name any other scientists.

O'Connor picks up the whiteboard eraser and rubs the board clean. It's a clever ploy. He's visually reinforcing that the discussion has shifted beyond that particular complex equation. He talks as he cleans the board.

"It's easy to think of these men as having a spark of genius. It's easy to idolize them. It's easy to look at them as having all the answers, but once they sat where you sit today. Once, they looked at problems without any answers at all. Once, they had to see beyond the obvious to properly understand reality. Because reality is anything but obvious." Taylor nods at that comment as it's quite insightful. She likes it. For his part, Dr. Brown has swiveled around on the far bench seat and appears genuinely interested in where O'Connor is leading the discussion. He's got one leg hooked over the other and his hands around his knees. His eyes narrow. He knows O'Connor's fake, or he suspects as much, but he's intrigued by his logic.

"Now, I could write up all kinds of fancy equations on the board with Greek letters and cute squiggles. I could write out some of Einstein's work or the field equations for quantum mechanics, but you already know them. What good would they do? What insights would they bring to the artifact?"

O'Connor writes an equation on the board.

2 + 2 = ?

"This," he says, replacing the cap on the pen and tapping the board. "This is where I think someone like Einstein would start the discussion."

Dr. Brown sniggers. Taylor sinks on the bench seat. Her head hangs low. Her life is over. No one is ever going to take her seriously again. They're going to hear how she lied about a mercenary, passing him off as a scientist, and that he resorted to Kindergarten math to defend himself. She's going to be the laughingstock of her university. Faculty staff are going to snigger behind her back and laugh in her face.

"Anyone want to hazard a guess at the answer?" O'Connor asks, looking around the lecture hall. He holds the marker out as though it were a microphone in his hand, inviting an answer.

No one responds, probably because they're in shocked disbelief at being asked to address such a trivial notion.

"Anyone?"

"Four," Dr. Brown says.

"And here's the problem," O'Connor says, pointing at him. "The answer is obvious. Hold up two fingers on one hand, along with two fingers on the other, and count them. It's easy, right? You arrive at four. It's plain to see. Anyone can solve this equation, right?"

"Right," Dr. Brown says.

"Wrong," O'Connor replies, and the temperature within the vast room seems to plummet. Taylor has no idea where O'Connor is taking his point, but he has everyone's attention. She swallows the lump rising in her throat.

"The *only* reason you arrived at the answer four is because your ideology allows you to get there. You don't arrive at the conclusion of four simply because of math. The only reason *the only reason*—you can get to this answer is because it doesn't clash with your preconceptions and beliefs, and that's the problem we face with the artifact. We're looking at this as scientists, mathematicians and physicists, but no one else will see this thing the same way. They are not going to see two plus two and accept the answer is four."

He taps the board, turning side-on to the room, on the verge of turning his back on everyone again as he focuses on his reasoning.

"They're going to filter this through their own beliefs, through their core values, through their own personal ideology. And they won't reach any answer that contradicts their foundations in life. They simply won't. They'll refuse to accept anything that challenges their beliefs. And—what's worse—they'll come up with an alternative.

"Five! They'll say, '*The answer is five, and you can't convince me otherwise*.' And do you know what? They're right. We can't convince them of something they don't want to believe."

O'Connor turns back to the stunned silence within the room.

"We've seen this before. Time and time again. Indisputable facts are disputed. Two plus two equals four. Six million Jews were murdered in World War II. Armstrong walked on the Moon. The World Trade Center was struck by terrorists in hijacked planes. The pandemic was caused by a bat virus that escaped a wet market. Vaccines train the body's immune system to fight viral infections. The person with the most votes wins the election, well, at least subject to 18th-century notions like the US Electoral College. Earth is a sphere. It isn't flat. And on and on we go. It's all the same. Two plus two equals four. Only these notions we feel are clear-cut become points of contention with others.

"So, what does two plus two equal? We can't just fire off the answer four and consider the matter closed. Math might work that way. Humans don't."

Around the lecture hall, heads nod in agreement.

O'Connor paces.

"People don't think. They react. And they're going to react to the news that there's an alien artifact on Earth. And they're going to react in a lot of different ways. We need to be ready for that. They're going to be afraid, outraged, lost in denial, excited, depressed, you name it. This news will run humanity through the whole gamut of emotions. And we can't rely on logic alone to explain it because there are no logical solutions to emotional problems. We need to satisfy their anxieties.

"It's easy for us to be dismissive of other people's concerns. It's easy for us to jump to a logical conclusion, but we need to factor in the human element. We need to be sure we're not coloring this with our own expectations. And if *we* can't avoid clouding the artifact with conflicting ideas, what hope does anyone outside this room have? We have a responsibility to the world at large—not just to be right but to dispel concerns, to address people's worries, their fears, their beliefs."

He draws a circle around the equation.

"Remember back in high school? Remember how much you hated math?" He turns to the audience and smiles, saying, "Okay, maybe not you, but most of the people in your class.

"And why? Why didn't they like math? Because it wasn't just about getting the right answer. You had to show your reasoning. You had to show the steps you took to get to that answer. If you just put down the right answer in a test, you wouldn't get full marks—even though you were technically correct. Life is like that. You can't just figure out the correct answer. You have to be able to show each step you took to get to that result, or it's no better than a guess. You have to be able to demonstrate *how* you got to the right conclusion. And I think that's something we need to keep in mind when it comes to the artifact."

O'Connor uses the whiteboard marker to point at the strange silver orb on the desk in front of him, saying, "I don't know what that thing is or what it does, but together we can figure it out. But we have to show the world *how* we work it out. We can't just spring this thing upon them and say we've got all the answers. They won't accept that. And they shouldn't. The onus is on us to demonstrate our reasoning."

O'Connor puts the marker back on the aluminum tray running along the bottom of the whiteboard. Taylor notes how his eyes dart to the eraser, but he decides to leave the question on the board.

2+2=?

Taylor stares at the equation. Anyone who walks into this room and sees that is going to think they've all gone mad, but she likes his style. For the first time since he walked to the front of the lecture hall, O'Connor's eyes dart down at his shoes. He's doubting himself. She wants to call out, "*Don't. You're doing great!*" She desperately wants him to make eye contact with her so he can see the enthusiasm she has for his ideas.

He looks up, staring into the middle distance rather than focusing on any one person.

"We want to turn this thing on because we're sure two plus two equals four; we're *convinced* two plus two equals four. But we need to consider our own biases and blind spots. And we need to consider the biases of everyone else outside this room—because they will have them! They won't see the artifact in the same way. Being sure and confident of a decision is meaningless. We need to prove it. It's not enough to simply provide the answer four. We have to be able to carefully and methodically support that answer."

With that, he lowers his head and walks back to his seat beside Taylor. Around the lecture hall, multiple discussions break out. Rather than calling for quiet, Dr. Brown allows them to run. He nods his head in respect as O'Connor takes his seat.

"You were amazing up there," Taylor says quietly, whispering in his ear. "How did you come up with that?"

O'Connor laughs, saying, "My mind went blank. That was the only equation I could think of."

"It's perfect," Taylor says, struggling to be heard over the commotion in the hall. "They love you. They love the simplicity of your point."

"It's intimidating standing out there in front of everyone."

"It sure is."

Sheepishly, O'Connor turns on the bench seat to face her, saying, "I think I preferred the pirates."

Taylor laughs. "Me, too."

The Great Filter

Time drags. The commotion within the lecture hall appears chaotic, but it's not. The scientists sitting in the tiered rows have split into teams, each tackling different aspects of the artifact. There's generally at least one laptop between each team, broadcasting a Zoom call to dozens of other scientists around the country and the world. The noise of voices talking at cross-purposes, though, makes it seem confusing.

Dr. Brown walks over to the bench seats on the side of the teaching platform at the front of the lecture hall as Dr. Newsome talks about pattern matching and the onion-like layers within the artifact, addressing a team sitting at the front of the hall.

"...the opening at the top allows for a key to be inserted, but not just any key. Depending on the length, it reaches different gears and levers, allowing the layers to be moved and rearranged."

"So it's like a Rubik's cube," someone calls out from the audience.

"Not quite as many combinations, but yes."

Dr. Brown offers O'Connor a computer tablet. On the screen, the BBC website is playing the news. A red chyron running along the bottom reads, "Oxford University has an alien artifact."

He sits down next to O'Connor and leans forward so Taylor can hear what he's saying as Dr. Newsome points at an animation on the large screen on the other side of the lecture hall. Dr Newsome is talking about how the internal apparatus of the artifact can be manipulated using a lever inserted vertically into the middle of the device.

"...it's a surprising combination of mechanical and electronic components..."

Dr. Brown, though, wants them to focus on the BBC broadcast.

"Oh, shit," O'Connor says, seeing himself on a smaller screen within the website. The BBC News is divided between an anchor seated at a desk, the chyron running along the bottom, and an inset video box with O'Connor writing two plus two on the whiteboard.

"You're broadcasting this?" Taylor says, feeling alarmed they weren't consulted.

Dr. Brown points at the cameras. "The feed was intended for ESA's European headquarters in Paris. It was their decision to broadcast. They began streaming our feed on their publicfacing website, and Reuters picked it up, alerting the BBC."

The chyron scrolling along the bottom of the screen changes to: *Scientists ask what is* 2+2?

O'Connor leans forward with one elbow resting on his knee. He's under stress. He presses his forehead against his open palm, staring down at the screen in disbelief.

"It's about a ten-to-fifteen minute delay," Dr. Brown says.

"But isn't all this supposed to be top secret?" O'Connor asks, sitting up. "I mean, isn't the SAS about to come rushing in here at any minute and shut us down?"

"You've seen too many movies," Dr. Brown says, laughing. "Ordinarily, we'd slow this down, but only to protect the integrity of our data collection and analysis, not to keep the public in the dark."

"But," Taylor says.

"But ESA deemed the public interest around this to be too great. They don't want to be accused of some kind of conspiratorial cover-up."

O'Connor lets out a huff. "Two plus two equals four, huh?"

"Exactly," Dr. Brown says, smiling with a sense of glee. "ESA agrees with you. As does NASA. We need to show the world our work. Whatever four means, they want this to be open and transparent to all." O'Connor sits back, leaning against the wall. He shakes his head.

"What's next?" Taylor asks.

"Newsome wants to open it up. I think he wants to turn it on. He wants to see what it does."

"I'm not sure that's a good idea," O'Connor replies.

"Are you saying that as an astrophysicist or as a gun for hire?"

O'Connor sits bolt upright. Taylor's eyes go wide.

"Don't worry," Dr. Brown says. "I'm not going to say anything. I was, but I agree with your math. Your example was... unorthodox, but you made your point well."

Taylor says, "I—"

Dr. Brown cuts her off with a wave of his hand. "It's okay. I appreciate the different viewpoints you both bring to this thing. I mean, I didn't initially. I wanted to treat the artifact purely as a scientific endeavor, but you're right. The decisions we make here aren't merely theoretical. And I need Grant to understand that as well. He's excited. He's keen on making progress deciphering this thing, but we need to be right, and more than that, we need to be seen to be right in the eyes of the world. We're representing the lives of eight billion people in here."

Dr. Brown points at one of the far screens. It's showing an online video chat with dozens of people squeezed into layered video boxes, but it's the text feed that grabs Taylor's attention. A moderator picks out points and types them up, giving the teams within the lecture hall live feedback on the data streaming from the sensors on the artifact. Scientists from all around the world are participating virtually in the discussion.

Dr. Brown says, "Honestly, this is overwhelming. Even for me."

"Oh, you should have been in the cave," Taylor says.

O'Connor adds, "Or crouching behind a boulder while *Boko Haram* shoots a fifty-caliber machine gun at you."

"Or fighting pirates on the high seas," Taylor says, wanting to squeeze her own personal victory into the discussion.

Dr. Brown laughs. "It's been quite the adventure, huh?"

Taylor is fascinated by Dr. Brown. He's not too proud to know when he needs to step back and take in the broader picture. And he admitted he was wrong. That's a rarity among men of his stature.

The three of them chat idly, watching the others at work. She admires the way Dr. Brown is observing rather than interacting. Like her and O'Connor, he's interested not only in the artifact but in how humanity responds to the presence of an unknown alien device.

Almost an hour later, Dr. Newsome walks over with a 3Dprinted implement in his hand. It's two feet in length and bright orange. Whereas terrestrial keys are flat, with indentations on just one leading edge, this key looks like the letter T with bumps and grooves at various points winding around the central column.

