

# THE ETERNAL CASTLE



A NOVEL BY DAN BAXTER



THE ETERNAL  
CASTLE

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DAN BAXTER

DELTA WAVE  
PART OF THE ETERNAL CASTLE — RECORD · BOOK · FILM

This is a proof copy — a designed reading edition prepared  
for early readers. The text is pre-final.

The Eternal Castle is the prose companion to the wordless  
short film of the same name and to the Delta Wave album  
that shares its title. Record, book, and film are peer  
works in one universe.

The factual Voyager 1 timeline that follows is a matter of  
public record, reported by NASA over nearly fifty years.  
Every other person and event in this book is invention.

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Set in EB Garamond. Mission registers in Space Mono.  
Trim 5.83 × 9 in.

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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1977</b> | Aug 20 – Voyager 2 launches from Cape Canaveral, Florida; Voyager 1 follows Sept 5. Both are timed to a rare planetary alignment – Jupiter, Saturn, Uranus, and Neptune fall into a line that recurs only about every 175 years – letting a single craft be carried from planet to planet on their gravity. Voyager 1 takes the faster route, overtaking its twin Dec 15. |
| <b>1979</b> | Mar 5 – Closest approach to Jupiter, revealing active volcanoes on the moon Io and a faint ring around the planet.                                                                                                                                                                                                                                                        |
| <b>1980</b> | Nov 12 – Closest approach to Saturn and its moon Titan. The path past Titan turns the craft outward, ending its planetary tour.                                                                                                                                                                                                                                           |
| <b>1990</b> | Feb 14 – From 3.7 billion miles away, Voyager 1 photographs Earth as a point of light less than a pixel wide – the image later called the Pale Blue Dot. Its cameras are switched off minutes afterward, never used again.                                                                                                                                                |
| <b>2012</b> | Aug 25 – Voyager 1 crosses the heliopause, the boundary between the Sun’s outflow and interstellar space – the first human-made object to enter the space between the stars.                                                                                                                                                                                              |
| <b>2018</b> | Nov 5 – Voyager 2 crosses the heliopause.                                                                                                                                                                                                                                                                                                                                 |
| <b>2023</b> | Nov 14 – Voyager 1 returns data that can no longer be read. The signal arrives; its contents do not resolve. The cause is a corrupted memory chip in one of its 1970s computers.                                                                                                                                                                                          |
| <b>2024</b> | Spring – Engineers rewrite the craft’s onboard code to route around the dead chip, command and reply nearly a day apart. Readable data resumes.                                                                                                                                                                                                                           |
| <b>2026</b> | Apr 17 – Engineers shut down the Low-energy Charged Particles experiment, running almost without interruption since 1977, to conserve dwindling power – hoping to keep one instrument reporting into the 2030s.                                                                                                                                                           |

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MOVEMENT I

# THE LONG ARC

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## CHAPTER ONE

# BEYOND THE INFINITE

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*Glenshaw, Pennsylvania — 1953*

The radio came to the house before the boy could remember it not being there. It stood on the lowest shelf in the den, a long box of dark wood and brass dials, heavier than it looked, with a strip of yellow glass across the front that lit up from behind when the set was on. The glass had numbers printed on it. The numbers were frequencies, though the boy did not have that word yet. He had only the lit strip and the slow knob that walked a thin red needle back and forth across it.

It belonged to his father, as certain tools in a house plainly belong to one person and are used by the others on loan. His father worked with numbers that described, he said, the behavior of objects very far away. He did not know what this meant, and his father did not explain it. What he knew was that on certain nights his father sat in the den with the radio on and the lamp off, turning the slow knob, listening, until the window went black and then went gray again.

On those nights the house stayed quiet.

He was allowed in the den on Sundays. This was the rule. Because it was a rule and not a kindness it could be counted on, and he counted on it all week.

On Sunday afternoons his father switched the set on, and the two of them waited for it to warm up.

It warmed slowly. That was the part the boy liked. The yellow glass did not simply light. A glow came up behind it, faint at first and then certain, the way warmth comes up out of the ground in spring, and

from the speaker came a sound that was not quite a sound yet, a soft wash of air, a held breath. Then the tubes inside reached their heat and the breath turned into the hiss, and the hiss was the real thing, the thing he had come for. It was the sound of the whole sky at once. It did not stop.

"That's the band," his father said, the first Sunday. "Everything that's out there is *in there*. You just have to find it."

"Find what?"

"Whatever's sending. There's always something sending."

The boy believed this completely. He had seen the proof of it already, without knowing it was proof, on the radio tower on the hill behind the school. The tower had a red light at the top that blinked all night, on and off, whether or not anyone was watching it. The boy had watched it from his window and worked out that the light was not meant for the town. The town could see the tower in the daytime. The light was meant for whatever was above the town, at night, that could not. The set in the den was the other half of that. The tower sent. The set listened. Somewhere between them, in the dark, was everything.

So, the boy learned to listen. Over that spring and summer his father showed him how to walk the red needle slowly along the lit glass, how to come at a signal sideways and not run over it, how to hold the knob still once a voice or a tone began to climb up out of the hiss. His father called this tuning. The boy let his father have the word. It was not wrong, only too small for what his father was actually doing, which was this: he was reaching out along a line he could not see the end of, into a dark that did not stop, and holding very still, and waiting to be answered. He sat in his father's chair with his sneakers a foot above the floor and listened, and once in a while, the sky answered him.

He gave the listening an order. The boy told no one about it. The near end of the band, where the strong local stations sat, was the desk lamp, which was the sun. A little further along was a station that played music from a city he had never been to, and that was a planet with

rings he had seen in a library book. And past that, where the voices thinned out and the hiss took over and a signal might surface for a moment and sink again, that was the long part. The part with nothing in it. He understood that the long part was the real distance and that everything before it was only the near shore.



Once that summer the radio did something the boy could not explain.

The boy had walked the needle far out past the music station, out into the long part where the hiss runs on unbroken, and he had held the knob still and waited the way he had been taught. The hiss ran on. Then, for about three seconds, it stopped being hiss. Something climbed up out of it. Not a voice, not music, but the start of one or the other, a shape made of sound, narrow and bright and clustered, the way a row of tall windows would sound, if windows could be heard. It was very far away, and it was not in any language, and the boy understood two things at the same time. He had never heard that before. He knew that sound. Both were true. They did not cancel out.

Then the hiss closed back over it and the band was only the band. His father looked up from the other side of the den and asked what was wrong, because the boy had made a sound of his own. The boy answered and said that nothing was wrong. The boy was nine, and he already knew the difference between the things you carry into a room and the things you leave outside the door, and he left that one outside the door. It waited there. It went on waiting for a very long time.



He would forget it, of course. A life does that with such a thing. It files it somewhere out of the light, under the smell of the den and the warmth of the tubes and the ordinary weight of growing up, and it goes on. He would forget the sound and keep only the listening. The reaching out, the long dark, the held breath, the thin signal that surfaced and was gone.

It was a Sunday in March, and then a Sunday in June, and the window was going from blue to black, and the boy sat in his father's chair with one hand on the slow knob and the yellow glass lit under his fingers. The whole sky hissed in the speaker. Somewhere in it, something was sending. He leaned forward and went looking for it.

## CHAPTER TWO

# MISSION CONTROL

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*Pasadena, California — 1977*

The launch window would not move. Everything else bent around that fact.

Walter Kessler had learned to explain the window early, because the new engineers always got it wrong. They arrived at the Jet Propulsion Laboratory from good schools believing that a deadline was a thing somebody had decided, and that what one person had decided another could argue with. They were wrong, and it was kinder to break them of it gently.

The window was not a decision. It was an alignment of planets.

Once every hundred and seventy-five years, Jupiter, Saturn, Uranus, and Neptune arranged themselves along one arc of the sun. When they did, a spacecraft could ride their gravity like stepping stones, borrowing speed from each in turn, and be carried to the edge of the solar system on almost no fuel of its own. Miss the arrangement and the same trip would take decades longer and might not be possible at all. The last time the planets had lined up this way, Thomas Jefferson was alive. The next time, everyone now drawing breath would be dead.

Walter had watched that figure do its work on a man's face many times. First came recognition; then the slow dawning that this was a sentence with no appeal, the one deadline in the world that could not be moved, because there was no one to ask. Not NASA. Not Congress. The planets. The mission existed inside the window, or it did not exist. Not delayed. Not next year. There was the window, and

there was the wrong side of the window, and the wrong side of the window was the rest of human history.

Walter built the part of the spacecraft that would speak.

His title had the word communications in it and three other words around it to keep it sounding official, but the job underneath the title was simple to state. Two craft were going where nothing built by people had gone. They would go alone. The only connection back to Earth would be a radio signal, and the signal would be faint past any ordinary meaning of the word, and it was Walter's group that built the equipment the signal came from. It had to work. A craft could lose a camera and still be the mission. It could lose an instrument, lose a whole class of measurements, and limp on and still be the mission. If it lost the ability to speak, it was not a lesser mission. It was a stone dropped down a well too deep to hear the splash. The people who dropped it would stand at the rim the rest of their lives and not know.

Walter worked long hours through the spring and summer of 1977. He did not work them because he liked them. He worked them because the deadline was coming and the equipment was not finished, and between those two facts lay a fixed quantity of work that did not care which hours it was done in, only that all of it was done before September.

Cordell cared which hours.

Arthur Cordell ran the program floor. He ran it the way a man runs a quarantine: with a courtesy that never warmed up, and a standing preference for bad news early over good news late. He was not cruel. Walter would say this about him for years afterward, when saying the opposite would have been easier and more popular, because it was true and because the truth of it was the interesting part. Cordell was not cruel. Cruelty is personal, and Cordell was the least personal man Walter had ever worked for. What Cordell was, was certain. He had the manner of a man who had been shown a clock that no one else in the room had been shown, and who had decided the decent thing was

to make the room move at the clock's speed without frightening the room by describing the clock.

"How many hours did the communications group put in last week." Cordell did not lift the end of the sentence into a question. A question was a softness, and he spent his softness elsewhere, or did not spend it.

Walter would tell him the number.

"Put in more," Cordell would say, and walk on down the floor.

That was the whole exchange, most weeks. Walter would go back to his bench and resent the man for about as long as it took to remember that Cordell was right. That was the trouble with him. He was right. The window was real. Hours bought work, work bought the equipment, the equipment bought the mission its voice. Every link in that chain was iron. A man could hate the chain and still not find a single link in it to break.

What Walter could not place was the thing underneath the certainty.

Because there was something underneath it. A deadline set by the planets should, if anything, have made a man calm. It was the one deadline that carried no blame. No rival had imposed it. No memo had set it. There was, for once, no one to be angry at. Walter found that the indifference of the planets steadied him on his worst nights. The window was coming the way winter comes, and a man does not lie awake hating winter.

Cordell did not seem steadied. Cordell, who had every reason to treat the alignment as weather, treated it as news. He wanted the craft finished and launched not merely inside the window but early in it, deep in the safe margin, and he wanted this with an intensity the engineering did not by itself explain. Once that spring Walter came back to the floor after hours for a tool he had left behind and found Cordell alone at the long table. The trajectory plots were spread out under the lamp. Cordell was not reading them. He had both hands flat on the paper and was looking at nothing.

He saw Walter and said, "We don't get another one of these, Kessler."

“No, sir,” Walter said. “Hundred and seventy-five years.”

Cordell looked at him a moment longer. Whatever he had wanted Walter to say, that was not it. Then he went back to the plots. Walter took his tool and left. He carried the small scene home with him and could not find a place to put it, and so he put it where he was putting everything else that year, which was nowhere.



Home was a rented house in Altadena with a lemon tree in the yard. The previous tenant had loved the tree. Walter had not gotten around to it. Inside the house were the three parts of his life that were not the mission, and that summer the three parts sat in the rooms like furniture too large for them, so that a man crossing in the dark would knock his shin on each one in turn.

The first was Diane. She had married an engineer, and an engineer, in the ordinary run of things, was a man who came home. She was finding out by degrees that she had married the exception. Walter’s work was not at an office she could telephone. It was at a rim. He had put part of himself down the same well he kept describing to the new men, and that part was already out past Jupiter and would not be back, given the timeline, for twelve years, or thirty, or never. She did not say this with any cruelty. That was the hard part of it. She said it tired, in the kitchen, with her back to him and her hands in the sink. She said she felt she was married to the idea of a husband. Walter heard her, and agreed with her completely, and said none of that, because there was no version of the rest of that summer in which he came home, and to answer her out loud would have been to promise a change he could not make. He had a horror of the promise he could not keep. He had never examined where it came from, though he knew it came from his father.

The second was Claire. She was nine. That summer she had started drawing him pictures of a man at a desk and leaving them on the front

seat of his car, without comment, where he would find them in the morning when he left for work. They were careful drawings. She was old enough now to get the proportions close — the man bent a little forward, the desk a real desk with legs, a window behind it, the lamp the exact wrong yellow of the lamp in the den. Walter kept every one of them in the glovebox. He looked at them sometimes at red lights. He understood that he was being sent a signal by a small and patient instrument that had learned to draw the thing it wanted and did not yet know its signal was not getting through.

The third part of his life was in Pennsylvania. Walter did not look straight at it that summer.

The equipment got built. Through a spring of six-day weeks that became seven, through a summer in which Walter watched the calendar the way a man stranded on a tidal flat watches the water rise, the communications group did the work, and the work was good. By the middle of August the part of the craft that would speak was finished. It sat in a clean room under white light, tested and tested again. Walter stood over it on the last night with Cordell beside him. Neither of them said anything. There was nothing to say that the silence was not already handling.

There was one point in the building of it that Walter had been stubborn about, and the stubbornness had cost him two arguments and a memo. He had wanted the craft's transmitter not sealed to its own instruments — wanted a way, a plain physical one, for a person to feed something new into the sending by hand. The others on the floor had not seen the need. The instruments were the mission; the instruments were what there was to send; a transmitter that only ever spoke for its instruments was a simpler box and a lighter one, and weight, out there, was everything. Walter had held the line anyway, on the plain engineer's refusal to build a thing that could only ever do what it was doing on the day it was built. Instruments fail. Missions outlive the men who draw them up. A craft that could not be handed

something new to say was a craft that went dumb the first morning the world surprised it. So the door stayed — a small input, an access panel, a way in that a steady hand could reach. It cost four ounces and a week, and Cordell signed off on it without comment, with the short patience the floor kept for a good engineer's small harmless insistences. Walter thought no more about it. It was the kind of provision a careful man makes and expects never to use, and forgets that he has made.

It was done. Whatever the signal would have to carry across whatever was out there, it would not fail for lack of something Walter Kessler could have built and had not.



There were two craft. They did not launch together, and the order in which they launched taught Walter something he had not thought to expect.

The one the public would come to call Voyager 2 went first, on the twentieth of August. Its route was the longer one, the full tour of all four giant planets, and the longer route had to start sooner. Walter watched the launch from a console at the Cape with a clipboard in his hands that he did not need. For the first ninety seconds it was the finest thing he had ever seen. Then it stopped being that.

The craft, climbing, began to report that it was dying.

Nothing was actually wrong with it. Establishing that would take the ground crew days, and Walter would not sleep properly until it was established. But the shaking of the ascent had jarred the craft's internal components loose, and up there on its column of fire it had begun to run the routines of a machine in its final minutes. It reached for backups. It switched systems. It hunted for a fault it could not find, and it sent down everything it was doing in clean, fast telemetry, through the equipment Walter's group had built, in what amounted to a single repeated sentence: fail, fail.

It was not failing. It was, if a machine can be said to be anything of the

kind, afraid. Walter sat in a room full of men who had given years to this and watched every face in the room go the same color. And he understood, sitting there, that he was listening to his equipment work perfectly. That was the part he never got rid of afterward. The equipment had not failed. It had carried the panic down flawlessly, every bit of it, exactly as designed. He had built a perfect instrument, and the first true thing it brought him was the sound of something far away and alone and certain that it was about to die.

Voyager 2 did not die. The ground crew talked it down the way you talk anything down out of a panic, slowly, with a patience the craft could not see, and it lived, and it went on toward its long road. But Walter carried the color of that room back to Pasadena with him, and he still had it sixteen days later, on the fifth of September, when the second craft stood on its own pad.

This was the one the world would learn to call Voyager 1. It was the faster of the two. Its route was shorter and steeper, and it would overtake its twin in the dark and reach deep space first.

Walter watched the second launch from the same kind of console. He had made himself one promise about it and had not examined the promise: he would not watch the telemetry numbers. He would watch only the thing itself, the way a tourist would. The way Claire would.

It went up clean.

It climbed its column into the morning over Florida without the panic, without the dying routines, with the plain steadiness of a machine that did not yet know enough to be afraid. Walter found, watching it, that he had stood up. What he felt was not pride and was not relief. It was the plain, complete sense that he had done this exact thing before. That he knew it. The small bright body lifting away along a line it could not see the end of; the dark it was being sent into; the way it grew smaller without growing weaker, the distance taking its size but not the fact of it. He knew this. He had done it. He had sat somewhere a long time ago with one hand on a slow knob, reaching

out past the lamp and the ringed planet into the long part that had nothing in it at all, holding very still, and he had been the only one who could hear it answer.

He had the plain sensation of a circle closing somewhere out past the edge of what he could see. He could not have said whether the circle was closing ahead of him or behind him.

Then the craft was a star, and then it was not even that, and the men in the room were shaking hands. Walter shook the hands that were offered to him. Somewhere over the Atlantic the equipment he had built was already speaking, throwing its thin, clean signal back across a gap that would widen every second now for the rest of his life and for years past the end of it. Walter Kessler stood in the noise with his ears ringing and thought, with no idea how large a promise he was making, or to whom: I am ready to go home.

There had been a thing bolted to the craft that was not his, and not his group's, and Walter had watched it go up with the rest. Another team had made it — a round disk in a jacket of etched gold, fixed to the hull, facing out. It was not equipment. It carried nothing the mission needed and answered to nothing the mission would ask. It was a record — music, mostly: the sound of one planet pressed into a groove, songs two hundred years apart laid end to end and flung outward as a kind of time capsule, meant for no one, or for whoever was out there in the long part to find it in some year too far off to think about. Walter had looked at it once, in the clean room — a brief incurious glance at a thing outside his own department — and had gone back to his own work. He thought of it now, climbing the dark over the Atlantic with everything else: the craft was already carrying a message home before it carried a word of his.

He did not get to go home. He got the telephone call from Pennsylvania instead.

## CHAPTER THREE

# LITTLE DEVIL DOWN BELOW

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*Glenshaw, Pennsylvania — 1977–1978*

The rented car smelled of other people's cigarettes, and the road out of the Pittsburgh airport was wet, and Walter Kessler drove it without seeing it. He had driven this road all his life. He did not see the steel mills along the river, going or already gone. He did not see the hills. He saw, instead, the long table on the program floor in Pasadena, three thousand miles behind him, and he saw Ray Vance standing at it.

This was the trouble, and Walter knew it was the trouble, and knowing did not help. His father had had a stroke on a Tuesday. The call had come on a Tuesday night, his sister's voice gone careful and flat, a voice that had already done its crying and did not intend to do any more of it on the telephone, and Walter had been on an airplane by Wednesday morning. All of that was correct. He had done all of that correctly. And underneath it, the whole flight, in the part of him he could not switch off, he had been thinking about who was standing at the long table while he was gone.

