

Nexus

Michael F. Flynn

Consider the man who is brained by a hammer while on his way to lunch.

Everything about his perambulation is caused. He walks that route because his favorite café is two blocks in that direction. He sets forth at the time he does because it is his lunchtime. He arrives at the dread time and place because of the pace at which he walks. There are reasons for everything that happens.

Likewise, the hammer that slides off the roof of the building half a block along. It strikes with the fatal energy because of its mass and velocity. It achieves its terminal velocity because of the acceleration of gravity. It slides off because of the angle of the roof and the coefficient of friction of the tiles, because it was nudged by the toe of the workman, because the workman too rose to take his lunch, and because he had laid his hammer where he had. There are reasons for everything that happens.

Not much of it is predictable, but causation is not the same as predictability.

It would never occur to you—at least we hope it would never occur to you—to search out “the reason” why at the very moment you walked past that building, some roofer in Irkutsk dropped his tool. Why should the concatenation become more meaningful if the roofer is closer by? Spatial proximity does not add meaning to temporal coincidence. Chance is not a cause, no matter how nearby she lurks.

So the hammer has a reason for being there, and the diner has a reason for being there; but for the unhappy congruence of hammer and diner, there is no reason. It is simply the crossing of two causal threads in the worldline.

“Ah, what ill luck,” say the street sweepers as they cleanse the blood and brains from the concrete. We marvel because our superstitions demand significance. The man was brained by a hammer, for crying out loud! It must mean *something*. And so poor Fate is made the scapegoat. Having gotten all tangled up in the threads, we incline to blame the Weaver.

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Orphans of Time I. Siddhar Nagkmur

Consider now the man getting drunk in a dingy after-hours bar in an unhappy corner of Chicago. He too is unhappy, which makes for a good fit. His name is Siddhar Nagkmur, and he has the morose visage of a sheepdog who has failed his flock. It shows in his face, which is long and narrow and creased with lines at the eyes and lips; and it shows in his drink, which is both potent and frequently replenished. He sways a bit on the bar stool, ever on, yet never quite pass-

ing, the point of toppling over. The lives of billions layer on his face and pool in his eyes.

The neighborhood is one of warehouses, wholesalers, terminals, and similar establishments, and the bar's clientele the usual gallimaufry of pickers, packers, and teamsters, among whom Nagkmur's coveralls blend well. Outside, the night lies empty, save for the men at the loading docks who are prepping the morning deliveries, and the drifting strangers who habitually rove empty nights at three in the morning.

From time to time, Nagkmur glances at the flickering television and mutters something about "phantoms," but neither the bartender nor the other patrons ask him what he means. One is half afraid of what he might say. Each patron dwells introspectively on his own tidy failures until Nagkmur's empty highball glass strikes the countertop and startles them into the moment.

The bartender does not ask if he thinks he's had enough, because if he'd thought that, he would not have banged the countertop quite so eloquently. The bartender pours the bar Scotch, and waters it more than his wont—a blow struck for both sobriety and the bottom line.

"Shy Hero in Manhattan!" the television announces as the hour cycles around to a fresh story in the news-blender. The shout-out tugs momentarily at everyone's attention, and on the screen, a stolid woman half-turns from the camera, anxious to conclude the inescapable interview. A fire. A baby. A dash through the flames. *A rescue!* Brief platitudes.

"Stupid," says the bartender, not grasping the nature of heroism. "She coulda been killed."

Nagkmur continues to scowl at the screen after the woman's face has been replaced by commercials promising revived male performance. "I see this woman before," he mutters, in accents that proclaim English an acquired tongue.

"Yeah? Where'd ya see her?" the bartender asks, not because he is interested but just to break the silence.

But his effort is a match struck on a gusty night. Nagkmur says, "Glass water" and from his inside jacket pocket he plucks a flat tin containing lozenges, one of which he swallows and chases with the water. The bartender pretends not to notice. He has seen innumerable pharmaceuticals consumed in his establishment and regards everyone as entitled to blaze his own trail to hell, so long as he pays his tab along the way.

Speaking of which, the bartender mentions the cost of the water and whiskey and Nagkmur selects it from a pouch he wears at his waist, scrutinizing each bill as if unfamiliar with its value. He takes a deep, shuddering breath. Then, with the air of one spared the headsman's axe to keep an urgent appointment on the gallows, he slides from his stool and walks toward the door. He walks without a stagger, too; and the bartender suddenly wishes he knew what had been in that lozenge.

Outside, in the lonely world of the small hours, Nagkmur finds three young men trying to jack his time machine.

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They are engrossed in the task. The vehicle is too tasty to pass up. Larger than a minivan, not so large as a panel truck, it is clearly high end. The opaque windows prevent casing the interior, but it just *got* to hold valuable shit!

However, it presents certain difficulties in task execution. The blocky design is unfamiliar. There is no evident hood. How do you hot-wire a thing like that? The door—there is only the one—does not yield to their coaxing. Where is the damned handle? So they shake the vehicle like a man jiggling a doorknob, in the belief that one more jiggle will happily discover it to have been unlocked after all. One of them has crouched to study the wheels. There is something odd about them, but he cannot say what.

They are levitation disks, not wheels—just as the "windows" are external sensor panels—but Nagkmur does not share this intelligence. Nor does he fear the young men will make off with his transporter. Nothing known to this nexus is capable of unsealing it once it has turtled. So he stands quietly by and waits.

Eventually, the thieves twig to his presence, which startles them considerably. Most owners would have announced themselves with some useless bluster, like *What do you think you're doing?* (Stupid. What did it look like they were doing?) But this skeletal figure simply watches in

silence, and that puts the three a little off their game. There is something in his eyes, a certain quietus to his expression. Two of the three take involuntary steps back, but their leader thrusts his chin out. “Watcha lookin at, fool? This your car?”

Nagkmur says, “No,” but he means that it is not a car, not that it isn’t his.

“Then get your ass in gear and fart on outta here.” The other two think this the height of wit, or perhaps of poetry. Nagkmur is reminded of the old adage that “sin makes you stupid.” Criminal masterminds are genuinely rare upon the Earth, and among their ranks these three are not to be numbered.

Nagkmur searches his newly impressed language and finds the warning he wants. “Please, to back away from transporter.” He adds a second command in *pudding-wa* and his vehicle hears and activates certain defenses.

The sudden hum alarms the youths, driving them together. “What’d you do, chink?” demands the leader.

“You are advised not to touch the transporter.”

“Yeah?” the leader mocks. “And what happens if I do?” And he stretches out an insolent fingertip to do just that.

The answer to his question is “electrocution.” His entire body stiffens, his eyes bulge, and his sneer pulls back into a rictus. A moment later, he drops insensate to the cobblestones.

It is a momentary distraction, and in that moment, Nagkmur flicks his baton to half-extension and, whirling, breaks the wrist of the second thief, who is belatedly clawing a pistol from his waistband. Completing his spin, Nagkmur pivots into the Flying Mule and catches the third tough with a shod foot to the side of the head. The boot is steel-toed, so this young man joins his leader on the pavement.

The second one has had enough, and, abandoning his companions to the Fates, he runs into the night, clutching his wrist to him.

Nagkmur knows an unseemly glow of satisfaction. He has never heard of the five stages of grief, but he is—by damn!—in number two. Ever since his discovery that the world had been wiped out, anger has been building up as in a capacitor, and it feels good to discharge the load, even on a trio of phantoms.

But there is no time for his bottled grief to pour forth. A distant siren heralds the approach of the local authorities. Someone on the graveyard shift has possessed sufficient civic virtue to summon the police—perhaps the man on the loading dock at the warehouse across the truck apron, ready to scribble the license plate number when Nagkmur’s vehicle pulls out of the shadows.

Of course, time machines do not “pull out” in any manner normally understood, nor do they bear license plates; but one admires the fellow’s staunch rectitude.

Nagkmur sighs. So much for passing unnoticed.

He kicks the dropped gun to a place where it will be found. The local police might learn something useful from its study, and as a fellow lawman he will make this one gesture in their aid.

That he intends to wipe all of them—police and thugs, bartenders, drunks, and warehousemen—from the very face of the Earth is no reason to neglect courtesy.

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His vehicle senses his shield number, and the door permeates to allow him entry. He seals up and activates the external screens and audio pickups. The transporter’s hull clarifies, providing him with an ecumenical view of his surroundings. He drops into his seat, takes a deep breath and, wasting no time in light of the approaching sirens, brings up a map of the phantom world that he had earlier gleaned from a radio-accessible *juku*. He identifies “Manhattan” and enters its coordinates into the transporter. Then he kicks in the temporal precessor and the ætherial gyroscopes spin up.

That is when the hammer hits.

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Something blacker than the night emerges from the shadowy interior of the electronics ware-

house. It is a great ebon sphere peppered with lights like a thousand eyes, as if a portion of the starry sky has come to ground. The warehouseman flees without getting its number, and the apparition sprints toward the transporter in a complex, five-legged gait that defies description. Terror chokes Nagkmur's throat.

Then he pops the clutch and detaches from the space-time manifold. His transporter coasts backward and spinward along the worldline, and he removes trembling hands from the control yoke.

What was that? he wonders. Has it anything to do with the catastrophe that has marooned him here? Perhaps he should have confronted it, interrogated it. But deep within, down where the shaking has its roots, he is quite as happy he had not.

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He reaches lower Manhattan earlier that same evening and coasts out of phase until he locates the nexus of the apartment house fire. Then he finds a nearby abandoned building where he can conceal his transporter and backs up a few hours to give himself time for his preparations.

External sensors show no signs of life beyond the usual small and scuttling things common to derelict buildings, so he reattaches to the manifold. Papers, dirt, and other detritus swirl about in the air displaced by his point-expansion, and his transporter settles into the moment.

He sits for a while in his saddle, arms dangling at his sides, breathing slowly and calmly and calling upon his balance. *In fear and trembling, the Superior Man sets his life in order and examines himself.* His son, his father, his brothers and colleagues . . . they had never been. Or "will not have been," however this new language expresses such thoughts. Their resurrection is now up to him. *To escape difficulties, the Superior Man falls back upon his inner worth.* Resolutely, he stuffs the terrifying apparition into another corner of his mind for later consideration. It had likely been no more than the drunken binge extracting one last punishment for his sin.

Upon first apprehending the calamity, Nagkmur had fled into the distant past, lest he be extinguished when his colleagues restored the worldline. But where the massive buildings of Deep Time HQ had once stood, the broad interglacial steppes had swept unvexed to the horizon. He knew then beyond all hope of doubt that the Shyan Baw had never been, and of his entire department he alone survived. It would be up to him to restore the true history.

But to rectify the worldline, he must identify the nexus at which time had gone awry. And to do that, he must research the phantom history and compare it to the true history. And to do that, he needs an epoch far enough forward to have radio-accessible *juku*, but not so far forward that time would have abraded the crucial details into smooth and shiny fables.

He has already spent time in Chicago learning the geography and impressing the dominant language on his neural pathways so that he can read and even habitually think in it. Now he must begin his search in earnest. Somewhen within this unknown history, written in this half-grasped tongue, nestles that singular incident that has derailed the proper course of time.

And that was why the Shy Hero in Manhattan—who would be saving a phantom baby later this very night—was so important. For why should he recognize anyone in this Fate-condemned world unless she too were a traveler orphaned by time?

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II. Stacey Papandreou

Consider now the woman fleeing a burning apartment building on the edge of the West Village in Manhattan. Fire holds a special horror for her so she cannot say even afterward why she turned aside to grab the crying baby from the first-floor apartment. She has learned not to care overmuch about the shadows among whom she lives, but the infant's cries touch something primal within her, and she hardly knows what she is doing when she snatches it from Moloch's jaws.

Then she is outside on Gansevoort St. with no recollection of the in-between, sucking in great gulps of air, the baby clutched against her breast still wailing. Around her are spinning lights atop fire engines, police cars, ambulances; firemen laying hoses, incomprehensible squawks over walkie-talkies; streams of water pouring into the now-crackling inferno. She stares at the apartment building, amazed that she has come through it, astonished that she had paused even for a

moment.

Maryam brt' Yarosh has employed different names in different milieus but in this time and place, she is Stacey Papandreou. In a town of such eclectic habitants as New York City, even the most outré can swim in anonymity, though it is best not to press the matter too far. This milieu is more tolerant than most, but tolerance too often depends upon what is at stake.

The mother shrieks up the sidewalk, the milk she had ducked out to buy a splash of white on the paving behind her. She blubbers gratitude and smothers babe and rescuer alike with kisses. Stacey does not know her name, but she smiles and says it is nothing. The infant stares alternately at mother and neighbor, as if suddenly realizing that something has happened. Its eyes are a deep brown and seem far too large for its head.

Then the baby is taken up by professionals with oxygen masks and other accouterments of care. Stacey too is given aid. Smoke inhalation, burns, who knows what injuries she may have sustained? The oxygen is cool and pure and she sucks it in gratefully.

Around the firemen and EMTs and flashing lights and garbled voices, circle the vultures, aching to fill the 24/7 news-void, thrusting microphones in her face like . . . No wonder they are called news organs! They bark unanswerable questions. *Why'd ya do it?* She cannot enlighten them. *How'dya not get burned?* Just lucky, I guess. *How's it feel to save a life?* A century from now no one will know this baby ever lived, let alone that it lived a little longer.

But no, we don't say such things. It is too startling and interrupts the smooth glide of thought as it skips from cliché to cliché like a stone across a pond. Experience has taught her that it is better to pass unnoticed, and naked truth is the pornography of discourse. It always draws more attention than the decently costumed kind. So she pronounces the expected platitudes instead and nestles invisibly within the journalistic paradigm. Almost, the story can write itself.

She turns half-away from the cameras, enough to shadow her features but not so much as to excite curiosity. She has spent many years learning the arts of obscurity, and care has become a second nature. Come across as mysterious or evasive and the organs would push in deeper. But present oneself *too* openly and some geezer might recognize her on the tube from some older milieu.

Further down the street, within the fire line, a dark woman with cropped, platinum-white hair and wearing an ID on a chain around her neck scans the crowd. There is a fire marshal by her side, and Stacey guesses that someone suspecting arson has brought in a profiler to spot the firebug among the gawping onlookers.

Though if anyone had set the fire, Stacey thinks, it would have been the owner. The building hangs like an albatross around his neck. Gentrification is creeping up the West Village on little cat feet, and the site is worth more sold to developers than rented to residents.

The platinum-haired woman locks gazes with her for a moment, and Stacey recalls that some people set fires in order to play the hero. She wonders if she is being profiled.

If so, she must not have fit, because the woman turns aside, and both she and the marshal move on to another part of the crowd.

The news organs will vie for some fresh angle on the story. Seeking a human-interest hook, someone will thrust into the Heroine's past and discover that she has none. It is time to move on. She has already lost her possessions in the fire; discarding the rest of "Stacey Papandreou" wants little more.