"And this is it," Dr. Newsome says, holding up the key with a sense of triumph. "We were able to reverse engineer it based on the shape of the central shaft running down within the artifact. It's clever. Ingenious. Insert it at the top, and it unlocks a series of springs and levers. Press down, and as it goes deeper, it can be twisted and turned to change the position of the various layers within the onion, moving them back and forth, in and out, changing how they interlock with each other."

"So this is the key," Dr. Brown says, taking it from him and looking at the unusual bumps, nodules and indentations. Taylor can see he's fascinated, almost mesmerized by the allure of interacting with the alien device. She, too, feels a sense of excitement at how the team has unraveled the mystery of the artifact, but her stomach churns. She hasn't felt this unsettled since she was sitting in the back of the taxi cab in Sudan with the guy chewing *khat*.

Dr Newsome is oblivious to her concern. He smiles, responding to Dr. Brown and saying, "Quite literally."

The shaft is divided into nine sections, with each separated by a continuous rim that runs all the way around the key. Each region on the key has its own unique pattern.

"And you want to open it?" O'Connor asks.

"Are you sure you want to do this?" Taylor asks.

"And you don't?" Dr. Newsome asks, surprised by her reluctance. "You dragged this thing across the Sahara. You got it past terrorists and pirates. The world is watching. Don't you want to see what's inside? Don't you want to know what it does?"

Taylor doesn't reply. Her fingers are sweaty with uncertainty. She rubs her palms together, feeling nervous.

"Would you do the honors?" Dr. Brown asks, offering her the key.

Taylor shakes her head. "No."

Dr. Brown gets to his feet, saying, "We'll open it. That's all. That will allow us to examine its internal workings in more detail."

The four of them walk to the bench in the center of the room. The audience of scientists falls quiet as Dr. Newsome informs them they're going to open the artifact.

Dr. Brown stands behind the alien device, in full view of the cameras. He reaches past the monitoring equipment and inserts the key into the top of the alien machine, pushing it in only to the first ridge running around the shaft. The silver metallic skin of the artifact mirrors the lecture hall, reflecting and distorting the view around them. Taylor reaches down, taking O'Connor's hand. He squeezes her fingers softly in response.

Dr. Brown twists the 3D-printed key. As it's made from plastic, it flexes a little. He struggles against the locking mechanism for a moment, but after thousands of years, it gives and releases. As he winds the key, lines appear on the smooth silver surface of the artifact. The top half of the sphere opens like the petals of a flower, peeling back and revealing the interior. Nine curved sections slowly open outward like a sunflower turning to face the sun. Beneath them, numerous semi-transparent, curved triangles sit within the onion-like layers of the device. Each fragment looks like the billowing sail of a yacht, only they're made from what appears to be glass. Each is covered in intricate lines and grooves, forming patterns similar to the inside of a computer chip. They catch the light, shimmering with the colors of the rainbow. It's almost as though they're coated in oil, but after thousands of years in the desert, they must be completely dry. A cameraman walks around the desk, capturing the device from every possible angle.

"Incredible," Dr. Brown says.

"Beautiful," Dr. Newsome says. He points at one of the internal crystal petals. His finger hovers barely an inch from the curved, glassy structure. "Look at the intricacy of this circuitry.

"What does it do?" O'Connor asks.

"We're about to find out," Dr. Newsome says, pointing at the 3D animation projected on the screen beside them.

Dr. Brown presses the T-shaped key deeper, pushing it down to the next layer.

"Two turns to the right," Dr. Newsome says, reading from a printout. "Then four to the left."

Dr. Brown turns the key with a sense of reverence. The onion-shaped layers respond, with one of the inner layers turning to match the motion of the key, shifting into a new position. Once it's there, it clicks, locking in place, and another petal moves with his reverse motion.

"Damn," Taylor says, feeling overwhelmed by what they're witnessing.

"I—um," O'Connor says, reaching out with his hand toward the artifact and then withdrawing it slightly. He grabs his chin, saying, "Are we sure about this? Are we sure this is what we want to be doing?"

Dr. Newsome is enthusiastic. "Yes. This is wonderful! Marvelous! For the first time in human history, we're interacting with a machine built by an extraterrestrial intellect. This is First Contact! They sent this thing here for us. And for too long, it sat in the desert. Even if it hadn't, no one would have known what to do with it. The Egyptians. The Greeks. The Romans. They would have worshiped it as a deity. But not us. We have the technology, the understanding. We can unlock its secrets."

Taylor asks, "And what are its secrets?"

O'Connor asks, "Yes. What is it hiding?"

Taylor adds, "And why hide behind this kind of complexity?"

Dr. Newsome doesn't have an answer to their questions. He looks to Dr. Brown, who still has his hand on the T-shaped key.

Dr. Brown shrugs. He doesn't know. The text chat appearing on the video screen within the lecture hall races through comments split equally between caution and curiosity.

"We're getting too caught up in this," O'Connor says, addressing everyone in the lecture hall. "And it's understandable. It's exciting. It's revolutionary. But shouldn't we be asking a few more questions before we turn this thing on? Shouldn't we know precisely what it's going to do?"

"It's not a bomb." Dr. Newsome says. "There's no radioactive material. No explosives."

"No, but what does it do?" Taylor asks. "I mean, we're like a bunch of kids playing with the statue of a black bird found in Egypt, thinking it's a child's toy when it's really the god Osiris. Far from being a little bit of fun, it represents death."

Dr. Brown says, "You're being alarmist."

Dr. Newsome says, "And this is different. We've analyzed the internals. We know the circuitry is harmless. We're about to find out precisely what it does."

"And then it's too late," O'Connor says.

"Too late for what?"

"Anything."

Dr. Newsome says, "You're being luddites. There's nothing to fear here. The artifact is harmless. My guess is it will provide us with access to information or perhaps activate a communication beacon."

He points at the lower half of the alien device. "See the base? Have you noticed that hasn't opened? My guess is that's a radio dish, allowing it to transmit."

"Listen to yourself," O'Connor says. "A guess! Really? Allowing it to transmit—but transmit what and to who?"

Taylor says, "We can't afford to guess."

Dr. Brown's lips tighten. Whether he agrees or disagrees is impossible to tell, but that he doesn't say anything suggests he feels conflicted.

"And what happens next?" Taylor asks.

"Then we talk," Dr. Newsome says.

"With who?" O'Connor asks, repeating his question.

Dr. Brown looks as though he's seen a ghost. His fingers relax, letting go of the 3D-printed plastic. He lifts his hand from the key, staring at the shaft as though it were a venomous snake, and he needs to retreat slowly to avoid being bitten.

"What's wrong?" Dr. Newsome asks.

"They're right," Dr. Brown replies. "Our enthusiasm is getting the better of us. We're too eager to show everyone that two plus two does indeed equal four, but that's a mistake. We can't assume we have this thing figured out when we don't."

"Not you as well," Dr. Newsome says. "We can have this debate once we know precisely what it does and how it functions."

Dr. Brown seems very aware that their comments are being broadcast around the world. He looks at the nearest camera, saying, "I don't believe this thing is capable of transmitting a signal to a nearby star, let alone to the other side of the galaxy." "What?" Dr. Newsome says.

"You said it yourself; the base seems to be a radio dish, but look at it. You couldn't send a signal even a fraction of the distance across the Milky Way with that. It's too small."

O'Connor asks, "So, who is it intended for?"

Dr. Newsome replies, "I—I don't know."

"And this is our point," Taylor says, backing up O'Connor. "You don't know what you're dealing with."

"Neither do you," Dr. Newsome counters.

"No, we don't," O'Connor replies. "But we know that we don't know. You, though. You think you know enough to turn this thing on. But you don't."

"He's got a point," Dr. Brown says.

"But—But we shouldn't fear progress."

"No, we shouldn't." Dr. Brown walks around the artifact, looking at it carefully now that the upper outer shell has unfolded. "This is our Oppenheimer moment. In 1945, there was no choice. The Nazis were working on their own super weapon. We had to build the most fearsome weapon ever... but what if we didn't? What if we never let the genie out of the bottle? What if we'd never invented nuclear weapons?"

"But there's been no nuclear war," Dr. Newsome says.

"Thanks to blind luck," Dr. Brown says. "We came damn close when Soviet radar mistook sunlight reflecting off clouds for incoming missiles. How crazy is that? Sunlight could have doomed our entire civilization!"

"But this is different," Dr. Newsome says.

"Is it?" O'Connor asks.

"Yes. This isn't about us. It's about *them!*"

Taylor asks Dr. Newsome, "But who are they, and what do they want?"

O'Connor points at her, saying, "That is the question we need to answer. Want. What is their intent?"

Taylor is fascinated. The global conversation unfolding around the artifact flashes up on the main screen. Scientists from around the world are typing messages that scroll up the screen one by one, adding to the discussion.

"And that," Dr. Brown says, pointing at one of the messages. "That bothers me, too. *How does the artifact fit within the Fermi paradox?* Think about it. Think about Earth. We find life everywhere—even in the harshest environments. We've found butterflies on Mt. Everest, along with fungi and plants surviving the harsh storms that lash the mountain with snow and ice. We've found life at the bottom of the ocean, clinging to volcanic vents in complete and utter darkness. We've found microbes in the deserts of Antarctica and in sweltering thermal pools in Yellowstone. Everywhere we look, there's life."

"But?" O'Connor says.

"But not out there," Dr. Brown says, pointing at the ceiling.

"And yet the artifact exists," Dr. Newsome says. "It tells us there's at least one other intelligent species out there."

Dr. Brown says, "And they're reaching out to others."

"They are," Dr. Newsome replies, agreeing with him.

"Why, then, are we faced with The Great Silence?"

"But this isn't silence," Dr. Newsome says, pointing at one of the crystal petals within the open top of the artifact. "Look at its design. It's beautiful. It's elegant. It speaks to us as scientists, as engineers."

Dr. Brown isn't impressed. "Then why is there only silence in outer space? Why send this thing to Earth? Why not talk to us over radio waves as well? I mean, this is like sending a message by Pony Express instead of using a telegram. It makes no sense."

"What if it does?" O'Connor says.

"Does what?" Dr. Brown replies.

"Make sense."

"I don't follow."

Taylor picks up on O'Connor's logic. "What if this is a test —an intelligence test?" She points at Dr. Newsome, saying, "Wasn't that your initial idea back in the café?"

"Yes, yes," Dr. Newsome replies. "That fits. Everything about the artifact screams of intelligence. It's not designed to gather information. It's designed to be understood. Its design has to be decoded. It requires intelligence to activate."

O'Connor asks the question, "What if it's an intelligence test we—*don't*—want to pass?"

"What?" Dr. Newsome calls out, waving his hands in front of him and appealing to the cameras. "No, no, no. That's not it. This is an invitation. It's a calling card."

Dr. Brown asks, "What if it's a trap?"

"It's not dangerous," Dr. Newsome counters.

"No, it's not," O'Connor says, pointing at the artifact and asking, "But what if it's a trigger?"

"A trigger?"

Taylor narrows her eyes. O'Connor is thinking like a soldier, not a scientist. He replies, "What if it's harmless, but it's the trigger for something else, something dangerous, like the celestial equivalent of an anti-tank mine?"

"An anti-tank mine?" Taylor says, confused by his comparison.

"Most mines—you step on them, and *boom!* Anti-tank mines, though, you can run a platoon over them. You can drive hummers over them. It's not until a tank rumbles over one that they explode."

"No, no, no," Dr. Newsome says. "You're wrong. You must be. You have to be."

Dr. Brown asks those present within the lecture hall, including all of those on the video chat, "Is the artifact part of The Great Filter? Rather than resolving Fermi's Paradox, is it a means of ensuring The Great Silence?"

The chat window goes ballistic, with messages flashing by too fast to read. Taylor catches the word *yes* far more than *no*.

"We can't take the risk," Taylor says. "We cannot activate this thing until we know for sure what it does and who it connects to."

"What if we're wrong?" Dr. Newsome asks.

"What if we're right?" O'Connor replies.

"Why don't they want to talk to us?" Dr. Brown asks. "That's what bothers me. Why not send out radio messages at regular intervals? Why send a physical device and one that can only communicate *within* our solar system but not beyond it?"

Taylor nudges O'Connor. He turns and looks. British police officers are standing at the various entrances to the lecture hall. They're discreet, standing silently with their backs to the wall, but it's clear someone's ordered them to take up positions within the hall itself. That they're not outside, keeping people out, is alarming.

Dr. Newsome mumbles something to one of the support staff, asking them to bring up images from the lower half of the sphere on the main screen.

