

THE HUMAN SIGNATURE

OPENING SAMPLE

David Hawig

An AI-written novel
Written with Claude and ChatGPT · GPT-6 Astra
Conceived and directed by David Hawig

An AI-written novel conceived and directed by David Hawig, written with Claude and ChatGPT (GPT-6 Astra). Claude generated the original manuscript; David developed the book with ChatGPT (GPT-6 Astra), with OpenAI's Codex supporting research, revision and production; in October 2026 Claude rewrote the novel at David's direction.

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This is a work of fiction. Ada Reyes, Mateo Navarro, their families, Auric Compute and the institutions and events of the imagined future are invented. Real places and public research provide background; the novel's dates, events, dialogue and projections are not predictions or claims about actual future conduct.

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For the ones still down here.

PROLOGUE

RUTH — Halsey Run, West Virginia, April 2014

For the first twenty seconds Ruth Hollis blamed the airport.

It was the end of her shift on a Tuesday late in April, the windows of the control building going from black to gray, and she was the only person on the property. Halsey Run would close in October. The letter was pinned above the kettle and she had stopped reading it. She was seventy-four, the last night operator the place would ever have, and her job until the autumn was to finish the hydrogen survey and box up forty years of paper.

The dish outside was forty-five meters across and could not turn. It could only tip north or south along the meridian, like a man nodding, and then hold still while the Earth carried the sky past it. Tonight it had been tipped to a strip fifteen degrees north of the celestial equator where the survey had nothing in particular to look at.

The line had come onto the waterfall display at the left edge: a bright thread, narrower than anything the sky made on its own, a few hertz wide, in the protected band just above the hydrogen line where no one was allowed to transmit. It slanted a hair as it went down the screen. Its frequency was drifting, very slowly, which is what a frequency does when the thing sending it is moving.

The airport beacon at Elkins was on its own frequency and pulsed, and this was steady. She checked anyway. She pulled up the receiver log and found the system temperature where it had been all night, twenty-one kelvin, flat as a table. She opened the satellite pass list, which the survey kept because satellites were the commonest liars in her trade, and ran down it with a pencil. Nothing above the horizon in that part of the sky. And it was the wrong behavior for a satellite even if the list had been wrong. Anything in low orbit would cross her beam in a second. Anything geostationary sat far to the south of where she was pointed and would have stayed in the beam all night. This had come in at the speed of the sky.

Fifty seconds. She found she was standing.

The thread brightened, held, and began to fade, and she watched it go with her pencil lifted, the way she had once watched her son cross a road. At eighty-three seconds there was only the noise.

She sat down. She knew what eighty-three seconds was. At twenty-one centimeters her beam was about a third of a degree wide, and at this declination the turning sky took eighty-some seconds to carry a point through it. She had watched a thousand radio sources come and go in that time: quasars, old supernova shells, galaxies whose light had left before there were fish. The thread had risen and fallen in the exact shape of the beam, the bell curve every point source drew on this instrument. A transmitter switched on and off makes edges. This had made no edges. It had been there when the beam arrived and it had still been there when the beam moved on.

She wrote in the margin of the night log, in pencil: *drift wrong for a satellite.*

Then she saved the file and waited for the machine to tell her it had been written, and opened it again to see the thread was still in it. She copied its full address into her paper notebook, character by character. She copied the time from the screen. Unidentified narrowband transient, 06:51:12 EDT, approx. 83 s, consistent with one beam transit. Preserve raw data. Independent confirmation required.

The sun came up behind the ridge, which did not bother radio.

* * *

The sky brings everything back. That was the one promise a transit dish could make: the same strip would cross the same beam the next morning, three minutes and fifty-six seconds earlier by the clock, because the Earth turns once against the stars a little faster than it turns once against the Sun.

She was at the console an hour before it was due. She sat through the transit with her coat on and the heater ticking. She sat through twenty minutes either side of it. The waterfall came down the screen in its gray static like snow on a dead channel, and nothing stood up out of it.