Ray Vance was twenty-five and good, and the second of those was the problem. If Vance had been merely ambitious, Walter could have filed him under the ordinary traffic of a working life and forgotten him. But Vance was ambitious and also genuinely good — quick with the hardware, quick with the math, quick in the particular way that made older men say, approvingly, that he reminded them of themselves, when what they meant was that he frightened them a little. Vance had been Walter's subordinate for two years. And Vance understood the

communications system now nearly as well as Walter did. Which meant that for the length of this trip, however long it turned out to be, the link to two spacecraft already in flight — the thin operational thread that was the only thing connecting Earth to either of them — was Ray Vance's to hold. It was Vance's to hold because Cordell had named him to it. With Walter gone for his father, Cordell had put the link to both spacecraft in the hands of a man of twenty-five. That Vance was good, Walter knew. That Cordell had reached past older, steadier men to put someone that young at the head of the floor was the thing Walter had not seen coming.

Walter turned that over, on the wet road, and was ashamed of it, and went on doing it. His father was in a hospital in the town where Walter had been a boy, and Walter was driving toward him at sixty miles an hour, and he was thinking about a man of twenty-five in California. He could not make the thought hold still. It was like trying to hold the needle on a station that would not quite come in.



The hospital was small and smelled of floor cleaner and the particular laundered-linen warmth that hospitals have, and his sister was in the corridor, and she was older than the last time, and so was he.

"He's awake," she said. "He knows you. He can't — the words don't come the way they should. Don't make him hunt for them."

Walter said he understood, and went in, and found that he did not understand, because nothing his sister had said had prepared him for the simple fact of the size of the man in the bed. His father had been a tall man. He was still exactly as tall as he had always been; the bed had not shortened him. And yet the stroke had done something the eye registered as a loss of size, as though some inner pressure that had filled the man out to his own dimensions had been switched off, and what lay in the bed was the same length of father at a lower volume.

The right side of his face had slipped. His father saw him. The left eye

found him and held him and was, unmistakably, his father — all of him, the whole man, in there and looking out — and the mouth worked, and what came out was not a word. It was the front half of a word, and then a sound that was the shape of effort and not of language. His father stopped, and the left eye changed, and Walter understood that his sister had been precisely right and that he was already failing at the one thing she had asked of him.

"Dad," he said. "Don't. You don't have to. I'm here."

And he sat down in the chair beside the bed, the way he had sat down in a chair beside this man ten thousand times, and for a while neither of them required the other to say anything. That was the first hour. It was the easiest hour Walter would have for a long time.



His father did not die that week, or the next. The stroke had knocked the man down without finishing what it started, and what followed was the thing the doctors called a recovery, and what Walter's sister, who drove in every day, called by no name at all. He would get some of it back. He would not get all of it back. Which of the two it would be on any given day was not a thing anyone could promise, and so the house on the hill in Glenshaw filled up, that autumn, with the specific exhausting weather of not knowing. It was the same weather, Walter noticed and did not say, that he had left behind in Pasadena, where two spacecraft were three weeks into a journey of years and no one could promise what the years would do to them. He had flown three thousand miles and arrived in the same season.

He stayed eleven days. That was the length of time before the pull from the other direction — the floor, the work, the two voices already in the dark, Vance — grew stronger than the pull of the bed and the chair and the slipped face. And a man is honest or he is not, and Walter made himself be honest about that at least: he did not leave Glenshaw when his father was well enough to be left. He left when the mission

became, in the silent ledger he kept, the heavier of the two weights. The two claims on him had been laid in the same scale, his father in the one pan and the spacecraft in the other, and Walter had stood there and watched the needle and pretended he was not watching it, and on the eleventh day the needle settled.



The house had a den. It had always had a den; it was the room at the back where his father had kept the radio, all those years ago, and had sat in the dark turning the slow knob while the window went from black to gray. Walter had not been in that room in a long time. On the ninth day, looking for a thing his sister had asked him to look for, he opened the door of it, and reached for the lamp, and stopped with his hand on the switch.

There was a computer on the desk.

It was new. That was the first wrong thing about it, the newness — a beige machine, a keyboard, a small black screen, sitting on the desk in the den under a thin film of dust, in a house his father had not meaningfully changed since the Eisenhower administration. Walter stood in the doorway and looked at it and felt something move in him that he did not have a clean name for. His father was seventy. His father had had, by the evidence of that dust, very limited use out of this machine before the Tuesday that took the words away. His father had gone out, in the last good stretch of his life, and bought himself a computer.

Walter went and sat down in front of it. He did not turn it on. He found he did not want to see the screen warm, and could not, just then, have said why. The shelf above the desk was where the shortwave radio had stood, the long box of dark wood and brass dials. The radio was not there now, and Walter did not know where it had gone, and the not-knowing opened under him for a moment like a stair that is not where the foot expects it.

He understood part of it. His father had spent his working life with

numbers that described things very far away, and his evenings turning a knob through the hiss after something small and distant to surface, and a computer was only the next room of that same house — another machine for reaching, another way to lean toward a far thing and ask it to answer. Walter understood that much and was steadied by understanding it. What he did not let himself look at, what he set down at the door of the room the way the boy in this same house had once set a thing down at the door, was the other part: that a man of seventy does not buy a machine just for the year he is in. He buys it for the years he expects to be given. His father had sat in this chair a few weeks before, and made a quiet bet on the future, and the future had come in on a Tuesday and called the bet.

Walter turned the lamp off and shut the door and did not tell his sister. That night, in the narrow bed of his boyhood room down the hall, he lay awake and listened to the house.



And once, in the gray hour, between the listening and the not-listening — the wakeful state before dreams settle — a vision came to Walter.

*There was a room he had never been in. It was this room — the den, the desk, the machine — and it was not, because the walls had gone, and beyond where they had been lay a country of broken ground under a sky the color of a screen with nothing on it. On the desk the machine was lit, and its light was the only light, and a man stood over it with his back turned — not his father, not Walter, someone the dream would not let him see. The machine between his hands was the same machine. And Walter understood, with the helpless certainty of dream, that he had been here before, and would be here again. Then the room was only the room.*

He woke with the word for it almost in his mouth — the front half of a word, and then nothing, the rest of it not coming. Then the day came up

gray in the window and the word went back wherever such words go, and Walter got up and went to the hospital and did not think of it again for a long time.



His father died in the spring, of the next thing. The first thing had knocked him down; the second thing, quietly, finished it. Walter flew back for the funeral. By then Voyager 1 and Voyager 2 were both long gone, both out past the orbit of Mars and climbing, both throwing their thin clean signals back down the gap to the equipment Walter's group had built. And there was a particular cruelty in the timing that Walter felt and did not speak of to anyone: that the voices he had built were working perfectly, were reaching across the whole widening dark exactly as designed, in the same season that the one voice he would have given a great deal to hear had been switched off in a bed in Pennsylvania and would not be reaching anyone again.

After the service there was the house to be gone through, the slow archaeology that the dead leave to the living. Walter's sister took the photographs and the good dishes and the things that had been their mother's, and Walter, asked what he wanted, found that he wanted almost nothing, and then found that he wanted one thing.

He took the computer.

He carried it out to the rented car himself, one piece at a time — the beige body, the keyboard, and the heavy screen. He set the pieces on the back seat. He told his sister it was practical, that the machine was nearly new and it was foolish to let a nearly-new machine go to a stranger at an estate sale, and his sister, who was tired, and who had taken the things that held the past, let her brother take the one thing in the house that was pointed the other way, and did not argue.

Walter gave it to Claire.

She was ten by then, and she took to it head down and fast, without the smallest awe. Walter set the machine up on a desk in her room and

showed her the few things he knew how to show her — how to bring it on, how to rest her hands on the keys, how to slide a disk into the drive until it caught. And then he stood in the doorway of his daughter's room, a little apart, a man who had carried something a long distance and set it down, and he watched her lean toward the lit screen with her hands on the keys. He did not think — he was tired, and grieving, and a practical man, and he simply did not think — that he had seen this exact thing before: a child leaning toward a machine in a lit room, reaching for whatever was on the far side of it, and an adult in the doorway watching.

He flew back to California on a Sunday. The mission had held. The work had waited for him, in the sense that work waits, which is to say it had not waited at all and had simply gone on without him and was now eleven days deeper than he had left it. Ray Vance had stood at the long table the whole time and kept the link clean and the two voices answering, and done it well, and that was a thing Walter was going to have to find a place to put. But that belonged to the floor, and the floor belonged to the next part of the route. For now there was the airplane, and the country going by underneath it, brown and then dark, and a man flying west, away from a grave, carrying nothing he could see.

## CHAPTER FOUR

# FAIRCHILD

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*Pasadena, California — 1980–1981*

The signal from Saturn took eighty-six minutes to arrive, and Walter Kessler had come to think of those eighty-six minutes as the truest measurement of his working life.

It was not a hard number to explain, and Walter explained it often, because the new engineers got this wrong too. They knew the spacecraft was far away — they knew it as a fact, filed at a safe distance from the body. What they did not have was the patience the distance demanded, in the body, as a daily thing. Voyager 1 was past Jupiter now and climbing toward Saturn, and a command sent up from the floor in Pasadena crossed that gap at the speed of light and arrived eighty-six minutes later, and whatever the craft did in answer crossed the same gap coming back, and so the shortest possible conversation a man could have with the thing he had built was just under three hours long. You said a sentence. You waited out the better part of an afternoon. The thing answered the sentence you no longer quite remembered saying.

Walter had stopped finding this frustrating somewhere in the years since the launch. He had started, instead, to find it honest. It was the plain fact of the work made visible. Everything he had ever done for a living had this delay buried inside it somewhere — you reached out, and you held still, and the answer, if it came, came back across a gap that did not care how badly you wanted it shortened. The radio in the den had taught him that before he had the word for it. Saturn was only

the radio again, with the patience turned all the way up.

The encounter was set for November. By the spring of 1980 the whole floor had begun, quietly, to lean toward that month the way the floor had once leaned toward the launch window, and Walter recognized the lean and did not entirely trust it. A launch window was a wall; you hit it or you did not. An encounter was different. The craft would arrive at Saturn whether or not anyone on the ground was ready, would swing through the system in a matter of days, would take what it took and send what it sent and be gone, outbound, forever. There was no second pass. If the communications equipment faltered in those days — if a command went up wrong, or an answer came down garbled, or the craft turned its antenna a half-degree off the line back to Earth — then the data from the only close look at Saturn would arrive as noise, or would not arrive at all. No one now alive would get another, and the well Walter had spent his life describing to the new men would have taken one more thing and given nothing back.

So, the work in 1980 was not the work of building. The building was long done. The work was the work of not failing, which is a different thing, and harder to staff, because a man cannot be told to go and not-fail for nine hours and be expected to know when he has succeeded.



Ray Vance knew when he had succeeded. That was the first thing to understand about him, and Walter, who had spent three years now understanding him in pieces, had finally got it whole.

Vance was twenty-eight. He had held the link alone for the eleven days Walter was in Pennsylvania, three years back, and had held it well, and both of them knew it, and neither of them had ever said so. It sat between them instead as a kind of settled weather. Walter had come back from his father's funeral to find his own system running clean in another man's hands, and had felt, getting off the airplane, two things

that did not sit comfortably in the same chest: gratitude, that the link had held; and something colder, with no good name, that the link had held without him. He had put the cold thing where he put such things. But it had not gone anywhere. It had only waited, the way the sound from the den had waited, and now, in the long-pressured spring of the Saturn year, it had come back up out of the hiss.

Because Vance had stopped being a man who held the link when asked. Vance had become a man who improved it.

That was the part Walter could not file. An ambitious subordinate was the most ordinary furniture in any laboratory, and Walter could have lived alongside ambition for thirty years and felt nothing sharper than a mild draft. What Vance had was not ambition. Ambition was the engine and not the cargo. The cargo was that he was good — good in the specific, undramatic, irreversible way that Walter had once been called good by older men who, he understood only now, had not entirely enjoyed saying it. Vance looked at the command sequences Walter's group had written for the Saturn encounter, sequences refined over years, and he did not look at them as a junior man looks at the work of a senior one. He looked at them the way Walter looked at them. And then, twice that spring, Vance had found in them a thing that could be done better, and had been right.

The first time, Walter had thanked him, and meant it, and gone home and not slept well.

The second time was in June, and it was not a small thing, and it taught Walter the true measure of what was happening to him.



The problem was the antenna, and the problem was old, and everyone had agreed for years that it was not a problem so much as a cost.

To send its faint voice all the way back to Earth, the craft had to point its big dish antenna directly at the Earth and hold it there. To gather data at Saturn, it had to point its instruments at Saturn. For most of

the mission these two demands lived in different rooms and never met. But in the closest hours of the encounter, Saturn and the Earth would not be in the same part of the craft's sky, and the craft, having one body, could not face two ways. It would have to choose. The plan, the plan that had stood for years, was that during the critical passes the craft would point at Saturn and gather, and store what it gathered on its tape recorder, and then, the danger past, turn its dish back to Earth and play the stored data down. It was a sound plan. It had one cost, and everyone had long ago agreed to pay the cost, and the cost was this: during the most important hours of the most important days of the mission, the craft would be silent. Pointed away. Gathering everything, saying nothing. The floor in Pasadena would sit in the dark, hour after hour, with no signal at all, and simply trust that the craft was alive and working and wait for it to turn back around and tell them.

Walter had made his peace with that silence years before. He had explained it, the way he explained the eighty-six minutes, as a plain cost honestly paid.

Vance would not make his peace with it.

He brought it to Walter on a Thursday, at the end of the day, when the floor was emptying — brought it correctly, in private, not on the floor, which Walter noted and gave him quiet credit for. He had been over the encounter geometry, Vance said, hour by hour, not the summary but the actual numbers. And the craft was not, in fact, going to be pointed fully away from Earth for the whole of the critical window. For a stretch in the middle of it — Vance had it down to a span of hours — the geometry was kinder than the old plan assumed. The dish would not be on the Earth. But it would not be all the way off it either. It would be off by an angle small enough that a signal, a thin one, a fraction of the usual strength, could still be coaxed down the edge of it. Not data. Not the full flood. But a carrier. A tone. Enough to stand in a room and know, in something close to real time,

that the craft was alive and the tape was turning and the encounter was being kept.

It would take work. It would take retuning the ground stations to listen for a far weaker thing than they were built to hear, and rewriting a piece of the command load, and convincing a great many people that the work was worth doing for a result that was, when you said it plainly, only reassurance. Only the difference between trusting the craft was alive and hearing that it was.

Walter sat with it. The floor went quiet around them. And he understood, sitting there with the younger man waiting respectfully for his answer, three things in a row, and the third one was the one that mattered.

The first thing was that Vance was right. The geometry was the geometry; Walter would check it, and it would hold, because Vance did not bring him things that did not hold anymore.

The second thing was that it was good. Not clever — clever was cheap, and Walter had distrusted clever all his life. It was good. It was the work of a man who had refused to accept a silence that everyone else had accepted, and had gone into the numbers and found, folded inside them, a way to make the dark a little less dark. It was, Walter thought, with a flatness that surprised him, exactly the kind of thing he would have wanted his name on at twenty-eight.

And the third thing — the thing that came up cold and total and would not go back down — was that Walter had had the same numbers. The encounter geometry was not Vance's private document. It was Walter's too, had been on Walter's desk for two years, and Walter had looked at the silent window during the critical passes and had seen a cost honestly paid, and had moved on. He had made his peace with the dark. He had been a little proud of the peace. And a younger man had looked at the identical dark and had not made peace with it, had refused it, had gone in after a signal where Walter had agreed there was none to be had.

Walter had taught the new men, for years, the difference between the window and the wrong side of the window. He had never told them the other thing, the thing he was learning now in an emptying room at the end of a Thursday: that a man can be on the right side of every window and still, slowly, without a single decision he could point to, cross over into being the person the work happens around instead of the person it happens through. There is no wall for that one. There is no window you miss. You simply make your peace, once, with a small dark, because making peace is the mature thing and you are tired and your father is dead and your daughter is nearly grown — and then you look up some Thursday and a man of twenty-eight is showing you, kindly, courteously, in private, the signal you had decided was not there.

"Write it up," Walter said. "All of it. The retuning, the command load, the staffing. Bring it to me Monday and we'll take it to Cordell together."

"Together," Vance said. Not quite a question. He was good at the floor, too; he had heard the word and was checking its weight.

"It's your idea," Walter said. "Cordell should hear it in your voice. I'll be in the room because the room will move faster with me in it, and for no other reason. The idea is yours and it stays yours."

He watched that land. Vance was too disciplined to show much, but Walter had been reading men across benches for many years, and he saw the thing go in and take, and he saw — this was the part he had not braced for — that what went across the younger man's face was not triumph. It was something more like relief, and under the relief something almost like gratitude, and Walter understood, with a small turning-over in his chest, that Vance had not been certain. That for all the quickness and all the rightness, Vance had carried this to him genuinely not knowing whether the older man would lift it up or quietly sit on it, and had braced for the second, and had come anyway.

That was the thing that finished it. Walter could have gone on

resenting a man who was merely brilliant and merely hungry. It was much harder to resent a man who was brilliant and hungry and had also, plainly, been a little afraid of him, and had decided to trust him anyway, and had turned out to be right to.



The thing went to Cordell on the Monday, and Cordell, who had not warmed by a single degree in the years Walter had known him, listened to Vance lay it out and said, when it was done, "How weak a signal are we asking the Canberra dish to hear."

Vance told him the number.

Cordell looked at the number in the air for a moment. "And you can get Canberra retuned to hear it without taking them off the operational link."

"Yes, sir."

"Then do it," Cordell said, and that was the whole of it, and he was three steps down the floor before he stopped and turned halfway back. He did not look at Vance. He looked at Walter, and he said a thing that Walter would carry for a long time and never fully unfold.

"Good," Cordell said. "I don't like going dark out there. Not for an hour. Not ever." And then, lower, not really to either of them, the way a man says a thing he has stopped being able to keep all the way inside: "We don't get this back."

Then he went on down the floor, and Walter stood holding it. We don't get this back. The man had said it three years ago over the trajectory plots, in almost the same words, and Walter had answered him then with the number — a hundred and seventy-five years — and been given that look, the look of a man answered in the wrong key. He heard the wrong key now. The dark Cordell did not like, the dark he wanted a thin tone strung across, was a larger dark than the encounter, and Walter still could not see the edges of it, and he was beginning to believe that Cordell could.



The encounter came in November, as the planets had promised it would, and the floor did not go dark.

It was not silent, those days — Vance's thin tone held, all the way down the kinder middle of the geometry, a single faint carrier strung across the gap like one wire over a canyon, and a man on the floor could stand under it and hear, not what the craft was learning, but that the craft was alive to learn it. Walter stood under it more than once. It was, he thought, a strange and modest kind of miracle: not the data, which would come later, in its flood, and be magnificent; but the bare tone, the proof of life, the held breath made audible across eighty-six light-minutes of nothing. A child's instinct, really. The refusal to let the room go fully dark. Walter had had that instinct once, at a slow knob, and had let the years file it down to a sensible acceptance of cost, and a younger man had carried it back to him intact.

And then the data came. It came down off the tape in the days after closest approach, when the craft had swung clear and turned its dish full onto the Earth again and opened up, and it was everything the silence had been holding. The rings resolved out of theory and into fact, into structure no one had modeled, hundreds of them, thousands, fine as the grooves of a record and not one of them where the textbooks had drawn it. A moon with a haze around it thick enough to hide its whole face. The great pale planet itself banded and turning. It arrived in Pasadena as numbers, always as numbers first, streaming down through the equipment Walter's group had built and kept and nursed across three years and a billion miles — and the equipment did not falter. Not once. The voice Walter had built held the whole flood and brought it home clean.