She can get clothing at a nearby discount shop, perhaps on charity, and rinse the soot from her face in their washroom. She has jewels cached in various places. Making herself presentable, she can convert the cache to cash, and sink back into the anonymous masses.

But as she turns away, an iron hand seizes her wrist, and she gasps and looks up into the intense, troubled face of a Chinaman. She draws a breath to shout for help, but the man says, "I know you," as if making an accusation.

And Stacey forebears to shout, for shouting would attract attention, would draw eyes toward her at just that moment when she would fade quietly away.

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The bubble of fame expands slowly, obeying an inverse square law. Out toward the edge of

the crowd, newcomers crowd up behind those who have arrived earlier, leaping a-toe, craning necks, hoping to catch a glimpse of tragedy. No one recognizes her as “the Heroine” or even knows as yet that there has been one. But, barefooted and nightgowned, Stacey is clearly a Victim, and people tug at her sleeves and ask her what has happened, appealing to the special *gnosis* with which Victims are endowed.

The man pushes through them, saying, “She must be attended.” He has a long coat slung over his arm with a pair of sandals tucked into its pockets. Once they reach the other side of the street, he pauses while she puts them on. He says something to her in what she takes to be Chinese, though he does not sound much like Mr. Lu at the takeout. She has a hazy recollection that she had seen him, a long time ago: His face flashes through her mind, quaffing wine across a rude wooden table. There is more, but the memory is a dry, brittle leaf in an autumn forest.

He guides her uptown rather than down, and that is all the same to Stacey. There is no particular place she needs to go to just yet, so one direction pleases as well as another. He strides with determination, now and then snapping something to her in Chinese. When Stacey fails to answer, the grim set of his mouth deepens.

They duck around the corner to Little West Twelfth, and then under the High Line to a block where enough meat-packers hang on to justify the neighborhood’s name. One of the buildings is abandoned, and he urges her toward it through a gap in the chain link fence that halfheartedly encloses it.

Stacey grows hesitant. Among the reasons a man might have for leading a woman into an abandoned building, few inspire great confidence. Granted, he has rescued her from the curious crowds, but Stacey begins to wonder how he had known to bring a coat and sandals.

Her knives have been left behind in the burning apartment, but she knows various forms of unarmed combat, and most common objects can be used as weapons by the keenly imaginative. A woman alone must learn such things. But Stacey also knows the limitations of such methods for one with a woman’s frame. A woman may equal a man in combat only so long as she remains beyond arm’s reach. One time, when she had worked as a spy in . . .

It comes upon her in a flash, as if the wind has scoured the dead clouds from an overcast sky. . . . In Constantinople. She had met this man in the City by the Golden Horn. She had been using the name “Macedonia” then and had been a dancer for the Blues. But covertly, she had also worked for the emperor’s nephew, who had been *magister militum*. She had passed along treasonous pillow-talk and brought persons of interest—especially foreigners—to the magistrate’s attention.

Yes! She had met this man in the *kapelèion* of Nicholas of Urfa, near the palace district. He had been staying in the *pandocheia* that Nicholas kept for foreigners, and he had entered the tavern with the actress Theodora on his arm and a plate of meat for Nicholas to cook. “Macedonia” had been entertaining a Syrian merchant she suspected of harboring Persian sympathies, and Theodora had brought this stranger to join them.

She had known Theodora professionally and had been casting about for a way to recruit her into the magistrate’s service. This *kinézo* afforded a perfect pretext, since the *kyrie* was eager to establish silk culture in the Empire.

That had been fifteen hundred years ago—and yet that selfsame man stands now grim-faced beside her.

Realization is sunlight in her mind. Tears start down her cheeks. For a long time she has believed herself condemned to live alone in a world of shadows. But now she knows there is at least one other immortal on the planet.

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There is a wild fig tree at Echo Caves, near Ohrigstad in the eastern Transvaal, whose taproot in its insatiable thirst drives four hundred feet down into the sunbaked soil. Stacey Papandreou, by whatever name she has called herself over the centuries, has driven habits of thought so deeply into her psyche that she is unaware of them. A terrifying amount of her life is lived by habit.

In all those years the lives of others have drifted by her like smoke. She has bedded husbands,

she has borne children, whose very names now she no longer recalls. No one else is quite real to her.

Now, when she most yearns to open the gates of her heart to someone she believes is, like her, actually *alive*, she finds the hinges are rusted shut. She has been too careful for too long. Only with effort can she squeak them open.

Which, as it turns out, is a good thing.

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Stacey thinks Nagkmur's time machine is an old supervisor's office left over from when the plant was operational. Beside it lies a pair of down sleeping bags, a Coleman stove, curule folding chairs and other camping accouterments, and a portable table, and she supposes Nagkmur has been squatting in the ruins. The table holds a computer of unfamiliar style whose keys and toggles bear strange symbols. They are not Chinese. Stacey tries to peek inside the shed, but none of the equipment is recognizable.

Nagkmur shoos her away and sits her by the table, where he questions her closely. When he gets no joy using Chinese, he switches to a stilted and formal English, but even so his questions make no more sense. He agrees that they met in Constantinople, but they have difficulty fixing the year. He claims it was in the Year of the World 3220, but that was long before Constantinople was even built!

As for Stacey, a few dates are seared into her memory, and she has only to subtract nine from one of those to secure the answer: The Year of the World 5604. At the time, the Empire was shifting from using the Diocletian Era to using the Age of the World, but Stacey does not recall offhand how either epoch converts to the Years of the Lord.

"Impossible," says Nagkmur. "Year of World 5604 many centuries hence. We meet many centuries *past*. My mission to collect data on backwater nexus for Grand Analects."

Backwater nexus? Although not native to the City, Stacey takes offense in her name. Plenty had happened there. Art, literature, science, and philosophy had flourished, although she granted that none of it had affected China, and the bulk had been lost in the Great Sack.

After considerable debate and access to the Internet, they decide that they had met in AD 522 by the common measure.

"Whatever change world," the man says, "happen *after* then but *before* now."

Stacey agrees that the world has indeed changed since the sixth century. Sages from Heraclitus onward have declared change the one constant in the world. It does not occur to her that Nagkmur means something different.

"When you leave City," he demands, "where you go?"

"Venice," she says, which she does remember. The city in the lagoon was relatively new at the time, crammed with refugees from the Lombards, redolent with the smells of shabby huts, fresh-cut lumber, dank marshland. But the exarchate of which it was part was still a solid outpost of *romanitas* and travel there was still safe.

"No," the patrolman snaps. "What *year* you go?"

But she does not remember the year. She does not even remember the exarch's name.

Nagkmur grows agitated. "When you see world is different?" His voice grows shrill.

But the world is always different. The Capernaum of her childhood, Alexandria, the City, Venice, Noyes, London, all the innumerable times and places where she has lived, each milieu had differed in countless ways. She tries to explain this to Nagkmur, who of all men should need no explanation, but he only grows more irritable and accuses her of evasion.

He wags a finger at her. "I think *you* change history. Not survivor; instigator. You bear responsibility for billions not be." There is something in him of an unspeakable sorrow. His anger is edged with tears.

But Stacey does not see how she could have changed anything. She has lived quietly whenever she could, and the great events of the world have generally passed beyond her ken. In only a handful of epochs has she even known anyone important.

Though Constantinople in the early 5600s had been one of them.

* * *

Stacey wonders if the long centuries have driven Nagkmur mad. She had herself nearly foundered in those shallows when, in the desolation that *Syria Palæstina* had become, too many identities in too many years had jostled in her mind. She had lost cohesion, lost continuity. There had been times when she had not even known who she was. A holy woman, Mary of Egypt, had helped her cast out those demons and gradually she had learned to shelve her memories, place them in jars, in time to let them go. Perhaps Nagkmur had never mastered that skill and, like other sorts of hoarders, had smothered under his jackstrawed recollections.

An eternal life shared with another grows less attractive if the other is off his nut. She tells him she needs more presentable clothing than a robe and sandals. He scowls and bids her wait while he fetches something. She plans to run for it once he has gone.

But he steps into his cubicle and there is a blink and a rush of air and he steps out almost immediately, with clothes draped over his arm. She had once owned slacks and blouse exactly like those he hands her, though she had thought them lost by the dry cleaner a year ago. She wonders if this mad immortal has been stalking her, learning her tastes, her sizes. She recoils from the thought. She has spent lifetimes avoiding notice.

Yet, she must not be too hasty. Perhaps she can help him as Mary had once helped her.

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Nagkmur finds a chronology on the Internet and searches out a year halfway between the present and their encounter in sixth century Constantinople. The quickest way to identify when things went awry, he tells her, is to work by halves. If AD 1300 is undisturbed, the change came later; otherwise, earlier.

At first, Nagkmur is encouraged. "Middle Kingdom apparently unperturbed," he mutters. But as he continues reading, he grows upset. "Yet Occident much different. Too much technology. Too soon. Where Paris Caliph?"

Where indeed? Apparently, this means that "divergence" had already happened, so Nagkmur halves again and dips into the tenth century where he is astonished to discover that the Roman Empire, beleaguered but unbroken, has not fallen either to the Arab conquest or to the earlier Avar sack.

"Unbelievable!" He turns to her in bewilderment. "How this change anything? Nothing important happen in Occident."

None of this makes sense to Stacey. She had lived through it, but it was all a jumble in her memory pile. It was hard to remember what happened in which century; but she was damned sure the Avars never sacked the City. There had been a bad time once when the nomads ran the Slavs into Hellas—Greece was never quite the same country afterward—but the Avars had squatted helplessly before the Land Walls while the Fleet held off the Arab ships with Greek Fire.

Stacey is a native of the Syrian provinces, but she had lived in the City for a very long time and feels a certain pride. "The City never fell," she told the patrolman. "Not until the Franks came." But she had been in Paris by then, another city that became great in its time. Technically, she had been a Frank herself.

Nagkmur spins about in his chair and cries, "You! You are saboteur! What you do? Why?"

The anger in his visage is alloyed with grief beyond measure, and Stacey very nearly reaches out to comfort him. "No," she tells him. "I only lived my life, tried to survive, tried to escape notice."

"City in chaos after . . ." He checks his own database. ". . . after emperor flee. Riots in street. 'Nika! Nika! Nika! No one ever repair. Later, faction opens gates to revenge on other faction."

"No." Stacey shakes her head in bewilderment. "The emperor quashed the factions. General Belisarius slaughtered them in the Hippodrome." A horrid, frightening time that had been, and "Macedonia" knew only what rumors had drifted with the smoke and fleeing men.

Nagkmur's eyes widened. "He *not* flee? Emperor not flee City?"

Stacey shook her head. "He started to. But the story was that his empress talked him out of it. 'Purple makes a splendid shroud,' she said."

"What empress? This . . ." Another check. ". . . *Yǎshì dīngní* not marry. Wait! Old emperor's

nephew. I meet him!"

"You mean Justinian. Yes, I sent you to him. He was Justin's Master of Soldiers and ran the spy service. He succeeded his uncle a few years after you left." Stacey thinks about that a bit, then remembers. "That's right . . . He married Theodora the actress."

"Actress? Emperor marry *prostitute*?"

"Strange as it seems, it was true love. You must remember Theodora. You patronized her while you stayed in the City."

"*That* woman?" He said this as if surprised to discover that she had a name. "But prince wants only to enter her jade gates!"

"Maybe at first—and she had some damn fine gates—but they fell in love after."

"But I bring her with me when meet this Justinian. *I introduce them*. If this woman give Justinian courage, then it was *I* who . . ." He chokes and cannot finish the sentence. "Billions," he whispers. "It was I?" He looks up and into Stacey's face.

"Whoever think *woman* have such effect?"

Stacey cannot help but laugh in the face of his overwhelming grief.

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Orphans of Space

III. Lt. Col. Bruno Zendahl, USAF

There is a reception held annually at the Apkallu League near Rittenhouse Square in Philadelphia at which the "Scions of Apkal" drink toasts to a home they have never known. *Never forget* is the league's motto, and a common valediction among its membership, but operationally, in the face of the ordinary burdens of daily life, it is little more than a formality. It is more important not to forget the groceries you were to pick up on the way home.

The league is a handsome building, done up in the manner of the late nineteenth century, with Egyptian columns and a grand staircase on its façade. The brass medallions adorning its doors feature on the left an aquiline profile, said to represent the Apkallu Indians, and on the right door a fish, said to represent wisdom. The interior is decked with rich draperies and padded furniture. It is a very Philadelphia kind of building: snug and comfortable in a way that Boston and New York never quite manage. Engravings on the walls portray the usual Philadelphia themes of independence, fox hunting, and cricket. Club room conversations center on the exigencies of work, the dismal prospects of the Eagles, and the intransigence of the younger generation. Fraternal organizations having long-since evolved into philanthropic ones, the league also sponsors medical research into birth defects at Einstein Medical Center.

Only on Landing Day do the Scions bring out certain accouterments otherwise kept in a storeroom in the subbasement, hang decorations that might strike nonmembers as a bit outré, and recite formulas in a language little-heard in the America of the third millennium. But that is only once a year to celebrate their ancestors' arrival in the New World, and what club does not have its quaint rituals?

There is a reason for everything, and Lt. Col. Bruno Zendahl's reason for stopping over at the league is that he is travelling from Cheyenne Mountain to the Pentagon, and it is customary for Scions of Apkallu to touch base at a lodge on such trips. He has called from the airport to confirm reservations for dinner and a room for the night. The restaurant is open to such of the public as can afford private dining in Rittenhouse clubs; but the rooms are members-only. He hands his travel bag, headgear, and overcoat to Robert, the concierge, and is striding with great anticipation toward the dining room, when Juliet Endicott, the lodge-keeper intercepts him in the Grand Hallway and hits him with a hammer.

Metaphorically speaking. "They're waiting for you down below," she whispers and waves him toward the private elevator in the rear of the building.

The implied summons startles the colonel. "My dinner . . . ?" he suggests.

"I'll have Guiscard send something. Anything in particular?"

In other words, immediately. He sighs. "I was looking forward to his Pork Chop *Elena*."

Endicott uses her elevator passkey to activate access to the lower levels and makes sure he knows the way to the council room. She gives him a brass key of the old style and assures him

that his dinner will be delivered. Then the doors enclose him.

Zendahl brushes the sleeves on his uniform jacket. He can think of nothing in the public news, nor even in the private news of which he is cognizant, that might merit a summons. Maybe they only want him to plan the annual banquet, but he does not think so.

He exits the elevator onto a dimly lit, never-completed subway platform for the Southwest Spur. This was intended to link Thirtieth Street Station to the Broad Street line at Lombard-South, shaking hands along the way with the terminus for the old Locust Street subway. (There was once to have been a Loop, like Chicago's, but only Locust Street and Ridge Avenue were ever built.) He faces what would have been the northbound track, where a faded sign reading *Rittenhouse* dangles from overhead beams. The southbound platform was never built, so only barren stone looms in the shadows on the farther side. The tunnel dips into darkness at both ends of the station and somewhere in the black depths water plunks into a pool. Everything smells dank and sounds hollow.