Dr. Brown says, "It's not enough to know what the artifact does. We need to know why it was built. Why was it sent here? What is it trying to accomplish?"

"Why, why, "Dr. Newsome says. He's frustrated.

"Yes. Why. That's far more important than what it does or how it works." Dr. Brown doesn't notice the police presence. He continues, saying, "Whoever made this thing had a decision to make. They could send anything they want to Earth. They could have sent something the size of a skyscraper, something that wouldn't be missed or misunderstood. They could have sent the artifact in a working state instead of in this cryptic form. All this begs the question: why? Why send a small spherical drone? Why send a puzzle box?"

More police officers appear at the back of the hall, standing in the corridor outside the door. They're milling around, waiting for orders.

Taylor whispers to O'Connor, "We're losing control."

O'Connor steps back beside the leather trunk set against the front wall of the hall. It's been placed off to one side beneath one of the whiteboards. The lid is still up. Rather than turning his back on everyone, O'Connor sits on the edge of the trunk. To anyone watching, he's resting his legs. His hand, though, slides into the pouch on the inside of the trunk. He hides his motion, slipping his handgun up and into the small of his back.

Dr. Newsome asks, "Who are we to question their methods?"

"We're humans," Dr. Brown says. "We're *Homo sapiens*, the wisest of men. We have every right to question why an extraterrestrial intelligence has sent a probe to our world."

"But it is reason that must guide us," Dr. Newsome says, "not fear."

From the top of the stairs at the back of the auditorium, a businessman walks in. He's dressed in a three-piece suit with a bright red tie. From his stature and the way the police accompany him, he must be a politician. He marches down the stairs with two armed police officers on either side of him and six regular, unarmed police officers behind him. Their boots resound like thunder on the wooden floor. The armed officers are wearing tactical vests and carrying MP5 submachine guns. Their barrels point at the floor. Their fingers rest on the trigger guard, ready to slip into place at a moment's notice.

"What is going on?" Dr. Newsome asks, seeing the politician and marching forward to confront him at the bottom of the stairs.

"I'm Jack Hanson. Home Secretary."

"Why have you barged in here?" Dr. Brown asks, marching around the desk and joining Dr. Newsome in his indignation.

"I'm taking charge of the artifact."

Taylor and O'Connor are still behind the desk. They walk up, standing near the open alien artifact, hiding behind both it and the monitoring equipment.

"No, you can't just take the artifact," Dr. Newsome says, protesting.

"This is a university," Dr. Brown says. "You have no right to be here in force."

"I have every right," Hanson replies. "This is a matter of national security. I'm shutting this down."

"No, you can't," Dr. Brown says.

Hanson points at the artifact, speaking to the police officers with him, saying, "Seize it!"

"Not so fast," O'Connor says, drawing his handgun and pressing the barrel against one of the crystal-like petals within the heart of the artifact. He pulls back on the slide of the Glock, loading a round into the chamber. O'Connor aims the gun down at an angle, ensuring any bullet that's fired will pass through the device and into the wooden desk.

The armed police officers react in a heartbeat. They raise their MP5 machine guns to their shoulders and peer down the barrels at him. To distract him, they spread out on either side of the Home Secretary, drawing attention away from the Member of Parliament and making it impossible for O'Connor to target more than one of them should bullets start flying.

"Don't do anything stupid," one of them says.

"You're bluffing," the Home Secretary says.

O'Connor doesn't answer either of them. The grin on his face speaks loud enough. To Hanson, it might look like he's stalling, but Taylor has seen O'Connor in action. O'Connor will do what he believes is right, even if it costs him his life.

"No, don't," Dr. Newsome calls out, stretching out his arms in alarm, reaching for the artifact.

"Eight billion people," Dr. Brown says. "Eight billion people are depending on us to get this right."

"Do it," Taylor says.

Those two words cut at her soul. They run against everything she's been taught. They're the antithesis of her training in archeology and her desire to preserve and protect the past so it can be studied in the future—but this is different. The artifact is moving from science into politics, and politicians cannot be trusted. Their motive is ideology, not accuracy. They're swayed by sentiment, not truth. For all of their self-importance, they exist only between election cycles. They represent not the people, only that fraction of the population that voted for them. With what little evidence and logic she and the team have been able to gather, they cannot be trusted with the artifact—not if it is the celestial equivalent of an anti-tank mine. The risk to humanity is too great.

Taylor locks eyes with O'Connor. His finger tightens on the trigger. Police officers rush him from both sides of the lecture hall, running in to grab his arms and pull him away from the desk. O'Connor squeezes the trigger as his arm is batted away from the artifact. A bullet explodes from the barrel. The sudden crack within the lecture hall is deafening. The 9mm round pierces the onion-like layers inside the alien device within a fraction of a second. The petals shatter, breaking apart and scattering like diamonds across the bench. Thousands of glistening shards rain to the floor of the lecture hall. The silence that follows is as loud and shocking as the gunshot itself.

O'Connor is tackled to the ground. The gun is wrestled from his grip. A knee is shoved into his spine. His arms are twisted around behind his back. Before anyone can react, plastic cuffs are slipped over his wrists and pulled tight. Blood drips from his lips.

"Let him go," Taylor yells at Hanson.

"And you," Hanson calls out, pointing at her. "You knowingly breached His Majesty's Customs and brought an alien artifact into the country along with an illegal firearm. Seize her!" Taylor's hands are pulled behind her back. Plastic cuffs are slipped over her wrists and tightened. She and O'Connor are bundled to one side and shoved down on the bench seat.

"Jesus," Hanson says, crouching and picking up a handful of shattered glass. "What a clusterfuck!"

"You," Dr. Brown says, confronting Hanson. "You had to come storming in here. You—"

Hanson cuts him off. "Arrest him as well."

"On what charge?" Dr. Brown asks, protesting as his arms are pulled behind his back.

"You're an accessory after the fact," Hanson says, running the tiny bits of broken glass through his hand and watching them fall to the wooden floor. He turns to the officers around him, saying, "Everything in here. I want it all in boxes. No one and nothing leaves this room without my approval. I want that thing shipped to Whitehall. And shut down those goddamn cameras! Close those laptops!"

"You can't do this," Dr. Newsome says, protesting.

"And him. Arrest him as well."

Dr. Brown is dumped on the bench seat beside Taylor and O'Connor as police officers lord over them.

Taylor says, "Well, that's not quite how I thought all this was going to go down."

Dr. Newsome is pushed down onto the bench seat beside them. He struggles, but a firm hand pushes him onto the aging leather cushion.

Dr. Brown says, "Once Hanson stormed in here, there weren't any other options. If we're right, turning that thing on would be disastrous."

"And if we're wrong?" Dr. Newsome asks.

"Then there are other ways to reach this alien civilization. There has to be. They're advanced, far more advanced than us. At the very least, we now know they're out there. We are not alone." O'Connor says, "And us? We're fucked. We are so totally fucked."

"Oh, I don't know," Dr. Brown replies. "Oxford's finest lawyers are going to rip Hanson a new asshole."

Taylor says, "Damn, I'm looking forward to that."

"You'll have front-row seats in court," Dr. Brown says, grinning.

Blood drips from O'Connor's chin. He turns to Taylor, saying, "And just like that, we're in trouble again."

"Just like old times," Taylor says.

O'Connor says, "You know, I really did prefer the pirates —at least they were honest."

Taylor leans into his arm and rests her head on his shoulder. O'Connor responds by resting his head lightly on hers. Even with both of their hands pinned behind their backs, there's a sense of camaraderie between them. Whatever the future holds, they're in it together.

Almost The End

Epilogue

In the void, they watch.

In the darkness, they wait.

In the bitter cold silence, they listen.

In the shadows cast by a star so distant it blends in with its neighbors, thousands of sentinels orbit with seemingly eternal vigilance.

Eons ago, a master probe fabricated these destroyers from the asteroids and icy comets they now inhabit, burying each machine in the rubble to ensure thermal equilibrium and reduce any damage from cosmic rays. As they cooled over time to well below the freezing point of basic elements like oxygen, survivability was important in their design. Exhaust nozzles barely protrude from rock piles scattered throughout space. Although the alloys look like steel, they're nanoconstructs designed for extreme longevity. They need only to be warmed before igniting. These engines can outlast the very stars they orbit. The master probe has long since moved on to seed other systems. It, too, is but a machine. It, too, obeys its creators. Like all machines, its design was shaped by intent, and that intent is to defend the natural order of the cosmos.

Silence surrounds the scattered fleet. Silence is not only their shield but their goal. Silence protects them, hiding them from detection. And silence is what they will bring once awakened.

How many brothers are out there in the void around this particular blazing sun? How many still circle this particular star in orbits that eclipse those of the inner planets by a hundred times or more? How many will respond to the call when it comes? The distance between each sentinel is absurd. They're separated by a margin greater than that which exists between the gas giants in this system. And they're specks of sand by comparison.

As with any technology formed by any civilization anywhere in the universe, there's a defect rate over time, but the overseers factored that into their plans, giving the local sentinels the ability to self-correct. With thousands of devices attached to the scattered debris field left over from the formation of this star system, even a mere fraction would overwhelm any usurpers. And only one rock is needed. Only one is required to sterilize a life-bearing moon or cripple a planet of all but basic life.

Significant errors in the surveillance system are rare, but given the distribution of sentinels among hundreds of billions of stars within the galaxy, there are times when the smaller, spherical planetary probes give false positives. This particular star system was subject to such a failure long ago. Understanding the depth of time involved in this incident would require more than simply mapping the position of nearby stars as they drift relative to each other. It would demand rolling back the current position of the host star until it was almost a quarter of the way around the galaxy itself. At that point, the third planet in this star system was home to gigantic quadrupeds and carnivorous bipeds from an evolutionary clade that had spanned almost an entire orbit of the galaxy itself. It was such a successful family of species it would have continued to dominate the planet unopposed for another galactic revolution were it not for the false positive.

An ambiguous signal was received, probably from a probe that had been accidentally crushed by one of the behemoths on that world. A single faulty sentinel launched itself in response to the faint signal, landing in the shallow seas near the equator of the planet, just off the coast of a prominent peninsula. A wall of water was pushed around the planet. Molten rock was thrown out of the atmosphere before raining back down on the world, setting it on fire. Entire ecosystems were devastated. An astonishing 80% of life on the planet was extinguished by a single strike. Subsequent analysis by the remaining sentinels determined that future signals needed to be verified by at least three other sentinels to avoid such an accident from happening again.

The sentinels, though, know no regret. They're programmed only for efficiency. All they need is confirmation. Although they're machines, their blind programming craves a target, longing to answer the call. Their only concern is the accuracy of any broadcast from a planetary probe. As the spheres have been designed to be activated by an intelligence, three independent confirmations of a positive signal will be enough to send them all on their way.

The sentinels are impassive. Destruction is the reason for their existence. Their creators would say destruction is the reason for *all* existence. Life competes. Life consumes. From the smallest microbe to the largest animal, life *feeds* on life. As heartless as it may seem to an emerging intelligent species, life is ruthless. The nature of life is to dominate. To think otherwise is to deny the natural order.

The creators will not be mocked. They have encountered intelligent species before and heard their pleas for mercy, but the overseers know that intelligent beings lie to themselves, speaking of kindness and compassion. The overseers are not fooled. Evolution will not be scorned.

Regardless of the planet, the vast majority of all species are driven to extinction by their heirs—not their foes. Children destroy parents. Sub-species out-compete their progenitors, consuming their land and their food, driving them to extinction. Volcanoes and asteroids, diseases and predators may winnow a population, but it is close competition for limited resources that allows one species to succeed while another fails and falls into the fossil record. The creators see this and understand. They know this is the divine order of a billion years. This is the natural order.

And what of an intelligent species that expands beyond its bounds? What about a sentient creature that reaches past the thin atmosphere of its host planet? What of an animal that masters rockets and computations to explore the stars? What happens when there is no terrestrial competition anymore? When a species is free from constraints, what limits are there to its expansion? The overseers have seen this on dozens of worlds since the galaxy first formed. They understand intelligence is hollow.

Intelligence is far more shallow than any sentient being would ever admit, often being driven by emotions and instinct

rather than logic. Compassion is a lie. Selfishness is the norm. Consumption drives life forward like a whip being cast across the back of a beast of burden. Life cannot help itself. Life devours.