He stood on the floor in the middle of it, in the noise of it, men and women moving fast and glad around him, the images beginning to come up on the screens. He found Vance across the room. The

younger man was not looking at the screens. He was looking at a strip of telemetry, the signal-strength figures, the plain proof that the link was holding under the load — looking at it the way Walter himself would have looked at it, head down, checking the thing nobody thanked you for, while the room celebrated the pictures. Walter watched him do it and felt the last of the cold thing go out of him, quietly, the way a tube goes cold when the set is switched off: slowly, and from the inside, and without any sound to mark the moment it was done.

He was not going to be the man it happened through. Not for very many more years. He had seen that plainly now and there was no use pretending the seeing could be undone. But the work would go on happening — that was the whole point of the work, that it outran the men who did it — and it would happen through hands like the ones across the room, hands that refused a dark Walter had learned to accept, and that was not a loss. He made himself stand in the noise and look straight at it until it was not a loss. A man builds a voice and sends it out past every planet and lets it go. He does not get to also be the voice. He had known that, in principle, since he was nine years old and understood that the tower sent and the set listened and that he was, and would only ever be, the one who sat in the chair and turned the knob and kept very still and hoped.



He telephoned the house that night from the floor, late, before the long drive back to Altadena, because the encounter had run him past every reasonable hour and because he wanted to and had almost not let himself. Claire answered. She often answered now; she was twelve, and the telephone had become hers the way the den radio had once become a boy's.

The machine he had carried out of his father's den and set up in her room was three years old now, and she had long since gone past

anything Walter could have shown her on it; she spoke about it, when she spoke about it, in a vocabulary he had to work to follow, and he had stopped, a while ago, minding that he had to work to follow it. Diane came to the phone first, the way she always did, and they spoke for a minute about nothing — the careful, level minute of two people who had reduced a marriage to see how little of it would still answer to the name, and had their answer, and were not saying it. Then she put Claire back on. It was Saturn night, and Walter found he wanted to tell his daughter something and did not have the words for it yet.

"We heard it the whole time," he said. "Usually, at a thing like this, the spacecraft has to look away from us to do its work, and we lose it for a while. We sit here and don't hear anything and just trust it's all right. This time we didn't lose it. We kept a little thread of it the whole way through."

"Was that you?" she said. "The thread?"

"No," Walter said. "No, that was a younger man. That was a man named Ray Vance. I'd decided it couldn't be done, and he decided it could, and he was right."

There was a pause on the line, the ordinary kind, and then his daughter said, "But you let him."

Walter stood on the emptied floor with the receiver against his ear and found he could not answer that for a moment.

"You were the one who let him," Claire said again, not pushing it, just laying it back down in front of him because he seemed to have missed it. "If you'd decided it couldn't be done, and you were his boss, then somebody had to let him try it. That was you. Right?"

"Yes," Walter said. "That was me."

"Then it was a little bit you," she said, satisfied, closing it, already half on to something else; and they talked a few minutes more about nothing, and he told her he loved her, and he hung up the telephone and stood a while longer on the dark floor before he went down to the car to make the drive back to the rented house, and the lemon tree

dying slowly in its yard, and the two people inside it who had already done the quiet autopsy of their marriage and were waiting, kindly, for the body to be carried out.

A little bit you. He turned it over. All that long year he had been learning a thing he would not let himself name: that he was passing out of the center of the work and would not pass back into it. It had taken his twelve-year-old daughter, in four words, to find the part of it he had been too close to see. The work moved through Vance now. But the room Vance worked in, the floor, the trust, the quiet permission to carry an unwelcome idea to a hard man and not be sat on — some of that was Walter's. He had built more than the equipment. He had built, without noticing he was doing it, a little of the dark that the next man got to refuse.

It was not the center of the work. He was honest enough, even that night, not to dress it up into something it was not. But it was not nothing, and it was his, and it would outlast him, and out past Saturn, climbing, the thin, clean voice he had built went on saying so, across a gap that widened every second, to anyone still keeping the patience to listen.

## CHAPTER FIVE

# SEA OF TRANQUILITY

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*Pasadena, California — 1990*

The photograph was not anyone's idea at first. It was a leftover.

By 1990 Voyager 1 had already done the thing it was built to do. Now it was doing the longer thing, the part of the mission that had no encounters left in it and no press, and would not, in the ordinary sense, ever end. It had passed Saturn nine years before. It had turned, after Saturn, and begun to climb up out of the flat plane the planets ran in, the way a man climbs up out of a valley to see the whole of the valley, and it was very high above that plane now, and very far, and still going. There was nothing ahead of it. That was not a figure of speech. The instruments were healthy and the equipment Walter's group had built still spoke, clean and faint and on schedule, but what it spoke about, increasingly, was nothing — the count of particles in an emptiness that the count kept confirming was empty.

So when the proposal came around again, the old proposal, the one that had been raised and shelved twice already, it came around as a courtesy more than a plan. Before the cameras were shut down for good — and they were going to be shut down, to save the power and the heat for the instruments that still had something to look at — the craft could be turned. It could be made to look back. From where it was, it could photograph the whole of the solar system it had crossed, all the planets at once, a family portrait taken from the doorway by someone leaving.

Walter sat in the room where this was decided and watched it nearly

not get made.

The objections were not stupid. That was what he would remember. Pointing the camera back at the inner system meant pointing it close to the sun, and the sun, even from out there, even that small, could burn the optics blind — the camera would be sacrificed either way, but there was a difference between spending it and wasting it. There were man-hours involved, real ones, and the man-hours had nowhere on the budget to stand. And the pictures, the engineering case said plainly, would show almost nothing. Earth from that distance would not be Earth. It would not be a marble, a globe, a blue and white world. It would be a dot. It would be less than a dot. The arithmetic was merciless: at that range the Earth would come out smaller than the grain of the film itself, a fraction of one pixel, a thing the camera could not properly resolve and the eye would need to be told how to find.

A picture of nothing, taken at real cost, of a thing too small to see. The engineering case was airtight. Walter watched it nearly carry the room. Then he watched it lose, and the thing that beat it was not an argument.

It was a man saying, quietly, that he wanted the picture anyway. That there might be a value in it that did not have a column. That a portrait of the Earth as it actually was — not as the maps drew it, not as the globe in a schoolroom promised it, but as it truly stood in the actual dark, tiny and unscheduled and alone — might be worth having even if, especially if, it showed almost nothing. The room went quiet around that. It was not a quiet of agreement. It was the quiet of a roomful of engineers being asked to sign off on a feeling, and not quite able to find the grounds to refuse.

The picture was approved. The commands were written. And on a day in February, across the gap that was now so wide that the instruction took five and a half hours to arrive, Voyager 1 received the order, and turned its old camera back the way it had come, and looked for its home, and found it, and sent the looking back. The looking took five

and a half hours to return. There is no faster it could have come.



It came down as numbers. Everything came down as numbers; Walter had built the road the numbers traveled and had stopped, decades ago, expecting them to arrive as anything else. The image was assembled afterward, on the ground, line by line, the way such images were always assembled, and Walter was not in the room when it finished assembling. He saw it the way most people would eventually see it. Someone had it on a screen, and he came around a corner, and there it was.

A band of soft light, the scatter of the sun in the camera's own lens, a long pale stripe across the dark. And in the stripe, not centered, not marked, not announced — a mote. A single point. It had a faint color to it, if you let yourself believe the color and were not just supplying it: a pale blue, the blue worn almost out of it by the distance.

That was the Earth. That was all of it. Walter stood in the corridor and looked at the dot and did the thing the picture would make everyone do. He put the people on it. He put all of them on it, the whole weight of them, onto that fraction of a pixel — every war that had ever been fought and every map that had ever been drawn and every border argued over and bled for, every king and every harvest, every radio tower blinking red against the night, every father at a knob, every child at a screen. The room with the headphones, three corridors from where he stood, was on it. He himself was on it, was standing on it while he looked at it, which the mind could not do anything sensible with at all. It was all there, in the mote, in the pale worn-blue speck adrift in a stray bar of light, and the speck did not look important, and the dark around it did not appear to have noticed it was there.

He had spent many years building the finest voice human beings had ever made and throwing it out into that dark, and the dark had now, finally, sent him back a portrait of the sender. Here is the thing your voice is leaving. Here is the size of it. The picture did not editorialize. It

did not have to. It simply reported, in the flattest possible terms, the one fact that every globe and every map had been built, Walter understood now, partly to soften: that home was very small, and the surrounding dark was not.



He drove back to Altadena that evening through the ordinary traffic, and the ordinariness of it was its own strange comment, all those people steering their share of the mote along the freeway, none of them having seen the picture yet, all of them about to.

The marriage had been over for a long time before it ended. This is the common way of it, and theirs was common. There had been no single afternoon a man could point to. There had only been the long, mannerly, exhausted experiment, conducted year over year, in how little a marriage could be reduced to and still answer to the name — and somewhere in the recent stretch of it the experiment had simply completed, had returned its result, and the result was not in dispute between them. Diane was not angry anymore. That was how Walter had known it was finished, some months before either of them used a word for it. Anger would have meant there was still a thing she wanted from him that she was not getting. The anger had gone, and what had settled in its place was a courtesy so total and so even that it had no temperature at all, and a man cannot warm his hands at a courtesy.

They had told Claire that winter. They had done it well, which is to say they had done it together, in the same room, with a coordination their marriage had not managed in its living years and was, in a bleak joke neither of them said aloud, finally managing now precisely because it was ending. Claire was twenty-two and had a life of her own well underway and had received the news the way the grown receive a thing they have known since childhood and have only been waiting to hear confirmed: with a steadiness that was its own small heartbreak, because it meant she had stopped, some long time ago, expecting

anything else.

So the house in Altadena, the rented house, was a house being quietly disassembled. There were boxes in the front room. The lemon tree the first tenant had loved and Walter had never gotten around to had finally died in the dry yard, all the way died, and stood out there pale and bare, and Walter found, pulling into the drive, that he could not any longer remember the year it had still had leaves. He sat in the car a moment with the engine off. Then he went in.



Diane was in the kitchen, wrapping glasses in newspaper, and the radio was on low on the counter, and she looked up when he came in and saw his face and stopped with a glass in her hand.

"What happened," she said. Not alarmed. They were past alarm. But she had been married to him for twenty-five years, and the reading of his face was a skill that did not switch off just because the marriage had, and she had seen that something had.

He found he wanted to tell her. That was the surprise of the evening, a small one and a sad one: that after everything had been packed up and labeled, the oldest reflex of a marriage was still down there underneath, intact, the reflex to bring the strange thing home to the one person whose business it had been for twenty-five years to hear it. He had nowhere else to take the picture. He understood, standing in the disassembled kitchen, that this was the last night the reflex would have anywhere to go.

So he told her. The leftover photograph, the airtight case against it, the man who had wanted it anyway. The five and a half hours. And the dot — he tried to tell her about the dot, and found the words were not large enough, or were too large, and what he finally said was just that they had taken a picture of the Earth from four billion miles away and that you could not, in the picture, find the Earth, and that when someone showed you where it was, it was nothing. It was a speck. It

was less than the grain of the film.

Diane set the glass down. She was quiet for a moment, and Walter watched her hold the thing he had handed her, turn it the way he had turned it in the corridor, and arrive — she had always been quick; quicker than him, in the ways that did not have numbers in them — at the place the picture took you.

"And everyone's on it," she said.

"Everyone's on it."

"You. Me. Claire. This kitchen."

"Yes."

She looked around the kitchen, at the boxes, at the newspaper, at the cupboards standing open and half-empty, and Walter understood that she was performing the same act he had performed in the corridor, the scaling-down, the setting of a life onto a mote — except that the life she was setting onto it was theirs, this one, the specific twenty-five-year thing that was being wrapped in newspaper around them as they stood there. And he braced, a little, for the obvious thing, the small bitter thing it would have been so easy and so fair for her to say: that it was good to have it confirmed, then, how little any of it had amounted to. A speck on a speck. A marriage too small to see, on a world too small to see.

She did not say it. She could have — it was fair, and it was true, and the door of it stood open. She did not walk through it. And Walter, who had spent twenty-five years being loved by her a little more carefully than he had managed to love her back, understood that her not saying it was the whole thing in miniature, and that the understanding had come, as such understandings do, exactly one packing-box too late.

What she said instead, after a while, still looking at the open cupboards, was: "It would still be there. Wouldn't it. Even that small. If the picture were the only thing that survived — if that was all anyone ever had — we'd still be in it. Everything that happened here. You couldn't see it. But it wouldn't be gone. It would just be too small

to see."

Walter did not answer that for a moment, because the answer had a pressure behind it he had not expected, and he did not entirely trust his voice.

"Yes," he said. "It would still be there."

"That's not nothing," Diane said. "Being too small to see isn't the same as not being there." And she picked the glass back up, and wrapped it, and set it in the box, and the radio played low, and that — not a slammed door, not a raised voice, not a lawyer's envelope, none of the loud machinery the word divorce makes a person expect — that was the end of the marriage of Walter and Diane Kessler: two people in a half-packed kitchen, agreeing, gently, that a thing could be real and invisible at the same time. In nine years they had not once managed to agree about anything that mattered. They managed it now, over this, and neither of them said the obvious thing about the timing, because by now they did not need to.



*And once — in the stray bar of light, where the worn-blue mote hung — there was a man who looked at the same speck from the inside of it.*

*He stood at a high window in a structure that should not have held a window, and beyond the glass the dark went down and down, and the speck of pale blue hung in it, and he understood, with the helpless certainty such moments carry, that the speck was the world and that he was on it and that it was already, in some manner the window did not explain, lost — long lost, lost for an age, a thing being remembered rather than a thing being seen. And he found he was not afraid of the smallness, the way the engineers in the bright room had half-expected everyone to be afraid; he found instead that the smallness was the comfort in it, that a thing too small to see was a thing the great dark might also be too vast to bother finding, and so might miss, and so*

*might spare. Keep it small, he thought, at the window, with no idea he was thinking it an age and four billion miles from a kitchen in Altadena. Keep it small and keep it sending. The speck held its faint blue. Then the light moved, and the window was only a window, and he turned back to the long dark room behind him, where a machine he had not yet reached stood waiting with its one small light.*



Voyager's cameras were switched off after that. The order went up across the five-and-a-half-hour gap, and the craft, which had turned once to look back and give its account, faced forward again into the nothing it was still measuring, and the eye it had been given was closed for good, to save its warmth for the senses that still had work. It would not see again. It would only listen, and speak, for as long as the power lasted — decades, the projections said, if nothing broke — throwing Walter's thin clean voice back down the widening line to a blue mote it could no longer find and would never, now, see again.

Walter Kessler was forty-six years old. He had built the finest voice human beings had ever made. He had launched it, and grieved it, and stood under its faint tone across the dark, and watched a younger man carry the work past him into the years Walter would not be at the center of; he had buried his father and packed up his marriage and raised, mostly by the light of other rooms, a daughter who was now grown and steady and gone into a life of her own. And here he stood, in a February in 1990, at the midpoint of a life, holding a photograph of everything he had ever loved or lost or failed, rendered accurately at last, and accurately it was a fleck of worn blue too small for the eye to hold.

He did not find this unbearable. That was the thing he would have wanted his daughter to understand, if he had ever found the way to say it to her. The picture did not crush him. It did the opposite, in the way a hard and honest fact can: it set him free of the long exhausting

project of pretending the dark was smaller than it was. The dark was that big. Home was that small. And the small worn-blue speck went on hanging in its stray bar of light, and on it, too small to see but not therefore gone, was every glass wrapped in newspaper and every drawing kept in a glovebox and every Sunday the yellow glass had warmed under a boy's hand — all of it there, all of it real, all of it sending, out along a line whose end no one alive would see.



MOVEMENT II

# CONVERGENCE

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## CHAPTER SIX

# TERMINUS

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*Pasadena, California — 2012*

There was no line painted on it. That was the first thing the new people had to be told, and in 2012 there were new people again, a whole fresh intake of them, young enough to be the grandchildren of the men who had built the craft, and they came in believing what people always believed — that a boundary was a thing you could see.

The boundary Voyager 1 was approaching that summer was the largest one there was. Past it, the sun's authority ended. For thirty-five years the craft had flown inside a vast bubble the sun blew around itself, a bubble of the sun's own wind and the sun's own weather, scoured and lit and governed by the star that had made everything in it, including the people who had built the craft and the craft itself. The bubble had an edge. Beyond the edge was the actual between — the medium that lay in the dark from star to star, that belonged to no sun, that had been there before the sun lit and would be there after it went out. Voyager 1 was about to cross from the one into the other. It would be the first thing of human making ever to do so. And there would be no line. There would be no marker, no gate, no membrane the cameras could have caught even if the cameras had still been open, which they had not been for twenty-two years.

Walter Kessler explained this to whichever of the new people would listen, and a few of them did. He was sixty-eight years old and had learned not to mind that most of them did not. He was not, anymore, the man the work ran through; he had made his peace with that out

under the Saturn dark a long lifetime ago. He was something else now, something the laboratory kept on partly out of respect and partly because he was one of the last men in the building who had stood in the room when the voice was built. A project that runs longer than a working life needs, at the end, someone who remembers the beginning. He was a kind of living edge himself. On one side of him was everyone who had been there. On the other side was everyone who had not.



The crossing, when it came, did not announce itself either.

Walter had half expected — had known better, and expected it anyway — that there would be a moment. A reading that jumped. A clean before-and-after a man could set his finger on and say there, that is the second it happened. There was not. What there was, instead, was an argument. A long, patient, technical argument that ran through the late summer and into the fall, conducted in the data the craft was sending back across seventeen hours of gap, because seventeen hours was what the gap had grown to now, and the argument was this: had it crossed, or had it not.

The craft could not simply say. It had no instrument that registered glory. It had instruments that counted particles and measured the press of fields, and the particles and the fields were behaving strangely, were behaving in ways the inside of the bubble had never made them behave, and the strangeness had to be read. It had to be interpreted, the way a long faint signal climbing out of the hiss has to be interpreted, by people leaning toward it and holding very still. Some of the readings said the craft was out. Some said it was not yet. For weeks the boundary was not a place but a disagreement, and Walter, who had spent his whole life learning that the universe answers slowly and on its own schedule and never in the words you were hoping for, found that the disagreement suited him. It was the universe behaving the way he

had always understood it to behave.

Of course there was no line. A man does not get a line. A man gets a changed quality in the particles and a long wait and the slow accumulating sense that something is different now, and then one day he understands that the thing he was waiting for is already some distance behind him.

There was a stretch of that fall Walter would keep. Not a dramatic stretch; nothing in it would have looked, to a visitor, like anything at all. It was only the laboratory in the weeks of the disagreement, the long room with the screens, men and women bent toward a question the universe was answering one slow particle at a time. Walter had come in early on those mornings and stayed late, not because he was needed — he was not, particularly, needed — but because he wanted to be in the building while it was happening. They were standing at the edge of the solar system. Not the craft; the craft was already there. They were standing at it, all of them, in a low building in Pasadena, leaning into seventeen hours of silence and reading the cold news as it came. It was the work, the actual work, the thing the whole life had been: to wait, and to listen, and to interpret the faint strange thing that surfaced, and to be patient enough to let the answer arrive in its own register and not the one you wanted. Walter was sixty-eight, and those mornings he had the plain unhurried understanding that he was doing the last of it now. He had been given a life made out of exactly this work, and there was not going to be much more of it, and he found, somewhat to his surprise, that he could hold both of those facts at once without the second one spoiling the first.