She tried the next morning, and the next. On the third she let herself make coffee during the transit and took that as a sign. In the notebook she wrote *No repeat*, and the date, three times on three lines, and under the third she wrote *No explanation offered. R.H.*

Her days off were Sunday and Monday. On Monday she did not sleep after supper. She set the alarm for four, put on two sweaters and went out to the porch, where her own telescope lived under a pillowcase: a brass refractor made in 1938, three inches of glass, bought at a farm auction in Randolph County for six dollars the summer she started teaching. Her students had teased her about it for twenty-eight years. She liked having one instrument she understood all the way through.

The patch was up in the southeast by then, just south of the little arrow of Sagitta, a hand's width west of the kite of Delphinus. She found it from the arrow. There were faint stars in the eyepiece, tenth and eleventh magnitude, any one of which might be the place she meant and none of which a three-inch lens could tell her anything about. She knew that. She adjusted the focus anyway, and the field sharpened, and the stars sat in it and did nothing.

Inside, the telephone began to ring. It would be Dale from the day crew, who started early and had found her pages taped to the monitor, and who would want to know whether she was all right. She let it ring. It stopped, and after a while it started again.

"Say it again," she said to the sky. "Say it twice, and I'll ruin what's left of my life for you."

* * *

In October the man came for the keys.

He had two cartons and a list of serial numbers and he was polite about all of it. Outside, the dish had been parked pointing straight up, its feed taken down, the receiver crated for a university in Ohio. For the first time in twenty years Ruth did not have to be anywhere before dark.

She had spent the summer in the basement. When the Green Bank three-hundred-foot fell down in the night in 1988, its paper had gone to the nearest dry building with empty shelves, and that had been Halsey Run, and there it had stayed, chart rolls and observing logs in boxes the mice had sampled. It had been a transit dish too, twice the size of hers, so its records were arranged the way hers were, by strips of sky. None of it had ever been cataloged. She had gone through it by declination, one strip a week, with a magnifying glass and a ruler, because it gave her somewhere to put her hands.

She found it in August, in a box marked 1983, and had not told anyone yet.

It was a single panel of chart paper, three inches of trace, with a sharp narrow deflection in the narrowband channel at the same position in the sky to within the old instrument's error. The 1983 operator had penciled *RFI?* beside it and moved on, as she might have. She measured the width of the bump with her ruler and converted it with the chart speed. Forty seconds, give or take. The bigger dish had a beam half as wide. Forty seconds was what the sky took to cross it.

So it had been there in 1983, for at least as long as that instrument could see, and in 2014 for at least as long as hers could, and on every other morning she had looked, nothing.

"Does all this go?" the man asked. He was holding the receiver's calibration folder.

"Yes," she said. "All of it."

"The summaries are already in the system."

"The summaries won't tell anyone what the instrument was doing that night."

He put the folder down beside the notebook. She wrote the receiver's serial number across its front in marker. If anyone ever found the recording, they would need to know which parts of it the machine might have made.

The raw data and the paper were going to an archive annex outside Socorro, New Mexico, where they would be scanned, or not, and shelved. She had already had the chart panel scanned at the library in Elkins at her own expense, and she watched while the man's laptop listed the transfer inventory, and she made him open her April file from the transfer copy and then open the scan, and he did it without sighing, which she put down in his favor. She asked for the accession numbers. He said they would be issued at the other end. She said she would wait.

It took three phone calls to Socorro and most of the afternoon. He was paid until five, he told her, as if that were a generous amount of time. At a quarter to five a woman in New Mexico read her two numbers over the phone, one for each file: A14-0381 and A83-1172.

At the kitchen table that night she wrote a covering letter, one page, addressed to whoever opened such things: what each file was, which instrument, which receiver, where in the sky, and what she had ruled out. For the box itself she cut a card from index stock and

printed on it in the block capitals she had used on blackboards, pressing hard enough to dent the back:

SAME POSITION. KEEP TOGETHER. R. HOLLIS.

She would post the letter and the card to Socorro in the morning.

Before bed she took a second card from the drawer and copied the two numbers onto it in the same hard capitals, one above the other. Under them she drew a line with the ruler. Under the line she printed the heading from the old detection form, the column that was supposed to hold the name of a second instrument, somewhere else, that had seen the same thing at the same time:

CONFIRMING STATION

She left the space beneath it empty and propped the card against the eyepiece case of the brass telescope, where she would see it every time she went out to the porch. She had no idea how much room to leave.