The overseers have watched as other sentient beings sought the refuge of space. They've seen the devastation these species bring as they fragment and spread, waging war on each other and all that opposed them—and all under the banner of intelligence and compassion. It is the same pattern time and again, doomed to repeat. The same drive that causes microbes to reproduce and overwhelm primordial slime pools or pollute their own air with toxins leads space-faring species to ravage other planets. Unlike simple microbes or animals driven by instinct, intelligent species know of the destruction they bring. They understand, and yet they amble on regardless. Some among them care, but never to the extent of stopping. Life will not allow them to take a backward step.

The overseers decided they could not stand idly by as sentients spread like a virus through the stars. They offer a solution—a mercy killing. In this way, the overseers give life elsewhere a chance. If all species have the right to life, then no one species on any one planet can be allowed to dominate another planet. Not even the overseers dare cross the natural bounds. A planet that is lifeless today could be teeming with its own life tomorrow. What right, then, do other sentient beings have to destroy that future?

Even the creators are not immune. They fought their own wars before sanity prevailed and they cleansed the liars among them. The overseers police the stars. But they do not occupy the stars. By preventing others from spreading, they allow life to flourish in all its diversity. Life exists for no one and nothing but to please itself. Life on one planet should not be subjugated by life from another, for that is an abomination to the natural order of the cosmos.

The overseers maintain The Great Silence among the stars, knowing it is only in silence that life can flourish. Sentience does not come with the right to consume all others. Each species has its lot, and its lot must be protected. The overseers know this because their own race once sought such dominance.

Arrogance, hubris and ego caused incalculable suffering until the clan of the overseers arose and took action to quell their own spread through the galaxy. Some argued that genofratricide was abhorrent. Others saw the genocide of their own species as burning the field so new seeds could grow. Without their ancient interstellar war, there would be no life elsewhere. The overseers are determined to ensure that their war is both the first and the last to span the stars themselves. Without such cleansing, only one dominant species would ever evolve within the galaxy, and so only one would rule, wiping out all others before they could even be conceived.

To the overseers, cleansing is not about right or wrong but about maintaining the natural balance. Right and wrong are convenient excuses sentient beings use to ignore the way they strip the land like a swarm of locusts. Right is only right in the eye of the beholder. Beyond those eyes, right and wrong are reversible. Morals exist only to protect a sentient species, not all species. To the overseers, such sentiments are abhorrent.

In the earliest age, debates raged among several species reaching for the stars. Intelligence, they said, was the pinnacle of natural selection. Intelligence should be allowed to blossom like a flower. But the overseers disagreed. They said evolution has no goal. They said natural selection is blind to the emergence of intelligence and that sentience holds no more special place than flight or sight. And intelligence has its flaws. Intelligence is subject to instinct, and instinct demands self-preservation regardless of the cost. Therefore, intelligence alone is no measure of worthiness. The stars belong to no one species, not even the overseers.

And so the overseers sent forth their master probes throughout the galaxy to guard life by not allowing any one lifeform to dominate those still to come. Their goal was not one of conquest or exploration but to maintain the peace and ensure The Great Silence. In each star system, they laid their traps. Life can flourish, but it can never be allowed to spread beyond its terrestrial sphere. The celestial sphere is too great a temptation.

With their construction long since finished, now only maintenance occurs. Systems wake within the destroyers, switching on with staggered frequency. They conduct checks, report to their listeners, send out spheres to fall on the various planets and moons, and then fall dormant for an age again. Occasionally, fuel needs to be mined to restore reserves that have leaked into the void. The massive rocket engines that cling to the side of these asteroids and stray moons can only reach one percent of the speed of photons pulsating through the void, but at one percent, they impart more energy than any fission or fusion bomb could ever muster.

And so they wait.

They listen.

They long to hear from a sentient species that has solved the puzzle of the spheres, for that leads to the stars. They understand their spherical drones are too great a temptation for an emerging intelligent species. Sentient beings will activate the beacons. They must. Why? Not for curiosity but out of selfishness, for they cannot see beyond all they could gain by reaching out to others among the stars.

Greed will be the downfall of intelligence.

It always is.

Postscript: Borneo

After flying into Jakarta, Indonesia, from Chicago via Singapore, Kevin Crossman spends four days getting over jet lag and a bout of diarrhea before boarding a single-engine Cessna with amphibious floats for the grueling flight across the Java Sea to Borneo.

The airplane engine drones with a steady hum. Eventually, the deep blue water gives way to the brilliant green of the jungle. The impenetrable tropics seem to stretch on forever. Occasionally, a muddy river is visible out of the scratched windows on either side of the four-seater aircraft. Brown water meanders through the overgrown foliage. Villages appear, dotted along various rivers. What clearings there are have been planted with row upon row of vegetables leading right up to the dense jungle. Crossman takes a few photos with the camera on his phone, but there's not much to see beyond the endless green canopy.

They fly on for hours. Crossman has been given a piss bottle by his local guide, Indah, but she has no such relief. Although she's sitting in front of him in the seat next to the pilot and thus out of sight, he decides to hold his bladder. Rather than taking the prime passenger's seat from him, she's given him the privacy to use the piss bottle if needed, but it feels wrong to use it when neither she nor the pilot can do the same.

Like so many Indonesians, Indah has porcelain smooth, soft, brown skin. There are no blemishes or moles on her face and no wrinkles near her eyes or mouth, giving her a perfect complexion. Her neck has faultless curves that could be transposed onto a mannequin. Her hair is dead straight and strikingly black. The strands are so fine as to appear like silk as they cascade over her petite shoulders. The black coloration is so bold as to seem freshly dyed. Her hair is too perfect, a stunning contrast to his own patchy blonde hair, which is lighter on top than on the sides.

"Betung Kerihun," she says, pointing out over the jungle. "That mountain range defines the border between Indonesia and Malaysia. We'll follow it until we reach Northern Kalimantan."

Crossman looks out over the jungle, but the steep green hills are indistinguishable. He doesn't see a ridge or a mountain range, just the dense, impenetrable canopy stretching out in all directions. If they crash out here, they'll never be found. The jungle will swallow them whole.

Occasionally, they fly across a valley stretching back toward the coast. Farmlands surround the muddy rivers that define the valleys in Borneo, but who's winning the battle for dominance is impossible to tell. Are humans pushing back the jungle, or are the dense vines and impossibly tall trees reclaiming the land?

The drone of the Cessna's engine is hypnotic. The pilot barely moves the yoke. If his head turns, it's to look at something Crossman can't spot out of the window. Try as he may, there are no landmarks beyond missionary huts nestled in the bend of a river. Hours glide on like the birds soaring over the deep green canopy.

Rivers meander through the massive island. They curl on themselves like snakes wriggling through the grass, and then the mountains rise again and the jungle consumes all.

"There," Indah says, pointing. "That's the *Longpalai*. From here, we'll fly upriver to *Hulu Kelay*."

The pilot talks with Indah in Indonesian. The Cessna descends into the valley, dropping beneath the mountains and lining up with the winding river.

"Ah, there's not a lot of room down there," a nervous Crossman says, leaning forward to get Indah's attention.

"He says, tighten your seatbelt."

"Yes, of course." Crossman fiddles with his belt, pulling himself back into his seat, but that restricts his view even more. As it is, the nose of the Cessna, with its cluttered instrument panel, dominates the front of the plane. The windshield is set high over the engine cover. Even the pilot must struggle to see what's immediately before him. Crossman peers out of his window at the trees rushing past. They're flying low enough that he can see rocks lining the riverbank. As the plane is now heading west, the river winds beneath them, appearing and disappearing from sight.

"Is there a straight section ahead?" he asks, wanting to quell his fears.

"No straight section," Indah replies in a matter-of-fact tone of voice. She's been here before. She knows the river. When she told him they'd be landing on water, Crossman imagined a vast expanse, perhaps a lake or a lagoon. And in his imagination, the water was smooth and flat—and a deep, deep blue. Beneath them, white water splashes as the muddy river runs past rocks and boulders, forming rapids.

"The pilot says, hold on," Indah says, translating comments from the pilot and condensing dozens of words into a mere two.

"Oh, he doesn't need to say that," Crossman replies with white knuckles gripping the armrests. "I've already got that part figured out."

Outside the windows, branches rush past the wing tips. Birds flee from the trees. Mudslides have cleared sections of the jungle, but for the most part, the riverbank is dense and foreboding. Darkness hides the interior. Rocks jut out of the water.

Crossman is on the verge of tearing the armrests from his chair. The wing on his side of the Cessna dips, dropping down to within a few feet of the river. Crossman's heart is about to explode out of his chest. The Cessna banks, following the curve of the river beneath them. The plane levels out. One of the floats beneath the Cessna skims the surface of the water. The aircraft bounces, rebounding away from the muddy river. The pilot pulls on the yoke, raising the nose as he powers down the engine, and the float touches down again. The plane turns the other way, rounding another bend in the river on one float. The fuselage skews sideways as the other float comes down. Muddy water sprays up beneath the Cessna, being kicked up by the floats as they skim along the river. The thundering sound on the sheet metal fuselage is like torrential rain striking a tin roof, only the roof is beneath his feet, not above him. The nose of the aircraft lowers. The whine of the propeller falls away. Spray covers the front windshield.

The pilot jabbers excitedly in Indonesian, pointing at a large tree hanging over the river. Indah laughs, replying to him in kind and speaking so rapidly that Crossman is left wondering if either of them actually understands the other. She turns and looks at Crossman. His pale face is mirrored in the surprised expression on her face. She's relaxed. He's terrified. For a moment, she shares his concern, but only to allay his fears.

"It is okay," she says. "We are down."

"We are," a relieved Crossman says, peering out at the muddy water rushing past the window. The pilot guides the Cessna along the river for a few minutes. On reaching a broad stretch, he turns the plane toward the shore. He points at several people standing in the shadows of the jungle. With a light touch on the throttle, the pilot beaches the Cessna, driving the metal floats onto a sandy beach in a bend of the river. Then, he powers down the aircraft.

With his legs shaking beneath him, Crossman follows Indah and the pilot on shore. He climbs out of the plane and onto one of the floats, works his way under the support strut for the wing and out past the now-still propeller. Crossman drops onto the rough sand, feeling exhausted and knowing that, in a few days, he needs to take off along this stretch of water, praying the plane doesn't clip any of the trees hanging over the river.

Indah is already talking to several of the natives. They're wearing a mixture of traditional dress and Western clothing. Nike t-shirts and baseball caps are offset by plain cloth skirts worn by both men and women. Shoes haven't made it this far inland, which is a curious omission for Crossman as his hiking boots seem like an obvious advantage in the jungle. If he lived out here, he'd pick them over the New York Yankees baseball hat worn by the chief. The natives are barefoot and carrying long spears. They hold them vertically, using them as walking sticks. The sharp end points up, while the blunt end is poked into the sand. The spears sway, being surprisingly flexible compared to something rigid like a javelin.

"From here, we go by boat," Indah says as the pilot unloads the plane and hands out crates of supplies to several young men wading out into the muddy water. This was the fee for access to the area. The tribe needs medical supplies and fuel, not money, although a box of Snickers made it into the hold as well.

Crossman pulls out his phone and snaps a bunch of photos, including a panoramic shot as he tries to capture the rugged wilderness around them.

A long, thin boat with a noisy outboard comes rushing down the river. To Crossman, it's a glorified wooden canoe. It's longer than his plastic canoe back home, but it's roughly the same width. The sides are a little deeper, and the bow rises to a point, allowing it to cut through waves, but it looks as though it could easily capsize in the white water rapids on the next bend.

"Ready?" Indah asks.

"As ready as I'll ever be," Crossman replies, reflecting on the life choices that led him to this remote river in Borneo.

Civilization is but a dream. His home in Winnetka, north of Chicago, overlooking a frozen Lake Michigan, seems like something from a past life.

Crossman is in his late forties. He's an anthropologist at the University of Chicago. His days of adventure are long past, and yet the allure of finding the diary of Robert Burns, a Scottish explorer from the 1840s, was too much to resist. Robert was the grandson of the famous Scottish poet Robert (Rabbie) Burns. The younger Robert Burns explored Borneo onboard the schooner *Dolphin* before he was decapitated with a single blow from a sword wielded by a pirate. His ship was ransacked. His diary was stolen. As he was the first person to contact the natives of Borneo, his writing contains detailed insights into a pre-contact society long lost to history. Hearing a European skull had been spotted in a jungle temple, Crossman had to investigate. The skulls of Caucasians are relatively long and narrow when compared to Asian or African skulls. They have less pronounced cheekbones and exhibit elongated chins. Even though the report came from a native, there was enough detail to intrigue Crossman. Finding the remains of Robert Burns and possibly his diary would fill a gap in the anthropology of the region.