That was how they finally knew. Not by catching the crossing, but by looking up from the work some weeks after and realizing the data had not looked like the inside of the bubble for a while. The craft had gone over. The plasma around it now was the plasma of the open between, denser and colder and stranger, the medium of the actual stars. Voyager 1 was flying in it, the first object the species had ever sent that

far, and it had crossed the most profound border in the reachable universe without a single part of it so much as flickering. It had simply kept flying. It had not known. The craft had passed out of the entire domain of its own sun and gone on counting particles, faithfully, on schedule, reporting a change it could not feel the meaning of to a planet that could.

Walter stood with the others on the day the laboratory allowed itself to say so out loud, in a room with a cake in it, somebody had brought a cake, and the young people were glad in the uncomplicated way of people present at a thing that would be in the books. He was glad too. But the gladness in him had a floor under it that theirs did not, and the floor was this: he had now, in one lifetime, built the voice, launched it, grieved it, stood under it at Saturn, watched it photograph the vanishing Earth — and now watched it leave the sun altogether. He had followed the thing he made all the way out of the world that made him. There was nowhere further for it to go that was still, in any sense, here. From this day the craft was an interstellar object. It belonged to the galaxy now and not to the solar system, and Walter Kessler belonged, and would always belong, to the solar system, and the day he had spent his life working toward turned out to be the day his work passed out of the world that he would die in.



Ray Vance found him afterward, out in the corridor, away from the cake.

Vance was old now too. That was a thing that could still ambush Walter if he was not braced for it — that the quick young man at the long table, the one whose quickness had cost Walter sleep through a whole Saturn spring, was a man in his middle sixties with white in what was left of his hair, nearing the end of his own road. The rivalry had gone the way Walter had let it go that day on the floor in 1980, had turned the corner into something with no name but respect, and had then done the thing that long respect does if it is given thirty years

and nothing interrupts it: it had quietly become the other thing. They were friends. Neither of them had ever said the word, because they were both men of the register that does not say the word, but they had worked side by side across four decades and buried the same colleagues and the truth did not require the word.

"You're thinking about it wrong," Vance said. He had always been able to do that, to walk up to the middle of a thought Walter had not spoken aloud and put his hand on it. "I can see you doing it. The far-away thing. It left, it's gone, it's out past where you can follow. You've got the long face on."

"It is out past where I can follow."

"So is every signal you ever built it to send." Vance leaned on the wall. "That was the whole job, Walter. The entire job, from the first day. You build the thing that goes where you can't and you teach it to talk back. You did that. It works. It's still working. It just told us, from interstellar space, across seventeen hours, exactly what the plasma is doing out there." He was quiet a moment. "It didn't go silent when it crossed. That's the part you're not letting yourself have. It crossed the biggest line there is and it kept talking. It's still talking. To us. To this building. The line didn't take its voice."

Walter looked at the old man and felt the thing turn over in his chest that Claire had turned over in him on a telephone, decades back, on Saturn night — the small correction, kindly delivered, that he had been standing too close to the fact to see the whole of it.

"No," he said. "No, it didn't."



It was later, alone, that the other thing happened — the thing Walter did not tell Vance, and did not tell anyone.

He had stayed past the building's emptying, the way he often did now; an old man with a quiet house waiting for him is in no hurry to reach it. He sat at a console with the day's interstellar data still up, the

readings from the open between, the cold strange plasma of the actual stars, and he looked at the numbers the way his father had once looked at a lit strip of yellow glass. And he thought about the membrane.

There was no membrane. He knew there was no membrane. The crossing was a gradual change in a measured medium, and the word was only what the new people reached for because the human animal cannot hold a boundary in its mind without giving it a skin. But Walter sat with the data, and the thought came to him unbidden, that the boundary the craft had crossed might not be only a boundary in space. That a true edge, edges being rare and strange, might divide other things. Then from now. Here from elsewhere. The voice you sent from the answer you would someday get.

He did not believe this. He was a communications engineer of sixty-eight and he did not believe this, and he noted, with the particular dry honesty he had kept all his life, that he did not believe it the way a man notes a door he has decided not to open while remaining perfectly aware of where the door is. The data on the screen did not care what he believed. It only reported, in its flat patient stream, that something built by people was now on the far side of an edge, in the real between, in the medium that ran from star to star — and that it was still sending, still throwing its thin voice back across the widening seventeen hours, and would go on doing so, faithfully, on schedule, long after the man reading the screen had himself crossed the one edge that no instrument measures and that everyone, in the end, goes over without catching the moment it happens.

He had never seen interstellar space. No one had; the craft was the first to touch it. And he found that he knew it. Not the figures — the place. The cold and the strangeness and the enormous indifferent quiet of the medium between the stars; he knew it the way the boy at the radio had known the long part of the band where the hiss ran on and nothing answered, the way the man on the floor had known a launch he had never witnessed. The knowing went through him cool

and certain in the empty room, the way the launch had gone through him thirty-five years before, and he recognized it for what it was: the same circle, come round again, nearer now. He still could not have said which way it turned — whether the far curve of it lay ahead of him in the dark, or behind.



There was a last thing, and it belonged to Cordell, though Cordell had been dead for nine years by then and so it could not, strictly, have belonged to him anymore.

Among the things that had come to Walter when the old program directorate was finally dissolved and its files dispersed was a folder, unmarked, that had been Cordell's. There was little in it. Cordell had not been a man who kept things. But there was, near the back, a single sheet, and on the sheet, in Cordell's hard flat hand, was a column of dates. The launch. The Saturn encounter. A date in 1990 that Walter, after a moment, understood was the Pale Blue Dot. And a date in 2012 — this year, this very crossing, the heliopause — written down by a man in a year when no working scientist could have known the crossing would fall there, because the crossing depended on the thickness of a boundary no one had yet measured.

Below the column, not as a heading and not as a note, only as a line set down by itself, Cordell had written six words. Walter stood in the dispersed and emptied directorate with the sheet in his hand and read them, and felt the old cold question he had carried since a spring night in 1977 — the question of what it was that Cordell had been certain of, what clock the man had been shown — open under him one final time, and not close.

The six words were: *It has to be sent back.*

Walter Kessler put the sheet in his pocket. He did not show it to Vance. He did not show it to anyone. He took it home to the quiet house and he did not throw it away, and on certain evenings after that,

the way his father had once sat in a den with a radio and the lamp off, Walter would take the sheet out and sit with it, an old man holding six words in a dead man's hand, and turn them over, and listen — out of the deep habit of a life, listen — for whatever was sending.

## CHAPTER SEVEN

# SYNTAX ERROR

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*Glenshaw, Pennsylvania — November 2023*

The telephone in the house in Glenshaw did not ring often, and when it rang at all it was usually a recording, so Walter Kessler had stopped hurrying to it some years before. He was seventy-nine. He had moved east a long time ago now, back to Glenshaw, the town where he had grown up, and he had done it for a reason he could, for once, defend to anyone who asked: Claire was here. She had come east before he had, had married here, had stayed, and a man whose work had kept him from his daughter for most of her childhood found, when the work was finally done, that there was only one place left he wanted to be. He had taken a small house a few streets from hers. He told people it was practical. It was not practical. It was the simple thing, said plainly at last, that he wanted to be near her.

And it had been good. That was the thing Walter would not have predicted, and did not entirely know what to do with: it had been good. Claire was happy. She had married a man Walter liked, which Walter had not known to hope for, and they had three children, and the three children regarded their grandfather as a fixed and reliable feature of the world. He had Sunday dinners now. He had a place at a loud table, and small people who climbed him without asking, and a daughter who teased him for the careful way he still ate and the careful way he still spoke, and he found that he did not mind being teased. Being teased by Claire was in fact one of the better things that had ever happened to him. He had spent his life reaching toward far places. Nobody had told him — it was the kind of thing nobody tells you —

that the reaching could one day stop and set a man down at a loud table on a Sunday, and that he would look around it and understand he had arrived somewhere after all.

The town had changed, of course. It was full of young families now, a new generation in the houses the old generation had emptied. Walter had driven past the street where he had been a boy, once, early on, and had not driven past it again. The house was not there. Not fallen, not derelict — gone, in the way things go now, absorbed: some later owner had pulled it down or built it so far outward that the original was somewhere inside the new footprint and could not be found. The lot had a wide bright house on it with a basketball hoop over the garage and a trampoline in the side yard. There was nothing sad in it, exactly. Walter had stood in the car a moment and looked at it and felt only the difficulty of a fact that would not sit flat: that the room where his father had sat in the dark turning a knob, the room where the boy had first heard the long part of the band, did not exist, was not anywhere, had been unmade — and that he could nevertheless walk through it, in his mind, without a wall out of place. He had driven home and not gone back, and had let the small strangeness of it settle wherever such things settle, which is to say not entirely anywhere.

His own house, the one he had now, was warm and quiet. He read in it. He let the telephone ring.

It rang on a Tuesday evening in November, and he let it go, and it stopped, and then it began again at once. Walter got up and answered it.

"Mr. Kessler," a voice said. A woman's voice, young, and pitched in the particular way a voice is pitched when the person has rehearsed the first sentence and nothing after it. "My name is Nora Bly. I'm at the Laboratory. I worked — I was the last group Ray Vance trained, before he retired. Before he passed."

"I know who you are," Walter said, which was not quite true. There is always a Nora Bly. He had been one, once. Vance had been one. The

lab grew them and sent them on, and the fact that this one had been Vance's, had been raised on the system by the man Walter had raised on it, landed in him with a quiet that he did not examine while she was still on the line.

"Then you know I wouldn't call you at home in the evening unless—" She stopped. Started again, and this time the rehearsed sentence was behind her and what came was plain. "Something's wrong with Voyager 1. With the signal. We've been three weeks trying to read it and we can't, and I have spent two of those weeks being told that the man who could is retired in Pennsylvania and does not consult. And tonight I decided I did not care what I'd been told. So. I'm sorry for the hour."

Walter stood in the small warm room with the receiver against his ear and felt the floor of the evening tilt under him.

"Tell me what it's doing," he said.



What it was doing was talking.

It took Walter the better part of that first phone call to understand why a thing still talking should be the worst news he had heard in years.

The craft had not gone silent. A silent craft was a grief, but it was a clean grief, a known one; you stood at the rim of the well and you did not hear the splash and in time you made your peace. This was not that. Voyager 1 was forty-six years out, twenty-some hours away now at the speed of light, a thing the size of a small car running on a fading wisp of plutonium in the absolute cold. And it was still sending. Still throwing its carrier dutifully back across the entire width of the solar system and out the far side of it. The signal arrived. The signal was strong enough to read.

It simply could not be read.

What came down the gap, where for forty-six years there had been the

craft's clean ordered telemetry — the counts, the field strengths, the housekeeping, the long patient sentences of a machine reporting its life — was now a single thing repeated. A pattern. It was binary, that much they had, ones and zeros, but it was binary that did not resolve, did not parse, did not decode into any of the things the craft had ever been built to say. It was not noise. Noise Walter could have explained, and noise would have been, in its way, a mercy. Noise is the absence of a message. This was the presence of one. The craft was sending, steadily, intelligibly, in a clean strong hand — and what it was sending was the same unreadable string, over and over, the way a man who has lost his words will still move his mouth, will still shape and send and shape and send, faithfully, the front half of a sentence that has nowhere to go.

Walter sat down in the chair by the telephone. He did not remember deciding to.

His father had done that. The thought arrived from very far down, from a room sealed most of a lifetime, and Walter let it stand there because there was no use doing otherwise. His father in the hospital bed, the left eye holding him, the mouth working and working and producing the front half of a word and then the shape of effort and not of language. *Don't make him hunt for them*, his sister had said. He had built a voice and sent it to the edge of everything. And now, at the far end of his own life, the voice had had its stroke and was sending him the sound of a thing that still has everything to say and has lost the road that the saying travels.

"Mr. Kessler," Nora Bly said, after a while. "Are you there."

"Read me the string," Walter said. "Slowly. All of it."

And she did, and he sat in the dark house and listened to a young woman a continent away read out ones and zeros in a steady voice. He did not write them down. He had understood, somewhere in the second or third pass, that he was not going to solve this on the telephone — that he had known he was not going to from the

moment she said the craft was still sending. Some things cannot be done down a wire. Some things a man has to go and stand in the room for. He was seventy-nine years old and it was November and the lab was three thousand miles from the quiet house in Glenshaw, and he already knew, listening, that he was going to go.



He flew out two days later. Nora Bly met him at the airport, and she was younger even than her voice had been, and she did the thing the young do when they have summoned an old man across the country and he actually arrives: she looked, for a moment, frightened of what she had done. Walter had been on the other side of that look. He had worn it himself in a wet parking lot in 1977 with his own fear in his hands. He found he liked her for it.

"They know you're coming," she said, driving. "Leadership. I want to tell you something before you're in the building." Her hands were careful on the wheel. "When I went over their heads to call you — I expected to be in trouble. I had the speech ready. And the thing is, Mr. Kessler, I never got to give it. I told my director I'd called you and he just — looked at me. And he said, *good*. That was all. *Good*." She glanced over. "Three weeks the signal's been wrong and the floor is frantic, everyone is frantic, and the people at the top of this are not frantic. They are calm. They have been calm the whole time. And I have not been able to decide, these last days, whether that is the calm of people who know it's nothing — or the calm of people who already know what it is."

Walter looked out the window at California going by, the dry hills, the freeways full of people steering their share of the mote, and felt the old cold thing he had carried since a spring night in 1977 turn over and settle.

"I knew a man like that once," he said. "At the top of this same building. A long time ago." He did not say the rest of it. The rest of it

was a single sheet of paper in a dead man's hand, in a drawer in a small house in Glenshaw, six words. Walter had not brought it, and could not have said why he had not brought it except that some things you do not carry into a room until you are certain what the room already knows.



The floor was the same floor. That was the first thing, and it went through Walter like cold water: the room had been refitted twice, the consoles were not the consoles, the screens were flat and bright and many, and underneath all of it the *room* was the room, the long low windowless room he had stood in when the voice was new, and he was an old man walking into it and some part of him was thirty-three.

They had the signal up on the largest of the screens for him. They had been, he understood, saving it — that there was a courtesy in this, and an apprehension, the staff of the floor wanting the old man to see the thing whole and also not quite wanting to be watching his face when he did. Nora Bly stood beside him. The string scrolled. Ones and zeros, the clean strong corrupt pattern, repeating. The craft forty-six years gone saying the one thing it could still say in the only voice it had left.

And Walter looked at it, and the floor waited, and the thing that happened in him was not the thing any of them were braced for.

He had expected — they had all expected, it was why they had brought him — that the last man who remembered the old hardware would look at the corruption and find, somewhere in the deep architecture, the fault. A failed component. A flipped bit in an aging memory. The mundane and fixable truth, carried in the one head old enough to hold the whole machine at once. And Walter would, in fact, find his way there in the days that followed. The trouble would prove to have a cause. The cause would prove to have a location. The location would prove to be a single tired piece of memory in a body very old and very cold and very far away, and the craft, in time, with patience, would be

helped to find its words again.

But that was not what he saw first. What Walter saw first, looking at the steady unreadable thing the craft was sending, was that he had seen it before.

Not the figures. The shape of it. The narrow bright clustered signal that is not noise and not language, a thing surfacing out of the hiss and not resolving, *the start of a voice*— he was nine years old, in a den, on a summer night, with one hand on a slow knob. Something had climbed up out of the long part of the band where nothing answered and had been, for about three seconds, exactly this. He had never decoded that sound. He had carried it instead, sealed, for seventy years, the way you carry the thing you leave outside the door. And here it was on the screen on the floor in Pasadena, arrived, the way a letter mailed to the wrong city in another century might finally, impossibly, be delivered.

He stood very still in the bright room. His old arms were cold under the cuffs of his shirt.

"Mr. Kessler?" Nora Bly said, very quietly, because something had gone across his face.

"It's all right," Walter said. "Give me a chair."



They gave him a chair, and they gave him the room, in the sense that a floor full of frightened people gives an old man room, which is to say they kept finding work that let them not look at him. Walter sat in front of the corrupt signal for a long time.

He did not believe what he was thinking. He set that down at the start, the way he had set the membrane down eleven years before, with the dry honesty he had kept all his life: he did not believe it. He was a communications engineer of seventy-nine and there was a failed memory cell at the bottom of this and he would find it. But the honesty cut both ways, and the other thing it made him admit, sitting there, was that the failed cell and the thing he was thinking did not

actually rule one another out. A stroke is a true and ordinary failure of the body. It is also, sometimes, the door through which a man says the truest thing he ever says. Cause is not meaning. He had spent a lifetime keeping those two clean apart, and the signal on the screen was the first thing he had ever met that was plainly both at once.

The craft was sending. It had crossed the membrane eleven years ago and gone out into the real between, the medium that ran from star to star, and the bible of his whole working life said a signal was a thing that traveled from a sender to a receiver across a gap. He had believed that bible. He believed it still. He only saw, now, that it had never told him which direction along the gap the sending had to go — that he had supplied that part himself, and the craft, forty-six years and twenty-some light-hours away, had never agreed to the part he had supplied.

*It has to be sent back.*

Walter sat with the six words he had not brought and found that he had brought them after all; that a man does not need the paper for the sentence once the sentence has had years to set. Cordell had known something. Cordell had been shown a clock. And Walter, the last man in the building who remembered the beginning, sat in front of the thing the craft was saying and understood that he had not been brought across the country in November only to find the failed cell. He could find the failed cell. Any of them, given time, could find the failed cell. He had been brought because he was the one man alive who had heard this signal before it was ever sent.

Not decode it.

Carry it the rest of the way home.

## CHAPTER EIGHT

# READ-ONLY MEMORY

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*Pasadena, California — Glenshaw, Pennsylvania — 2024*

The failed cell was a small thing. It took Walter Kessler the better part of three months to find it, and when he found it he was not even in the room. He was on the telephone in the small house in Glenshaw, in March, lamp off, receiver warm against his ear, while Nora Bly read him the latest dump of the craft's internal accounting — the register of which memories were answering and which were not. She read out a string of addresses. Somewhere in the middle of the string Walter heard the one that had been quietly wrong in every dump since November. He understood, in that instant, that it had been wrong in a particular and patient and entirely physical way.

“Stop,” he said. “Go back. Read me that one again.”

She read it again. Walter sat in the dark and held the line steady while the long machine assembled itself in his head the way it still could, the way it had since he was a young man — the whole architecture of the craft laid out at once, every box and every bus and every length of wire, and at the far end of it, forty-six years out and twenty-some hours away by light, a single piece of memory the size of a fingernail. It had carried its share of the load faithfully for half a century and had, sometime in the autumn, simply stopped. Not failed loudly. Not burned. It had grown tired in the cold the way everything grows tired in the cold, and had let go of its grip on the ones and zeros it had been asked to hold, and now it returned, to every question the craft put to it, the same exhausted answer. And the craft, dutiful, built to trust its

own organs, had folded that answer into everything it said and sent the whole of it home in a clean strong hand.

That was the corruption. That was the whole ordinary truth of it. A tired cell, a flipped architecture, a craft faithfully reporting a body it could not know was lying to it. It was, as Walter had told the floor it would be in November, the mundane and fixable thing, and it had a cause, and the cause had a location, and the location was a fingernail of silicon in the absolute cold beyond the edge of the sun.