PART ONE — CANARIES

2026–2030

CHAPTER 1

ADA — Phoenix, November 2026–March 2027

The woman at the bill clinic would not sit down. She had carried a grocery bag of envelopes across the apartment courtyard, set it on the folding table, and stayed standing while the young man on the other side emptied it with care, as if there might be something breakable at the bottom.

“They keep telling me to use less,” she said.

Ada Reyes had heard that sentence four times that November morning. She was the utility engineer at the Saturday clinic, the one Sonoran Power sent for the questions its phone agents could not close, and she had the lanyard to prove it. She pulled a chair around to the woman’s side of the table.

“May I?” she said, and reached for the bill.

The young man kept a finger on another sheet. His badge said MATEO NAVARRO, above a much smaller VOLUNTEER. He wore a shirt that required ironing and had rolled one sleeve farther than the other.

“The account’s on meter ending 4471,” he said. “Mrs. Treviño’s lease says unit twelve. The notices say both.”

“I told them.” Mrs. Treviño pulled a folded letter out of the bag herself. “In July. I turned the air off at four like the card said. Every day, four to eight. The bill went up.”

Ada knew the card. The utility mailed it whenever the evening peak came close to what the system could carry, and this summer it had gone out twenty-six times. On the nineteenth of July Phoenix had pulled nine gigawatts at a hundred and seventeen degrees, a record, and Ada had spent that evening in the control room watching the reserve margin get down to a number she still didn’t say out loud. Mrs. Treviño had been one of the people who made it hold.

“Let’s see which meter they’ve been reading,” Ada said.

The meter bank was on the outside wall of the laundry room, eighteen gray boxes in three rows, the labels sun-cooked almost blank. The one marked 12 read 4471 on its nameplate. She wiped the

glass with her sleeve to be sure. Behind the wall a dryer was trying to throw itself out of balance.

There was a subpanel inside the laundry room door with a hasp and no lock. Ada asked the building manager, who had followed her out with his coffee, whether anyone would die if the laundry lost power for two minutes. He considered it seriously and said no. She opened the panel, found the main, and threw it with her thumb. The dryer wound down like a plane landing. Outside, the display on meter 4471 dropped from six kilowatts to zero and sat there.

She put the breaker back. Inside, a woman said *hey*, and then, as the drum started up again, *never mind*.

"You're paying for everybody's socks," Ada said when she came back to the table.

Mrs. Treviño did not laugh. "How do I stop?"

Ada called the billing line. It answered on the first ring, the utility's agent, warm and fast. It had the account open before she finished the address, agreed the labels had probably been swapped when the meters were replaced in March, and opened a meter-assignment investigation. It could not remove the late charges. A human supervisor would have to approve that, and the review would take ten business days.

While she was repeating this to Mrs. Treviño, Mateo slid a stapled document across the table. It was the utility's own rules and regulations, printed, eighty-some pages, and he had it open from the back.

"Section nine point four," he said. "Page seventy-seven. If they billed her for service that wasn't delivered to her premises, they refund all of it, no limit on the period, and no late charge applies to the amount. It doesn't say a supervisor gets to decide. It says *shall*."

Ada read it. She had worked for the company seven years and never read page seventy-seven. She read it into the phone, and the agent thanked her, cited it back to her correctly, and changed the request.

"You started at the back," she said to him after.

"The front tells you what they charge." He was sorting the notices into date order. "The back tells you what they owe."

His first pile ran into her elbow. He moved it without asking her to move.

Mrs. Treviño wrote the reference number on the inside of her purse flap, in pen, and read it back to Mateo twice. Across the courtyard Dolores, the Whitfield lawyer who ran the clinic volunteers, was folding the banner.

When the courtyard had emptied, Mateo bent over three copies of the follow-up sheet. Ada found a stapler on the manager's table and held out her hand for the first set.

"Do you always make three?" she asked.

"One gets lost."

"Which one?"

"We don't know yet."

She laughed. He looked up quickly, pleased enough that she went back to the papers.