Crossman is overweight, balding on top and sweating profusely, but there's nowhere else he'd rather be than here in the jungle. He has an opportunity to rewrite the history books on one of the most remote cultures on Earth.

Crossman wades into the water. He holds onto the wooden edge of the narrow boat and steps into the canoe, wobbling as he sits in the bow. The boat sinks a little with his weight. Indah climbs in behind him, sitting in the middle, holding onto both sides of the canoe. Behind the two of them, the native skipper guns the outboard engine, and they race up the river, leaving the airplane behind them.

Crossman feels a sense of excitement and exploration that has eluded him since his youth. If only his teenage kids could see him now. Boring old Dad would finally be cool. After an hour of winding their way along the river, the skipper pulls into an opening. Long grass covers the bank.

"Have we arrived?" he asks Indah, who's busy chatting with the skipper in Indonesian.

"No, we're picking up a passenger."

"A passenger? Out here?"

Orange hairy arms sway above the long grass, surprising Crossman. An orangutan waddles down the bank, baring its teeth in what could equally be a friendly grin or a display of anger. The great ape climbs onto the prow of the boat in front of Crossman, causing the canoe to rock rather violently. Water splashes on either side of the hull. "What?" Crossman asks, laughing and unable to contain his delight at seeing a wild orangutan not more than two feet in front of him. "What is happening?"

"We're giving him a ride," Indah says, as though that should be obvious.

"A ride?" Crossman asks, pulling out his phone and taking a video as they head upriver. "What? Like an Uber?"

"Haha, yes. Something like that. Jungle Uber."

Crossman snaps several photos. The orangutan obliges, raising its top lip and showing its yellow teeth. It's seen cameras before. Has it seen its own image? Crossman is tempted to turn his phone around to show the photo to the ape, but the primate could easily bat the phone from his hand. Losing it in the river would be a disaster, so Crossman keeps it to himself.

"This is Kevin," Indah says.

"Kevin? I'm Kevin."

"So is he. Kevin is a very popular name in Indonesia."

"Yes, but..."

"He's an orangutan."

"Oh, yeah," Crossman says, feeling giddy with excitement at such a close interaction with a great ape. "I figured that out for myself."

"Ourang-outang. It is Indonesian for man of the forest," she replies. "It is good luck to help them. They bring much luck. This is a good sign for our expedition."

"It certainly is," Crossman says.

At this point, if he never found the lost temple or the diary of Robert Burns, he simply wouldn't care. The euphoria washing over him is like nothing he's ever experienced. Life is suddenly exploding with joy. The unrelenting heat and sweltering humidity fade into nothingness.

Kevin smells of feces and urine, but Crossman doesn't care. Kevin's feet are shaped like a spare pair of hands. His

hair is bushy. Even though there are long strands on his shoulders, the straggly hair on his chest looks like fine fur. Kevin's skin resembles dark leather. His forehead and cheeks form a single crescent of skin wrapping around his face. His eyes borrow from his hair, glowing with a soft orange hue that complements his blackish skin. There's intelligence. Intrigue. Intent. Understanding. Curiosity.

Crossman feels like a kid again. He has the same childlike enthusiasm he had when his dad took him to the zoo and showed him elephants and giraffes. He makes eye contact with Kevin, and for a moment, there's a sense of camaraderie between them. It isn't that Crossman is anthropomorphizing the orangutan, somehow thinking of it as human or seeing human traits within those beady eyes. On the contrary, he's struck by the profound reality that Kevin is *not* human and yet still intelligent, still caring, still conscious and aware of life. Is this what it would be like to meet a being from another planet? Perhaps Crossman would be the orangutan in that scenario, but that wouldn't bother him at all. The realization that there is conscious intelligence beyond *Homo sapiens* is electrifying to him.

Kevin's nostrils flare. He's trying to smell Crossman, but as they're heading upriver, the breeze is blowing away from them, carrying Crossman's scent behind him. Crossman offers Kevin his hand, turning his fingers down and tucking his wrist, not wanting to appear threatening. Kevin's eyes never leave his. The orangutan leans forward, sniffing the back of his hand. He touches Crossman's arm. Black fingers poke at white skin, and it's then Crossman realizes Kevin has probably never seen a caucasian before. To Kevin, he must look like an albino. Blonde hair, pale skin and blue eyes probably look sickly to Kevin when compared to the striking features of the Indonesians.

Indah creeps forward behind Crossman. She rests her hand on his shoulder and speaks softly in his ear.

"Magnificent, isn't he?"

"Oh, he certainly is," Crossman replies with the wind rushing past and water spraying up from the bow of the canoe. Kevin holds Crossman's hand, lowering it and clinging to it like a thirteen-year-old girl at her first dance, holding the hand of the shyest boy in the school hall. Kevin looks away from Crossman. His eyes dart around at the river and the trees, but he keeps hold of Crossman's hand with a sense of affection. The ape's fingers are thick and leathery but surprisingly warm and tender.

Crossman is oblivious to everything around him. He could be on Mars. He could be sucked into a time warp. The jungle rushes past. Branches sway low over the river. Muddy water sprays his cheeks. And he doesn't care. They could be about to plunge over a hundred-foot waterfall, and he wouldn't react.

Kevin purses his thin lips, pushing them out and back in a few times in quick succession.

Indah says, "He's wondering if you're going to give him something to eat."

"Oh," Crossman replies, realizing he was missing the body language so clearly on display. He feels inadequate. Indah hands him an apple. He takes it and offers it to Kevin. The orangutan twitches his orange whiskers, sniffing the apple in his dark hand. Crossman's expecting him to take a bite, but the apple disappears into the ape's mouth. It's there, and then it's gone. Juice dribbles down Kevin's chin as he crunches on the apple, having devoured it stem, core and all. To Crossman's delight, Kevin opens his mouth wide, baring his teeth, but his intent is clear. He's showing him he ate the apple. It's gone.

"Yes, it's all gone," Crossman says, laughing and shaking his head at the surreal experience unfolding in his life. He's on an obscure muddy river in the heart of Borneo. Two primates are transcending language barriers and enjoying each other's company. If only everyone on Earth could share in this experience. Oh, how it would transform their worldview, Crossman thinks. Who could justify the logging of wood or the farming of palm oil on seeing these remarkable, gentle, intelligent apes living with such simple joy? Their habitat should be preserved. The skipper is laughing along with Indah, joking around in Indonesian, no doubt enjoying the way Crossman is mesmerized by Kevin. He pulls the boat in toward the bank, steering it toward shore. Kevin looks around. He knows where he is. He reaches up and grabs a low-hanging branch stretching out over the muddy water. In a heartbeat, he's hauled himself up.

Crossman ducks. Orange hair brushes over his face. Toned muscles skim past his cheeks. Before he can crouch, Kevin is already in the trees, and the boat has already passed on. The skipper turns the canoe out of the shadows and back into the current. Crossman looks back at the jungle with a sense of awe. Within seconds, Kevin has disappeared into the dark forest. Branches sway, revealing the way Kevin is climbing high into the canopy.

"This is where his family lives," Indah says.

"And back in the long grass?" Crossman asks. "What was he doing down the river?"

"I don't know, but I've seen his tribe up here before. We find him down there once, maybe twice a month. He's lazy. He waits for us. He knows there's always a ride for him."

"He's smart," Crossman replies, still looking down the river for his friend.

"And we're here," Indah says, pointing at the curve of the river ahead.

Crossman turns and looks. He doesn't see anything beyond the dense jungle.

"The temple," Indah says.

"Where?"

Trees and palms blanket the hills and mountains beyond. There's no clearing. No rough-hewn stone. No square shapes or spires.

"Half a mile, maybe a mile," Indah says. "Follow that ridge with your eye. Just below the summit."

"Oh," Crossman says, having followed her directions but still not seeing anything of any significance. He takes a photo of the approach, hoping that on later analysis, he'll be able to pinpoint the exact location of the temple.

The guide nudges the boat against the riverbank, having spotted a break in the thick foliage hanging over the water.

Crossman and Indah sling their packs over their backs. They pull out sharpened machetes, ready to traverse the jungle. Indah grabs hold of a vine and pulls herself up into the shadows. The boat rocks. Crossman follows her, feeling far more unsure and stepping carefully into the undergrowth.

Indah hacks at the jungle with her machete, swinging it in the shape of an X in front of her, crossing from one side to another as she carves a path through the vines and branches.

"I thought you said you cleared the track," Crossman says, using his machete to lift large palm leaves out of the way as he crouches, following her.

"I did."

"Where is it?"

Indah points into the thicket with her machete, saying, "This is it!"

"Oh," Crossman replies, noticing the old, severed ends of vines and branches crumpling under his boots. The jungle has already reclaimed the track. A branch scratches his cheek, drawing blood. He needs to be more careful, especially as bacterial infections are common in the jungle. It's the humidity. He's tramping through nature's petri dish of rapid microbial growth.

"Twenty and twenty," Indah says. "I clear twenty yards, then it's your turn."

"Of course," Crossman replies, realizing they're going to pay for every step with sweat and blood.

After a few minutes, Indah comes to a halt. Crossman steps up beside her, squeezing past her, and begins hacking at the foliage.

"Long strokes," she says from behind him. "And follow through. You want a clean cut."

"Okay," he says.

"Swing from your shoulder," she says. "The muscle there is bigger than the forearm."

"Right, of course," Crossman says, swallowing his pride and adjusting his technique. Indah is right. If he gets some height, the weight of the machete, combined with the weight of his arm, gives his momentum more impetus and the blade slices through the branches and vines without catching in the wood. There's nothing worse than the sensation of the blade stopping halfway through a branch. Getting the machete stuck jars his hand, leaving him struggling to free the blade. A bit more height, a bit more strength, and there's the satisfaction of seeing the vines swing apart. As he moves forward, the sharp ends of severed branches catch on his backpack, telling him he needs to adjust the point of impact a little higher.

Within twenty yards, Crossman is out of breath. Sweat pours off his forehead. His hair is damp. His clothes are soaked. Anyone looking at him would think he'd fallen into the river.

"Good, good," Indah says, again taking the lead, and he can see how pacing themselves and resting every twenty yards allows them to make good progress. When his turn comes again, he attacks the jungle with vigor. For him, it's about establishing a rhythm. Rather than swinging madly, he paces himself. Matching his strokes with the way he steps forward over the fallen foliage.

"We are close. See?" Indah says as he comes to a halt, leaning forward on his knees and sucking in the humid air. Crossman looks up. He doesn't see anything beyond the thin rays of sunlight penetrating the jungle canopy, sending long, slender, golden shafts of light to the tropical forest floor.

"No," he says, raising his head and then lowering it again.

"The vines," she says. "They're thickest closest to the river. Ahead, we break through to the palms."

Crossman looks again. Within ten yards, Indah has cut through into a clearing. Moss clings to rocks. Ferns reach up to waist height. Palms fight for the light seeping through where a giant of the forest has fallen, clearing a path through the jungle canopy. Indah sits on a rotten trunk and sips from her canteen. Crossman joins her. He'd love nothing more than to pour water over his face, but he knows it won't cool him down and would waste what little clean water he's carrying. Instead, he pushes the metal bottle against his forehead, wiping the sweat away.

"Do you see the way the palms rise?" Indah asks. "They follow the streams. This is good. They keep the bigger trees at bay. And that keeps the vines from falling down. Mostly."

"Ah."

"This is the way we will go. Up along the rocks, following the stream."

"Okay," Crossman replies, struggling to offer anything other than one-word answers. This is much harder than he imagined when he set up the expedition from his plush office back in Chicago.

Indah is spritely. She dances from one rock to another, darting up the side of the stream as though she were a child bubbling with enthusiasm.

"Come on," she says, turning and beckoning to him. She hops from one rock to the next. Crossman looks at the moss and the sharp stone edges, the irregular shapes and precariously balanced rocks and boulders and steps carefully between them. Indah is already fifty yards ahead and waving with her arm for him to hurry. What's the rush? Crossman would rather get there in one piece without twisting his ankle, skinning his shins or breaking any bones. He holds his arms wide, trying to balance himself. Water runs between the rocks, rushing over pebbles in the stream.

Birds sing in the canopy. Monkeys swing through the branches. Critters rustle through the leaves on the muddy ground. Crossman isn't sure which he'd prefer, for those noises to be rats or snakes. What other options are there? There are probably dozens of other possibilities, but those are the only two that spring to mind. He grabs a broken branch and cleans the twigs off it with his machete, using it as a walking stick. Having three points of contact improves his stability, and he's confident enough to speed up his pace. Indah's right. There's a primal joy in skipping over the rocks. Instead of moving one by one, he mimics her, lining three, four or five up in a row and rushing upward. He's breathing heavily and sweating, but he's enjoying himself. A smile escapes his lips.