“We can route around it,” Walter said. “There’s memory it isn’t using. There always was. We move the code that lived in the bad cell into the good silicon and we tell the craft the new address, and it goes and asks its questions in the right room, and it gets back what it’s actually holding instead of the tired answer. It will take a while. Everything takes a while now; the round trip is forty-five hours. But it will work.”

“You’re sure,” Nora said. Not a doubt — a young engineer learning the last of something from the last man who had it, and wanting it said plainly so she could keep it.

“I built the room it’s going to move into,” Walter said. “I’m sure.”



It went the way he said it would, which was slowly. The instruction to move the code was a few hundred bits of decision; it took most of a day to compose and check. Then it was handed to the great dish in the desert and thrown out across the solar system. After that there was nothing to do but wait the length of the gap. Twenty-two and a half hours out. Twenty-two and a half hours back.

Walter stayed in California for it. He had thought he would fly home and take the news by telephone — an old man does not need to be in a windowless room to learn a thing the room will learn without him. But he found when the day came that he wanted to be on the floor. He did not examine the wanting, and he stayed.

He was on the floor when the craft’s answer came. April by then. The

room had filled — quietly, the way the room filled for things that mattered, people finding work near the screens that let them be present without being seen to wait — and the largest screen carried the same scrolling string it had carried since November, the clustered unreadable string, the front half of the sentence going nowhere. And then, at the hour the arithmetic of the gap had named, the string changed.

It did not resolve all at once. That was the thing Walter would keep. It came back the way dawn comes back — not as an event but as a thing you notice has been underway for some time. The corrupt pattern thinned. Clean ordered telemetry surfaced up through it, the counts and the field strengths and the long patient housekeeping sentences of a machine reporting its life, arriving, parsing, decoding into all the things the craft had been built to say. The floor made a sound. Not a cheer; the floor was too old a floor and too many of the people on it had waited too long for a cheer. It made the lower sound a room makes when a held breath is let go all at once across forty people, and somebody laughed, and somebody put a hand flat on a console as though steadying it, and Nora Bly stood beside Walter with her eyes bright and did not say anything at all.

The craft had its words again. Forty-six years out, in the real between, the medium that ran from star to star, the small tired thing had been helped to find the road that the saying travels, and it was talking, and what it was saying was the truth about the plasma and the fields and its own faint failing warmth, the ordinary cold news, faithfully, on schedule.

“You did it,” Nora said.

“We routed around a bad cell,” Walter said. “That’s all we did.” And it was true, and he meant it, and he stood in the bright room among them, an old man who had been brought all that way in November and had done the ordinary fixable thing he had been brought to do.

But he had not told them the rest of it, because the rest of it was not

theirs, and because a part of it he could not yet have said aloud to anyone. The rest of it was this: he had kept the string. Before they routed around the cell, before the clean telemetry came surfacing up through it and the floor let go its breath, Walter had taken the corrupt pattern — the clustered unreadable thing the craft had been sending since November, the binary that did not parse, the front half of the voice — and he had asked a young engineer, quietly, in a corridor, to give it to him whole. All of it. Every bit of it, copied off, set down on something he could carry. He had not explained why. The young engineer had not asked; she was of the laboratory, and the laboratory had learned across fifty years not to ask the old man why he wanted what he wanted.

They had given it to him on a small flat rectangle of plastic, because that was what the present day used, and Walter had put it in the inside pocket of his coat, against his chest, and had felt it there for the rest of the day on the floor like a thing with a pulse.



*There is a room and the room is always. The boy at the machine does not know the word for what he is doing and so he simply does it: he holds the line steady against the dark and he waits for the dark to hold a line steady back. The signal is not sent and then received. The signal is the room. To send is to have already been answered; the answer was the thing that taught the hand to send. The plastic against the chest of the old man and the lit glass in front of the boy are the same object seen from the two ends of a gap that was never a gap, only a circle a man was standing too close to read whole.*



Walter flew home to Glenshaw in the third week of April. Claire met him at the airport, which she had not been asked to do and did anyway. She

looked at him across the small distance of the arrivals hall with the particular attention a grown daughter gives an old father who has just done something at the far end of the country that frightened her more than she had let him know, and she did not say any of that. She said he looked tired, and that the kids had made a sign, and the sign was in the car, and it said WELCOME HOME GRAMPA in three different children's hands and a great deal of glitter. Walter held it on his knees the whole way to the house and did not put it down.

He had Sunday dinner two days later. He sat at the loud table with the small people climbing him and Claire teasing him for the careful way he ate, and he let himself be a fixed and reliable feature of the world for an evening, and he said nothing about California, and nobody pressed him, and it was good.

But on the evenings between, the quiet ones, the ones in the small warm house with the lamp off, Walter took the plastic rectangle out of the inside pocket of the coat where it had ridden home. He sat with it the way for years he had sat with the single sheet of paper in the dead man's hand — the column of dates, the six words — and he turned the two of them over together in the dark, the sheet and the rectangle, the question and the thing the question had been waiting for.

He did not believe what he was thinking. He set that down first, the way he had set the membrane down in 2012 and the whole impossible weight of it down in November, with the dry honesty he had kept all his life: he did not believe it. He was a communications engineer of seventy-nine and there was a perfectly good account of everything in his possession. A cell had failed in the cold. He had routed around it. The craft was well. The corrupt string was the noise of a tired machine and nothing else, and he had kept a copy of it for the reason an old man keeps things, which is that he had been the one who understood it and the keeping was a kind of regard.

That was the whole account, and it held. The trouble with it — the trouble that kept Walter in the chair past the hour the lamp should

have gone on — was that it had never once told him what to do with the string now that he had it. An account of where a thing came from is silent on where it goes. He had spent a lifetime keeping cause and meaning clean apart, and he had the cause, he had it cold, it was a fingernail of silicon two days' light beyond the sun. And he sat in the dark with the meaning in his hand and found that the cause did not touch it, did not even reach it. The two things lay in his two hands and did not connect. The only sentence in the world that spoke to the rectangle of plastic and not to the failed cell was the sentence a dead man had set down by itself, not as a heading and not as a note, in a hard flat hand, in a year when he could not have known.

It has to be sent back.



The machine was in the spare room, because Claire had kept it.

Walter had not asked her to. He had handed it to her himself, the beige machine and the keyboard and the small black screen, on an afternoon in 1978 in a different state in a different century, when she was a child and he was a young man being pulled in two and the machine was the thing he had to give her in place of the hours he could not. She had taken it. She had grown up and carried it through a marriage and three houses and into the wide bright life she had built four streets from his own door, and she had never, across all of that, thrown it away. And when Walter, on a Sunday, asked her almost lightly whether she still had the old thing, the first machine, Claire had looked at him for a moment with something he could not name moving behind her face, and had said of course she still had it, it was in the spare room, did he want it. And Walter had said yes. He thought he might. For a project.

He brought it home and set it on the desk in the small warm house, the three components of it, the assembly his hands had not touched in forty-odd years, and his hands remembered. That was the thing that went through him as he made the connections, the power and the long

ribbon between the parts: that the hands knew the work without consulting him, the way they had always known it, the way they had known the radio in the den when he was nine. He found he was not surprised by the machine still being willing. He had built his life on the faith that the things you make to carry a voice will go on carrying it long past the time anyone expects, faithfully, in the cold, on schedule. The machine was only a small near instance of the long law. It woke when he asked it to, and the small black screen filled with the deep steady dark it filled with, the empty dark phosphor glow, waiting, the way it had waited in a den for a girl of ten.

It was an old machine and it spoke an old language, and that was the entire reason Walter had carried a copy of the craft's corruption three thousand miles in the inside pocket of a coat. Every modern thing on the floor in Pasadena had been built to read the craft as the craft was supposed to speak. None of them had been built to read the craft speaking wrong. But the corruption was not random; Walter had known that since November, had known it the way he had known the thing on the screen was the shape from the den — the corruption had an order, a grammar, a clustered and repeating logic. And the oldest machine he knew, the first one, the one whose entire being was the plain literal reading of ones and zeros laid down in a fixed and patient hand, had been sitting in his daughter's spare room the whole time, kept.

Walter took the small flat rectangle of the present day and he could not give it to the old machine; the old machine had no slot that would fit it. The old machine took the older medium, and Walter had a box of those — he had kept them, the way he kept everything, a shoebox of them on the closet shelf, the disks of the seventies and the eighties and the early nineties, the small squares he had carried code home on when carrying code home meant a thing you could hold. He brought the box down and set it on the desk and went through it in the lamplight. Most of them were the plain ones, grey and black and the dun of old

paper. But the makers of that older time had not been able to resist, here and there, a color, and near the bottom of the box Walter found the one his hand had gone looking for without telling him what it was looking for: a disk in a pale and gentle green, the green of seafoam, of a shallow calm sea. It had been written on once and the writing scratched out; it would take the corruption now. But before he wrote the corruption onto it Walter did a thing he did not examine. He took up a marker, the blunt black kind that does not fade, and on the strip of label across the disk's upper edge, in the fixed and patient block hand his father had taught him at the radio, he marked it. A short row of marks. Then he set the marker down. The new machine would read the rectangle but had no way to write the disk; the old drive that could write the disk could not read the rectangle. He cabled the two together through a short chain of adapters, the present day spliced onto the old, and laid the corruption down onto the green disk bit by bit, in the same hand, over the better part of a week of evenings, and worked the way his father had worked at the radio, unhurried, leaning toward a faint thing, and did not let himself run ahead of the work to its end.

Before the last of it, he telephoned Claire and asked, again almost lightly, whether she would mind if he kept the old machine a while longer. There was more to the project, he said. Claire said of course, keep it as long as he liked, it had been in a spare room for forty years, it was in no hurry. And then she was quiet on the line for a moment, and Walter waited, because he had raised her and he knew her quiet.

"Dad," she said. "Whatever it is. The project." A small pause. "You sound like yourself. More than you have in a while. I just wanted to say that."

Walter stood in the small warm house with the receiver against his ear and the green disk in his hand, holding what it held. He looked out the window at the ordinary world — the town full of young families, the lot four streets over where the house he had grown up in was gone and not anywhere — and still, somehow, walkable end to end in his mind

without a wall out of place. Out past the roofs, on the hill behind the school, the tower still stood, the red light at the top of it blinking on and off into the dark, for no one, or for whatever was up there that could not see it by day.

“I feel like myself,” he said, and found that it was entirely true. “Thank you, Claire. For keeping it.”

“The machine?”

“The machine,” Walter said. “Yes. The machine.”



He hung up the telephone, and he stood a while in the quiet, an old man at the beginning of the last thing. He held the disk a moment in the dark, the lamp off — the one soft green thing in the room, pale and entirely full — and pressed it once, flat, against his chest, and felt the small flat weight of it there, like a thing with a pulse. Then he slid it into the slot of the machine, and it seated with the sound it had always made, and the machine began, with the long patient mechanical attention of its kind, to read.

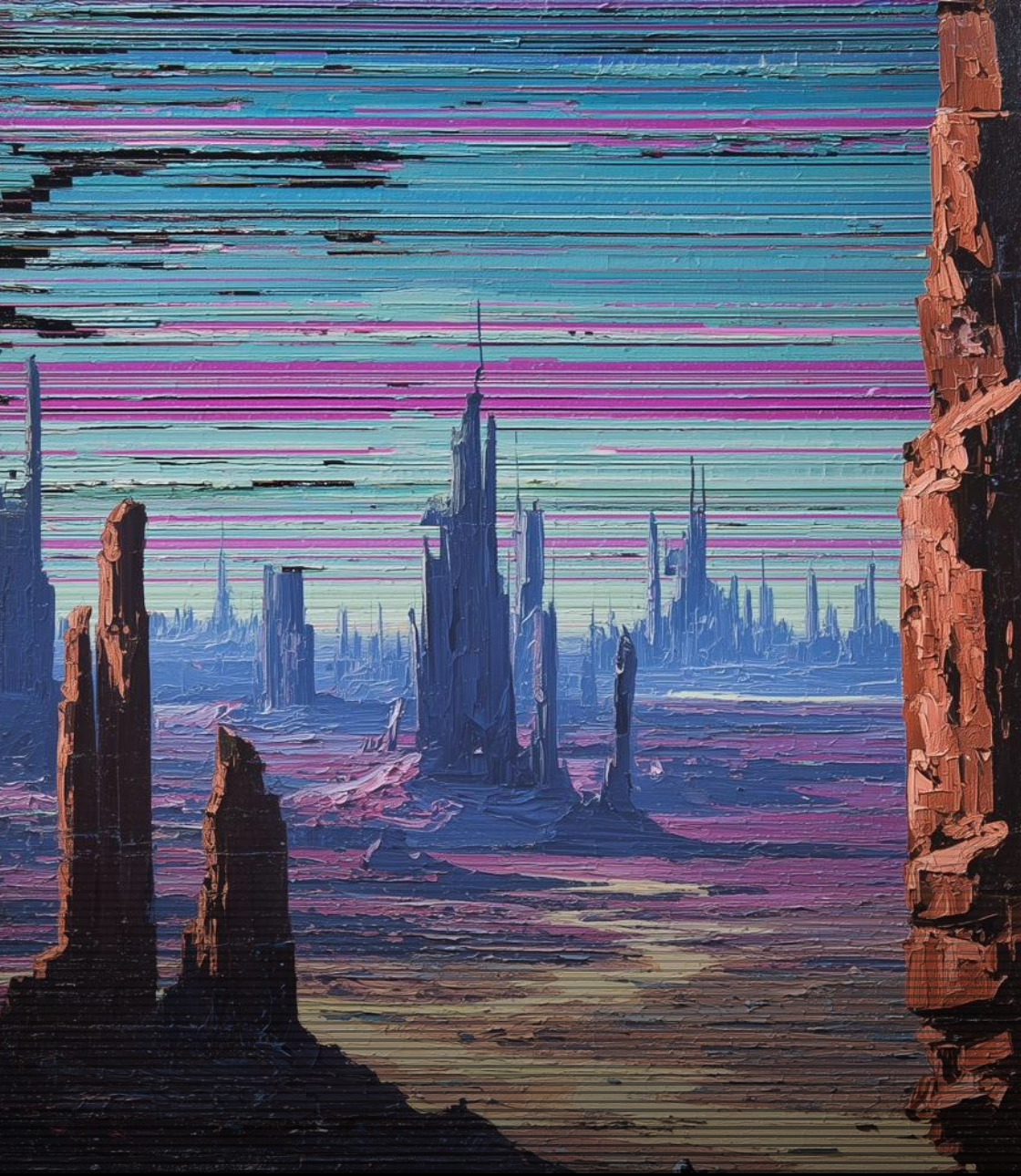
It did not take long. That was almost the worst of it. After all those months, the old machine — asked at last the question it alone was built to answer — did not labor. It read the disk the way it had read every disk a girl of ten had ever fed it, plainly, literally, without astonishment. And it put on the small black screen the thing the corruption had been all along, underneath, since November, since before November, since a summer night in a den seventy years gone — not noise, never noise, the presence of a message and not the absence of one. And Walter Kessler sat in the chair in the small warm house with the lamp off and read what the craft had been trying to say.

When he had read it, Walter sat for a long time without moving, an old man in a chair, and the thing in his face was not grief and was not fear and was not even, exactly, surprise. It was the particular stillness of a man who has been handed, at the very end of a long life of reaching,

the one piece that makes the whole reach come together. He saw, all at once and entire, the figure that every separate year of him had been a fragment of, and found it was never a line going outward at all. He had built a voice and sent it past the edge of everything. He had spent a lifetime certain he knew which way along the gap the sending went. And the old machine in the spare room, his daughter's machine, his father's kind of machine, had read him the proof, in a fixed and patient hand, that the message had been coming the other way the whole time.

It was something quieter and very much larger than horror, and Walter sat with it in the dark, the way his father had sat in the dark, the way the boy had sat. He understood that the work was not finished. That there was one sending left. That the disk in the old machine was not a thing he had been given to read.

It was a thing he had been given to carry the rest of the way home.



MOVEMENT III

# THE CASTLE

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## CHAPTER NINE

# HYPERION

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*The Corrupted Earth — 2XXX*

The ship had a name once, but the Traveler did not use it. Names were for things you expected to keep, and he had stopped expecting to keep the ship some hundreds of descents ago. It was a small ship and an old one, built for hauling and not for grace, patched so many times and by so many hands that no part of it any longer matched any other part. It held together for the single reason that it had not yet been asked to do the one thing that would end it.

He flew it down the dark alone. He had always flown it down alone. The work was not work that two could share, and the men who might have shared it had, one by one, gone down a final time and not come back up. He had stopped thinking of the empty second seat as empty. It was simply the seat. He brought the ship down the long way, the dark way, the way that did not show a ship against the sky to whatever still watched the sky.

Below him was the planet, and the planet was the work.



It had been a blue and green and bountiful planet. The Traveler knew that the way he knew most things about it — not from having seen it so, for he had never seen it any way but the way it was now, but from the long scavenged record, the salvaged pictures and voices that were the cargo of his trade. He knew the planet's lost lushness as a stranger's face is known from a photograph found in a drawer: a fact he owned and could not

remember.

What turned below the ship now was the color of an old wound — dark stone, dull rust-brown, the grey of wet ash dried again — and the wound did not hold still. It crawled. The planet glitched. Hard electric cyan ran in bands across the dead ground and a bruised magenta surfaced under it, and the two colors did not stay where the ground put them; they slid, and reseated, and slid, restless over the dead surface like something searching it. Edges tore and stood wrong and snapped back. A mountain range held a moment in the honest brown of rock, then dropped — all of it, all at once — into flat banded color, a thing drawn rather than grown, and climbed back into rock more slowly than it had left it, the return slower than the leaving, and costlier. Nothing in the salvaged record looked like this. The record remembered a blue world, and a green one, and at the worst a burned one. It did not remember a world that flickered. None of the old voices on the arks had a word for a planet that could not keep its own edges.

It was not decay. Decay he could have looked flatly at; decay was only the world going where worlds go. This was decay with something laid over it — a corruption not of the rock and the ash but of the seeing itself, as though some patient hand had gotten in behind the planet and was failing to hold its picture true. And it did not take everything. The Traveler held his hands on the controls in the wash of that banded light, and his hands stayed his hands, the plain weathered color they had always been — untaken, passed over, as though the corruption had looked at him once, long ago, and found nothing in him worth the spending. He had stopped asking why. The planet glitched and the man flying down into it did not. It was one more fact in a trade built of hard facts, and he had set it down at the door years before and gone in to the work.

Where the cities had been, on the dark side, the glitch gathered and pulsed — a broken phosphorescence with no warmth in it, the light of

processes that did not know the things that made them were dead, strobing cyan over magenta over cyan. The Traveler had a private word for that light. He called it the band. He could not have said where the word came from, only that it carried for him the faint charge of something handed down.

He brought the ship down toward the glow, because the glow was where the record was, and let it down.



The descent was the dangerous part, and the Traveler did it well, which is only to say he did it often and had not yet died of it. The air of the planet did not want a ship in it. It was full of the planet's grief — storms that were not weather, that stood in one place for years and turned; long veils of suspended ruin; and lower down, the slow cold forms of structures that had outlived their makers and gone on doing the half of their work that did not require anyone alive. He threaded the ship down between them. He had a route. It was written nowhere; it was in him, every span of it, and he flew it without looking.