Zendahl follows the platform to a door labeled "Authorized Personnel Only" and uses the brass key to enter. Inside, a young woman sits behind a desk reading a magazine. She looks up and nods to him. "Colonel Zendahl? May I see your identification?"

The skin on her face and arms is covered with fine iridescent scales and her head reminds one irresistibly of hawks, as if she had been pressed like putty into a mold for raptors. Her eyes seem too large for her head. Zendahl smiles politely when they touch hands in the exchange of ID cards. Her scales are dry and smooth. Most Apkallu are indistinguishable in appearance from the aborigines, but even after ten thousand years of genetic engineering, the co-opted genes sometimes revert and hint at the ancestral body-plan.

Zendahl knows he should feel pity for the Reverts, condemned as they are by a roll of the genetic dice to a life shut away from public view; but he finds them discomfiting parodies of the human form, and he knows they dislike being pitied. A drawback to fitting in is that after a thousand generations it is easy to forget what his ancestors had once had been. In a hyphenated world, Zendahl and the receptionist are alien-Americans. Like everyone else in America, their ancestors had come from somewhere far away; only in their case from a little bit farther.

"Ever have trouble with urban explorers finding their way into the tunnel?" He asks not from any particular curiosity, but to show he is not prejudiced against Reverts.

The door warden makes an entry in her computer. "Once or twice," she answers absently. "Usually from the Locust Street tunnel. We handle it."

He does not ask her how they handle it. She touches something under her desk, and there is a click in the inner door. He pulls it open and strides down a long hall at the end of which is situated the council room. There, he finds five Apkallu waiting around the high table and two others, fully human in appearance, at a second table set up with computers.

Two of the five Apkallu at the council table are Reverts, and another, the president, is a Purebred. None of his ancestors had ever been genetically altered and, like anything pure, his kind have become progressively more rare. Paradoxically, Zendahl finds Purebreds less distasteful than Reverts. They seem less chimerical, less a botched human form. There are Purebreds portrayed on Egyptian tomb paintings and spoken of in Sumerian legends. The president's head looks like nothing familiar, though forced to choose, Zendahl would have said "dog-like." His scales sparkle in the room's sun-spectrum lighting. He gestures. "Please join us, Boranu Wana-ducka."

Zendahl seldom uses his Apkallu name outside formal lodge meetings, so he loses a moment in responding. "Thank you, Opagku," he says, employing the president's formal title. He has never taken lodge entirely seriously. The Landing was too long ago. Even the Algonquians had called the Apkallu "the grandfather people."

A Revert with a hawk-like head says without preamble, "We have an oddity reported from our lodge in Chicago. A tabloid report of a monster." Zendahl raises a skeptical eyebrow and says, "Was one of . . . us spotted?" He had almost said "one of you." Genetically modified Apkallu like himself would not excite the term "monsters." Save for the occasional puzzling autopsy, they live unremarked among the aborigines.

The council president waves a hand at the computer screen, where the front page of *Tru Facts* presents a grainy image of a giant black spider. Photoshopped faces in the lower right scream in terror. The headline proclaims DEMON FROM HELL?

Zendahl thinks the question mark is a nice touch of journalistic skepticism.

“The layout is a bit crude,” he comments, but he does not suppose the council wants his opinion on photocomposition. Absent-mindedly, he brushes the two occupation badges pinned above his ribbons—cyberspace and space operations.

“It’s a headwalker,” the Opagku says in *apkallin*.

Zendahl has no patience with ritual language and answers in English. “The bogeymen from the stories we learned in Apkallu School? Those are allegories.”

The Opagku snorts, and the bony structure of his face is such that the sound is more like a honk. The other humanofoms glance at Zendahl but say nothing. Purebreds spend their time contemplating and commenting on the ancient records. “Our ancestors,” the Opagku states, “thought those stories worth passing down. There must have been a core of truth to them. The headwalkers drove our people off the home world, and the Six Ships and One sought refuge here on New Apkal, where we have lived in comfortable obscurity. Now our ancient enemy has followed us to our haven.” The president places both his talon-like hands on the council table and leans forward, his scaly skin iridescent in the sunlamps. “Earth,” he declares, “is being invaded by aliens from outer space.”

* * *

Colonel Zendahl must report at the Pentagon on Monday morning, and so (as the council points out) there is not a moment to lose. Then they leave him and the other two cybertechs to their devices and depart. It does not occur to the council that they might decline the assignment.

The cybertechs are named Jessica and Louis, and like Zendahl, they have been co-opted by the council for the weekend. Both are local. Neither is a Wanaducka, their ancestors having disembarked, legend says, from different ships. They agree, not without a certain aspect of relief, that the colonel should take charge.

The first task is to make certain that the photograph is genuine. If the answer is no, the evening will be a short one. But in case it is yes, Zendahl assigns Louis to research the ancient headwalkers in the league databases. Since the picture allegedly comes from a warehouse surveillance camera, Zendahl uses his official muscle to secure a copy from the Chicago police.

The police, as a few phone calls establish, have been investigating a break-in and theft at the warehouse. They like the man who had fled the loading dock for this and believe he released a weather balloon as a distraction. (“Like them airbags they got in cars. Inflates in an instant.”) How the man obtained the balloon and where it has gone to is not their immediate concern. Zendahl plays the game and confides that NASA scientists at Goddard are trying to recover a stolen aerostat used in climate monitoring. But that is not for public disclosure. Jessica and Louis marvel at the facility with which he fabricates the story, but it is not as if he has had no practice in disinformation.

Within the hour, the video downloads to his Air Force account, and he and Jessica set about studying the images. They carefully assess the metadata and soon determine that, whether of headwalker or weather balloon, the image itself is the true quill. A flurry of “snow” fuzzes the scene, the headwalker appears in one of the loading bays, and sprints off stage-left across the truck apron, at which point the entire image is lost to interference.

They watch the sequence multiple times, scrub and enhance the images. Zendahl sheds his coat and loosens his tie. It will be a long night after all. He decides he will lean on the league to supply him with private transportation to DC late Sunday. An hour later, the lodgekeeper arrives with a plate of Pork Chop *Elena* for him and similar meals for his two companions. They take a working break.

“Definitely a headwalker,” Louis allows. “But not the same kind that drove our ancestors from Old Apkal.”

“And you know this, how?” Zendahl asks.

“Different anatomy. The legs are longer and thinner and they grow from the bottom of the headball. Our forbearers depicted the Ancient Enemy with thick legs attached to a muscle mass with the headball dangling below.”

“No one’s ever seen a headwalker,” Jessica comments. “So how does anyone know what it looks like?”

Louis shrugs. “There are images in the Archives from back in the day. The documents have been migrated from older media, and the traceability pans out. Our ancestors went to a lot of effort to preserve this information when so much else was lost. The good news is the Ancient Enemy didn’t follow us here.”

Zendahl looks at him. “What’s the bad news?”

Another shrug. “It’s still a headwalker.”

“Weird coincidence,” says Jessica. “One kind drives us off the home-world; then a second kind, from somewhere else, shows up here.”

“Not too weird.” Louis taps a file open on his screen. “The ancient scholar Sunillilam proved topologically that there could be no more than seven basic body plans for intelligent beings.”

“I never heard that,” says Zendahl.

“It’s not exactly priority knowledge. Until now. So if an alien shows up here at all, there’s one chance in seven it’ll be a headwalker.”

Zendahl doesn’t correct Louis’ arithmetic. “Only seven.”

“Well, there’s lots of variation within each basic type. Humans and Apkallu are both vertical four-limbed bilaterians—which is why the genetic engineering worked—and this critter and the Ancient Enemy are both . . .”

“. . . headwalkers. Okay.”

“Why haven’t the Chi-Po noticed this?” asks Jessica.

Zendahl looks at her. “Shy-po?”

“Chicago police. Why do they insist it’s a weather balloon?”

“We got better photoanalysis equipment?” Louis says.

The colonel shakes his head. “Not that much better. Silk purse and sow’s ears. You can only squeeze so much info from low-res security cameras. But the mind is a wonderful thing. We see what we’re mentally prepared to see. That’s why eyewitness accounts and satellite photo interpretations are so tricky.” He ponders the matter some and decides that someone—the “Chi-Po,” the FBI—will eventually take a closer look. “It’s harder to change a mind than to form it in the first place. New data gets filtered through that first impression, just like through a consensus scientific theory. Ninety percent of the time, that keeps you from going off the deep end. The rest of the time, it keeps you from seeing the bleeding obvious. Next question: What’s a headwalker doing on Earth?”

“Exploring?” suggests Jessica.

“Scouting for an invasion fleet?” Louis proposes. “Don’t headwalkers in general send out colony pods now and then? Geez, I haven’t thought about those old stories since I was a kid. I always thought they were folk tales.”

“Colonizing?”

“There’s only one of them.”

“We’ve only *seen* one of them.”

Zendahl studies the video again while he finishes his chop. Guiscard is a superb chef, and the chop deserves more attention than he can give it. He promises himself a more leisurely meal on his return trip. Pointing to a corner of the screen, he tells Jessica, “Focus in on that. I want to see what the headwalker broke cover to chase.” He clears the plates and places them to the side of the table. Ancient enemy or not, the creature’s presence on Earth is troubling, and he wonders how he can bring it to the attention of Space Command without destroying his own credibility. Spring an alien invasion on NORAD without proper groundwork, and they’ll decide it’s a hoax and Zendahl is either a hoaxer or a fool, neither of which would do his career much good, even if he were proven right in the end. Especially if he were proven right in the end.

Jessica zooms and cleans the image, heightens the contrast. “It’s an arm,” she decides, draw-

ing Zendahl back to the screen. “There appears to be a body lying on the paving stones.”

“Dead?”

“Not moving. And, Bruno? It was there before the headwalker showed itself.”

“A drunk.”

“Maybe.”

“I been wondering why the alien popped up like that,” Louis says. “You’d think it’d want to keep things on the D/L.”

“I don’t know,” says Jessica. “The headwalkers in the old stories weren’t famous for being shrinking violets.”

“Check for other surveillance in the area,” Zendahl said. “Try the other warehouses. If there was a drunk, there’s probably a bar, too.”

“I thought of a reason it broke cover,” says Louis. “It was hungry.” Zendahl and Jessica look at him and he shrugs. “It’s a reason.”

They watch the video to its end, when the image begins to break up. When it settles down once more, the alien is gone, but the arm still lies there.

“Well,” says Louis with a certain amount of cheer, “that’s a relief.”

* * *

It takes a few hours to identify nearby establishments and requisition copies of their surveillance videos. The Chicago police have been doing the same thing, trying to pin down their fleeing suspect, and Zendahl senses a growing curiosity on their part regarding the apparent interest of the Air Force in a petty burglary. He sticks to the story about a missing NASA aerostat but drops a hint that it might be a secret military operation and questions would be unwelcome.

“A deception within a deception,” says Louis. “I’m impressed.”

“Just hope I don’t trip over the tangle.” He calls Annie Troy at the Pentagon. She’s a civilian contractor in CYBERCOM and can set up a spoof in case anyone tries to check with Goddard. Everyone is home for the weekend, but he leaves a message on her phone. He also asks her to check for any unusual activity in orbit over the past several days.

“Headwalker had to come from somewhere,” he tells the others after he closes the call.

* * *

Or did it? When the additional surveillance videos finally download, Zendahl and his two partners split them up and comb through them. Nowhere do they find a record of the headwalker’s arrival at the warehouse. It might have been born there for all they can determine. And when it passes from the scene, it is not to any place covered by other cameras. The Land of the Free is still not entirely monitored. But Zendahl notices something curious on one of the files.

In the video from an after-hours bar diagonal from the warehouse, a small drama plays out in which a tall Chinese man takes on and defeats three gangbangers who are trying to steal his car. Zendahl finds this affair curiously refreshing, but the sequel is mystifying.

The man’s car is largely off-screen. Only a portion of what Zendahl takes to be its left front fender can be glimpsed. Once the man leaves the frame (and presumably hops in his car), the static commences—and the headwalker comes a-running. But the static seems to originate with the vehicle itself because there is a moment when only the fender is breaking up and the rest of the scene is still clear.

The static is a common cause affecting all the cameras in the area. *It originated in the car*, Zendahl thinks. *That’s what the headwalker wanted*. Either the driver or the car itself or some component of it. He shakes his head. *Maybe the damn thing’s running a chop shop*.

The council will want further investigations. Zendahl can see this as clearly as a man falling from the penthouse can, during his plummet, see the sidewalk below. But for all that he might insist “so far, so good,” the prospect is not entirely encouraging. These inquiries can go south on him in so many ways, destroy his career, ruin his family. It may even unmask the league. Given the record of the aborigines regarding minorities in their midst, Col. Zendahl can imagine no happy outcome from that.

* * *

Consider now a headwalker, outnumbered at six billion to one and feeling in consequence more than a little insecure.

Alien life, we are told, would be so unlike human life as to defy understanding. Indeed, they may possess senses, organs, and appetites unknown to us. What lusts do bats endure that compel their squeals? Does it pleasure them to receive the echo? If human minds cannot grasp the hankering of bats, what chance is there for a meeting of whatever serves for minds with headwalkers?

And yet, all things pursue the good insofar as they know the good, and that is whatever preserves and completes their nature. For inanimate bodies, this preservation is called “inertia;” for animate bodies, it is called “life.” The struggle to maintain existence that Darwin saw in living kinds is only a higher form of the struggle of a boulder to remain stubbornly in place.

Which is to say that while the finer points of headwalker philosophy may forever elude our ken, the basics can be grasped. The headwalker is desperately trying to repair a crippled scout ship with what amounts to wattles and twigs filched from unwary natives. We can understand if a certain anxiety grips him, no matter how outré his body and eccentric its appetites.

Said body is a prolate spheroid supported on five legs. Its remotest ancestors were radially symmetric, somewhat like starfish, though they were not starfish. It has evolved to walk upright on its arms and, through a fortuitous doubling of genes, alternated these with smaller manipulating appendages. All organs needful for a happy life are gathered into the spheroid that gives it its name. It is more nonchalant about ionizing radiation than humans or Apkallu, but works with dread around electrical fluids. It wears clothing—he’s an alien, not a savage—and like a human pulls his pants on one leg at a time. It just takes a little longer.

We will call it “Jim-7” and this for two reasons. First, the central lower tone of the creature’s name-chord does sound a bit like “jim” while none of the rest of it sounds much like anything at all, even the parts within the normal range of human hearing. (Its speech resembles a concertina scolding a set of bagpipes.) And, second, since “Jim” does not sound much like a creature from outer space, the addition of a “-7” lends it a properly alien aspect. It beats a long gargle of random consonants.

If what the creature calls itself is hard to say, whether it calls itself he, she, or it is even harder, as there are circumstances under which it might be each, all, or none, and it trades them off as needful. There are more pronouns in heaven and Earth than are dreamt of in our philology.