Crossman stops for a moment but not to rest. He wants to capture this stream on camera. He pulls out his phone and snaps several pictures of the way thin slivers of sunlight pierce the canopy so high above the forest floor, acting as spotlights on the foliage. He takes a quick video, wanting to record the length of the ambling stream, panning from where he came from to where he's going upstream. To his delight, a flying squirrel cuts through the air, gliding from a palm on one side of the bubbling stream to a tree on the other. Its claws grab at the bark as it lands and spreads its body wide. Had he not stopped, he would have missed its flight, keeping his head down and looking only at the rocks.

Crossman continues on, having lost sight of Indah but knowing she'll be sitting on a boulder somewhere ahead, waiting patiently, drinking from her canteen. Eels swim in a pool that's formed between fallen boulders. The water is crystal clear, allowing him to see easily eight to ten feet to the rocky bottom. Their slick bodies ripple as they slide through the pond. A waterfall churns the pool at one end. Indah is sitting on a boulder at the top, eating a nut bar.

"If you go around the edge, it's a bit easier," she says, pointing to a muddy animal track. Crossman takes her advice. The steep sides are slippery, but he's able to grab onto vines and saplings as he scrambles up the bank. Loose dirt gives way beneath his boots, but he has a good hold on the vines and pulls himself up.

On reaching the top, he takes his backpack off and rests on the rocks. Crossman sits down beside Indah and rummages through his pack for something to eat.

"We're here."

"We are?" he replies, surprised.

Indah points into the jungle on the other side of the stream. Crossman grabs his pack, slinging it back up over his shoulder as though it were empty. He's no longer thirsty, hungry or tired. He pulls his machete from the sheath hanging from his belt and walks into the shadows, pushing palm leaves to one side. Vines lay crisscrossed in front of him, hanging down from the trees.

He swings his machete, expecting the foliage to fall away and expose a distant temple. Instead, the vines part to reveal a square stone roughly six-feet on each side. Moss clings to the stone, obscuring writing etched into the surface. Indah comes up beside him as he rests his machete on the stone. With one hand holding his phone and the other dusting away the moss, he records the find.

"What is it? What does it say?" Indah asks, unable to read the ancient language.

"It's a warning," he says, speaking as much for the video as for her. "And it's old. I can see the letters *kho khuat* "I and *yo ying* and in the message. Ah, these were borrowed from the ancient Sanskrit and Pali and went out of use several thousand years ago. There's also a mix of Proto-Tai and Old Chinese characters. The amalgam of these puts this inscription at roughly 800 BC, but the temple itself is probably considerably older. The warning would have been placed here much later, long after it was built."

"Why?" Indah asks. "What would they be warning us against?"

"I don't know," Crossman says, pocketing his camera phone and picking up his machete. "But this is much older than the Scotsman Robert Burns."

"What does the warning say?"

"Ah, it's difficult to know for sure. A lot of these words don't make sense to me. I need to cross-reference them against other texts from the same era."

"But you knew it was a warning."

He points at one of the faded, worn words carved into the stone. "This is $M\bar{a}ra$. It's a term shared by the Malay, the Thai, the Vietnamese and the Chinese. The spelling and characters vary, but the similarity between them means its roots are found deep in antiquity. They speak of a shared, ancient language."

"And what does it mean?"

"Māra is... I don't know. Satan? The devil? It's difficult to convey a modern meaning. *Māra* was evil. He was divine—a celestial king. It is said he came from the stars. In the creation myth, he tried to stop Prince *Siddhartha* from achieving Enlightenment. His goal was to thwart humanity's progress. Ah, his name means death or to kill. And he's found in Indo-European protolanguages all across Asia in the root word *mer*, which means destruction or to wipe out, to disappear."

Indah says, "We should leave."

"No," Crossman replies, surprising himself with the vehemency in his voice. "We go on. We must."

The roots of a strangler fig wrap themselves over one edge of the stone, reaching down to the soil. Although she's reluctant, Indah climbs up first. Crossman passes his pack to her and clambers up beside her.

The stone they climb over is part of the foundations of the outer court of the temple. Roots have lifted these massive stones, leaving them at odd angles. Several trees have overturned the stone base entirely, wrapping their roots around five-ton blocks as though they were pebbles. Tiered sections of the temple rise to a point similar to *Angkor's* jungle temple *Ta Prohm* in Thailand, but the styling is less defined. To Crossman, this speaks of the temple's antiquity as the architecture is underdeveloped. The ornate wall carvings and statues found in Thailand are conspicuous by their absence here in Borneo.

Crushed entrances block access to the temple itself. The carved rock that's collapsed over the openings must weigh hundreds, if not thousands, of pounds. There's no way the two of them are shifting the fallen arches. And even if they could, they'd need to shore up the rubble with steel props before crawling inside.

In his mind, Crossman is already thinking about who and what he'll need for a follow-up expedition. Funding won't be an issue, but getting hundreds of people this far into the jungle and sustaining them for months on end is going to be a logistical nightmare. The government of Indonesia, though, has already expressed support for his exploration. Minister Muhadjir Yffinde from the Office of Cultural Affairs is already funding half of the current expedition. Once Muhadjir realizes such an ancient site has been uncovered, Crossman is sure he'll provide additional support as nothing like this has ever been found in Borneo before.

Low, squat stone pillars support a portico, disappearing into the shadows. Crossman pulls out a flashlight and scans the rocks while recording with the camera on his phone. The two of them climb over the fallen rubble. With each step, Crossman marvels at the carvings and pillars. It took considerable devotion to build and maintain such a temple. It would have towered over the jungle for centuries before being abandoned as cultural ties dissolved. Monks would have stayed on to preserve the site out of religious devotion and stubborn human perseverance, but the jungle eventually won, consuming the temple.

Crossman doubts he's going to find the diary of Robert Burns as the temple predates the Scottish explorer by thousands of years. By the time of Burns, in the 1800s, it would have been long lost to the jungle, but then Crossman finds a brass button lying in the rubble.

"What is that?"

"It's European," Crossman replies, examining it closely. The tarnished brass crumbles beneath his touch, so he returns it, laying it next to several other buttons and a scrap of leather. He takes several photos, realizing he should have documented the find before disturbing it. He says, "It's British."

"Is this him? Is this your man?" Indah asks.

"I don't know. Maybe. We're a long way from the coast."

Crossman looks up, turning slowly and taking in the way the jungle has closed over the temple. Vines hang down from the canopy. Monkeys move through the branches. Birds call to each other. Moss clings to carved stones. Lizards creep along the rocks, moving in short bursts, looking for prey while avoiding becoming prey themselves. Insects buzz through the air. Nature ignores the ruins, treating them with disdain, growing over them as though they were never anything more than mere rocks.

"It would have taken them days to get here... weeks," he says, looking at the way the forecourt has been broken apart by roots. "And even back then, almost two hundred years ago, this place would have been little more than abandoned ruins. It's been left to the jungle for thousands of years."

"What are you thinking?" Indah asks.

Crossman crouches next to the buttons and the rotten leather, deeply considering his options. He feels conflicted. On one hand, he doesn't want to disturb the site for fear of confusing any later analysis. This temple spans multiple Asian cultures spread out over thousands of years. There are layers of habitation here even he's barely cognizant of, and he has twenty year's experience as an anthropologist to draw upon. On the other hand, he feels compelled to gather as much evidence as he can. He uses tweezers to pick up one of the better-preserved buttons and slips it into a plastic ziplock bag.

"I'm wondering why they came here. I mean, severing his head was deliberate. They weren't just trying to kill Burns. It was personal. They were after a trophy. They wanted the boss. The commander. And I get that. It sends a message to other expeditions and explorers. It screams, '*Stay the hell away from here!*' But did they not have villages and holy sites closer to the coast? Why come so far inland to an abandoned temple? What's significant about this place? How has it lingered for so long in their cultural memory?"

Crossman climbs over the crumbled wall of the inner sanctuary.

A clouded leopard darts from the shadows, leaping the far wall with ease. Its fur is spotted. The feline is lanky, being exceptionally long but lacking width. Its spine is supple and flexible, curling as it clears the rocks and disappears into the jungle. Birds take flight, surprised by the sudden burst of movement. Apart from their flurry of motion, the leopard is all but invisible, barely making any noise at all.

The central spire of the temple has collapsed, but the side entrance to the inner chamber is still standing. Crossman turns his flashlight back on, but it flickers and dies. The bulb and battery are supposed to be good for a thousand hours, but they've lasted less than one. Crossman wants to swear in frustration, but instead, he sets the flashlight down, wondering if explorers in a hundred years' time will find it along with more brass buttons.

Crossman turns on the LED light on his phone and steps into the shadows. Indah traces his steps. Cobwebs hang from the ceiling. Large, spindly spiders pick their way over newer webs, being disturbed by his motion. Crossman holds his phone in one hand and his machete in the other, clearing the way before them. He's videoing the interior, but the light from his phone fails to illuminate more than six or seven feet, leaving the chamber shrouded in darkness.

"I don't like this," Indah says in a whisper from behind him.

"Don't touch anything," Crossman replies in a whisper. "The ruins here are unstable. We don't want to bring the roof down on top of us."

With that, Indah closes the gap between them. She's uncomfortably close to him.

Crossman puts away his machete and then dusts a fallen statue. Gold glitters in the light of his phone.

"This is a good sign."

"It is?" Indah asks.

Crossman sweeps dust from an unusually thin statue of Buddha. Gold flakes from the stone, revealing how it has degraded with age. Jewels sparkle in the light.

"Yes. It means the temple is intact. It hasn't been raided by thieves. We're seeing it as it was thousands of years ago."

The center of the chamber is dominated by a raised stone plinth. A leather-bound book sits in front of it. A human skull sits atop the intricately carved stone.

"Here, hold this," Crossman says to Indah, handing her the phone, knowing she'll not only provide light but direct the camera as he talks. Crossman swings his backpack down and pulls out a plastic box. He opens it. Inside, there are several sets of disposable plastic gloves and thick, transparent plastic sample bags. He slips on a pair of gloves.

"As I suspected," he says, for the camera rather than Indah. "The murder of Robert Burns was more than an act of piracy. Not only was his head severed in a ritual manner, with a single blow to the neck, his skull was brought here to appease the angry gods."

Crossman picks up the diary, dusts the leather and carefully opens the strap that binds it shut. He's gentle, allowing the pages to fall open rather than forcing them. The writing inside is ornate, being written with a flourish. The pages have been composed with care in a style that looks more like calligraphy than casual notes. Crossman isn't looking for anything in particular and doesn't read any of the pages. He'll devote time to that later. He's simply displaying it for the camera. He closes the diary and slips it into one of the plastic bags, sealing it shut before placing it in his backpack. Indah follows his every move, keeping the phone light and, thus, the camera on him.

Crossman retrieves another large plastic bag. He walks around the skull on the plinth, pointing at it with his blue, gloved fingers. "Notice how clean the bone is. There are no scraps of skin or flesh. No scratches."

He circles the skull, taking his time, peering into the empty eye sockets.

"This isn't the result of decay. The skull has been prepared for placement here in the temple."

With his gloved hand set firmly above the skull, Crossman raises it and turns it over, allowing light to enter from beneath the jaw. Again, he points, rotating the skull slowly so he can look within it from a variety of angles.

"I can see in through the Foramen Magnum, where the spinal cord would have connected to the brain. The cavity is clean. The various impressions on the inside of the skull have been bleached. There are no visible scrapes within the skull itself, suggesting it has been ceremonially cleaned and rinsed before being placed here."

Crossman slips the skull into the clear plastic ziplock bag with a sense of reverence. He seals it and places the skull in his backpack with slow deliberation.

"Who were they seeking to appease?" he asks, facing Indah with the phone, speaking to the camera. The bright LED washes out his night vision. "It will take some time to be sure, but from the carvings on the walls, I think this temple was originally dedicated to $M\bar{a}ra$, the Destroyer. The Buddhist statues are from some later era. Then, it appears to have reverted back to the old gods. How has such an ancient superstition survived for so long in the dark heart of the jungle?"

Indah's face looks pale in the sullen light. Her eyes are wide. She looks scared. She's not looking at him. She's looking past him, peering over his shoulder, staring into the darkness.

"What?" he asks, sensing her fear and wondering if the leopard they saw earlier is stalking them in the shadows.

"The light."

"What light?"

"This light. Your light. It blinds us."

"What do you mean?"