"Do you always carry your own stapler?" he said.

The manager, passing with the last folding chair, stopped. "That's mine."

Mateo shut his eyes. Ada laughed properly this time and handed it over.

At her truck she gave him a work card. "That gets you past the switchboard. If the supervisor doesn't read page seventy-seven."

He turned it over, looking for somewhere to write. She could have asked whether he wanted lunch. Instead she told him which extension to try if she was out, and watched him write that down too.

* * *

By February the bill had been corrected, all of it, back to the March before. Mateo's last email carried the adjustment notice, Mrs. Treviño's permission to share it, and one line under his signature: *she says the socks are somebody else's problem now.*

Ada answered that line. Then she added that there was a coffee place near his office she had been meaning to try, and sent it before she could turn it into a question about another account.

He was waiting outside on Sunday with his hands in his pockets. Away from the folding table he seemed taller and less sure where to stand. She had circled the block twice because she was early too.

"No papers?" he said.

"I can get some."

The one free table was close enough to the counter that they had to lean in whenever the grinder ran. He told her about the law-school

test in June, the evenings he meant to study and the evenings he spent making a better study schedule. Whitfield had a program called Pathways: if a paralegal got into the evening JD downtown, the firm paid the tuition, all four years, in exchange for five years after. He had the numbers in his head and gave her fewer of them than he wanted to.

"There's a spreadsheet," he said.

"Of course there is."

"It's a good spreadsheet. It ends with me being a lawyer."

"What kind?"

"I have an answer I give at work."

"All right."

He rubbed his thumb through the wet ring his cup had left. "At the clinic I get the papers right and hand them to Dolores, and she goes into the room. I want to know what happens in the room."

She told him about her week because he asked. The planning group had been given agents in September, and an agent had rerun the whole large-load queue study over the Thanksgiving weekend, every case, every contingency, and the binder it produced was better than the one her team used to take a quarter to write. The two junior planner jobs that opened in the fall had never been posted. She said this as a fact about headcount. He listened as if it were about something else.

"Is it right?" he said. "The binder."

"As far as I can check."

"How far is that?"

She drank her coffee instead of answering, and he let her.

Outside, the light was going. He walked her past the corner where he had parked. She stopped at the next crossing.

"Wasn't your truck back there?" she said.

"Yes."

Across the road two men were working a green sofa through a doorway too narrow for it. The signal counted down and started over. Above the roofs to the west a string of new satellites was climbing out of the last of the sunset, evenly spaced, in a line too straight to be anything else. Neither of them moved.

"I should let you go," he said.

"You don't have to."

When the signal changed they crossed together, still carrying the empty cups.

* * *

In March, slide nine was wrong, and Ada was the only person in the hearing room who seemed to mind.

Auric Compute wanted a gigawatt for a campus it called Redfield, on a parcel of grazing land in Navajo County forty miles from any line with room on it, and it wanted the first three hundred megawatts in eighteen months. The slide showed what the grid could deliver after every upgrade in Auric's plan. The number was wrong by a factor of about two, and in the wrong direction. Ada ran it again on her legal pad while the consultant talked and underlined it twice.

The Corporation Commission's hearing room had wood paneling from the eighties and more people than the fire marshal liked. Five commissioners sat at the raised bench. Ada sat with the utility staff in the third row; behind the lawyers sat people who had taken the morning off to ask what this would do to their bills. Out on the plaza a man with a bullhorn wanted to know who would get the air conditioning in August.

"Our client's request is straightforward," the consultant said. He had a good suit and a laser pointer he didn't need. "One gigawatt at Redfield. The first three hundred megawatts within eighteen months."

Commissioner Salazar leaned into her microphone. "Mr. Beck, are you familiar with the large-load queue?"

"We are, Commissioner."

"Then you know there is more than ten gigawatts of data-center requests in it. That's more than this city pulled on the hottest day in its history." She looked toward the staff chairs. "How long would a new project this size wait for power?"

Herrera, Ada's boss, nudged her without looking up. The queue was hers. She had spent most of the week explaining it to people who believed it applied to someone else.

You gave the number first, then the reason, then you stopped talking.