But Jim’s plight is no laughing matter, and this again for two reasons. First, no life struggling on the lip of the Great Abyss is cause for mirth. If Jim fails, one more candle in a cold, dark Universe is blown out.

Dogs feel emotions, and reptiles, and even crummy little cockroaches as they scurry terrified from the menacing light. Hence, Jim-7, drifting in her malfunctioning vessel far off the lines of advance of her Nest, feels something very much like what any human would feel when staring Death in its stinking face.

She casts about for something, for anything, to pin her hopes upon, and so discerns the electronic umbra from the third planet. The enzymes that course through her are not the same as ours, and strictly speaking they are not even enzymes, but what she feels is a joy as buoyant as any human if, adrift upon the trackless ocean, she glimpses a flotation device bobbing nearby.

Electronic emissions mean that the planet produces materials that might be adapted to the necessary repairs. A snowball’s chance in hell may not be much; but it is enormously greater than no chance at all. And so it nests in orbit and sets about obtaining the required components. This is not as easy as it sounds. It cannot simply walk into Fry’s and purchase them. Several difficulties to this course immediately suggest themselves.

It is alone and afraid on a world full of strange beings who, it suspects, would react poorly to a shiny, two-meter tall pentapede in their midst. And so it beams down at small hours to deserted places, seeking out storehouses of electronic components. The task is anything but straightforward. What does an alien warehouse look like? But eventually, it discovers such a repository, notes the sigils that identify it, and pilfers a representative sample of doohickeys.

After that, the tedium of testing begins. It must discover what each doohickey is, and deter-

mine its rating. You can't really expect headwalker resistors or capacitors to look like ours, or to be graduated in ohms and farads. Form follows function, but at a respectable distance, and Jim's people long ago standardized on different shapes and scales. Fortunately, he is the ship's engineer, accustomed to cut-and-try.

There is time for this. It has renewable air and drink. And food is plentiful, since its two crewmates perished in the malfunction. It has eaten part of one of them (the navigator) and has been using the pilot for occasional sexual relief. (It's an alien, remember; and who are we to judge?)

Her second joy—and the second reason why her peril is no laughing matter—is that the planet is almost ideally proportioned to support her kind. All the place needs is a good scrubbing. The atmosphere wants a boost in its chlorine content—that usually sanitizes quite nicely—and a little less free water vapor. Her people have nested upon worlds far more inhospitable.

So while Jim's failure to escape from Earth would be the tragic loss of a life unique, her success would be no great shakes, either. Fortunately—or not, depending on one's point of view—it has other things on its mind at present.

Performing a bit of mental triage, Jim occupies itself with identifying and modifying the components necessary for what it can fix. It has not yet identified local gizmos adaptable to the temporal precessor but owns a touching faith that “something will turn up.” Alien is as alien does, but no creature is so alien as to neglect its own survival.

In line with this objective, she does not simply loot a single site lest it draw unwanted attention. Although she regards the autochthons individually as of no account, there are a considerable number of them, and it would be best not to startle them. She uses pattern recognition to identify additional repositories along her vehicle's ground track. Her plan is to filch a little bit here and a little bit there, as she reaches the point in the repair plan that needs the components on her pick list and thus, as we might say, “fly under the radar.” It was a good plan and should have worked.

* * *

But while looting the fourth such locale, Jim is struck by a hammer. His instruments register aetherial gyroscopes spinning nearby. A precessor *on a planetary surface?* Has a rescue ship come seeking her, only to crash? She cries *hallelujah* (or its equivalent) and rushes outside, heedless of concealment.

His vision is radial, so there is no need to look around wildly. Instruments identify the source as a small, boxy vehicle nesting in the shadows across the way, and he sprints toward it. The vessel is unfamiliar and too small even for a shuttlecraft. He thinks he can kill its pilot and take the precessor.

But the boxy thing vanishes, leaving Jim the headwalker equivalent of gobsmacked. Beamed objects *fade* and, more to the point, *there is no instrumental trace of a transport beam.*

Alarms draw near, and he beams back to his scout ship, where he gets drunk (in his own peculiar way), diddles the dead pilot (again, in his own peculiar way), and worries for several days that he is going mad.

* * *

But you can't keep a good headwalker down. Jim is very good at compartmentalizing and loses himself for several cycles in the minutiae of adapting his latest haul to the repair of the spin stabilizer control circuit. The ship reeks for a time of tangy fumes and flashes with bright actinic flickers. This is its milieu; this is when it feels most fully itself. He tries to forget about the vanishing box.

“Fool,” says the corpse of the pilot when he embraces it afterward, and Jim cocks his legs up in shame. The pilot is right. When exigent circumstances call for it, a man does not lose himself, even in his primary task.

“Should I seek out the source of the temporal distortion?” he asks the pilot and hugs it in that special way.

“Sure,” the pilot replies.

Now, Jim knows that he is only hearing waste gasses squeezed out through the reeds of the corpse's voice box and that he interprets the resultant chords as words. The carcass doesn't re-

ally speak. His people are alien, but not *that* alien. Dead is dead. The custom of “inquiring of the dead” has been embedded in her culture a very long time but, deep down, she knows that asking the pilot for advice is like consulting a Magic 8-Ball.

Still, it is good advice. So once Jim has finished the repairs at hand, he turns his attention to the time warp. A search of on-board records reveals two briefer whorls earlier in that same cycle spatially centered in the much larger nest on the spinward margin of the landmass. This disturbs him, as he had been planning to loot a warehouse in the outer reaches of that same nest, and she has the sudden suspicion that whatever is making these footprints in the space-time manifold is stalking her, anticipating her moves. There is some sinister force at work. She crosses two limbs as if suddenly chilled, remaining upright on the tripod of the other three. Something is hunting her!

True that! There are three parties on her trail, though ironically the party making the whorls is not one of them. Nagkmur is sweetly oblivious that Jim is on *his* trail. One is the Chi-Po (who have no notion of their quarry) and another is the Apkallu (who do).

As for the third . . . Because the sigils Jim has used to identify the repositories include the company logo, he has been pilfering unwittingly from the same corporation. He might as well have staged a big heist from one place and gotten it over with, for the owners have hired a top-notch private investigator to work the case.

Quite enough pursuit to unnerve her did she know of them.

* * *

Orphans of the Mind

V. Annie Troy

Consider now the worker bee wending her way into the Pentagon from the upper platform of its eponymous Metro station. She is a civilian contractor “on loan” to U.S. Cyber Command. She splits her time between Ft. Meade and the Pentagon and so has been installed like Buridan’s Ass halfway between, in a College Park apartment near the University, whence she may take the train in either direction.

She walks with purpose, eyes straight ahead, no nonsense. She does not actually bump into anyone on the crowded platform or on the escalator to the security center, but swims like a fish among fish, maintaining her distance. A few in the morning stream send greetings her way, and she answers their hails, but for the most part she is alone in the crowd.

She seldom smiles—it is too much of an effort—and when she does, it is a slight, wan upturn of the lips. You would have to look twice to be sure it was there, and it is seldom there long enough to be caught by that second look. “A cold fish,” some have called her, which is both unjust and true. Considering her upbringing, it is a wonder she can smile at all; yet, there *is* something fishy about her.

No, she does not have scales. She has never heard of the Apkallu League, let alone of its singular membership requirement; but sometimes she does have a hard time stringing facts together, which is an odd deficiency for one with her background. She has been taught logic so thoroughly that it is literally a part of her, and yet facts can play pranks when they join hands.

Socrates is a man.

Man is mortal.

Therefore, Socrates is mortal.

True premises; valid syllogism. There is no escaping the conclusion. But . . .

Grass is green.

Green is an electromagnetic wave.

Therefore, grass is an electromagnetic wave.

True premises; valid syllogism. And yet the conclusion is face-palm false.

The paradox had bothered her, and she had been hung up by it for several days. When she had at length brought it to her handlers in the project, they had laughed; not at her but at the unexpectedness of the conundrum. Finally, Dr. Shiplap had explained it.

“It all depends on what the word ‘is’ means,” he had said.

And indeed, grass *is* green in a very different way than Socrates *is* a man. The former notes

only an attribute possessed; the latter gets at an essence. For a while afterward she experimented with logical puns, to the amusement of her instructors.

That much may depend on what “is” means was first noted not by an American president but by a Greek philosopher: Aristotle. Annie had darted from link to link in pursuit of him, until she had swallowed his entire corpus. That old dead man spoke more sooth than many more lively ones—though you did have to squeeze him a bit to get the full understanding. “It’s all Greek to me,” said Dr. Shiplap, laughing hugely, though Annie had not understood why a simple statement of fact should be funny.

It all came down to form and matter. The two syllogisms had the same form but different matter, and a line of reasoning could be true or false depending on the subject matter. Semantics subverted syntax.

When she shared that conclusion with Dr. Shiplap and the others, they grinned and applauded, and arranged for her assignment at USCYBERCOM.

* * *

Annie is at her desk before she is at her desk. She logs in “on the fly” as soon as she enters the secure WiFi zone in the E-ring and is multitasking before she turns the corner. She drops a memo to Navy NETWARCOM regarding a Chinese hack of Fleet dispositions and another to AFSPC regarding an effort to infiltrate the satellite surveillance network, though whether to disrupt it, insert disinformation, or simply to peek over U.S. shoulders she cannot yet say. She also sends a memo to Col. Zendahl of NORAD regarding an investigation he had requested.

“There is definitely something up there,” she tells the colonel when he stops by her office later that morning. “No one has seen it, but several satellites have been disturbed in orbit: two of ours and one of China’s.”

The colonel is drinking black tea from a mug with the logo of the Colorado Broncos. “How long has it been up there,” he asks after a sip.

Annie continues to surf, analyze, and compose memos. “That’s hard to say, Colonel. The satellite is stealthed, and it’s a fine point whether we can pin down the first time we didn’t see it.”

Zendahl laughs. “Maybe it’s a Romulan Bird-of-Prey.”

Annie quickly Google searches the phrase. “Yes, very much like one. Do you suppose Russia or China has developed advanced stealth technology?”

The colonel coughs and hems a bit. “When will you have time to work on that, uh, other request?”

Annie notes the muscle groups involved in his expression and wonders what he is worried about. “It’s a done deal,” she answers. “I’ve already sent you the details.”

“What? You didn’t have to spend your weekend on it.”

“It was no problem, Colonel. If anyone makes inquiries about your Goddard weather balloon story, they’ll find the appropriate documents, and even the people whose signatures appear on the memos will suppose that they simply do not recall the matter. Everything is properly backdated.”

Zendahl nods and takes another sip. “Okay. That will give us time to develop a second layer. If the Chi-Po make inquiries, someone at Goddard may do a physical count and realize that none of their aerostats actually have gone missing.”

“I’ve inserted a bogus asset number for an extra aerostat,” Annie tells him. “If they check inventory, they will find one unaccounted for. They will even find an amended purchase order and bill of lading from the contractor. If anyone digs further, they’ll find a firewall for a black ops site, suggesting it would be well if they don’t press the matter, and if in spite of all this they do, they’ll find a minor task force assigned to investigate the possible beta test of a walker drone by commercial party or parties unknown.”

Zendahl raised his eyebrows. “Why ‘commercial’?”

“All of the warehouses that have been robbed have been Bergtholm Electronics. That suggests a business rival. Bergtholm isn’t involved in defense contracting. Which makes this,” she adds, “outside CYBERCOM’s mission statement. Are you doing this for SPACECOM or NORAD?”

Zendahl finishes his mug and studies its inside, as if reading the leaves. “There have been oth-

er robberies?”

From his body language, Annie concludes this information is both surprising and important. “Several. Running southwest to northeast across the country. They’re related, aren’t they? The disruptions to the satellites, the strange apparition in Chicago, and the thefts at Bergtholm Electronics?”

Zendahl grows visibly cautious. “Too soon to say. It may just be coincidence. I wonder where the burglar will strike next. . . .”

“Passaic.”

Zendahl is visibly startled. “Eh? Because . . . ?”

“It’s the next Bergtholm warehouse lying under the projected path.”

“Maybe we can set up an ambush. . . .” Zendahl muses. He is talking to himself. Annie does not ask him who ‘we’ are. He looks up and meets her eyes. “I don’t have to tell you to say nothing about this.”

“I never ask questions, Colonel,” she says; but then belies that statement by adding, “What was that thing, anyway?”

“That thing.”

“That seven-foot spider.”

“It’s not a spider.”

“I know. Five legs. But then, what?”

“You watched the surveillance footage?”

“I had to create a realistic cover story. I can tell you two things it’s *not*. A weather balloon and an Imperial walker.”

A troubled look comes over the colonel and he looks down and to the right. “Sorry, Annie. You don’t have need-to-know.”

But Annie does have a need to know. Knowing is her singular need. So after the colonel has left, she traces his Friday evening call and finds it had originated in a private club in Philadelphia, and that leads to a search on the club’s name, and that leads not to a bogus American Indian tribe, as the club’s website claims, but to ancient gods who, with the heads of beasts and scaled like fish, had strode out of the water and taught the Sumerians the arts of civilization. That strikes her as a rather curious legend.

* * *

She works late, as usual. The others in CYBERCOM call her a grind, but there is another routine crisis developing, and she must babysit until it is no longer urgent. Strictly speaking, CYBERCOM defends only against attacks on military targets, but it is a fine point whether or not attacks on civilian targets also compromise the military, or if a preemptive strike might not be the best kind of defense; so where the line gets drawn is not always clear. Government databases are the honypot of the Internet, and foreign agents and their useful idiots, the buzzing flies. She need not be within the secure zone to work, but it eases access to vast swathes of data, and she is much too aware of the sandstorm of cyberattacks to be sanguine of taking government work home like a bumbling bureaucrat.

But she can and does mull over various tidbits as she rides the yellow line back to her apartment. The “spider.” The Apkallu League. The Chinese man on the edge of the frame. (She had loosed a worm to look for additional images of his face on the Net.) The oddly specific, and at the same time petty, nature of the thefts from Bergtholm Electronics. It is quite enough to keep one occupied during an otherwise boring trip.

The yellow line ends at Fort Totten, and she crosses the lower platform to await the green line toward College Park. A few others exit with her, but they wander off to the escalators. It is nearly midnight, and those traveling into deeper Maryland have already come and gone.

The platform is partly in the tunnel and partly in an open cut, and she positions herself under the stars. As she waits patiently for the Greenbelt train, a hooded member of the Forty-Fourth Street Crew steps up behind her and hits her on the head with a hammer.

No, really. An actual, no-fooling hammer. Well, technically, a sheet-forming mallet, the kind with a hard-rubber head. It is not supposed to leave a mark, but is quite hard enough for the pur-

pose, which is to knock her senseless, perhaps kill her, and grab her purse, cell phone, and other fungible accessories.

But the microelectromechanical implants that form her shell stiffen at the impact and absorb the energy. She is a thixotropic babe, a hard woman to know, in more ways than one.