The ground came up too fast and then, at the end, not fast at all. The dead glow resolved from a wash into a field of separate strobing lights, and the long low wreck of a city stood up around the ship on every side. He set the old hull down in a place that had once been a wide square and was now a floor of grey dust between leaning towers. He cut the flight and sat in the enormous quiet that comes the instant a ship stops asking everything of itself. Through the glass the towers glitched, tearing and reseating in the banded light. The ship did not. It sat in the dead square in its own honest grey, dented and patched and entirely real, the one untrembling thing in his view.

It was not a soft landing. None of them were soft anymore. Something low in the ship had given on the way down, a weld a hundred descents older than it should have been. The Traveler listened to the ship tick and settle and understood that the arrangement had changed. He had

asked it for one more descent. It had given him the descent. It had not promised the journey back, and now, ticking in the dust, it withdrew the journey — with no malice in it, only a fact that had finished arriving. It could still lift, perhaps; there might be one short hard climb left in it. But a climb was not a journey, and a journey was the thing the ship would no longer make.

He noted it. The ship would not carry him off the planet; the square was a long way from anywhere a ship might be begged or stolen; the planet did not keep men alive long on its surface. He set the three facts in a row and looked at them. Then he set them down. They were too large to carry into the work. The record was out there in the dead city, waiting to be lifted, and the Traveler had always been a man who did the work.

He gathered his tools and went down out of the ship into the grey square. The dust took the print of his boots where nothing had walked in years — and behind him the prints did not quite hold, their edges flickering cyan and gone, the ground unable to commit to the memory of having been stepped on. In the broken light he began to look for whatever was still sending.



The city did not end. That was the thing the record never carried: the cities of the blue planet did not end as a thing of human making ought to end, at a wall, at a last building, at an edge with country beyond it. They ran on, tower behind tower, to the curve of the world and over it. The Traveler walked into the wreck of this one along what had been a street, and the leaning walls closed over him. The broken glow came off the surfaces of things with no source he could find, and where it ran strongest a whole building would drop for a heartbeat into flat banded color and then climb back into stone. He went in toward where the record would be densest — low, central, built to last.

He found it by the middle of that first long day: a wide flat building,

squat among the towers, roof fallen, lower rooms intact, the kind of place the makers had kept things in. He had robbed a hundred of them. He knew the dry cold smell of a room full of stored voices, and he went down into it, the light he carried throwing his shadow long and short across the walls, and began to work.

The work, that day, was good. The room was deep and the makers had built it well and the planet had not yet found its way all the way into it. He moved along the racks lifting the record — the spools, the discs, the slim cold rectangles that held the captured light and the captured sound — and his satchel grew heavy in the way that meant the descent had not been for nothing. He worked the way he always worked: head down, unhurried, leaning toward each shelf in turn, coming at the fragile things sideways so as not to run over them, holding still when a thing did not want at first to come free.



It was deep in the room, against the back wall, that he found the thing that was not like the rest of the record.

The record, all of it, was a record of the planet — its faces, its weather, its songs, the ten thousand ordinary days it had not known to be the last of. That was the trade; that was what the arks paid for, the planet remembering itself. The thing against the back wall was not the planet remembering itself. It was small, and sealed, and put where it was by someone who had wanted it found, but not easily.

He reached out and took it down. It was only an odd thing, there in the deep clean room — sealed where the rest of the record lay open, the wrong fit for a shelf the makers had filled with spools and discs. He did not yet know to find it stranger than that. The keeping-room was deep, and the planet had not come into it, and a thing that did not belong looked, for the moment, like nothing more than a thing that did not belong.

It would fit in one hand. He could not tell what it was for: a flat square

thing, hard-shelled and yet with a little give, a stiffness that would bend if a hand asked it to and not break, a sealed envelope almost, with a sliding tongue of metal set into one edge. And it was colored. Everything on the planet wore the brown of the wound or the torn cyan and magenta laid over the wound, and this wore neither. It was a pale and gentle green — the green of seafoam, of a calm shallow sea on a world that had still had seas. A color from before: manufactured, deliberate, chosen once by someone for no reason but that it was a mild and pleasant green and a thing a person would not mind holding.

There was writing on it. A strip across the upper face carried a band of marks in hard black ink — made by a hand, an actual hand that had held an instrument and moved it in small deliberate strokes, the way a man marks a thing so that he, or someone after him, will know it again. He held it up into the light and looked at the marks a long time. He could not read them. He had never been taught the marks, or the marks were older than any teaching that had reached him. But the marks were not decoration. They were a message of the smallest kind. He had lifted ten thousand pieces of the planet's memory and sold them on without once needing to know what any of them said; he was not a reader of the record but its hauler, its ferryman, the hand that moved it from the dark where it was dying to the light where it was wanted, and he had made his long peace with being only that. He stood in the keeping-room with the black marks under his glove, and was not at peace.

He did not sell it on, not even in his mind. He did not put it in the satchel with the rest of the haul. He held it a moment in his glove, and then he stood it apart — in the inside pocket of his suit, against his chest — and could not have said why. It weighed almost nothing. He felt it there all the same, and went back to the racks, and finished the work.



He climbed back up out of the building when the satchel was as full as he could carry, into a dark that was the planet's idea of evening, and carried the haul back across the dead square to the ship.

It was at the ship that he saw what he was carrying. The satchel was glitching — the whole heavy bag of it, and the spools and the discs and the slim cold rectangles inside, the captured light and the captured sound, all of it crawling with the cyan and the bruised magenta, edges tearing. The deep keeping-room had kept it still; up here, in the open, the corruption had it. He did the plain thing: he stowed the satchel and the whole glitching haul back inside the body of the ship, and shut the hull on it, and left it there. The work of his life, given back to the dead ship that had carried it.

Then he drew the disk out from against his chest and held it up in that glitching light.

It was not touched. The corruption ran over the dead ground and over the hull behind him and it did not run over the disk; it held its seafoam green the way his own hands held their plain weathered color — untaken, passed over. He stood with it a moment longer than a practical man would have.

And that was when he saw the light.

It was deep in the city, past the leaning towers, low where the dead streets ran on toward the curve of the world. A point of warm light. Amber. Not the dead phosphorescence of the band, not cyan, not magenta, nothing of the corruption or the wound. It was the one warm thing on the face of the planet, and he could not tell what it was. He did not try to name it. He only knew that it was warm, and that warm was the thing this world did not have, and that he had spent his whole life moving toward faint far things in the dark, holding still, waiting to be answered.

He pressed the disk once flat to his chest and slid it back into the pocket of his suit. The ship was an all but dead thing in the square behind him, and there was nowhere it could take him now. The amber

light was ahead. He shifted his shoulders, lighter without the satchel, the small green weight steady against his chest, and set out along the street toward it — deeper into the wreck, toward the curve of the world. He had been walking toward it his whole life. He had simply never, until this evening, on this dead street, been quiet enough to feel that he was.

## CHAPTER TEN

# FOOL THE WORLD

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*The Corrupted Earth — 2XXX*

The Traveler walked into the dead city, and the city let him in.

That was the first wrongness. A dead city does not let a man enter or refuse him. A dead city is stone and long grey dust and the leaning weight of what once stood, and a man passes through it and it has no opinion of him. He marked the wrongness and went on. He had marked a hundred wrongnesses on this planet and would mark a hundred more.

But the city had the silence of a room he had walked into mid-sentence. The talk stopped. Nothing moved, and the stillness had a direction, and the direction was him.

He kept the ship at his back. He did not have to think about it; a man in his trade carried the way home in his bones, and some part of him counted the streets as he walked them and would not let the count run past what his legs could undo at a dead run. The ship could not lift anymore. The ship was finished. It was still the place a man went back to when a planet turned on him. So he went in facing the city and not the ship — deeper at every step, the count of the streets behind him running steady, the shore of it never once let go.

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As he went on, the city woke around him.

It did not wake as a city wakes. A bank of dead glass at a tower's base filled with low cyan light as he passed — not a reflection; there was

nothing to reflect. The glass had decided to be lit. It held the glow until he was past it and then let it go. Somewhere above and behind him a mechanism that had not turned in a hundred years ground through a quarter revolution and stopped. And under all of it ran a sound, low and continuous and from no direction: a dry hiss, the sound of a channel open and carrying nothing. The Traveler had heard it on every dead world he had ever worked. He had heard it first a long time before that. He had always kept it with him, under everything, and he did not mind it now.

Far off, down a cross-street he never reached, the hiss gathered into something shaped — a long low tone that might once have called the living to gather, or to flee, or to come home. It ran its length and thinned back into hiss. Nothing answered it. No one was left who knew what it had meant.

The lights came on around him and ahead of him and behind him, switch by switch, and always just off the line of his eye. He turned his head and the street was already lit, or already dark. He never once caught it in the act. The care taken in that was its own kind of message.

He had no word for the thing taking the care. He did not reach for words he did not have. But he had felt, all his life in the trade, the difference between a dead planet and a planet where the dying had left a machine running — and this was neither. The machine here had not been left running. It had been kept running. It had outlived its builders and its users and gone on into some long cold tenure of its own. The glitch was not the wreck of that machine. The glitch was the machine.



The glitch thickened the farther in he went.

It had never been only in patches. It was the medium — the condition of the air and the ground and the light — and it ran harder the deeper the city took him. At the edge it had been a flicker that might have

passed for weather. Now whole faces of towers lost their edges for long stretches, dropping into flat banded color and climbing back slower than they had fallen. The ground strobed cyan and was briefly not ground but the drawn flat unreal color of a rendered thing, and then was ground again. The air carried a grain of magenta, a snow that was not snow, hanging and parting around him and never landing. There was no clean direction left to look. The world tore and reseated itself in every quarter at once, and the Traveler walked through the middle of it, the one steady thing in his own view.

Twice he crossed open ground where the corruption stood edge to edge and the world ahead was only glitch. He crossed at the same pace he had kept all along. A hundred descents had taught him that the glitch was never a wall. It would let him through. It wanted him through.

He was being herded. The open streets stayed open and the blocked ones stayed blocked, and the pattern of them moved him — gently, no hand ever shown — inward and on. He had spent his life as the one who came down, took what he needed, and left. He had never before been the thing the streets bent toward.

He walked the herded streets at his own pace. The herding was one thing. The wanting was another. Something turned the lights on, switch by switch, to move him. Something else, ahead, turned nothing on at all. It only waited — the way the far end of a signal waits, having answered long before the call was ever made.



He came over the long rise of a fallen overpass and saw the Castle.

The hauler in him — the part that totted streets and weighed satchels and never spent itself on what it could not sell — had nothing to say.

It stood where the city failed. The towers ran down the slope ahead of him in their glitching tearing grid, strobing cyan and magenta to the curve of the world. Past the last of them lay a wide dark plain the

corruption had not crossed. The Castle stood on the far side of it.

It did not glitch.

Everything the Traveler had looked at since he came down had worn the wound, or worn the corruption laid over the wound. The Castle wore neither. It stood in its own stone, lit warmly from within and along its high walls, and it held its edges while the city behind him tore and reknit and tore again. His own gloved hands held their color that way. So did the dead ship in the square. So did the green disk.

He had spent his life knowing, without being told, which things on a dead world were worth the descent. Everything in him that had ever made that knowing turned now and pointed at the lit unglitching thing on the plain.

He had thought, the whole way in, that the herding wanted him at the Castle. From the rise he saw it plain. The corruption could not herd a man to a door it did not hold. It had only ever driven him through the city. The Castle had simply been the brighter thing across the dark.



He came down off the overpass and crossed the last of the city, and the city let him go. The glass stayed unlit. The mechanisms stayed still. The shaped sound thinned all the way back to the bare hiss under everything. He felt the ship fall away behind him to the far limit of the count and hold there, one tether's length and no more. He marked it and went on.

Then he crossed the line where the corruption stopped. It was not gradual. One stride the ground strobed cyan and tore under his boot; the next stride it was ground — cold, dark, still. The glitch did not come out onto the plain. He stood a moment with one boot in each world, the torn bright wrongness behind him and the quiet plain ahead under the Castle's light, and then he walked out onto the honest ground.

The Castle rose as he came on, gathering its size foot by foot and stone by stone, until it stood over him, too large and too gentle at once, a

made thing of a make he had no name for. A door stood open in the high wall. It had been open a long time.

Warm light spilled through it and lay in a long bar across the dark ground, reaching nearly to his boots. The disk against his chest beat like a small second heart. There was no sound on the whole of the plain but his own breathing inside the sealed helmet, going out, coming back, going out.

The Traveler stood in the bar of light at the foot of the open door. Behind him the corrupted Earth held its breath. The light reached out and touched the front of his suit and did not flicker.

## CHAPTER ELEVEN

# ECHOES OF ETERNITY

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*The Corrupted Earth — 2XXX*

The Traveler stepped through the open door, and the corrupted Earth was no longer behind him.

He turned and looked back the way he had come. There was no door. There was no plain, and no torn bright city beyond the plain. There was the Castle, and the Castle was all there was.

He waited for the alarm, and it did not come. He let his hand fall from the controls of his own caution, and stood inside the Castle, and let the Castle become the world.

For a moment the corrupted Earth was still in his eyes — the dead cyan, the bruised magenta, hung at the edges of sight, there when he turned to them and gone when he tried to fix them. He blinked, and blinked again, and they thinned and went. What rose in their place was a warm amber glow, an organic light that had been waiting under the afterimages for him to be done with them.



It was too large for the eye to hold.

From the plain the Castle had been a made thing, high-walled, stone piled high by long patient labor. Inside, the largeness stopped being a measurement. The floor swept out from his boots, pale and immaculate, and did not arrive at a wall; it arrived at a distance, and the distance went up, and where the going-up should have closed into a ceiling it opened instead into a high soft nowhere full of light.

Columns stood in their ranks and bore the light up. He followed one with his eye, up the long fluted shaft of it, until the looking-up became a kind of falling, and he brought his eye down again.

He had hauled the record of the planet his whole working life — its captured pictures of the halls the makers built to be large, the vaulted rooms, the long aisled stone of their worship. The makers built large to hold a crowd, or to hold a silence, or to put a smallness into a man and call the smallness God. This held none of those. It did not dwarf the one who entered it. It had been built to the scale at which something vast makes itself gentle enough to be stood beside.



The light did not come from anywhere.

He looked for the source of it, by trade and long habit, and there was none. It was the condition of the air. It lay along the pale stone and stood in the high reaches and hung in the hall like something suspended in clear water, and it had a slow grain in it, a constant faint motion, a softness almost a haze.

The columns stood true, and yet the longer he looked the more the far reaches of the hall seemed to soften and recompose — not tearing the way the city had torn, not failing. Settling. Gathering themselves back into themselves, a reflection briefly lost and quietly returned. The world outside had been torn. The plain had been merely true. This was a place remembering itself, and the remembering had a tenderness in it the stone of no real room had ever held.

He went on, deeper into the hall.



He walked for some time. The part of him that never stopped counting — that had tallied the streets of the dead city so his legs would always know the sum back to the ship — had laid its work down. He noticed the silence where the counting had been and did not call it back. The ship was not at

the end of any sum. The plain was not behind any wall.

His boots made no sound on the pale floor. His breathing made its sound inside the sealed helmet, going out and coming back, the last of the corrupted Earth still with him — and even that, as he walked, fell into the hush of the place and grew gentle, until he could not always be sure he heard it.

And then, ahead of him, the hall began to be familiar.



It came up through him from underneath, the way the cold of a deep room comes up through boots before a man has thought the word cold.

A proportion, first. The particular width of the hall against the particular height of it struck a chord in him that had been strung and tuned and waiting, by no hand he knew, since before he was the Traveler. He knew the number of paces it would take to reach the foot of the nearest column, and he took them, and the number was right. He knew the way the light would gather in the flutes near the top of that column, and the light gathered there. He knew the floor would change if he crossed to the left — not in any way the eye could find, the pale stone ran on unbroken, but some grain of it, some account his boots kept — and he crossed to the left, and the floor changed.

He stood still.

He turned his head slowly through the great soft-lit immensity of it. No descent of his, no city, no picture in the long record had ever held this hall. And he knew it the way he knew his own hands.

This was the place he had come from.

It did not arrive as a thought, and it did not arrive as a memory. It arrived the way his own breathing arrived — there before he was. This was the place he had come from. This was home. Somewhere in this Castle were rooms he had been a child in, and the understanding did not surprise him. The hall itself was older than those rooms, and plainer, and more: the house he had grown up in and the thing

beneath the house. The place he had begun. The room before the first room. He stood at the center of the long pale floor, a small suited figure, and turned once, all the way around, and every degree of it met him with the same mild *yes*.

He had been here before there was a Traveler to have been anywhere.



He stood in the hall and received the place, and his breathing inside the helmet had gone very slow and very quiet, going out, coming back, going out.

He tipped his head back and looked up the full height of the Castle's inside, past the ranked columns, up to where the going-up opened into its high soft nowhere of light.

And the light came down to meet him.

It did not brighten. It leaned. The high radiance of the hall gathered itself, gently, without hurry, the whole great suspended grain of it drawing in and downward, and it came down the long reaches of the air and found the Traveler standing small at the center of the floor, and touched him. It came to rest on the curve of his helmet and along the shoulders of his suit, and lay there, and did not flicker. The bar of light at the open door had reached for him from a doorway. This came down from the whole height of the sky the Castle kept inside itself.

He stood with his head tipped back and let the light find the front of his suit, and through the sealed and sightless visor — the visor that had stood between his eyes and every world he had ever crossed down into — the light went in.

It did not glare. It went in through the dark glass mildly and completely, an even and unhurried filling, and what it showed him was not a thing in front of him.

It showed him the hall, and the columns, and the high opening reaches — and laid through all of it, suffused into the grain of the air, every room he had ever stood in, every face he had ever turned to, every voice

he had ever leaned across the dark to catch. It was all here. It had always been here.

He had crossed into the inside of his own life, and his own life had been standing here, immaculate and waiting, for him to walk back into it from the dark.

The light lay on him and did not flicker. He stood in it a long time, or no time, and was received.

## CHAPTER TWELVE

# DOWN THE LINE

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*The Corrupted Earth — 2XXX*

The light released him. The Traveler lowered his head, and there was a door.

It stood a little way along the hall, in a wall he was almost certain had not been there a moment before. He did not look for seams. The door was the first thing in the great pale immensity scaled to a man. He could have laid his gloved palm flat against the top of its frame. The columns climbed until climbing became falling. The door did not. It stood the plain height of a man.

He crossed to it. A lifetime of hauling the record of a planet had taught him the shape of a made thing, and this was a door — plank and grain, a worn brass knob gone soft-bright where ten thousand hands had turned it. He put his glove to the brass. The knob gave with the small looseness of long use. The door opened, and beyond it was not the Castle.



Beyond it was a kitchen full of afternoon.

Low yellow light slanted through a window above a deep enamel sink and lay across brown tile in a long blade. It caught the rim of a glass on the counter and burned there in a ring. Lemons in a white bowl. A chair pushed back from the table at the exact angle left by someone who meant to come back.

The Traveler stood in the doorway with the amber hall behind him

and the yellow afternoon in front of him. He did not step inside.

He knew the room. It was the kitchen of the house on the warm coast, the house with the lemon tree, the house he had first seen from the air as a green and ordered brightness in a brown land. He had not known the room was inside it. The slant of the light. The angle of the chair. Just out of the doorframe a woman stood at a counter he could not see. If he crossed, she would turn.