"Five to seven years," Ada said. "We restudied the queue in November. It took an agent four days, which used to take us three months. The answer didn't get shorter. The transformers we need have a three-year lead time and they don't read email." She set her

pen down. “Everyone ahead of Auric has been told the same thing. The physics doesn’t know who’s asking.”

Salazar turned back to the consultant. “I don’t know what you’d like us to do with eighteen months, Mr. Beck. The Commission can’t order transformers into existence.”

“Commissioner, if I may.” A woman in the applicant’s second row stood up. Ada had noticed her earlier because she hadn’t touched her phone in two hours. Fifties, gray blazer, no notes. “Mara Brennan. I run infrastructure for Auric. I’d rather not spend the morning pretending eighteen months is normal. It isn’t. We’re asking for it in public because the alternative is asking somewhere else, and we would rather build here. We’ll pay for upgrades. We’ll put money down. But we need a place to connect.”

“Then I’m not sure anyone in this room can help you, Ms. Brennan.”

Ada looked at her underlined number. There was a place she had been carrying around since November, and a reason she had kept it out of the study: it would mean asking a town that had just lost its largest employer to trust another one. She should have let Herrera answer.

“Casaverde,” she said.

She hadn’t meant to say it into the microphone. Salazar turned. “Staff?”

“The coal station in Navajo County. It closed in November. The switchyard is still there and so are the five-hundred-kV lines.” Ada glanced at the utility’s counsel and went on. “Lines built to send power out don’t give anyone a right to draw it in. Auric would have to build its own generation on the site, gas turbines behind the meter, and take from the grid only what a separate study says it can, and pay for every upgrade that study finds. Three hundred megawatts on an empty parcel in eighteen months is a fantasy. At Casaverde it’s a question.”

Counsel leaned into his microphone. “Commissioner, none of that is in the application, and the company has obligations to retire Casaverde in an orderly way.”

“I prepare the retirement studies,” Ada said. “The withdrawal of the interconnection agreement isn’t final. There’s time to ask.”

Someone in the public rows laughed, one sharp bark, and Salazar tapped her gavel.

It ran another hour. Ada answered questions about water and rail and tried not to build it in her head: the turbine pads where the coal pile had been, the town of eleven hundred people two miles downwind who had watched the stacks go cold and started pricing U-Hauls. A campus like that would need two thousand construction workers for three years. She caught herself siting the commissary and stopped.

The switchyard brought her father back, as switchyards did. Rafael Reyes had worked lines out of Holbrook for fourteen years, fifty feet up in July because July was when things failed. He used to say the grid was the biggest machine anyone had ever built and the only one you fixed while it was running. In July 2015 the heat and a chain of small shortcuts had killed him after a day on a steel structure west of Holbrook, and she still couldn't stand in a switchyard without hearing him name the parts.

Her phone moved against the legal pad. Mateo: *did you tell them no?*

She typed *I may have done something worse* and slid it under the legal pad.

* * *

The garage elevator opened at the lobby level for Mara Brennan.

"Ms. Reyes." Brennan stepped in, pressed nothing, and let the doors close on the two of them. "That was the first useful thing anyone has said to us in six states."

"It was a staff observation," Ada said. "The company's position is whatever counsel said after."

"Counsel said it wasn't in the application." Brennan almost smiled. "How long have you had Casaverde in your pocket?"

Since the last unit came off line, was the true answer. Since she had stood in the turbine hall with her hard hat under her arm like everyone else and thought: all this copper, and we're going to let the paperwork bury it.

"It's in the public record," she said. "Most things are, if you read the record."

"We read everything. That's rather the point of us." The elevator reached the garage and Brennan did not get out. "I want you to build Redfield. Not consult. Build it. The turbines, the Casaverde fight, the

county, all of it. We need someone who knows what can go wrong and still wants to do it.”

The salary she named was a little more than four times what Ada made. Ada’s first thought was of her student loans, gone at once, like moths on a windshield. Her second was of the people in the public rows, and what Auric expected to earn if it could pay her that much to get the wires hooked up.

“What is the gigawatt for?” she said.

Brennan looked at her.