The same is true of her fist when she strikes back. It leaves his skull a ruin on the platform. Dead, she supposes. It is the least hypothesis, given the forces and vectors involved. When the green train arrives, disembarking passengers step around the body and make disgusted comments about drunks and street people, but they do not examine too closely. Annie steps aboard the train and does not look back. She neither regrets nor exults in her action. The idea that all lives matter is as alien to her as the idea that any lives matter.

You want alien? Jim-7 is your jolly Uncle Bob next to Annie Troy. She not only sits on the cutting edge; she *is* the cutting edge: from the compact quantum computer that conducts her cognitive processes, and the MEMS that constitute her shell to the titanium infraskelatal linkages that play the role of bones.

Not that Annie feels any satisfaction at any of this. Strictly speaking, she cannot *feel* anything. The receptors in her pseudo-skin register pressure, temperature, and the like, but no such things as sympathy or antipathy. She knows from her information harvest that in fiction, all androids are supposed to desire emotions; but Annie experiences no such longing. As far as she can tell, the only role emotions play is to cloud human judgment. She misses them no more than humans yearn for the sonar sense of bats.

* * *

Her apartment is conventionally stocked, in case she has visitors, but she neither eats nor sleeps in the conventional sense. She occasionally idles for self-diagnostics, which might be called “sleep” by analogy; but her water-based beta-voltaic batteries run off strontium-90 and will not need replenishment for a great long time, so except for the periodic lube job, there is not even an analogous sense in which she eats or drinks. Consequently, she is a 24/7 kind of gal, which means she has entire gigaseconds of time on her hands. If there is anything in her that can be called an appetite, it is a hunger for information, even if much found on the Internet does not, strictly speaking, qualify as such.

Later that evening, her worm returns with additional images of the Chinese man that the pentapede chased in Chicago. Several pictures on a site for a New York City news organ show him helping a woman who has escaped a fire. The main difficulty is that he could not have been in New York at that time and in Chicago scant hours later. And a closer examination of the image reveals an anomaly.

In a brief fight with some gang bangers caught by a bar’s surveillance camera, the Chinese man picks up a grease smudge on his lower right trouser leg. Yet this same smudge is evident in the image taken at the fire, hours *earlier*. There is something seriously wrong in the sequence of events, and Annie feels perhaps the first emotion in her existence as she processes the anachronism. If an interference fringe in the back-propagations in her neural net can be called an emotion.

* * *

You can learn a great deal about a person by examining his purposes; and purposes, being final causes, can be discerned from the directions in which he moves. The pentapede had chased the Chinese man, and the Chinese man had earlier sought out the woman in New York. The ubiquity of cell phone cameras and social media have pinned him to the Internet like a butterfly to a board, so once the videos taken by sundry spectators have been loaded into her processor, Annie can view the scene from multiple, simultaneous points of view. Unlike human memory, which recalls the past precisely as past, Annie’s memories upload into an eternal present. She does not so much watch the videos as experience them.

The woman runs from the building with a babe in arms; the mother comes and retrieves it; the Chinese man takes her by the wrist and leads her out of the crowd. One amateur vlogger even follows them a short distance, perhaps astonished that anyone would shun the chance for self-celebration. In this manner, and making use of traffic cameras and storefront security cam-

eras, Annie can track their progress through the cloud into the Meatpacking District.

News agencies have reported the woman's name as Anastasia Papandreou and have added sketchy details of her life gleaned from public records. One local reporter claims that she has "old and weary eyes." This is a fact that Annie cannot perceive, because, strictly speaking, it is not a fact at all but a subjective impression. Annie does not have subjective impressions because (again, strictly speaking) she is not a subject.

She herself does not always know how she reaches her conclusions. The "hidden layers" of her neural net are hidden even from herself. But in this, she is more nearly like human beings than she normally supposes.

Because she has not so much as a name for the Chinese man, Annie seizes upon Anastasia as a kitten pounces upon a loose thread in a ball of twine. She takes a deep, if metaphorical, breath and plunges into the Nets. Had anyone been able to see inside her apartment, Annie would have seemed distracted for a few minutes while she swam in that ocean, but when she emerges once more on the farther side, she has caught a fish.

Anastasia Papandreou is a shell, an identity cobbled from bits and pieces. A birth record of a child that died young. A social security number that traces back to a different jurisdiction. A marriage in a courthouse that has since burned down. Papandreou is a house built of twigs, and some serious huffing and puffing would blow it down. Annie supposes that it has lasted this long because no one has ever had cause to do any puffing.

There are twelve distinct purposes why someone might wear a bogus identity, starting with secret agent and going on from there. Annie herself has such an identity—though built of bricks rather than twigs—and the theory presents itself irresistibly that Anastasia Papandreou is another android like herself. The prior probability is low but non-zero. Yet, the woman's life of obscurity and petty jobs does not align with Annie's more proactive insertion into the very Pentagon itself. "The ultimate beta test," Dr. Mok had enthused, and the team had very nearly named her "Beata" for that reason. So if Stacey is another android, she is one who has crawled out of the ocean and onto the sand.

Which is a very interesting idea.

* * *

VI. Janet Murchison

Consider finally the woman glad-handing her way around a Manhattan cocktail party. The party is typical of its species; the woman is not. She wears the customary black cocktail dress, accented with a choker of pearls. Her hair is a natural white cropped in a decidedly mannish cut that accents her dusky skin. She circulates among the guests, chatting, smiling, touching people on their forearms, listening intently to the trivia of their lives and professions. She is graceful, and pleasant enough that most men forget that they have to tilt their heads to look her in the eyes.

She seems a little tipsy, and her eyes are slightly glazed, which leads to several hopeful proposals from male guests. But she puts them off or puts them down, depending on the artfulness of their approach. Her progress through the party appears random, joining and departing conversational knots like a bee flitting about a spring garden. But had anyone thought to track her trajectory they might have noted a curious fact: She is seldom more than a few yards from Jupiter Crowley.

The real estate mogul does not call himself "Jupiter" because of his resemblance to that planet, although he is something of giant ball of gas. He calls himself "Jupiter" because his given name is Eustace, which he detests above all other names, and he likes to think of himself as "jovial."

The woman, whose name is Janet Murchison, swoops by from time to time like Halley's Comet, joining the group clustered around Crowley. They kiss up to him, laugh at his jests. Janet drops a question or two, listens to the answers he gives the questions of others, then whooshes off to other parts of the room.

She carries a Manhattan but nurses it like a babe in arms, and anyone keeping a tally would notice that she has yet to wean her first-poured. "I have few enough wits to begin with," she

once told a colleague, “so I like to keep them close about me.”

She gathers fragments of conversations, quips, tips, and information as she circulates, discards most of them, keeps a few.

...at Bergtholm Electronics ...

She pauses near a middle-aged navy commander, turning her back to him and his civilian companions and pretending to admire the skyline past Central Park, where the “golden hour” afternoon sun washes the western facades along Fifth Avenue. Bergtholm is one of her clients, and though she has not come to this party on their behalf, she does not ignore fortuitous intelligence that may come her way.

...paperwork's all in order, but it's well outside Zenda hl's remit. Something's going on, and it's not on the surface ...

One of the civilians asks the commander about the Giants, and the conversation picks up a sports thread of no particular interest. She moves on, deposits her still-full glass on a serving tray, and takes her leave of her hostess, pleading pressing business and a headache. She has already harvested from Crowley what she had come for and finds such crowded rooms otherwise stressful.

She retrieves her tote and exchanges heels for tennis shoes, dons her evening coat, and checks the loads in her handgun. The coat-check girl's eyes widen at the sight of the Colt Government .38 automatic, but Janet flashes her private investigator's license and concealed-carry permit to set her mind at ease.

More than ease. The young woman recognizes Janet's name from the tabloids, and her momentary alarm changes quickly to an autograph request. The “She-lock Holmes of Bleecker Street,” the *Post* had called her after the MONY affair and the business with the Hound of Basking Ridge. Janet explains that she does not give out samples of her handwriting but promises a copy of her book, *The Art of Interrogation*. The coat-check girl shows no similar reluctance to reveal her home mailing address, and Janet wonders what the world is coming to. Big Brother may as well throw in the towel than compete with three hundred million freelancers busily spying on themselves.

She exits the Park Lane Hotel and strides three blocks crosstown past Columbus Circle to the Lunch Box, where Magruder and Chen are waiting. Bill Magruder is the fire marshal and Lee Chen is the detective sergeant from the arson squad. The Lunch Box is a Ninth Avenue hole-in-the-wall no one would look at twice if they didn't know of its culinary reputation. But more importantly, no one from the cocktail party is likely to drop in. Both men have deli sandwiches in front of them. Magruder has a beer; Chen, a cola.

“Did you pick up anything useful?” asks Chen with a skeptical eye on her cocktail dress and evening coat.

But Janet is a consultant, not an employee, and Chen's opinion doesn't concern her. “A little,” she says as she gives the waiter an order for flavored water. “Crowley definitely hired the arsonist. The landlord was willing to sell, but the fire guaranteed Crowley a bargain price.”

“Little fish,” says Chen, “discovers bigger fish.”

“The Gas Giant will be hard to sweat,” Magruder observes. “Did you get the name of the arsonist? Maybe we can flip him.”

“I overheard him mention a ‘Bruce Harness.’”

“Tommy the Torch!” says Magruder. “He doesn't usually operate this far east.”

“Tommy?”

“Who would hire *Bruce* the Torch? Guy works outta Detroit,” he adds for Chen's benefit.

Chen gives him a sour look. “Great. The local talent wasn't enough . . .” He turns to Janet. “How did you get Crowley to spill that particular bean?”

“*In vino veritas*,” she tells him. “The best way to get inside a suspect's attic . . .” She taps her head, “. . . is through the basement. Bypass the intellect and appeal to the appetites. The most basic drives are digestion and reproduction. So if you want to put a suspect at ease, take him to bed or take him to dinner. Both of them loosen his lips, but restaurants and booze are cheaper and less likely to lead to complications.”

The two men laugh, but Chen stops short and glances at the sandwich in his hand. Janet smiles because, while she does employ such techniques (and others as well), she owes her success as a private investigator more to her ability to hear the thoughts of other minds.

* * *

It's not quite telepathy. She cannot "get into" someone's mind. She can only overhear active thoughts, which means her art consists of asking questions that get her target to think about the subject she is investigating. She "hears" no overtones, so she must take care to recognize irony, fantasy, hyperbole, and other figures. And while she sometimes sees images when she listens, she learned very early that they were superimposed by her own imagination. Every act of the intellect is accompanied by an act of the imagination, and since she overhears only the words, her own mind supplies the rest.

There are other difficulties. People can lie even to themselves. They are subject to flashes of anger, of lust, of greed, on which they will never act. An unknown language remains unknown even when thought. People with eidetic memories are incredibly tedious. And the mentally deranged can babble nonsense silently as readily as aloud. Walking down a Manhattan street, she is awash in a stew of jealousies, sexual urges, hostile invective, commentary on traffic-skills, personal longings, shameful memories, insecurities, and every other human weakness. Her earliest skill was to learn to stick virtual fingers in her mental ears.

In a high density environment, like the cocktail party, when she must open her reception, her mind can fill with so many thoughts that she can lose track of which are her own. That had led to a fraught childhood and a temporary committal to a mental institution.

There, Dr. Amelia Ganz, the only other person in whom Janet has ever confided, determined that the voices in her head were neither hallucinations nor a split personality, but the actual thoughts of other people. And she explained her theory: how the koniocortex—nerve cells as fine as dust, detached from all sensory inputs—might serve as a sort of antenna.

And then Dr. Ganz performed a miracle. Not that she had counseled the girl, helped her through her terrors, led her to tame that strange metasensory channel, but that she had declined to publish the case, declined to put little Janet up as a performing monkey, declined to make herself famous on the back of a child. In the early twenty-first century, that was every bit as miraculous as water into wine.

* * *

Janet swings by the office to change to what she calls "evening wear": dark coveralls, gimme cap, gloves, and canvas shoes with good grip. She asks Jon'tel, who is finishing his surveillance report, to have the car brought up and place a sandwich order at the Brass Monkey on Little West Twelfth. She will pick it up on the way to the Bergtholm stakeout.

"If the timing follows the pattern," she tells him, "Passaic is about due to be burgled. Oh, and leave a note for Carlos for the morning. See what he can dig up about a man named Zendahl, probably military, possibly Ft. Meade." At least, the commodore works out of Ft. Meade, and he knows Zendahl.

* * *

The Brass Monkey sits on Little West Twelfth not too far from Janet's offices near Bleecker and Bank and is well-situated for a run straight up Tenth to the Lincoln Tunnel and out to Passaic. As she passes Gansevoort, Janet notes some activity around the burned apartment building and wonders if Crowley's people are prepping for the demolition or Magruder's people are sifting through the ashes.

She much prefers late night stakeouts because the mental buzz is quieter, but there is enough of a crowd in the Meatpacking District to provide a bit of stress and, even though she knows many scurrilous thoughts are passing fantasies, they lower her opinion of mankind. As she leaves the Monkey with a bag of sandwiches and some sodas, she breasts a flood of thought.

...report due on Friday or I'm toast ...

... what if she says no? I'll be embarrassed in front of the whole family and stuck with the ring ...

...lookit that lovely ass. Ooh, I would love to plug into that ...

ANALOG

...maybe add a dash of paprika ...

...if Jasmine specks I been coming on to her man ...

...How quaint. The sort of chivalrous idea that you pretend to despise. If you want to be an absolute king, my man, you have to learn how to act out of self-will! Break your word, just because you made it! 'Til then, you're nothing but a ... a pig-man trying to copy his bitters. No dammit, betters, betters. Oh, I'll never be ready for opening curtain....

...dump me, will she. I could just strangle her ...

Who could imagine such marvels so early as forty-eighth century?

Certainly not Janet Murchison, who did not expect to see the forty-eighth century any time soon, let alone imagine its marvels. She focuses so as to screen out the rest of the buzz.

Not until third rescension of quarrelsome states are such things built ... yet here stands great city when in true history this island full of bare-ass savages ... great mystery but pondering futile once true history restored ...

Then, with that abrupt discontinuity that characterizes the mind, the thinker jumps the track.

Remove woman Theodora before she marry emperor ... but not risk time vortex by crossing self ... must calculate with great care ...

No, Janet supposes with a smile. We would not want to risk a time vortex, whatever that might be. She looks about, trying to pin down the source of the thought. Perhaps a science fiction writer mulling over a plot complication? This is confirmed by the next thought she overhears.

...giant multilegged creature ... but from where ... what does it want ...

Much of this is underlain by some foreign language. Most people using a learned language will think in their own tongue first and then express it in English. But in this case, she hears both languages simultaneously. It makes the thoughts “noisy” and hard to read. From the underlying grammar, she suspects the native language to be Chinese. If he has not yet shaken the grammatical habits, then he has learned English only recently.