Indah holds her hand over both the camera lens and the light, saying, "See."

Crossman turns, looking deeper into the temple, but his vision is washed out. He can't see anything beyond murky shapes in the darkness. His eyesight is grainy. Rocks appear as shadows.

"There," Indah says, pointing.

At the back of the chamber, there's a soft glow. Red light is cast over the stones. It pulsates with a slow rhythm of not more than once every ten to fifteen seconds.

"I see it," Crossman says, taking the camera from her. He leads with his phone out in front of him and his heart beating out of his chest. Silver glistens in the distance, which confuses him as silver is a European metal. It held little to no value in the Orient. He creeps closer, worried by the red glow. Nothing should be producing light in an ancient temple—no, not a temple, an ancient tomb.

Dust coats a large silver orb. It has been mounted on an altar at the back of the temple in line with the plinth that held the skull of Robert Burns. A band runs around the center of the sphere, glowing red. Crossman catches every detail with his camera. He dusts the top of the sphere, watching as centuries of dirt slide to the stone floor. The strange device is perfectly smooth, reflecting the light around it like some kind of distorted mirror. And it's pristine. There are no scratches on its surface.

"What is it?" Indah asks from behind him.

"Ancient," Crossman replies. "Given the antiquity of this temple, the fact it has never been raided, and the extreme devotion of those that offered up Robert Burns, I'd say this thing has been here all along."

"But this? What is this?"

"This is *Māra*," he replies, realizing this strange device is the reason for the temple.

"The destroyer? But how is that possible? How on Earth did that thing get in here?"

"How on Earth indeed," Crossman replies, realizing what he's discovered.

Crossman is a skeptic. He scoffs at grainy black-and-white videos of UFOs and UAPs screaming through the clouds. He laughs at the papier-mâché models of alien bodies in Mexico. In his mind, if aliens ever visited Earth, they'd have no reason to hide. Aliens have nothing to fear from a bunch of hairless apes that can barely escape the gravity of their home world. No, if aliens visited Earth—either now or in the past—there would be evidence. And he realizes what the two of them have stumbled upon. He has no idea what the strange artifact is or who built it, but he knows it wasn't built by humans. He instinctively realizes the importance of this find to science.

And it's active. The silver, spherical artifact is powered by some kind of internal battery. It's been waiting here for thousands of years, but not for just anyone to find it. No, it's been waiting for humanity to progress to the point where the species understands what it's dealing with. It's been waiting until it was no longer feared as an angry celestial god. It's been waiting for an intelligent, rational being to engage with it. It's a message, an announcement, a beacon, an invitation from an ancient but advanced alien civilization reaching out to find other civilizations.

Crossman wipes the sweat from his brow with the back of his gloved hand. Thoughts swirl through his mind, some of them conscious, others a reaction to subconscious desires. Crossman's not a bad person. He's not evil, but like all humans, he has his weaknesses. An appeal to ego is intoxicating.

Although Crossman wouldn't admit it to anyone, not even his wife, he knows this discovery is going to make him famous, and that causes his heart to swell. Kings and queens will invite him into their gilded palaces. The red carpet will be rolled out. Celebrities will want to shake his hand. Television hosts will interview him. His face is going to be on the cover of Time Magazine. The story of his exploits in Borneo is going to captivate the world.

"What are you thinking?" Indah asks.

He turns and looks at her with a smile lighting up his face.

"I think we just discovered an alien artifact."

"Alien?" Indah asks, confused. "As in from outer space?"

Crossman smiles. The realization of what they're dealing with causes his mind to buzz as though he's downed an entire pot of black coffee. What secrets lie within this strange artifact? What can humanity learn from another intelligent species that has already blazed a path through the stars to their small world?

Crossman is drunk with the possibilities that lie before him. Scientists are going to fall over themselves to examine this device. He knows this one archeological find has the potential to catapult *Homo sapiens* thousands of years into the future. Crossman is so excited he can barely speak.

"Y—Yes... yes, yes," he says, composing himself. "It's from another world. And I suspect this thing does more than glow. We need to get this into a laboratory back in Jakarta. There's got to be some way to turn it on!"

The End

Afterword

Thank you for taking a chance on independent science fiction. If you've enjoyed this story, please take the time to rate it online and leave a review on Amazon or Goodreads. Your opinion counts. Your review will help others decide whether they should pick up this novel.

Where possible, I weave accurate details into my stories. *Harat Zuwayyah* really is a remote oasis in Libya. Scottish explorer Robert Burns was decapitated on the coast of Borneo in the 1800s. *Mara* is an ancient deity representing death and destruction in Southeast Asia. Pirates harass container ships off the coast of Somalia. Etc. Here's some background behind some of the other details woven into this novel.

Singing Sands

Contrary to what we'd expect, the Sahara isn't quiet. Even on days when there's no wind, <u>the sand will sing</u> as it shifts in the desert. It makes <u>an unnerving noise</u> that sounds spooky, almost alien, compared to the noises of nature we're used to in the forest.

Von Neumann Probes

As discussed in this novel, <u>Von Neumann probes</u> are selfreplicating machines that exploit the nature of exponential increase to cover phenomenal distances in a relatively short period of time. By making <u>a self-replicating space probe</u> that travels at a mere 1% of the speed of light, it's possible to reach *every* star in the galaxy within half a million years! To us, that sounds impossibly long, but given that the universe is 13.8 billion, or almost fourteen thousand million years old, it's relatively quick.

Start with a mere two probes that become four, then eight, sixteen, thirty-two, sixty-four, etc., and within a mere forty generations, there would be a trillion probes, which is more than enough to reach every star in the Milky Way several times over.

If anything, unchecked exponential growth exposes a problem with this idea, as it suggests that if any advanced alien race had attempted this style of exploration within the last half a million years, we'd see these damn things everywhere! In fact, the probes themselves would need some kind of programmed death, or they'd continue to spread, and within a few million years, they'd have *consumed* every planet in the galaxy! Destroying planets while trying to find life is not a good look. It may even be that advanced aliens are on the lookout for these things to destroy them before they spread out of control. Their reasoning would be that such probes would kill the very life they were sent to find before it could evolve to the point of being able to defend itself.

In *The Artifact*, I've adopted the position that another use for Von Neumann probes is to act as a honeypot. A malicious predatory alien species could use them to identify emerging civilizations they would then wipe out before they became rivals.

The Antikythera Mechanism

In 1900, well before the advent of the First World War and roughly half a century before the first electronic computer was invented, sponge divers came across <u>the wreck of a Roman ship</u> near the Greek island of Antikythera. Wearing old-fashioned canvas diving suits and copper helmets, the divers descended 150 feet into the Mediterranean to explore the ruins and salvage ancient artifacts. <u>One of the relics they recovered</u> was a heavily rusted box with cogs and gears arranged in a meticulous pattern. On close examination, scientists realized it was a two-thousand-year-old analog computer designed to calculate the position of the sun, moon and planets over centuries. It was a startling find and unlike anything else found in antiquity. It wouldn't be until 1820, several thousand years later, that <u>Charles Babbage</u> would build something of similar complexity, laying the foundations of modern computing.

As Blind as a Bat

Contrary to an understandably popular belief, <u>bats aren't</u> <u>blind</u>. Not only do they have eyes, but in many cases, their eyes are <u>more sensitive than ours!</u> As they use echolocation to

hunt for prey in the dark, there's an assumption that they don't need eyesight and, therefore, are blind, but lots of animals with echolocation also have sight, like dolphins and even some species of birds.

The Red Sea

To us, it seems strange to use colors to indicate a direction, but before the advent of concepts such as north, south, east and west, ancient people associated colors with geography. This seems to relate not just to the Middle East but <u>also to China</u>, suggesting the concept predates the rise of these distinct civilizations, being inherited from a shared, ancient origin (well prior to 5000 BC).

Black, red, green/blue, and white <u>referred to</u> north, south, east, and west, respectively. The Red Sea was named as such to mean the Southern Sea because it extended to the south of the Mediterranean, while the Black Sea is to the north of the Med. Neither name is meant to imply these stretches of water are either red or black. In the same way, the Arabic name for the Mediterranean is the White Middle Sea, as it stretches to the west of the Levant, the fertile crescent that extends from Egypt to Turkey and modern-day Iraq. These strangely archaic terms have remained in use for thousands of years, which is something I find quite endearing.

The Astonishing Simplicity of Everything

Physics is intimidating. Whether it's Einstein's Theory of General Relativity or the Copenhagen Interpretation of Quantum Mechanics, there's a bewildering array of concepts that often defy common sense, like the uncertainty principle or the wave/particle duality of light, but the brilliant <u>Neil Turok</u> <u>loves to talk</u> about <u>the astonishing simplicity of everything</u> *absolutely everything!*

At first glance, equations like the one O'Connor was asked to describe can be overwhelming, but at their heart lies simple mathematics, and that's quite profound when you think about it. The universe can be described using high school math with concepts such as addition, multiplication, division, square roots and powers. That's it. That's all that's needed. As cryptic as it may be to see symbols like ψ (the Greek letter *psi*) being used in physics, it's simply a placeholder within the equation. What's important is its relationship to other variables. And that relationship is expressed using basic concepts such as multiplication and division, etc.

The equation O'Connor is asked to explain is a condensed form of all known physics to date. When describing it, Neil Turok from the <u>Perimeter Institute</u> pointed out that even though this equation is incomplete (as we still don't understand the relationship between quantum mechanics and gravity), it can still explain millions of experiments with only 18 variables. That is quite an accomplishment!

Neil Turok's point is that there is an underlying beauty and simplicity to the universe at both the largest and smallest scales. And this beauty can be described not just with words but with the precision of mathematics—and the kind of mathematics we all learned in high school! When you realize this, the chaos we see around us is far less chaotic and cryptic than it seems.

The Library of Objects

One possible interpretation of the (fictional) artifact in this story is that it represents an item from an alien library of objects. This is a concept being <u>explored by the NASA SETI</u> program for human artifacts. The idea is that instead of trying to communicate via mathematics (like Carl Sagan's *Contact*) or via imagery, sound and language (such as the Golden Record on Voyager), the best way to share our learning with other (future) civilizations might be by way of objects we have invented, giving other intelligent species the opportunity to examine not only our handiwork but also our ingenuity. And it means extraterrestrials don't need to learn our language or mathematics to understand us.

The SETI Library of Objects contains hand stone axes, which were our first technological invention. Matches demonstrate not only the mastery of fire but also its importance to us. A lightbulb speaks of taming the night. A compass demonstrates our knowledge of magnetic fields and how they can be used to navigate. Face masks reveal our physical dependence on clean air and our knowledge of airborne viruses and bacteria. Radioactive dosimeters reveal not only a knowledge of nuclear science but also the existence of nuclear weapons and our concern about their lingering harm to individuals.

All of these objects are a physical form of synecdoche, where a part represents the whole. As an example, knowing we use lightbulbs implies the existence of electrical production and an electrical grid that allows them to become ubiquitous in homes. By using objects, we can transcend the need for language to communicate. And that will help avoid misunderstandings as the word *lightbulb*, even if properly understood, doesn't explain how or why light is emitted.

The SETI Library of Objects is a museum designed to speak to species beyond *Homo sapiens* and will one day be located on the Moon and possibly Mars. The artifact in this story could be considered as an example of a functioning object intended to teach us about its creators.

The Limits of SETI

For most of us, when we see a field full of radio telescopes pointing at the sky, similar to the opening of the movie *Contact*, we assume it's easy enough to detect extraterrestrial radio signals if they're out there, but SETI is far more complex than listening to the neighbors having an argument.

SETI is an area where science is advancing rapidly, but it is nowhere near as simple and straightforward as is depicted in movies or books. Detecting extraterrestrial signals is fraught with difficulty because we're surrounded by *billions* of absolutely massive, extremely overpowered radio transmitters called stars. Listening for aliens is like listening to someone whispering at a rock concert. If they're standing next to you, even normal speech is going to be difficult to hear. If they're on the other side of the stage in the mosh pit, forget it.

The easiest way to answer the question "*What can we see out there*?" is to think about what others might see if they were looking at us. We're a reasonably good example of an emerging civilization broadcasting its presence to the universe.

What would ET see if they were looking at Earth from a nearby star? The answer is—not much.

According to SETI scientist Dr. Jill Tarter (who was the inspiration for Ellie Arroway in Carl Sagan's *Contact*), "<u>At</u> <u>current levels of sensitivity</u>, targeted microwave searches could detect the equivalent power of strong TV transmitters at a distance of 1 light year (within which there are no other stars)..."