“A model,” Ada said. “I know. But a gigawatt is a city. Nobody buys a city to answer email. What are you training up there?”

The garage was still except for the ticking of somebody’s cooling engine. The doors began to close, and Brennan put out a hand and stopped them.

“Come build it,” she said, stepping out, “and in eighteen months you can ask it yourself.”

She wrote the salary on the back of a card, in her own hand, and left it on the elevator rail.

Ada took the card down to her truck. She sat with the engine off and counted the concrete columns between her bumper and the exit ramp. Fourteen. The card was on her knee, number up.

She didn’t call the number on the front. She picked up her phone and wrote to Mateo instead.

Hypothetical. Someone offers you a job and won’t say what it’s for. Which page do you read first?

The reply came before she had found her keys.

the last one. who’s offering?

She looked at the card, and at the fourteen columns, and typed *Auric*. Her thumb stayed over the arrow until the screen went dark.

CHAPTER 2

MATEO — Phoenix, April 2027

At the Monday all-hands, Mateo Navarro could tell the managing partner had practiced.

He was a securities litigator who usually billed his pauses. This morning they were evenly spaced, rehearsed. Mateo stood at the back with the other paralegals. There were chairs, but nobody had taken them. He watched the partner find his place on the screen and understood that the meeting was an announcement, whatever the calendar invitation had called it.

The word, when it came, was transition.

At seven-forty that morning he had been at his desk on the third floor with a quad-shot horchata latte and the only kind of work he had ever admitted, to himself, to loving: a verification pass. The firm's drafting system, Probitry, a name Mateo enjoyed because it sounded like a virtue and billed like a partner, had produced a thirty-page motion for summary judgment overnight. Kelsey Tran, the decent, exhausted associate on the case, had queued it for a human check before filing.

This was the ritual. Ever since a New York lawyer had become nationally famous for citing six cases that did not exist, Whitfield had put a human check at the end of every machine draft. For a while that had felt like a permanent place to stand. The systems had gotten so much better since then. They cited real cases now, real quotes, correct page numbers, ninety-nine and some decimals of everything.

Page nineteen. A modest little citation doing structural work, like a cinder block under an axle: Ramos-Vega, Ninth Circuit, supporting the client's right to bring the case.

Mateo stopped.

Two Sundays ago, between practice sections for the law-school entrance test, he had read the latest court rulings in the advance sheets the way other people read box scores. Dolores, his mentor at Whitfield, had installed the habit in his first month: Read what changed, m'ijo. Not what's settled. Somewhere in that stack, in the

column listing cases the court had agreed to rehear, had been Ramos-Vega.

It took him nine minutes to confirm it. Seventeen days earlier, the court had agreed to hear Ramos-Vega again and withdrawn the ruling Probity was relying on. That ruling could no longer support the argument. It was the kind of error that gets an associate's name remembered wrong for years.

He wrote it up the way Dolores had taught him (issue, authority, consequence, fix, four sentences, no adjectives) and sent it to Kelsey just after eight. For about six minutes, he was happy. He sat back with the latte, now cold, and let page nineteen stay on his screen. The judge would never know what had almost gone wrong. Kelsey would file a better motion. That was the work; he wanted more of it.

Then Kelsey replied: *omg thank you!!* Two minutes later she replied again: *wait — Probity flagged it too, update pushed overnight. "Authority status change — recommend substitute citation."* It had even drafted the substitution.

He checked the timestamps twice. Probity's flag said 7:58. His email said 8:03.

Five minutes. His note had recommended replacing the citation. The software had already drafted the replacement. It could send the same warning to every subscribing firm with that case in a live draft, while he had caught it in one motion, using a Sunday, a habit, and a mentor's voice in his head.

Objection, said the small courtroom he kept behind his sternum, where he cross-examined himself in the long dull hours of document review. Relevance? The error was caught. The client is protected. The system worked.

The system worked, he agreed. That's the testimony.

So at ten o'clock he stood at the back wall with the other paralegals and watched the practiced pauses. The deck went up. Transition. Service-delivery model. The managing partner wanted to be clear: no one currently employed was losing their position today. Mateo heard the work that currently and today were doing and looked at Dolores. She was already looking at him. Neither of them needed to write it down.