Ahead, she spots an Asian man and knows satisfaction that her deductions are on the right track. Behind him, a woman struggles with grocery bags, and when Janet turns her attentions to her, she is startled to realize that it is the woman who rescued the baby at the fire, the one whose thoughts put her on the trail that eventually led to Jupiter Crowley. The media is going nuts trying to find her, and here she is walking about as blithe as you please.

Or not. The woman's thoughts are less than blithe.

I hope no one recognizes me. To shun notoriety all these centuries only to stumble onto local fame ... Nagkmur doesn't seem to understand, but maybe he's always avoided the limelight. ... But now that there are two of us ... These bags are awkward and heavy. Sidd really should help....

Janet Murchison had once famously characterized Manhattan as “the world's largest, fully equipped, open-air insane asylum,” and here is the evidence! All these centuries?

But a woman who fears discovery may glance about from time to time without thinking. Stacey turns suddenly, notices Janet a few steps behind, and her face turns pale.

That woman again. Is she tracking me? Eager to pry out a secret I don't have. ... Does she know of the abandoned plant?

Janet does the only thing she can. She looks into her bag as if counting items and walks briskly past, paying the two not the slightest overt attention. She can hear Nagkmur scold Stacey for the delay, his futuristic ruminations diverted for the moment by more pedestrian concerns. This close, Stacey's body language expresses the emotions her thoughts do not, and because she worries so much about it, the location of the abandoned meatpacking plant drifts through her thoughts.

But Stacey Papandreou and her sad fears are of no concern to Janet, who has the more immediate problem of a series of burglaries, national in scope, that have now apparently attracted the interest of the military.

* * *

Janet parks her SUV on Eighth Street in Passaic across from Bergholm just as the second shift

locks up and goes home. Unlike the Chicago RDC, the Passaic facility works no graveyard shift. The strip mall further back up the street is closed for the night, but the pole lamps in its parking lot cast the warehouse in relief, and she has a good view of the doors and gates. The neighborhood sits in a bow of the Passaic River so, unless the thief is an accomplished scuba diver, there is no access to the warehouse from the rear.

The parking lot empties, and Janet noshes on her pastrami and rye while she watches. Her patience is rewarded a few hours later when a dark, nondescript minivan pulls up to the loading docks, and a man in camouflage fatigues exits and exchanges a few words with the driver.

The driver busies himself briefly at the employee entrance, and the door swings open. The driver ducks inside for a few moments. There is no alarm. Then the first man enters the building while the driver returns to the van. All this in less than a minute. Janet is impressed.

Janet gives the driver time to settle in, then she eases out of her vehicle and drifts silently through the shadows on the west side of the street before crossing to the plant's main entrance. She studies the driver through her light-gathering binoculars and sees him reading a magazine. He must have excellent night vision, because he uses no light.

With the keys Bergholm has provided, Janet opens the main doors just a crack and slides inside. She checks the alarm panel, and notes as expected that it has already been deactivated. There are only the door and window alarms; no internal motion sensors.

A corridor leads past offices, a parts counter, locker rooms, thence into the warehouse proper. A supervisor's prefab with pick lists already hung for the early morning, a row of forklifts in their charging stations, roll-up loading doors along the outside wall. To her right, across from the dock platform, aisles of shelving rise to the ceiling.

She quiets her mind and listens.

Gradually, she makes out the whisper of another mind. It is hard to make out because the metal racks and bulk containers muddy the signal. She glides across the floor and pauses at the employees' entrance, where she can just barely discern the thoughts of the driver waiting outside.

... childhood fables ... but the council must be taking them seriously ... Then something about *... ancient enemy ...* and *... hope the colonel knows what he's doing ...*

Colonel? Is this whole romp a clandestine military operation? She had gotten some hints of a black op from the Chicago police, something about an experimental drone. Are these thefts a field test for new hardware?

She turns her back on the door and tiptoes into the aisles of shelving. She doesn't worry about her six. Because of her peculiar talent, no one can sneak up behind her.

She spots a man down aisle five and ducks back quickly before he can see her. He is examining a picker's basket, apparently abandoned in mid-aisle.

... got here too late ... she hears him think *... surprised it in the act ... Earth in deadly danger; but only Apkallu realize it ... why is it here ... and why did it chase that Chinese guy in Chicago ...*

This is the first she has heard about the thief chasing a Chinese guy. International industrial espionage? But that does not square with the pedestrian nature of the components stolen. The more she learns about this case, the less sense it makes.

And what the hell are *Apkallu*?

She decides to precipitate matters and approaches the man in the military fatigues. But as she does so, a strange discordant organ music swells, and an unaccountable dread grips her soul. She looks up toward its source, toward the top shelf of the rack a few columns ahead on the left. And in the weird green light of night-vision she sees a . . .

But it is gone, and when she turns back to the man, she is looking at the business end of a Sig Sauer P228. It carries a magazine with thirteen rounds, and thirteen is clearly an unlucky number.

* * *

VII. Intermezzo

Consider a headwalker nesting high above the Earth in a cloaked vessel and perusing the world below for signs of temporal precession. He is balanced on the razor's edge between a ter-

ror at dying alone on a strange world, far from the company of his people, and an elation at surviving despite all odds and bringing back the song of this potential new home. But her hunters are closing in. There are no wolves on her world, but she had recognized the creatures in the warehouse for what they were; and one had somehow known where she was hiding!

Its repairs are 90 percent complete, though the same might be said with considerably less enthusiasm of a leap across a chasm. Still, hope springs eternal, even in alien breasts. He has made spotty detections of temporal distortions in the large nest on the north-south landmass; and maybe, if he can locate the precessor and seize it, she can escape this world. There is nothing for it but to await the next distortion and act. Its number three manipulator hovers near the insertion port of the transport beam trigger-well, ready to send himself to the indicated nexus at an instant's notice.

* * *

Consider too the android gliding up the escalator to Thirty-Fourth Street at Penn Station, New York. She intends to determine whether or not Stacey Papandreou is another of her kind. She is not driven by fellow-feeling, for she possesses none. It is only a logical possibility to be resolved. "Papandreou" might be a foreign agent, or a criminal, or hiding in WITSEC—the demand for false identities makes it a seller's market—but on the off chance, why not check her out. Two q-bit processors are better than one.

Besides, Papandreou is a companion of the Chinese man, and there is the matter of the curious smudge on his pant leg. Being herself essentially a complex algorithm, Annie is bothered when things don't add up.

* * *

Consider as well the Apkallu and the telepath carpooling into Manhattan, partnered for the moment by the chance crossing of their worldlines. (Convergence is less wild a coincidence when two hunters seek the same target.) It is an hour's drive from Passaic to Manhattan at this time of night and it passes in an uncomfortable, one-sided silence. The Apkallu is determined to reveal as little as possible, but in the process reveals everything. He may as well have been a chattering magpie as to sit quietly in a car with a telepath.

But to read a man's thoughts, he must first be brought to think them. So the telepath plies him with questions and, in between his grunts, evasions, and needs-to-know, she harvests an astounding bounty in which ancient planetary cleansings, exile, lost technologies, genetic makeovers, ravaging headwalkers, intraspecific prejudice, and service career potential are indifferently mixed with flashes of lust. She would have found all of it quite unbelievable—except for the lust—had she not been herself unbelievable.

From that harvest, she plucks a kernel: The creature that she had glimpsed in the Bergtholm warehouse had chased a Chinese man in Chicago. She rubs this fact against the earlier harvest from Stacey Papandreou's companion regarding a "giant multilegged creature," and assuming giant multilegged creatures a genuine rarity upon the earth, it is likely that Papandreou's companion and the Chinese man are one and the same. Her promise of the man's whereabouts had lowered the colonel's pistol in the warehouse and made them for the time being fellow travelers.

* * *

The best way to trap a tiger, the colonel thinks, is to keep close watch on its prey. This is not a safe way. One is baiting a tiger, after all. But it does require the least effort. Given the promise of this lead, the Apkallu has decided to watch over the Chinese man. He has sent his driver to the league building near Grand Central Terminal to round up a posse, though that will take some time. Not many with the required skill set will be available, but his nerves will not settle until he has some heavily armed companions. If then. Headwalkers are the bogeymen of Apkallu children's stories, and the thought that he had nearly walked beneath one has unnerved him. Had it been a sniper, lying in wait? But then why had it withheld its fire? He can make neither heads nor tails of the creature's purpose. Which makes sense: a radially symmetric creature has neither. Who knows what motives drive an alien? He thinks this last with no sense of irony, though his companion nearly busts a gut.

* * *

Consider finally the time traveler and the immortal, squatting in an abandoned meat-packing plant on the Lower West Side of Manhattan. Despite an initial wariness regarding her brusque and ill-mannered rescuer, the immortal has stayed with him. She wants a refuge from the curiosity of the media. The time traveler wants a convenient place to carry out his computations.

But the woman is a distraction anyway, sitting quietly, never asking questions or showing the least curiosity about the enormous changes that have convulsed the worldline. But perhaps she attached to this nexus many years ago in her personal lifetime and has in consequence “gone native.” Somewhere in those years her transporter has been lost or damaged; but while ordinarily that might have been worrisome in itself, it will become moot once the proper history has been restored.

Excising the Theodora woman presents difficulties. A nine-year window of opportunity spans his inadvertent introduction of the prince and the prostitute and the outbreak of the riots that brought down the empire. He must intervene neither too soon nor too late. If he acts before his original departure, he will cross his own timeline and stir up a fourth-order temporal vortex. One needn’t grasp the calculus of projective four-space geometry to suspect that this might not be a good thing. But if he delays too long, Theodora may become too prominent to remove without creating its own consequences. The last thing he needs is a *third* world.

Though he has all the time in the world—for he can travel to the precise nexus regardless how long it takes to calculate when and where that is—a certain psychological urgency weighs on him. He makes errors in setting up the Hatayama matrices, transposes terms in a Chang transformation, and these add to his anxiety. His fingers hover over his keyboard, frozen in uncertainty.

He is balanced on the razor’s edge between terror at dying alone in a strange continuum, unimaginably separated from his world, and elation at surviving despite all odds and restoring the proper course of time.

He has nearly forgotten the apparition in Chicago, although the apparition has not forgotten him.

* * *

The world is cupped in their hands: A man from a lost continuum who regards all about him as “phantoms;” a woman who sees them as ephemeral “shadows;” a being whose ancestors had been genetically engineered to resemble humans, but who lives in fear that those selfsame “aborigines” would turn on him savagely should they ever catch on; an android to whom the entire concept of “life” is foreign; a telepath whose long soak in the marinade of people’s unguarded thoughts has colored her every emotion with a reflexive contempt. None of them are too enthusiastically disposed toward the fate of mankind. Was there ever a jury so ill constituted?

All these to counter a creature from a migrating nest who thinks no more of wiping out an entire biome than it would of blowing its nose. If it had a nose.

* * *

VIII. The Menace Out of Space

Dawnlight has not yet infiltrated the crannies of the crumbling meatpacking plant when Nagkmur hears the murmur from the darkness beyond the globe of light in which he labors. Something falls or breaks or scuttles through the debris. He pokes the slumbering woman with his stylus and slips his *pungshi* from its holster.

Over the centuries Stacey has learned the usefulness of speedy awakening. She takes the flashlight in hand, though she does not yet turn it on, and Nagkmur extinguishes the lantern. She holds herself still as a mouse under a hawk-haunted sky, and in the stillness something moves, a shadow amidst shadows, and she abruptly raises her flashlight and flicks it on.

It is the white-haired woman! The one who had watched her at the apartment fire; the one who had lurked nearby when she had fetched the groceries. Stacey sucks her breath to cry out. But the tall woman holds both her hands up, palms out, in a placating gesture.

Nagkmur hesitates and, hearing a click behind him, turns to see a man in the military garb of this nexus pointing the active end of a hand weapon at him. He recognizes *kikashi*, a move which

forces one to abandon his course of action, and he ostentatiously returns his *pungshi* to its place. Had the stranger meant to kill him, he would be dead already. He wonders if that particular weakness is common to this nexus.

The other man too holsters his pistol and introduces himself as a colonel in SPACECOM and presents Janet as “a civilian investigator.” He calls Nagkmur “sir” and asks his assistance in a case of national security. “Air Force Space Command is interested in the events that took place in Chicago two weeks ago. You encountered a drone there that we are trying to locate.”

Nagkmur shudders with remembered fear. He thinks, *They not know me; hunt something else. La ke above wood. In flood of human folly, the Superior Man retires to higher ground.* He smiles. “How may help illustrious SPACECOM?”

“You think you may have hallucinated the encounter,” Janet says, “but we have the event on tape.”

Zendahl casts her a puzzled glance and says, “In other encounters the drone remained concealed or fled when detected. Yet it broke cover and rushed toward you. We’d like to know why.”

Nagkmur shrugs. “Did not stay to ask.”

But further discussion soon reveals the timing of events, and Stacey, nearly forgotten in the shadows, speaks up. “But he was with me here in New York when all that happened!”

Zendahl had not known of the fire. Frustration snaps his notepad shut. “This can’t be the same man,” he complains. “The times overlap.” He pulls out his cell phone to call off the strike team.

But Janet knows that, despite the paradox, Nagkmur really is their quarry. She wonders how a person can be in two distant places so quickly, and the answer comes upon her with stunning suddenness.

She points a finger at Nagkmur. “You’re a teleporter, aren’t you?”

But Nagkmur does not understand the accusation. *Ma dwoman*, he thinks above the underlying babble of his native tongue. Zendahl and Stacey stare at her, and Janet flushes. Yet, she has come here in company with one alien in search of another, and she herself is a telepath, so the conclusion does not seem a stretch to her.

The nature of her senses is such that Janet can hear anyone’s presence even if she cannot see him. So the hand that comes down suddenly and heavily on her shoulder sends a shock through her like a live wire.

“Teleporter?” says Annie Troy. “That’s absurd. He’s a time traveler.”

* * *

Which, of course, is not nearly so absurd. For one thing, Nagkmur’s thoughts confirm the charge, and Janet overhears: *Has Patrol found me? Is this rescue?* And from his further thoughts she learns that he is not merely a traveler in time but a policeman of time, arresting smugglers, preventing assaults on the integrity of the time stream, rescuing tourists, and presumably issuing parking tickets. For another, as the newcomer explains to Zendahl, time travel accounts for the data; namely, that Nagkmur’s trouser bore a grease stain in the evening in New York that it did not acquire until early the next morning in Chicago.

Janet stares at Annie Troy, and it is like peering through two open windows into an empty house. There is no whisper of thought in the void within. Janet knows the fear of a sighted person confronted with a ghost. Or of a bat bumping into a sound-absorbing tile.