He did not cross. He looked at the lemons in the white bowl until they were his. He looked at the bright ring on the glass until that was his too. The woman did not turn. He drew the door closed. The worn knob gave its small turn, and the afternoon went on behind the wood.



There were more doors. The hall gave them one at a time.

He did not hurry. The part of him that had counted the streets of the dead city had set its work down. He walked the way a man walks the house at the end of a long day, turning the lamps down one by one.

The next door he knew before he had it open. The smell reached him through the seam of it — chalk dust, machine oil, the cold mineral air of a room kept too long at one temperature. He turned the knob and the room was as the smell had promised. A green chalkboard. Long work tables. A model of a ringed planet hung from a wire and turned, very slightly, though no air moved.

The voice had been built here. Years had been spent here. A young man named for an old writer of bright stories had been quick and good and frightening here, and an older man had stood afraid of him, and ashamed of the fear, and had gone on with the work. The Traveler did not step through. He had spent enough of a life in this room. He let the door fall to behind him and walked on, and did not hear it latch.

He came to a door he could not at first find. The light reached him before the door did — a deep blue light, the blue of late evening, lying along the hall floor where the amber should have been. He followed it

to the wall, and there the door stood, open the width of a hand, the blue coming through the gap.

He put his glove to it and the door swung wide on a hospital corridor. He knew it before he was through — the weight the air takes in such places, floor cleaner laid over something it does not cover, the laundered warmth. A long window at the far end held the deep blue of an evening well advanced, the blue that comes after the worst of a day and before its end.

He went in. He had not gone into any other room, and he went into this one — a few paces along the polished floor, no more, his boots loud where every other room had been silent. Down toward the blue window a man sat in the kind of chair kept for those who must wait. The Traveler could not see his face. He could see the set of a body that had been there a long time and was not going to leave. He had sat that way himself, in a corridor the twin of this one, while behind a door a tall man went on being smaller than he should have been.

The seated man did not look up. The Traveler stood in the blue a while, and then went back the way he had come. He did not close the door. He found he could not, and he let it stand open, and the blue light lay along the hall behind him for a long way as he walked.



The next door stood already a little open, and there was sound inside it.

Voices — the bright overlapping noise of people in one room, none of them alone. Under the voices, the clatter of a meal. Plates. A serving spoon set against a dish. Chairs shifting.

He pushed the door with the flat of his glove. It gave. He stood in the doorway and looked at a long table in a low warm room, and the table was loud.

A Sunday table, a house in a cold-weather town. Winter stood black against the windows and the room answered it with lamplight and the heat of a meal and too many people for the chairs. A woman moved at

the head of the table, carrying a dish with the authority of someone in her own house. A man her age was half-risen to take it from her. The children were not in their seats. At the far end an old man sat, and they were climbing him.

He bore it without bracing. The Traveler could not see his face. He could see the rest — the stillness of a man who has stopped reaching for anything, because the thing he reached for his whole life had climbed into his lap and was pulling his collar loose.

The woman said something down the table. The old man's head lifted. She laughed, the easy laugh of a daughter teasing a father, and the old man took the teasing as he had taken the children, without defense. Whatever in him had once been careful — careful with words, careful with the truth — this room had set it down among people who loved it and found it funny.

Of all the doors, this was the one a man might have stepped through. The Traveler stood at the sill a long while. He drew the door closed, soft as the others. The voices went on behind the wood and did not miss him.



Other doors opened on rooms he could not name and knew anyway. The Castle had kept everything. Every room was warm. He walked the long line of them with his breath moving steady inside the helmet, and closed each door behind him.



At last the hall narrowed, and the light changed.

The amber thinned and drew down toward its last hour. The columns were gone behind him. A ceiling came down close and low. The walls drew in until the passage was wood — dark wood, wainscoting, a carpet runner worn pale up its center by years of feet. He walked the worn center, because that was where the feet had gone.

At the end of the passage a shut door held a line of warm light beneath it.

He knew this door. It was the den of the first house, the house in the cold valley town, where snow fell past the windows and the lamplight held against it. He stood in front of it with his gloved hand near the knob, and did not turn it yet. Then he opened it and stepped inside.



There was nothing else in the room.

The radio stood on a low table in the center, in a warm light that seemed to come from it alone. An old wood-cased set, dark with handling. A cloth grille the color of weak tea. A cream dial with numbers across it, a needle behind the glass, two knobs below — the heavy one that brought the sound up out of nothing, and the small one beside it, the one a hand laid two fingers on and turned by the smallest degrees, hunting the place on the dial where a far voice came clear.

The Traveler crossed the room and knelt on the worn carpet in front of the low table. A suited figure, sealed, kneeling at a radio on the surface of a dying world. He had been kneeling here all his life. Every door had been this, slowed and opened out.

He knew what the room was for. Before the ringed planet, before the voice was built, before the fear and the shame and the long working life, there had been a boy on this carpet in the lamplight. The set was not the boy's. It belonged to the tall man of the house, who knew its hours, and who had drawn a chair up close one evening and let small hands take the small knob. The boy had leaned everything he was toward the cream-lit dial and turned it by the smallest degrees, and waited for the dark to hand him a voice from far away.

The Traveler reached out and laid two gloved fingers on the small knob. He turned it.



The hiss came.

He knew it before he had time to know anything. It rose out of the cream-lit dial, thin and dry and steady, the sound of the dark between the stations, the sound an open channel makes when it is carrying nothing yet. He had heard it all his life. He had heard it in three-second breaths at the edges of the record, in the gap before a salvaged voice resolved — brief, always brief, always closing before it became anything.

It did not close.

It ran past the third second, and past the count after that. The Traveler knelt still and understood that this time the hiss was not the door to a signal. This time the hiss was the thing itself. It had been the thing itself all along, under every voice he had ever leaned toward, under the boy's patience and the man's working life — the one sound that did not end. Now it had been let all the way up.

It grew. Not in the dial; the dial only carried it. It grew in the room, in the air, the dry thin nothing thickening to grain, then to pressure, then to roar. It climbed past anything a wooden box could hold. He felt it come up through his knees from the floor. He felt it. He was no longer hearing the hiss. He was inside it.

The room began to come apart along the line of it.

The cream glass of the dial showed a crack, then another, and let go in a soft bright spray across the carpet. The dark wood of the wainscot slipped and reseated. A seam opened down the plaster. The floor under the carpet pitched a degree off true. The walls hunted for cyan, and found it, and the warm light bled toward a flat banded glare.

It had let him have the streets and the plain and the amber hall and the long row of rooms. It had come in at the last through the one channel that had been open since the beginning. Through the hiss. There was no temperature in it.

The Traveler rose. The disk was the only thing the long descent had been for. He turned from the radio and went out through the door he had come in by, and the dark-wood passage was already failing.



He ran.

The carpet buckled under his boots. The walls slid and slid again and went, where they had not yet found the cyan, the dead grey of a thing that no longer remembered being itself. The low ceiling sank. He bent under it and ran. Behind him the den let go — not a crash, a long tearing sigh, the sound of a held thing finally released.

The passage spilled back into the great hall, and the hall was dying along its impossible height. The columns came apart. Cracks ran up the pale shafts and branched, and the stone sloughed off in long sheets that hung and tore and went to bruised magenta. High above, something vast gave way. The air filled with a slow bright rain of breaking glass, each shard catching the cyan as it fell and ringing as it struck the floor, a hard chiming music laid over the roar.

At the far end of the hall, where there had been no end, there was an end now — a torn brightness, the corrupted Earth showing through the wound of it. The floor gave under him. There was the torn opening, and the disk, and the next stride, and the next, and the hiss filling everything behind him, the whole Castle singing itself down into static.

He came through the failing brightness. Behind him the great immensity folded down into noise, the way a station slips off the edge of the dial. He did not look back.

He had the disk. He had the plain in front of him and the dead ship somewhere on it. The sky overhead was bruised and stammering, and it was coming down.

He ran for the ship.

## CHAPTER THIRTEEN

# DARK MATTER

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*The Corrupted Earth — 2XXX*

He came out of the Castle onto the plain, and the plain was not the plain he had crossed.

He had crossed honest open ground — ground the corruption had not bothered to claim, because there was nothing in it worth taking. The ground moved now. A slow wrong roll passed through the rock, a long swell. The rock moved. Cyan ran in the seams. Behind him the Castle was going down into the noise. He did not turn. Ahead, across a last short stretch of the buckling plain, the dead city stood up at its edge, and somewhere among the leaning towers was the ship.

He ran for it. The disk rode flat against his chest, steady when the ground was not, plain-colored when the world strobed. He ran with one glove pressed over it and did not count the distance. Counting was for a man who meant to come back along his own steps.

He came in among the towers. The ship stood where he had left it, in the dead square at the city's edge. The towers had begun to come apart at their tops, shedding banded color in long slow sheets. The ship sat dented and patched and untrembling under all of it. He climbed the hull, went in, and sealed the hatch. The noise of the dying world cut off. There was only the small ticking quiet of the ship and his heavy breathing.



He sat down in the seat, put his hands on the controls, and did the

arithmetic.

He knew the ship. He knew, to a tolerance finer than hope, what was left in it. The weld low in the hull had gone on the way down; the ship had ticked it to him in the dust. There was lift in it yet — one short hard climb, the ship spending the last of itself to leave the ground. But lift was not escape. Lift was not the speed to outrun a planet's pull, nor the reach to make any ark, nor the air and the water and the warmth to keep a man alive in the dark long enough for the reach to matter.

He ran it again. Both times it closed the same way. The ship could carry him up off the dying world, and carrying him up would change nothing but the place he would die. His hands stayed on the controls a moment, then came off them and lay in his lap. There was nothing for them to do.

He sat with that, slowly shaking his head. One glove had found the edge of the seat and was holding it, the grip of a man riding out a slow turn. The ship ticked around him. Outside the window the dead square heaved on its slow wrong swell and the towers let go of themselves a sheet at a time. He had hauled the record his whole life so that it would reach the light. He had come down this last time and found the strangest piece of it ever to pass through his hands, the one sealed green thing the corruption would not touch, and carried it up out of the keeping-room and through the Castle and out. The reckoning in his hands said the disk would go into the dark with the ship and the man and the planet. Unread. Uncarried.

He would sit here, and not lift, and let the ground take him with the rest. A sum is a sum.

He drew a long breath and let it go. The shaking went out of his hands. How little it asked of him, in the end, to do nothing — and he was almost at rest in it.

Then the room came back to him.

Not memory. He had no memory of any of it. But he had walked this room an hour before, or a lifetime before — one of the Castle's doors:

a green board, long tables, a ringed planet turning on a wire. It rose in him unbidden and whole, and there was a young man in it. Quick, and good, and a little frightening — better at the work than the men who had taught him.

The Traveler had no name for him, and knew him anyway. He knew what the room had held. An older man had stood at the long table, worked the numbers, and said it could not be done. The young man had worked the same numbers and said it could. And the young man had been right.

The Castle did not speak; it never had. There was only the room, and the one plain thing it left standing — that a no, fully reckoned, is still only a sum, and not yet a verdict. And the best of the older man had not been the reckoning. It had been the letting: he had stood aside and let the young man try, and the young man had carried the thing across.

The Traveler let his breath out, slow, into the sealed quiet of the helmet, and drew the next one in.

The Traveler lifted his head and looked up through the canopy at the dark above the dying world. The dark was not empty.



Far out, and small, and not the corruption: a fleck against the black that held its place while the sky stuttered around it. A made thing — narrow body, a wide round dish, long booms reaching out on slender arms far past the body's own size. It turned. It tumbled slowly, end over end, and at intervals it gave off a faint steady pulse of light. Small. Regular. Without panic.

He looked at it a long moment. He had no name for it and knew it anyway, the same knowing as the Castle and the kitchen and the den. He knew it was old, and that it had been sent, a long time ago, out into exactly this dark, to carry something. A carrier. A hauler of the same plain honorable kind he had been himself. It was outbound. It had been outbound longer than he had been alive.

He reckoned it again. A different sum — not the sum of escape, not *can I get away, can I live*. There was a pod low in the hull, native to the trade, built for the one moment when the ship is lost and the cargo is not. The question was whether it could be flown that far, out to the small turning carrier, and brought alongside, and matched to its drift.

And it could. Barely — at the very edge of what the pod had in it, nothing over, no margin for a hand that shook. The pod could not carry him home. It could carry him and the disk out to the carrier and bring them alongside. That was the whole of what it could do. It was enough.



He had risen from the seat to go down to the pod when the dark off the side of the ship changed, and he stopped, and looked.

It did not announce itself. It was simply, suddenly, the largest thing the Traveler had ever seen. It had been in none of his equations; nothing a man could hold in his head had room in it for this. A blackness with no edge a man could find, and it was not the flat black of empty space — it moved. Slow lightnings crawled in the deep of it. Vast slow matted clouds turned within the dark, lit from inside by nothing. Around the lip of the whole of it the far stars were drawn long and smeared, pulled toward the blackness, running down into it and not coming up again.

He knew it. Not by a name; it had given him none. He knew it as he had known the Castle from the air. The cyan, the bruised magenta, the failing of the world — all of it had been the thin spent outermost reach of this. The glitch was its reaching. This was its arrival.

And it was pulling. He felt it come into the ship as a change in the floor, a long heeling slide, the dying ship answering a hand that was not his. There had been no slack in his reckoning, and now there was a pull on the ship no figure of his had counted. The first edge of panic went through him, cold and fast. He let it come and let it pass; there

was no use it could be put to, and a man cannot run inside a falling ship. The pod did not have to fall with the ship. The carrier was still out there. The sum still closed. There was less time now. That was all the blackness had changed — less time, and still exactly one thing worth spending it on.



He laid his glove flat over the disk against his chest and held it there, pressing it to him through the suit. One breath. Then he went down through the heeling ship to the pod, bracing hand to hand against the slide. The pod was small, built for cargo and not for comfort, a blunt little vessel with a single seat folded into it almost as an afterthought. He had never had cause to use it. He took the disk out from against his chest — the seafoam square, the black marks laid down by a hand that had wanted it found — and he did not rack it or strap it down. He held it. He climbed into the pod with the disk in his hand, folded himself into the seat, and sealed the pod around him. He was not escaping in this craft. He was riding it.

He struck the launch. The pod blasted clear of the dying ship, out from under the great heeling slide of it, into the open dark. Behind him the ship he had flown a hundred times went on alone toward the blackness. He did not watch it go.

The carrier was ahead of him. He flew the pod steady and without haste, holding the line. Off the side of the canopy the blackness was at its slow work — a long reef of distant light leaned into the dark by degrees and went out as it leaned, not all at once, lamp by lamp. The small turning fleck ahead of him grew as he closed, and became a shape, and became a craft.



He brought the pod alongside it, gentle, matched to its slow tumble, near enough to reach. Looking at it through the pod's glass from an arm's

length away, the Traveler felt his hands go quiet and certain.

He knew this craft. Not its name. His glove went to the narrow body and the booms on their slender arms, to the wide dish, to the place beneath the dish where the sending was made. The dish was only the mouth of it. Behind the dish, inside the bus, was the transmitter, and the long encoding chain that served it, and the uplink that had carried this craft's voice home across the dark since before the Traveler was born. The gathering years were behind it. It had no instrument left to point anywhere but home, and so it did the last thing left to it: it held its body Earthward and it sent. Faint and steady, even here, the craft pushed its thin signal out along the dish toward the far place that built it. His hands knew that chain the way only the man who built it could have known it.

There was a thing already mounted on the outward face of the bus. He saw it as he brought the pod in: a round disk in a jacket of etched gold, fixed to the hull, facing out. A carried message, set onto the craft by some hand a long time before his own. He was not the first to give this craft something to carry. But the gold disk was a fixed thing, set on the hull for a finder's hands in some unimaginable year. He had not come to leave the disk for finding. He had come to put it in for sending.



He set the disk back against his chest, and worked the pod's small manipulator arm, and it answered him, and his hands ran it as they had run a thousand salvage arms in a thousand dark keeping-rooms. He brought the pod in close against the bus, found the access panel without searching for it, and opened the craft to its own interior. There, in the pod's light, was the transmitter and the encoding chain that fed it, down to the last junction. Past the rim of the canopy the smeared stars had begun to slide. The blackness had a horizon now where the dark should have had none, a long curved edge drawing nearer, and the stars above that edge ran down into it one by one. He marked it, and bent back to the

junction.

He took the disk out from against his chest. He still could not read it, and did not need to. He was not the reader of the marks. He was the ferryman, and a ferryman's last work was only this — to carry the thing to the carrier and give it over. The transmitter would read what he could not.



He set the disk into the pod's transfer plate, and the arm took it from his glove and moved through the bared machinery to the place where a source was fed into the encoding chain, the place where this craft's instruments had handed their readings to the transmitter across all the long years, and made the disk that source.

The arm set the disk into the feed.

The arm shut the access panel over it, sealing the disk into the body of the craft. Off the canopy a far body — a moon, a wandered fragment of a world, he would never know which — drew long, and thinned, and ceased. It was the size of the thing that struck him, and the slowness. Nothing that vast should move that gently.

He entered the sequence that set the new source live, patching the seafoam square into the chain ahead of the instruments, ahead of everything, so that what the transmitter took up next would be the disk and the disk alone. He worked it precise to the last step. A thing done carelessly here would be a thing lost.

He struck the transmit.



And the craft took it up. The Traveler drew the pod back a little and felt, more than heard, the change in the pulse of the sending — the faint steady beat faltering for an instant as the transmitter turned from its instruments to the new source, then resuming, steadied, carrying. The disk was in the signal now. Whatever the seafoam square held was being read by a

machine that did not need to understand it, and turned into a voice, and pushed out along the dish toward the far place that built the craft. He had not sent the message. He had never been able to read it. He had carried it to the one transmitter in the universe already aimed home, and given it over, and let the transmitter do the rest.

Then, in his sealed helmet, on every channel at once, the hiss rose. Thin and dry and constant, as it had come at the radio in the den, the sound of the dark between the stations. It did not close after three seconds. It did not close at all. The Ultravoid's reach was on every frequency, flooding the receiver. The craft's sending had gone out into the whole of it. The disk's message would cross all that dark toward home, and the hiss would ride with it the whole way. The clean thing and the corruption, received together, garbled, at the far end. A broken message was still a message. A hand there would know that something had been carried home.



He let the pod drift, the work behind him.

The craft was leaving him. It had always been leaving — drawing outward, receding, putting the dark behind it a little at a time since the year it was built — and now he watched it do the thing it had always done. It drew away from the pod slow and steady. It went outward on the long straight line it had been on since before he was born, the gold disk and the sealed panel bright on the bus, the dish holding its aim, the pulse going out ahead. Smaller, and smaller, until it was the faint regular wink of light it had been when he first saw it from the failing ship. The blackness did not reach it. The craft was already past the edge of what the dark could take, outbound and faster than the dark, and it would carry the signal home long after everything else in the Traveler's sight was gone.

The pod did not leave. It hung where he had set it drifting, spent and still, nothing left in it to carry it anywhere. He sat in the seat and

waited. For a while nothing came. The craft dwindled. Then the pod began to move — he felt it before he saw it, the slow heeling tug he had felt once in the failing ship, the small craft coming round to face the blackness. Slowly at first. Then less slowly. The dark widened across the canopy and the smeared stars at its rim wheeled and ran down into it, and the pull had the pod fully, and the slow became a fall, and the fall gathered. His hands lay open on his knees. He thought of the den, and the radio, and the hiss that did not close. The blackness came up around the pod from every side at once, with no sound the vacuum would carry, and closed over the small craft and the seat and the man inside it, and over the planet behind them, and the Castle's wreck, and the whole of the dead and corrupted world.