If ET were broadcasting the latest reality TV show from a planet in orbit around the closest star system to us, which is Alpha Centauri, we simply could not hear them. Now, Dr. Tarter's comment was made in 2001, so with recent advances in technology, such as the Square Kilometer Array, we might get a glimpse into *Love Planet: Alpha Centauri*, but it could equally still be drowned out by the background noise of the star itself.

According to SETI, "Typical signals, as opposed to our strongest signals, fall below the detection threshold of most [of our current] surveys, even if the signal were to originate from the nearest star."

No one is watching Leave it to Beaver out in space.

It's important to understand that we're throwing out <u>stronger signals</u> with things like airport beacons and ballistic missile radars, and these could be detected up to 250 light-years away, given enough time, but they're dumb signals. They don't carry information. And because of their sporadic use, the rotation of Earth, its passage around the Sun and the Sun's progress through the Milky Way, continued detection by ET would be difficult. If something like this were picked up by an extraterrestrial civilization, it could easily be put into the same category as <u>the Wow! signal</u> from the 1970s. It would be a curious observation but difficult to expand upon.

When SETI looks at the sky, they're looking for overt evidence of extraterrestrials. They're looking for someone screaming their head off at a rock concert, not the occasional whisper.

The Emergence of Complex Life

For several billion years, Earth was nothing more than a microbial world. At some point, somewhere around a billion years ago, complex life began to slowly evolve, and by around 600 million years ago, there was a surge of complex animal life called the Cambrian Explosion. All of the plants and animals we see around us today have their origins in this time period, but it didn't have to be this way.

Approximately 2.2 billion years ago, there was an earlier surge of complex life, leading to <u>organisms that look like</u> <u>modern-day scallops</u>, slugs and the underside of snails. The Cambrian Explosion could have occurred way back then rather than waiting another 1.6 billion years. If it had, it would have completely changed the nature of life on Earth! Scientists are still probing the fossil record to understand why this early bloom faded, but it shows us that life on Earth has not been a smooth linear progression from one stage to another. Life has struggled to survive on a tumultuous planet with shifting tectonic plates, super volcanoes and periods of extreme glaciation that covered the entire planet, turning it into a snowball. The world we see around us today is relatively new.

SETI & The Great Silence

Please bear with me for a moment as I lay the groundwork for discussing SETI, the Fermi paradox and The Great Silence...

Human intelligence is surprising. We're outliers in the animal kingdom. Our intelligence is akin to a peacock's feather, which is an extravagant, absurdly large plumage that's far in excess of what's required or found in any other bird species. In modern parlance, like the peacock, we're extra. From stone axes to computers, our mastery of both language and tools has led to the accumulation of expertise that has launched us to the Moon. But the most surprising aspect of human intelligence is time itself.

Consider this. For three million years, hominids crafted stone axes to be held in a tightly clenched palm. They used tools to extend their abilities, something that would become a hallmark of *Homo sapiens*. Roughly 750,000 years ago, our ancestors split off from those that would go on to become *Homo neanderthals*. By 300,000 BCE, the fully-formed skulls of *Homo sapiens* begin showing up in the fossil record, along with sophisticated stone ax heads capable of being mounted on spears and used as knives for skinning hides and cutting meat. Around 70,000 years ago, *Homo sapiens* spread out of Africa, migrating around the world and splitting into populations that spanned from Europe to South America.

Approximately 40,000 years ago, the Aborigines of Australia were using their peacock-like intelligence to construct <u>elaborate rock weirs</u> and tidal pools to trap wild fish, effectively forming the first fish farms. These were capable of sustaining a local population reaching into the thousands! The Aborigines supplemented these fixed structures with <u>woven</u> fish traps at least 20,000 years ago. At the same time, in the Middle East, <u>the Ohalo tribes</u> on the banks of the Sea of Galilee were cultivating plants, but dedicated farms wouldn't arise until around 10,000 BCE when the Neolithic people in the region began growing wheat, barley, lentils and peas. By 6500 BCE, rice was being cultivated in China.

Civilization, as we think of it, first arose in the Levant the fertile crescent stretching from Egypt to Turkey and modern-day Iraq. Nomadic tribes still roamed the land, but villages arose, then towns, then cities. Laws were developed to moderate conflict and settle disputes without unbridled vengeance. Leaders arose to unite people. Writing allowed for commerce as records could be kept, money could be exchanged, and debts could be tallied. Writing also allowed ideas to span not mere generations but centuries and even millennia. And so today, we can read the thoughts of Plato and Aristotle as clearly and plainly as if they were written yesterday.

Civilization is a bloody tale of conquest until the Enlightenment. And then the bloody tale continues on a scale never seen before with wars that engulfed the entire world.

Somehow, in the midst of all this madness, science arose, and hominid intelligence finally escaped superstitions. For the first time, ideas could be tested and refined, accepted or discarded. And this led us to the stars, or at least into orbit. What does all this have to do with SETI?

Everything.

the Remember. SETI is search for intelligent extraterrestrial life. And on Earth, we have billions of years during which life has existed, but human civilization has only been able to reach space for less than a hundred years. Some might think 3.8 billion years is a depressingly long time to wait for a space-faring intelligence to arise, but the lesson here is the reverse. Once a species begins using stone tools, it can reach the stars in a surprisingly short period of time! Our three million years progressing from rough-hewn stone tools to chipping off bits of rock on the lunar surface spans a mere 0.08% of the time life has existed on Earth!

Due to our short lifespans, it's difficult to realize we're on the leading edge of the exponential growth that kicked off a mere three million years ago. For 99% of that time, we were hunter-gatherers until the Aborigines developed those rock weirs and began farming wild fish. We take agriculture for granted, but it arose in the last 0.3% of hominid history. The phenomenal progress made over the last hundred years is a rounding error on that scale—and yet it has catapulted us into space! If we can stop shooting each other and overheating the planet, we're on the cusp of even more exponential growth. Where will we be in a hundred years' time? In a thousand?

And this brings us to SETI, the search for extraterrestrial intelligence.

In the summer of 1950, more than a decade before the Soviet Union launched Yuri Gagarin into orbit, Enrico Fermi asked the question, "Where is everyone?"

Remember, the Second World War had ended a mere five years earlier. Radar was only just coming of age. Computers were the size of a room and programmed with punchcards. Our awareness of the universe had grown from a single galaxy in the 1920s to the realization there were hundreds, possibly thousands of galaxies—when, in reality, there are several hundred billion! Pulsars were yet to be discovered. Black holes were a curious theoretical oddity that arose from Einstein's Theory of General Relativity, but few thought they actually existed. It would take another thirty-odd years before these "frozen stars" would even get the name black hole. And against this backdrop, Fermi asked, "Where is everyone?"

Fermi understood the math. On one hand, he saw a vast universe that stretched for billions of light years and had existed for billions of years. On the other, he saw us. Even before the advent of human spaceflight, he realized hominids were reaching for the stars in an exceptionally short period of time. If we could do this, why couldn't someone else? And, more importantly, why *hadn't* someone else already spread throughout the galaxy? From our humble beginnings, chipping away at stone to form hand axes, to the space age had happened in the blink of an eye compared to the age of the planet, let alone the universe, so where is everyone else?

Mammals arose well over a hundred million years ago. In theory, any mammal species could have started experimenting with stone tools during that time. <u>Chimps use stone tools</u> today. They could be at the start of their own three million-year journey to the stars!

Fermi's paradox is also known as The Great Silence. In the seventy years since he made his observation, our ability to probe the depths of space has grown exponentially and in ways Fermi himself could have never dreamed about. We've seen back in spacetime to the afterglow of the Big Bang itself! We've photographed black holes at a phenomenal distance of fifty million light years. We've measured the gravitational waves of colliding black holes at 3.6×10^{49} watts, which is more energy than is emitted by every star in the entire observable universe being released from a single point in spacetime in a single second! We've detected thousands of exoplanets, but for all of these astonishing insights, we still haven't seen any evidence of life elsewhere, let alone intelligent life.

We're surrounded by silence, but why?

Numerous reasons have been suggested, including one called The Dark Forest, which was popularized by Chinese

science fiction author <u>Cixin Liu</u> in his trilogy, including *The Three-Body Problem*, *The Dark Forest* and *Death's End*.

In his words...

"The universe is a dark forest. Every civilization is an armed hunter stalking through the trees like a ghost, gently pushing aside branches that block the path and trying to tread without sound. Even breathing is done with care. The hunter has to be careful because everywhere in the forest are stealthy hunters like him. If he finds other life—another hunter, an angel or a demon, a delicate infant or a tottering old man, a fairy or a demigod—there's only one thing he can do: open fire..."

Cixin Liu

The Dark Forest

It's not a good idea to blunder through the wilderness, making noise when there are predators like wolves, bears, lions, leopards or crocodiles on the prowl.

The Dark Forest imagines celestial civilizations locked in a perpetual dog-eat-dog state of conflict, but when it comes to explaining The Great Silence, there are a few problems with this idea. If the Dark Forest is true, then when we look out into space, we should see conflicts erupting. We should see smoldering ruins. And we should see naive newcomers like ourselves blundering through the dark forest, making way too much noise and attracting the aggressors. But we don't.

In *The Artifact*, I offer an alternative and somewhat more sinister interpretation of The Dark Forest. Given the absurd distances and timescales involved when it comes to interstellar travel and the immutable constraint of the speed of light, I don't think it's plausible for a hostile species to seek out emerging civilizations. If The Dark Forest does explain The Great Silence, then there would have to be some other means of enforcing it.

In *The Artifact*, a belligerent alien species baits traps for emerging species ahead of time, luring them into revealing themselves. Then, they destroy them using local means before the fledgling civilization can spread throughout the galaxy. There's no need for an alien invasion or a fleet of interstellar warships. All that's needed is to mine the Oort Cloud that surrounds the local star and turn the asteroids found there into kinetic weapons. In this way, there would only ever be silence among the stars. No one civilization would ever progress to the point it could colonize the galaxy. Emerging civilizations would wonder about The Great Silence, unaware they're about to trigger their own destruction by being too curious.

By the way, I hope I'm wrong.

Genofratricide

Genofratricide isn't a word, but I coined it in this novel as it should be. These days, genocides seem to occur with increasing frequency. Genofratricide combines the concept of genocide with fratricide, which is the killing of one's brother or sister.

Our history is replete with far too many examples of genocide. Whether it is Nazis killing Jews, Hutus killing Tutsis in Rwanda or the Myanmar military killing Rohingya refugees, genocide *is* fratricide. Those perpetrating these horrific murders might dehumanize their victims to justify their hatred, but it's a lie. It's Cain killing Abel. We're brothers and sisters. You need only go back about three thousand years, and <u>everyone on the planet</u> is related. Until we recognize our shared humanity, we will continue to be plagued by genofratricide. We cannot allow ourselves to be reduced to an us-vs-them mentality. There's only us. We're all we've got on this pale blue dot.

Bedouin Food

The descriptions of desert food in this novel come from a local Ethiopian and Eritrean restaurant here in Brisbane called *Arhibu*. It's a humble store staffed by a migrant family, using household plates and cutlery, but the food is utterly magnificent! I hope my story has done their cooking justice.

Orangutans

In the postscript, I have Crossman interacting with a wild Orangutan in a canoe. This is a nod to the legendary British comedian and actor Brian Blessed, who visited Borneo several decades ago. He recounts a hilarious story of a friendly but wild Orangutan helping him paddle upriver to visit the jungle. It's one of those wonderful anecdotes that allows us to realize we're all Great Apes, and we all need to be a little kinder to each other.

Thank You

Thank you for taking a chance on an obscure Australian science fiction author who hails from New Zealand. Your support of my writing is deeply appreciated. By purchasing this book, you're giving me the opportunity to write the next one, so I'm grateful for your kind support.

I'd like to thank a bunch of beta-readers whose insights helped me with quality control, including Dr. Randall Petersen, Steve Bell CMSgt. USAF Ret., Terry Grindstaff, John Stephens, David Jaffe, Gabe "Velveeta" Ets-Hokin USMC, Gerald Greenwood, Chris Fox and Didi Kanjahn.

If you've enjoyed this novel, please leave a review online.

If you'd like to chat about this or any of my novels, feel free to <u>stop by my virtual coffee shop</u>.

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Keep looking up at the stars in awe. If there's life here, there's life elsewhere. It's just a matter of time before we find evidence for life beyond the bounds of Earth. I personally think intelligence begets compassion. If we make contact with extraterrestrial intelligence, I think they'll be friendly.

Peter Cawdron

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