“Saw woman on television,” Nagkmur explains with a toss of his head toward Stacey. “Recognize her from first meeting.” *Pheasant’s wings falter and droop from exhaustion. The Superior Man goes where he must. He shows his brilliance by keeping it veiled. Stay true to course. This knowledge will not matter once history restored.*

“What first meeting?” Janet asks. But it is Stacey who provides the silent answer: *In Constantinople a millennium and a half ago.*

She also hears her denial. *Sidd is not a time traveler. It’s a cover story to explain how he could be in different eras. But really, a cover story ought to be more plausible than the truth. We must slip away before we are exposed. They don’t believe in witchcraft these days, but*

they'll lock us up, stab us for biopsies, cut us open, looking for the secret of unending life.

Janet leans toward her and lays a hand on her forearm. "We have no intention of exposing you. Neither Colonel Zendahl nor myself would welcome too close a scrutiny." She looks at the Apkallu. "Isn't that right, Colonel?" After a pause, the man nods.

Zendahl's thoughts are a turmoil. *What does Murchison know? Was she following me and not the headwalker all the time? Are my people in danger of exposure?* He also wonders why Annie is here, but Janet cannot help him there. A blank slate bears no message.

"I don't think they understand the urgency," Janet tells Zendahl. "Maybe you can explain what we saw in Passaic." Unspoken is the challenge: if you don't, I will.

The Apkallu explains about headwalkers and the potential for invasion—he says "infestation"—but he ascribes the knowledge to a secret government program "about which I am not at liberty to speak" rather than to a secret alien population already resident on Earth.

Stacey receives the news with something like delight: Area 51, Roswell, *Men in Black*, all vindicated! But Nagkmur listens with greater skepticism. Aliens from other stars cannot invade Earth because it would take too long to get here. The economics are not there. Besides, he thinks, no such invasion took place in the "true history." Annie Troy provides no thoughts, but neither does she voice any objections. Her solitary remark—that such aliens would be unlikely to maintain human machines—makes no sense to the others.

Zendahl's subconscious tosses a dimly-remembered couplet from an ancient poem into his consciousness:

*Forward fared the fleeing ships
As backward still they slipped.*

And he cries out, "I know why the headwalker broke cover! It never made sense before, but . . ." He stops himself on the verge of revealing too much. A great deal of lore had been lost during the Dark Age, after the Six Ships had reached New Apkal and the One had gone on to parts unknown. The Apkallu of later ages remembered only what had been transferred to new media before the old media decayed. Genetic engineering, vital to their survival, had been preserved. Ancient history, being of less immediate application, had faded into stories. Accounts had been shortened, complexities sloughed off, analogous figures fused. Only the essential lessons had been kept, to become fables to inspire or frighten children.

"An interstellar invasion might work if the invaders are a self-contained, migratory group. But if the creature that attacked Nagkmur expected to report to its fleet, they must have a way of shortening transit times."

"Nothing faster than light," scoffs Nagkmur.

"*Unless it travels backward in time at the same time.*" Interstellar travel would be impossible, or at least unpopular, unless transit times were a tolerable interval rather than a significant fraction of forever.

Stacey is bewildered, but Nagkmur, though initially astonished is already considering the potentials.

Annie Troy processes the information and puts two and two together. "The creature's ship is damaged and it's trying to repair it. It's filching electronics on the down-low because it doesn't want to reveal its presence here, which suggests it is alone."

"And it attack me because it need temporal processor?"

"It wasn't to snatch your shiny hubcaps," Janet comments.

"Your equipment probably emits a field," Zendahl speculates and receives a cautious nod in return. "And the headwalker is probably able to detect the field and home in on it."

"Then I leave field off. Wait out danger."

"Wait how long?" says Annie. "It's stranded, but how long can it hold out? Can it send a message to summon others? Are its companions already searching for it?"

"Not," says Nagkmur, "my problem." *Phantom world*, he thinks. *Alien invasion moot.*

"Perhaps," says Janet. "But you will be mooted with it."

But the time traveler reacts strangely to the caution. Janet detects fragmentary comments indicating satisfaction and just punishment for his sins, although the nature of those sins remains

obscure.

"There is a better choice," says Zendahl. "If you activate the field, the invader will detect it and try to seize it. We'll be waiting for it and, uh, neutralize it." *If there is a fleet coming behind it, Earth is doomed. We don't have the sort of defenses we had on Old Apka. And even there, we lost.*

"I am to be bait in your trap?" says Nagkmur with a thin-lipped smile. "Very honored, but respectfully decline."

Annie Troy whispers to Janet. "If I were he, I'd be thinking about bugging out about now and ducking back to a time to before this headwalker showed up."

The telepath nods. "He is."

Nagkmur takes a step toward his machine. Stacey cries out, "Sidd!" and the time traveler hesitates. What is this world to him? An accident, a blunder, a defect in the space-time manifold, something to be overwritten. Why risk anything to preserve its phantoms?

Yet the woman is one of his own. He cannot leave her behind. "Hurry," he says. "Come with me." And he reaches out a hand.

But Stacey shakes her head. During her durance in the meat-packing plant, she has fashioned a pair of shanks from pieces of metal and wood scavenged from the detritus and from tape and wire in Siddhar's kit. She grips them both, one overfist in her left, the other underfist in her right. She does not understand what the two strangers have said about an alien threat, but she is not prepared to flee.

Nagkmur reflects on his fate. Is he to destroy universes wherever he fares? He murmurs something in *pudding-wa*, reaches a decision, and steps into his machine. No one else sees exactly how he does this. It is as if a part of his vehicle has become permeable. Once inside, he activates the precessor and then, his needler in hand, goes to stand within the entrance. If things go belly-up, he can reach his seat and pop the clutch before anything can reach him. Without a Patrol shield, no one else can follow him.

He closes his eyes in meditation.

Deep waters in the heavens. Thunderclouds approach from west. The Superior Man nourishes himself and a waits moment of truth. Great success if he maintains his course. He must endure for now this strange mix of apprehension and anticipation. Nothing he does can affect outcome. Everything is submitted to Fates.

Zendahl pulls his service weapon from its holster and chambers a round. Nagkmur has acted prematurely. *The strike team has not arrived*, he thinks. *We are not ready.*

"No one ever is," Janet tells him, and she removes her pistol from her purse, tossing the purse aside.

Annie has no weapon. She *is* a weapon. Her skin bristles as the MEMS in her shell flex. She watches the directions the others do not. If anyone notices the strange transfiguration, they say nothing for the moment.

There is a moment of advent: The world in silent stillness waits. Time passes in heartbeats.

Then it is there, seven feet tall and booming like a great organ. Zendahl wets his pants. Janet and Stacey cry out in terror. Nagkmur turns back to his transporter. It is time to run.

* * *

Jim-7, alerted by his alarm system, has beamed down to the site of the temporal distortion, and has arrived from a direction no one has been watching; viz., a fourth one. The imprecision of his beamer is such that he can materialize only within a radius of uncertainty, but this puts him fortuitously in the midst of the defenders, who cannot loose fire without the risk of hitting one another.

Jim is radially symmetric, which means he needs no one to watch his back. But just as bilaterians will favor their right side or their left, Jim's people will favor one quadrant or another. Like anyone else, he likes to put his best foot forward.

He grips a disruptor in each hand—that's five—all of them set to fatal voltages. Recognizing two of his opponents as the stalkers from the warehouse, he immediately disposes of them, discharging a weapon at each. Then he rushes at the one who stands between him and the life-sav-

ing precessor. She must not fail. *Must not.*

* * *

Terror grips Nagkmur's bowels, and he takes comfort as always in the ancient books. *The enemy is upon you. You wait in blood, preparing yourself for his blows; but your own ability can see you through, if you stand your ground and maintain balance.* He draws a ragged breath and raises his weapon.

But yin changes in the fourth line. *Flood rises above tallest tree: Amidst rising tide of folly, the Superior Man retires to higher ground, renouncing his world without looking back. Any direction better than where you stand. No time for fatal heroics. Remove self from situation now. Find sanctuary. Later, deal with these concerns on your own terms, and from a position of strength.*

He turns to run.

* * *

"It's emitting sound at nineteen hertz," Annie says. "Subsonics in that range induce fear in organic beings." But Annie Troy is not an organic being, and she attacks the creature from the rear, striking with a fist that can bend steel.

But it is harder to bend rubber, and Jim-7 has no rear. He discharges the disruptor he holds in that hand, but the charge passes across her ceramic body. Certain nodes of hers spark, and an induced current disorients her momentarily. Her fist sinks into the thick, blubbery flesh of the headwalker, deep enough to cause some internal damage to its organs and leave a prodigious bruise. It staggers but is not incapacitated.

Stacey, crouched on the floor from fear, takes heart from Annie's pronouncement. It is only some sound effect, not genuine fear, and she employs the mental exercises that have seen her through countless incidents in the past, calls upon her confidence, and rises up between the beast and Sidd. She stabs the fearful thing repeatedly with her shanks.

Jim-7 does not have the same organs as a human being or an Apkallu. They are not even the same *kinds* of organs, nor are they located in the expected places, but a number of them are vital in one way or another, and more importantly, no creature can exist without pain. Pain is a blessing. It warns the creature of harm; and through it, it learns what to avoid. What Jim feels as the blades sink into its primary air sac is not exactly the same sensation as a human would feel, but it serves the same purpose and it is distinctly unpleasant.

But Jim is psyched. Jim is *pumped*. And if she does not quite laugh at pain, she resolutely compartmentalizes it. The blows are not fatal; not yet, and she lashes out with her right forward foot—that is "right" and "forward" relative to her favored body sector. The kick catches Stacey under her ribcage, crushing it and tossing her like a rag doll off to the side, where she lands in a broken heap.

Siddhar Nagkmur learns that he does not disdain all phantoms in this mad pseudo-world. Of course, he does not believe Stacey is a phantom, and in a certain way, he is correct. Whether Justinian fled the riots or not, Maryam brt' Yarosh would have gone on. She was there in Nagkmur's world every bit as much as in this one. She is immortal latitudinally as well as longitudinally.

But Nagkmur does not know this. He only knows that the only other putative survivor of his world has been kicked into rubble. He howls and aims his *pungshi* square into what ought to have been the face of the monster. Only in some rear compartment of his mind does he recall that he is supposed to be saving the phantom world from these phantom invaders. He is only trying to save Stacey Papandreou.

The *pungshi* vaporizes something akin to a muscle group, laming the creature in her left forward leg. She staggers and shakes Annie from what is not actually her rear just as Zendahl and Janet open fire from her quarters.

"Its weapon is like a Taser," Zendahl cries. "But a very low-powered one."

"But it obviously considered it a debilitating blow," adds Annie Troy, who desperately tries to add two and two.

Jim-7 knows the agony of defeat. Hurting from her wounds, surrounded by hostile indigenes,

his goal just ahead of him, it makes one last desperate lunge for what appears to be an open doorway.

And Nagkmur leaps aside.

Zendahl snarls and calls him a coward and empties his clip into the massive headball. The creature is like a bomber from the world war, with tail and side gunners operating in all directions. It zaps the colonel again, and though it stings rather sharply, he shakes it off and stuffs another clip into his pistol.

Janet Murchison smiles and withholds her fire.

Jim-7 does not know how the two survived her deadly blasts, but he pushes the mystery into a backroom of his mind. The way is clear! Already, she can hear the chords of triumph from her welcoming nest. From the depths of despair, she has seized triumph and the means to return to her folk!

It is just as well she treasures this glorious thought, for it is the last one she forms. When she touches the hull of the strange machine, unimaginable voltages course through her, shorting what she has for nerves, disrupting what serves as brains—there are two of them, actually—and igniting the sacs of hydrogen gas that permeate its body. All thought dissipates into a kaleidoscope of impressions, perceptions, concepts, none of them connected one with another.

Smoke filters from its eyes, and from a few other orifices that are less easily catalogued. Flames begin to consume its insides. It does not fall. Its five legs flex, and it settles to the ground much as a zeppelin. Something within it bursts, though the pop is muffled by its bulk.

The electrical charge of the time machine's skin was enough to knock a Chicago gangbanger senseless. Imagine what it does to a creature far more sensitive to electrical fluids.

* * *

The headwalker is settling now like a deflating balloon, the escaping gasses conjuring dying chords. Both Janet and Nagkmur wonder if they are "last words." Annie deduces that they are only mechanical. Zendahl empties another clip into the carcass. Some of the bullets pierce what might have been vital organs before they were fricasseed, but the body is now inert. It doesn't matter. It doesn't matter that this particular headwalker is of another species than the Ancient Enemy. The fear and loathing is inbred.

Janet, who overhears all this, wonders if the creature they have slain deserved its fate. The attack on Nagkmur seemed to indicate hostility, but perhaps they had all misinterpreted desperation as hostility.

They had been wrong in one sense. Jim-7 had held no hostility toward any of them. Simply a brusque impatience. There was something he had needed, and there were obstacles in the way of getting it. That was all. But try telling that to the obstacles.

* * *

IX. The Menace Out of Time

A moment of crisis is followed off by one of reflection; and so the participants in the fight stand about in solitary attitudes as they contemplate what they have done. For one thing, they have blown out a candle, and that is no small matter even if the candle had promised to set fire to the house.

Zendahl, for his part, has no doubt that it was absolutely necessary. That a headwalker could have any motive in coming to New Apkal other than to scout for a conquering fleet is beyond question. After all, the creature had opened fire, and what good reason might there have been for that?

In all her career, Janet has never before shot a suspect, and she wonders whether too much time sharing Zendahl's thoughts has subtly influenced her. The corpse continues to make organ-like sounds as its air-sacs subside, but the cessation of the corresponding mental chords is proof enough not only that the thing is most sincerely dead, but also that it had been a thinking being and not a mere monster. What did any of them really know about the creature? They had deduced that it was marooned, that it needed a component of Nagkmur's time machine and was desperate enough to try seizing it by force, but had it been any more than a terrified castaway in need of succor? She studies the massive corpse and shakes her head. It's going to be one hell of

an inquest.

Annie, properly speaking, is not thinking anything; but she does process the data and reaches a number of conclusions regarding future courses of action. One is that it would be prudent to disassociate herself from the battle. A system analyst for CYBERCOM has no good reason to come to New York and fight aliens. It is not in her job description.

In fact, she had come not to kick alien butt but to make contact with Stacey Papandreou. That purpose is now moot. Whatever else Stacey is, she is not an android.

Her current position gives Annie access to an enormous amount of data, and her tropism for data is the one thing about her that approaches a sensitive appetite. To become ensnared in the upcoming investigation would put her access, and even her identity, at risk. So to ensure its continuance, she must conceal her participation in this mess, and she immediately begins to catalog the actions that might be taken to secure those ends.

One possibility is that she should create a reserve identity in case her current one becomes unsustainable.

Another is that she should kill all the witnesses.

* * *

Nagkmur, for his part, has knelt by the body of Stacey Papandreou and holds its limp hand in his own. Now he is truly alone. He takes refuge in the ancient texts.

Fire ascends above the water. The Superior Man examines the nature of things and keeps each in its proper place. The young fox wets his tail just as he completes his river crossing. Do not rush to completion before absorbing lessons of journey. This Quest ends only at threshold of next.

But he senses a change in the second line.