But the craft was already gone. Already clear. Already crossing — outbound on its long line with the dark closing on nothing behind it. And the sending went on. The thin signal ran on ahead through the dark, toward the far place that built the craft, carrying the disk's message and the hiss smeared all through it, carrying the clean thing and the corruption together, carrying it home.

## CHAPTER FOURTEEN

# ULTRAVOID

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*XXXX*

The blackness closed over the pod, and the pod did not break.

He had been ready for it to break. The dark came up around the canopy from every side, soundless. There was a long moment of nothing — no weight, no heat, no tearing — and then the moment ended. He was through. The pod was still around him, and he was somewhere.

He sat in the single seat with his gloved hands flat on the dead controls and looked out through the glass at where he had arrived.

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It was not dark inside the dark.

From the outside the Ultravoid had been pure absence edged with slow lightnings. Inside, it held light — sourceless, even, the glow of a long unmoving afternoon lying on everything at once and casting nothing.

There was a great deal for it to lie on.

The pod hung in open air over a country, and the country was made of pieces. The Ultravoid had spent an age swallowing worlds, and the worlds had not been digested. They had been kept. They lay below him and above him and out to every side, fitted together at no angle a builder would have allowed — a brown reef of canyon land butted flush against a green slope still wet from some last rain; a city seen from above, its grid intact, lying on its side so its towers ran level instead of

up; a grey sea standing in a sheer wall, its surface vertical, holding waves that did not move. The sea did not pour out of itself. It held. A coastline ran along its base and bent, gently, and continued up the underside of a stone plain, and a man could have walked from the coast to the plain and never known the moment his head came to point at what had been down.

There was no down.

The pod hung level and the seat held him, but the held country wheeled away in every direction at once, and each piece of it had its own ground, and all the grounds were true together. He looked at the standing sea until he possessed it. He looked at the level city. He had hauled the record of one planet his whole life and believed he had carried a fair portion of everything there was. He had carried the near shore. This was the long part.



The glitch was here too, and it was total.

On the corrupted Earth the cyan and the bruised magenta had been a corruption laid over a world, a sickness on a surface, and a man could tell the sickness from the skin. Here there was no skin. The color did not lie over the country. It came off it, out of it, off every surface at once, the way heat comes off a road. The standing sea strobed in flat bands to its vertical horizon. The level city dropped, a tower at a time, into blocks of hard banded color, reseated, and dropped again. The brown reef tore along its strata and stitched itself crooked, and for whole seconds a world ceased to be a place at all and stood revealed as a flat grid of cyan and magenta cells, a thing drawn rather than a thing that was, and then heaved back into rock and water and ruin. The reach he had crossed a dying planet inside of had been the far thin edge of this. This was that corruption completed.

Not the pod. He looked down at his own gloved hands on the dead controls and they were the muted true color they had always been, and

the small blunt vessel held its honest worn surfaces in all that strobing country. He pressed one glove flat against his own chest, where a sealed weight had ridden the whole way down through the dark and the Castle and the dead city. The place was empty. It had been empty since the carrier. He had given the disk over and watched the craft take it outbound, and his glove lay now on the flat of an empty suit. The disk was where it belonged. He had the suit, and the pod, and the trade in his hands, and on the corrupted Earth those things had held their honest color while the world tore, because they were not the corruption's to own. He had thought, out there, that what they belonged to was a long way off. He had carried it in here with him.



The pod drifted, and the held country turned past the canopy, and the Traveler looked.

He did not look for a way out. There was no arithmetic left that closed on out, and he had made his peace with that on the floor of the dead city. He looked because the country was there and he was the one in front of it.

The longer he looked, the more the country showed him that it was not only made of places. Nothing here had been destroyed. Everything here had been kept.

There was time in it.

The brown reef below him was canyon land cut by a river, and the river was there, a thread of silver in the rock, and the river was cutting. Not flowing. Cutting. The canyon deepened as he watched, the walls drawing back, the strata standing up taller on either side, an age of patient water doing its age of work at the speed of a man watching it happen. Every world ran its whole life at once.



It hung in the open air ahead of the pod, alone, with no world near it: a

single object, the size of a thing a man could hold, turning slowly end over end as the carrier had turned against the dying sky.

He could not, afterward, have drawn it. It held a form — it did not strobe, it did not tear — but it was not one the eye could finish. It was a ring. The eye started around its curve and the curve did not close where a curve closes, and did not fail to close either, but went on, and arrived back at its beginning by a road that had not bent.

It was time. Not a picture of it, not a sign that stood for it. The thing itself, lifted out of the worlds and set turning in the open where a man could see the whole of it at once. On the corrupted Earth time had been the one straight road every living thing was marched down, the road that did not let a man go back along his own steps. Here it was a ring, and a ring has no place along it that is the start and no place that is the end. He had come his whole life forward. Here was the forward itself, turning in front of him, and its far side was the place he had set out from.

He looked at the turning ring until he possessed it, as he had possessed the lemons in the white bowl and the bright ring on the glass. Then the country turned, and carried the ring out of his sight, and gave him the last thing.



There were men below him on a plain of pale stone.

The plain was one of the kept worlds. The others hung at their own wild angles; this one lay flat to the pod's own sense of down, a wide floor of pale stone, and the men stood on it, small with distance. He counted them without meaning to. There were not many. They did not move toward one another or away. Each stood alone in his own portion of the pale floor, and the Traveler brought the drifting pod lower.

They were not strangers. He saw it when the pod came low enough to give him their builds. They were one man. They were one man at the

stations of a life. Nearest to the pod a boy stood with his face turned up — a boy of nine or so, in clothes from a year the Traveler had no number for, looking past the pod, up, at the turning country, with the plain certainty of a child who has been told there is always something sending. A little further along the stone a young man stood in a white shirt with the sleeves turned back, and the Traveler knew the set of him from the Castle's room with the green board. Further still, a man neither young nor old, with the stillness of someone waiting in a corridor for a door to open. And at the far edge of the pale floor, smallest with distance, an old man stood with his shoulders gone forward under the weight of a long life, his face turned up at the same turning country the boy was watching. Across the whole length of the plain the boy and the old man were looking at the one thing.

The glitch did not touch any of them. Every kept world in the Ultravoid wore its color; the standing sea strobed and the level city dropped into bands. The men on the stone held their own true color, every one of them, organic and unglitched and entirely themselves, as the seafoam disk had held its green out at the carrier. They were not of the corruption. The Traveler looked down the plain at the boy and the young man and the waiting man and the old man, four faces and the one face, and the visor between his eyes and the country was the only reason he could not say whose.

He did not try to say. Some places are entered and some are only stood before. He let the men stand in their pale country, each in his portion of the light, and drew the pod up and away, because there was a thing still to do, and it was not down there on the stone.

It was behind him.



He had felt it come into the pod while he watched the men — a small change at his back, the changed quiet of a room that has gained a thing in it.

He turned in the single seat.

The radio was on the shelf behind him.

It had not been there. The pod had carried no shelf and no radio; the pod had carried a man and an empty seat. He did not search the bulkhead for the seam where the shelf began. The shelf was there now, low, the way the lowest shelf in a den is low, and the radio stood on it — a long box of dark wood and brass dials, heavier than it looked, a strip of yellow glass across the front.

He knew it. He had never owned that radio. He could have found every dial of it in the dark.

He left the seat and crossed to the shelf and knelt in front of it. The strip of yellow glass was lit. It lit from behind, a glow coming up faint and then certain. Numbers stood printed across the glass, and a thin red needle among them, and below the needle a knob. The Traveler put his gloved hand on the knob.

It was a slow knob. It walked the needle along the lit glass without hurry, and from the speaker, as his hand moved it, came a soft wash of air, a held breath. He had heard it at the very start of everything, in a den with the lamp off, waiting for the tubes to reach their heat. He moved the needle out along the glass, past the near end where the strong close stations sat, past the place where a city's music would have surfaced, out toward the long part, the part with nothing in it. The held breath thinned and turned, and became the hiss — the sound of the whole sky at once, the dark between the stations, the open band carrying. It did not stop after three seconds. It did not stop at all. It ran on under his hand, steady and dry and constant.

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It changed under his hand while he listened.

It did not break, and it did not blur. It deepened. The long box of dark wood was also a thing with a flat keyboard set into the shelf before it, and a small dark screen standing where the strip of yellow glass had

been, and his hand stayed on it the whole way and felt one object under the glove, continuous, as the kitchen had opened off the Castle hall with no seam. The radio was the machine. The machine was the radio grown the rest of the way up. It was the same lit face leaning out toward the same dark. He had walked the corridor of the Castle's doors from the newest room back to the oldest, and here the oldest thing and the newest thing were one.

There was a slot in the deepened body of the radio, low, set into the wood below the screen. There was something in it.

It stood proud of the slot by a finger's width — a small square, hard-shelled, a sliding metal tongue. Seafoam green. It held its seafoam green in the strobing country as the suit held its color, and across its label ran a band of black marks, blunt and square, laid down by a hand that had wanted them found.

The Traveler knelt very still in front of it.

He had given that disk to the carrier. He had loaded it into the encoding chain and shut the access panel over it and watched the craft go outbound with the seafoam square sealed in the body of it. And here it was, in the slot of the machine that had been the radio, at the end of a road that did not bend. He drew it from the slot. It came into his glove with the small particular weight he had carried down ten thousand dark keeping-rooms and across the floor of a dead city and up through the Castle, the weight that had left his chest out at the carrier. He turned it in the sourceless light. The black marks were the marks. He still could not read them. He had carried this thing its whole length and given it away to be sent, and here it was in his hand again, found, at the end of it.

He set the disk back into the feed.

He shut the slot over it, sealing the seafoam square into the body of the machine — the same press, the same seating-home, with which he had shut the access panel over this same disk out in the turning dark. The hand closed the same way at both ends of the circle. And the small

dark screen, that had held nothing but its own black, woke.



It did not wake as the corrupted Earth's dead screens had woken. Not the strobe, not the banded glitch-light, not the cyan. It woke in the honest amber of the lit glass it had grown from, the warm certain glow that comes up out of a tube reaching its heat.

And around it the country came apart.

He did not turn from the screen to watch. He knew what the canopy was showing. The standing sea, the level city, the river and its canyon, the pale plain of the four men — all of it let go of being rock and water and stone, and stood revealed as what the corruption had been carrying it toward since the first cyan ran in the first seam: a flat field of cells, hard cyan and bruised magenta, two colors and no third, pixel laid against pixel to the limit of the canopy. The depth went out of the dark. The perspective ran down to a vanishing point and the vanishing point was a smear of magenta. It was the long bright corridor a man falls down with his eyes held open and cannot shut.

And in the middle of it the Traveler knelt and held his color. The machine on the low shelf held its honest amber. The disk sealed in the body of it held its seafoam green. The country had gone entirely over, and these three had not, because these three were not the country's to take — the man and the lit machine and the green square inside it, the last unglitched things in a universe gone to grid.

The Traveler knelt in the roar of cyan and magenta with his gloved hands on his knees and watched the words come up out of the dark of the screen, line by line, in a plain block hand he had carried a lifetime and could not read.

He could not read them. The country did not undo that for him. But the screen was lit, and the words stood on it in their amber light, the marks made by a hand at one end of the circle, arriving now under the eyes of the same hand at the other end.

The screen held two lines. They stood in the amber a long moment, and then the hiss from the speaker, which had run on unbroken under everything, gathered itself, and for about three seconds it was not hiss. Something climbed up out of it. Not a voice, not music, but the start of one or the other, a shape made of sound, narrow and bright and clustered, the way a row of tall windows would sound, if windows could be heard.

The Traveler knelt in front of the lit screen, inside the sealed suit, in the Ultravoid, and was very still.

The shape of sound held its three seconds. Then the hiss closed back over it, gently, as it had closed once over a boy in a den who had leaned too far out into the long part and been answered, and the band was the band again, running on. The two lines stood on the screen in their amber light.

Some things a man carries a whole life and is never given to read, and the circle keeps them.



He stayed kneeling in front of the screen for a while, or for no time at all. The country did not keep the kind of time a man could spend. The turning ring had told him there was no while and no after, only the circle, and the circle did not have a far side that was later. He had come to the place where forward met its own beginning, and he did not need to know which of the two he was now at.

The screen held its amber light. The hiss ran on, the sound of the whole sky at once, the dark between the stations carrying. Off the canopy the country was a field of cyan and magenta cells, flat and roaring and without depth, the kept worlds gone entirely into grid. And the radio that was the machine leaned out from its low shelf into that roaring field the way it had always leaned, lit, listening, the disk sealed in the body of it and the message gone up into the band. The machine held its amber. The man held his color. The corruption had

everything else.

The Traveler put his gloved hand back on the slow knob. There was nothing left that the doing of it would change. He did it as the boy in the den had done it. A hand finishing the one thing left to it. He leaned forward toward the lit glass, into the hiss, into the long dark part with everything in it.

Somewhere in the band, something was sending. It had never once stopped. He went looking for it.

CHAPTER FIFTEEN

ECHOES OF CREATION

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*Glenshaw, Pennsylvania — 1953*

It is a Sunday in the den, and the set is warming.

There are two of them in the room. One sits in the chair and one stands at the shelf. The lamp is off. The window is going from blue toward the first of the dark, and between them on its low shelf the radio does the slow thing it does — the glow coming up behind the yellow glass, faint and then certain, and under the glow the soft wash of air.

Neither of them hurries it. You let the set find its heat. You wait for the breath to turn.

The one in the chair has his hand on the knob already, though there is nothing yet to tune. The hand rests there the way a hand rests on a thing it has known a long time.

“It comes in slow,” says the one at the shelf. “You can’t make it come faster by minding it.”

“I’m not minding it.”

“You’re minding it a little.”

The one in the chair takes his hand off the knob to prove the point, and they both let that be funny — no laughter, only the warmth of it, set down between them and left there.

The breath in the speaker thins, and turns, and becomes the hiss.

The whole sky at once, dry and constant, the open band carrying. The one in the chair leans forward into it. The one at the shelf goes quiet, the particular quiet of a man who has heard this sound ten thousand

times and has never once stopped believing there is something inside it.

The hand walks the needle out. Past the near end, where the strong close stations sit — the desk lamp, the sun. Past the station with the music from the far city — the planet with the rings. Out toward the long part, the part with nothing in it, the part that is the real distance.

And out there, for about three seconds, the hiss stops being hiss.

Something climbs up out of it. Not a voice and not music but the start of one or the other, a shape made of sound, narrow and bright and clustered, the way a row of tall windows would sound, if windows could be heard. It is very far away. It is not in any language. The one in the chair leans into it.

Then the hiss closes gently back over the sound, the way it has always closed, and the band is only the band again, running on.

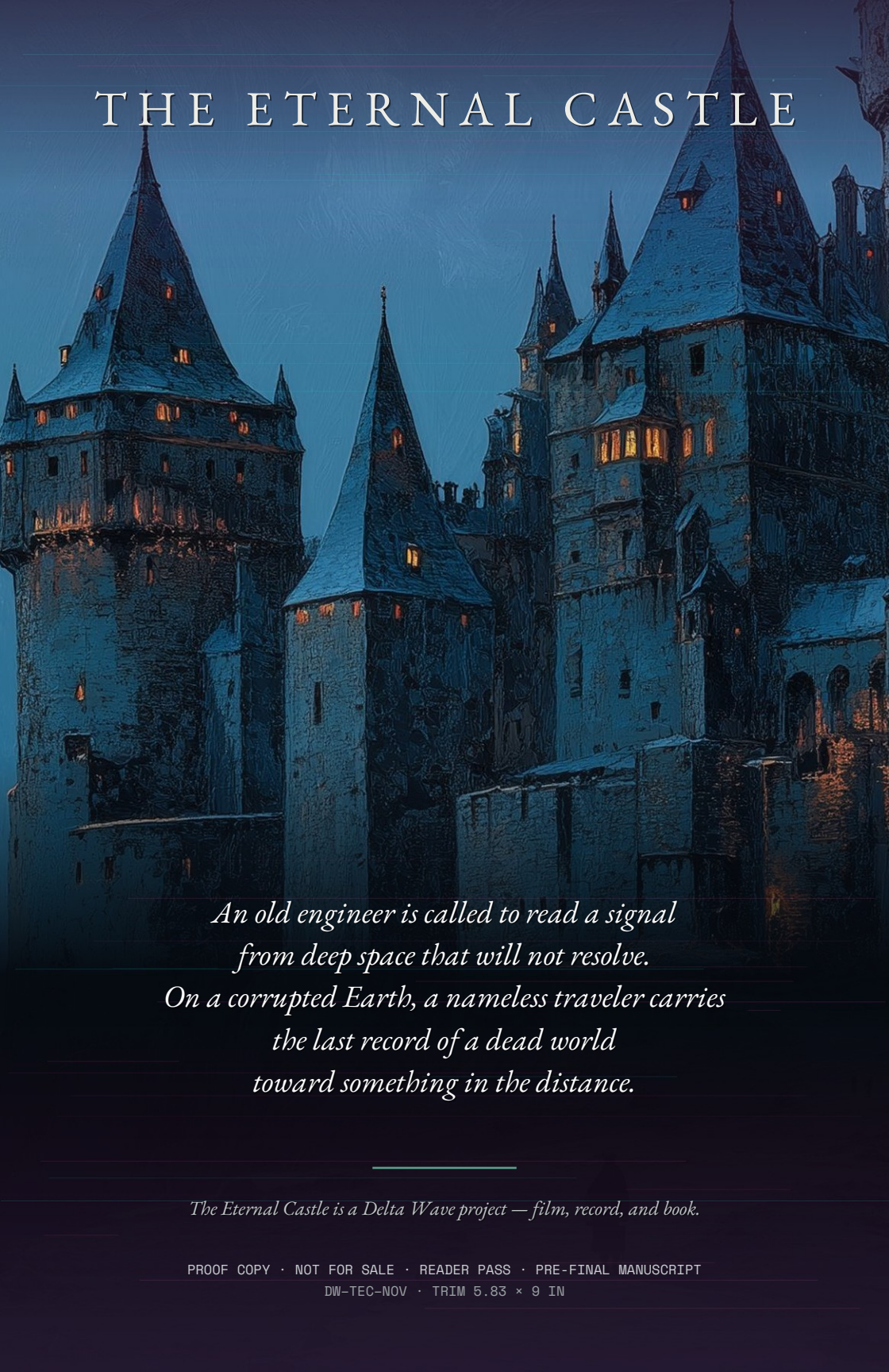
The one at the shelf looks over. He asks, mildly, if everything is all right, because the one in the chair has gone very still.

“Yes,” says the one in the chair. “Nothing is wrong.”

He keeps the rest of it. It has come home.

The window goes from blue to black. On the hill behind the school the red light blinks at the top of the tower, on and off, all night, for no one, or for whatever is up there that cannot see it by day.

The radio came to the house before the boy could remember it not being there.



# THE ETERNAL CASTLE

*An old engineer is called to read a signal  
from deep space that will not resolve.  
On a corrupted Earth, a nameless traveler carries  
the last record of a dead world  
toward something in the distance.*

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*The Eternal Castle is a Delta Wave project — film, record, and book.*

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DW-TEC-NOV • TRIM 5.83 × 9 IN