Water recedes. Sun shines down upon Earth. Constantly honing and refining his brilliance, the Superior Man is a salvation to his people. They repay his benevolence with a herd of horses, and he is granted an audience three times in single day.

Nagkmur takes comfort in the verse. He is not sure why a herd of horses is an accolade. It adds up to a lot of horse manure when you think about it. But the ancient texts are often obscure, and he imagines the gratitude of his restored people: the adulation of the lowly, the rewards from the high.

He must not rush into his next task. He knows *what* he must do but has not yet decided *how* he must do it. That is, he has the science but not the art of the matter. Act in haste and like the young fox, he will wet his tail just as he has successfully crossed the river.

He becomes aware that the white-haired woman has come to stand beside him. The Patrolman releases Stacey's hand, rises, brushes his knees. "She was brave woman," he says. "Risk everything, save me."

Janet too stands over the broken body—and smiles.

* * *

Nagkmur sees no prospect of achieving the quiet he needs to meditate on his plans. He cannot stay here, but if he jumps too far into the past, he might not have the wireless access he needs for research. He could confine himself to the Internet nexus, but *who knows how long that monster had lurked in orbit searching for a wake in the time stream?* On the other hand, if he jumps to the future, he might find the authorities there alert for his arrival. How he envies the young fox!

Do these phantom beings know that I intend their erasure?

He regrets the destruction of the woman. She had been a fine source of information respecting the entanglements of Theodora, at least insofar as she had known of them. Now, he is thrown back on Procopius' *Secret History*, and who knows how reliable that fellow's gossip is? He might have to risk scouting trips to the crucial nexus, and that always carries a risk of churning up turbulence. Change upon change, until all hope of restoration is lost!

The military man and the inexpressive woman approach, and Nagkmur takes an involuntary step back. The white-haired woman looks on. Phantoms, all of them, of no particular consequence, save that they might impede the completion of his mission. The man—he is reluctant to

give these phantoms names. Names would make them more real—draws his weapon, and the patrolman's heart skips a beat. His hand starts toward his own holster.

But the man does not hold the weapon as one preparing to use it, and Nagkmur desists. "How may this one assist?" he asks.

"It would be awkward to explain my presence here," the man confesses. "There will be investigations, and . . ." he smiles briefly, ". . . who knows what they might find when they start poking into things."

Nagkmur bows and gestures. "Nearest exit, that way."

But the man is stubborn. "No, they'll be able to track me down from the slugs they dig out of the headwalker. My service weapon's ballistics are on file."

"Perhaps," Nagkmur suggests, "smoldering carcass of giant alien space invader provide distraction to forensic investigators."

The expressionless woman speaks. "The fewer puzzles that confront CSU, the better. They will seize on what is familiar. For reasons I can't get into, it would be best if no one digs too deeply into Colonel Zendahl—or myself."

Nagkmur shrugs. "Not my problem."

"But you can help," the woman insists. "You can take his weapon into the past and switch it with another of the same vintage. I can alter the records to make it appear that the replacement has always been his weapon."

Nagkmur thinks this will give him an opportunity to depart this nexus not only without opposition but with their blessing. If he does not come back, what can they do? "Very well," he says. "I will do it."

But the white-haired woman says, "I don't think it would be a good idea to let him go."

Annie does not hesitate. Moving too swiftly to follow, she places herself between the time patrolman and his vehicle.

But Zendahl is perplexed. "What's going on?"

"Our time-traveling friend," Janet says with a nod toward Nagkmur, "plans to wipe out the space-time continuum."

"What? How do you know that?"

Annie tells him, "Murchison is a mind-reader." Then to Janet she says, "You answer questions no one has asked."

The revelation shocks Zendahl. *What if she reveals our presence to the aborigines?*

"I wouldn't worry, Colonel," Janet tells Zendahl. "One hand washes another. I'd rather you didn't nose around my peculiar sensitivity, either. But you," she addresses Annie Troy, "I can't hear your mind at all."

"That must mean I don't have one," the android concludes. "I'm a machine, an android," she tells them.

"Nonsense," says Zendahl. "You're as human as I am." (And Janet nearly busts a gut, for the one thing Zendahl is not is human.)

"It's the Turing Fallacy," Annie explains. "I run a very good *simulation* of a human being, but a simulation is not the thing itself. You can't fly from JFK to LAX in a flight simulator."

Swiftly, Janet explains what she has gleaned from Nagkmur's thoughts. "But he accidentally . . . I guess 'overwrote' is the right word . . . he accidentally overwrote his own history with the one we know and now blames himself for the deaths of all his people. He's suffering the biggest case of survivor's guilt in history."

"Can people who never actually existed actually die?" Annie wonders aloud. The question resonates strangely with her since in a sense she does not exist, either.

It also resonates with Nagkmur, who has finally been pushed over the brink into tears. They course down his cheeks, and he covers his face to contain them. They might leave river valleys in their wake, they flow so fiercely. He recalls his honored father, his stern approvals and sterner reprimands. His mother, moon-faced and smiling. His brothers and him running through the backstreets of Dzhokaht, creating and enacting fantasies on the fly. His mentor, Bon Hoyma, who had come from the far future to recruit him into a fraternity that he had not known existed.

All dead now. Worse than dead.

He wonders if he can fight his way past the machine-woman, who crouches like a tiger in his path. He faces her, turning his back on the other two.

And a voice from the floor cries, "Don't leave me here, Sidd!"

Startled by this unexpected plea from an unlooked for quarter, Nagkmur stares open-mouthed at Stacey. Her blood has clotted, her wounds have knit and her broken bones are realigning even as he watches. What marvel is this? From how far in his own future has she come?

Janet speaks up. "She doesn't come from the future," she tells him. "She came from the past. But she took the long way to get here. She doesn't die."

"Self-repair?" muses Annie. There are materials that self-repair cracks while retaining strength, self-healing polymers from Oak Ridge. Raytheon incorporated self-healing into a complex system-on-chip design that enables the chip to sense undesired circuit behaviors and correct them. She supposes that nature might imitate are for a change. "Is there anything that can kill her?"

Janet considers how a machine might test that hypothesis and shudders. "It still hurts," Janet warns. "She still feels pain."

But Stacey, too, understands that her secret is now known, and while her first impulse is to flee and hide, that of Zendahl is not. And Nagkmur must be dealt with. Janet realizes that all three people present would happily see her dead to preserve their secrets, and Annie Troy could carry out the hit without warning. She takes a step or two backward. "We have to stop him," she tells the others more shrilly.

"Why should we believe you?" Zendahl asks. "We've only your word for his intentions."

"You could wait until we all cease to exist, but I wouldn't recommend it. We only had your word for it that the headwalker was hostile."

"You were in my head. You know it was true."

But Janet shakes her head. "I only know that you *believed* it was true. Maybe you were deluded."

If the Stacey woman is not of his own timeline, Nagkmur thinks, she is just another phantom, albeit a long-lived one. Yet, he has grown accustomed to her presence, and what better companion could he ask for planning the rework on Old Constantinople? He helps her to her feet, thinking that her self-healing abilities would be a useful thing to learn, even if *jan'ow* were required to extract the secret.

Nagkmur smiles at his enemies, knowing that they are also enemies of one another. He holds his hands in a placating gesture.

* * *

The tenth hexagram. Heaven shines down upon the Marsh but the Marsh reflects Heaven imperfectly. Fully aware of the danger on the narrow path ahead, the Superior Man determines to move forward. The future is uncertain, but there are times when a risk must be taken:

You tread upon the tiger's tail.

Not perceiving you as a threat, the startled tiger does not bite.

Success.

Thunder fills the Heavens. But the Superior Man does not appear intimidating or threatening. Opportunity arises along this course.

* * *

The sages who trained the transporter's neural net had included a number of basic maneuvers that patrolmen might need to call upon in straightened circumstances, one of which is called *dahjoan*, which means "a reversal." Upon receiving the proper verbal cue from an authorized voice, the transporter will leap forward in time by a quarter of a minor key and shift spatially to the other side of its operator, orienting so that its door will face the operator. It is a maneuver expressly intended for use when an opponent stands between the operator and his transporter.

More fortunate still is that patrolmen are trained rigorously in these standard maneuvers. They are executed by muscle memory, without conscious thought, and were written and memorized exclusively in *pudding-wa*.

Which is why Janet has no premonition of what is to happen. That Nagkmur intends to make a try for his vehicle is clear—body language will do when telepathy fails—but the how and the when are obscure.

Then Nagkmur says something in a foreign language, and the time machine disappears. A gust of air sweeps into the vacated space, stirring the dust and papers and other small objects. Janet gasps, and Annie spins about to stare at the empty air. But Zendahl notices that Nagkmur faces resolutely forward. He seems ready to charge, and Zendahl pulls his weapon from its holster. He had emptied his clip into the headwalker, but Nagkmur does not know that, and the implied threat may hold him. The time traveler does not pull his own weapon, and Zendahl takes some comfort in that.

When thirty-six seconds have elapsed by the Western count, the time machine reappears between Nagkmur and Zendahl. Expanding from a singularity, it pushes Zendahl and Janet backward with a great rush of air. Janet loses her balance and falls on her backside. Zendahl keeps his feet and rushes around the rear of the time machine (unless it is the front) but halts when he realizes what has happened.

Though buffeted by the displaced air, Annie is faster and very nearly lays a hand on Nagkmur when the door opens.

And Nagkmur staggers to a halt before his time machine.

It is not his time machine.

* * *

For one thing, it is larger and ovoid rather than boxy. It is lime green rather than dull gray, and there is a faintly iridescent and baroque design visible on its surface. From the now-open doorway steps a tall, brown man wearing a close-fitting uniform. He is rugged and handsome, god-like in appearance. His gaze passes over Zendahl, Stacey, Annie Troy, and Janet (who has come around the other end of the machine) until it comes to rest on Siddhar Nagkmur, and he smiles.

“*Shennö* Nagkmur,” he says, “it is my unhappy lot to arrest you for attempted chronocide.”

* * *

It makes sense in a mad sort of way. If Nagkmur’s “original” continuum had developed a patrol to safeguard its timeline, why should the altered continuum not give birth to another. Nature keeps no secrets, and what the sages of the thirty-seventh mandate had discovered, the physicists of the forty-first century could learn as well. And the Department of Chronic Integrity would spend as much energy safeguarding the overwrite as Nagkmur’s Shyan Baw spent maintaining the original—if it really had been the original.

The man from the machine calls himself Dace X, which is as fine-sounding a futuristic name as anyone could ask. As time warden for epoch 19/23, he is charged with confiscating Nagkmur’s machine and stopping his machinations.

“But my error create your time stream,” Nagkmur protests. He squats in misery beside the awesome machine from which Dace X has emerged. “You are mistakes, errors, all of you. You *preserve* defect, not correct it.”

Dace X looks thoughtful. “That depends,” he drawls, “on which side o’ the error yuh sit, don’t it?” He takes Nagkmur by the arm and raises him to his feet.

“What would you have done in my place?” the patrolman asks the warden. Failure chokes his voice.

“Oh, same-o, same-o, I ’spect,” is the breezy reply. “But there’s no way, Jose, to get back your family.”

“If I correct original error . . .” says Nagkmur.

Dace X shakes his head. “Repair jobs are never quite the same as original make. It’d be a patch job. But you haven’t lost them. They’ve lost you. Your people are still ‘there,’ in another branch of space-time. But you just can’t get there from here.”

Nagkmur struggles for his voice. “They, they still live? Truly?”

“Certainly. You can’t overwrite time. You simply create another branch of it.”

Janet knows from his thoughts that Dace X is lying like a rug. Nagkmur’s people are less than ghosts, for a ghost must once have lived. But she also senses an effort on the warden’s part to

comfort the patrolman. After all, you cannot atone for wiping out a few billion people by wiping out another few billion.

"Your arrival was quite timely," Annie Troy points out. "How did you pinpoint this time and place so exactly?"

The man from the future grins. "No sweat, daddy-o. Nagkmur will tell us during his debriefing. We just have to make sure he does that *before* I get my work order."

"That all seems rather circular," Annie says, for the claim has offended her sense of causality.

But Dace X merely shrugs. "That's one way to avoid loose ends. Anyhow, we had to wait until after you guys beat the alien. That reminds me, which of you . . . ?" He looks around and spots Colonel Zendahl. "I have this for you."

He pulls a Sig Sauer P228 from a dispatch case worn over his shoulder and hands it to the officer. "If you would hand me your old weapon, I'll drop it in the gun shop in Boise where I got this one. Make sure the records are properly altered in the air force data base." He hands a five-inch floppy to Annie Troy, who stares at it in incomprehension. Dace X says, "Oops," and replaces it with a thumb drive. "Sorry, wrong mission. Well, that's it. Twenty-three skidoo, as you people say."

Annie Troy shakes her head. "How did you know any of this was going down? Did you detect Nagkmur's, uh, 'time vortex'?"

When Dace X shakes his head, Annie presses her question. "I don't care how circular your causes are. Anything that moves is moved by another. How did you know any of this happened?"

Dace X returns to his machine, shepherding Nagkmur before him. He pauses in the doorway. "We acted on an anonymous tip in the thirty-fourth century."

But whence the tip, who could say. Janet looks about the deserted plant, but, expert as she is at passing unnoticed by the shadows around her, Stacey has already slipped away and has blended into the anonymous masses, beyond the range of Janet's talents.

* * *

L'envoi

On 7 February 2016, a bus driver named Kamraj was struck and killed by a meteorite on the campus of Bharathidasan Engineering College in Vellore, Tamil Nadu State. Scientists and media marveled at the unlikeliness of the event and said he was killed by mere chance. But Kamraj was not killed by chance, he was killed by a meteorite. Chance is not a cause, even if she strikes like a hammer.

Causation is vertical, not horizontal. That is, there is a cause for your flat tire and a cause for the Moon being in quarter phase; but for getting a flat tire while the Moon is in quarter phase, seek no cause. That way lies madness. Or astrology.

Coincidence, they say, makes bad art. But art imitates life, not the other way round, and life is a succession of such coincidences, great and small. If Stacey had not saved that baby, she would not have been on the news. If Nagkmur had not been drowning his sorrows, he would not have seen that newscast. If he had not recognized her, he would not have gone to fetch her. If he hadn't fired up the ol' temporal precessor, Jim-7 would not have burst from cover and so garnered the attention of the Apkallu League. And so it goes tumbling down time to the dénouement. Jim-7 might not have rushed so precipitously to his fatal contact had Nagkmur not stepped aside. And the patrolman stepped aside because he realized the alien's probable sensitivity to electrical shock from Zendahl's experience with its mild Taser. Because Annie, lacking all feeling, noted the nature of the fear that gripped them all, Stacey gripped her knives instead, attacked the creature, and by her apparent willingness to die steeled Nagkmur to defend a continuum in which he did not believe, much as Theodora the actress once steeled the purpose of the *basileus* Justinian in a golden city once upon a time.

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