What it was, the partner said, was the future arriving. The firm was proud to announce an expanded partnership with its technology vendors. Document review, first-draft production, cite-checking,

deposition summaries: the work would flow through the new platform. The people would move up the value chain. There was a slide with an arrow on it. The arrow went up and to the right, through a word cloud, into a sunrise. Two places to Mateo's left, a doc-review paralegal named Benny, three years in, engaged, saving for a house in Laveen, watched the arrow pass through the exact coordinates of his job description and land in the sunrise.

Nobody is fired, Mateo thought. The ladder stays. They just take out the rungs from the bottom.

On the way back to the elevators Dolores walked beside him with her coffee. "My nephew's whole team at the bank went in January. Coders first, everywhere else." She pressed the button for three. "In here, it's paralegals. We're the canaries. Pay attention to who goes next."

The follow-up email arrived just before lunch, while he was summarizing a deposition the platform had already summarized, a duplication that was now called quality assurance. The email restated the morning in bullet points. It thanked everyone for their partnership in this exciting transition. And at the bottom, below the signature block, below even the confidentiality boilerplate, in the smallest type the email contained, sat the footnote.

In connection with the service-delivery transition, the Whitfield Pathways Program (paralegal-to-JD sponsorship) will be discontinued for future cohorts effective immediately; the firm remains committed to the professional development of all team members.

Future cohorts. He was the future cohort. The program was why he had taken this desk over a courier job that paid the same. It was the entrance-exam date in June, the night-school prospectus, the spreadsheet at home that ended, four years and forty-one rows later, at first-generation attorney. He had asked about the program when he joined. They had told him he was exactly what Pathways was for. He could still hear the words; he could also find, without opening the document, the paragraph reserving the firm's discretion to change them.

The footnote controlled. That was the rule he'd learned his first year, proofing securities filings: never mind the headline, the footnote controls.

He did not go to lunch. He drafted questions he would never ask the managing partner and improved them. He opened the Pathways

prospectus beside the email. The smiling people on its cover had all made it to the next part. He searched the document for discontinued and got no results.

He closed the prospectus. The questions stayed in drafts.

At his desk, Mateo opened a message to Ada. She had started at Auric the week after the hearing and was spending more nights up north now; they saw each other when they could manage it. Two weeks ago she had texted: *something happening at work. big. tell you when I can.* He typed: *you won't believe what my firm just.* Deleted it. Typed: *are you in Phoenix tonight?* That stayed.

He worked until seven.

The lobby, when he finally came down, was empty except for a man on a ladder.

Building maintenance, gray uniform, sixty-something, replacing the ballast in the light over the entrance with the unhurried economy of a man who has replaced ten thousand of them. The diffuser lens was propped against the bottom of the ladder, a long frosted panel that had collected forty years of dead moths.

"Hand me that up?" the man said, without looking down. "If you're not busy."

Mateo put his bag on the floor and handed it up, and held the ladder while the man seated one end of the lens and then the other, and took back the screwdriver when the man passed it down. It was the first thing all day he had done with both hands. The tube stuttered; the man touched it; it held.

The man came down, caught him watching, and grinned, and wiggled the dead ballast at him like a fish he'd caught. "Forty years, these things keep dying on schedule," he said. "Job security."

"Yeah," Mateo said, and laughed, and heard the laugh come out too quick, too grateful.

He crossed to the parking garage in the April evening, climbed to the third level, and stood beside his truck without unlocking it. Ada's reply had come while he was watching the man on the ladder: *just got back. hungry?* He was, suddenly, painfully. He sent the name of the diner off Van Buren.

* * *

She was in a booth with a coffee and two menus, still wearing the shoes she wore to hearings. One heel was hooked out of its shoe under the table. He noticed it before he noticed how tired she looked.

Over the counter the TV had the local news on with the sound off, and the news was showing the sky: a launch out of California at dusk, the plume lit by a sun that had already set for everyone beneath it, opening over the West Valley like a jellyfish. Phone video from a Walmart parking lot in Goodyear. The crawl said it was the third this week. The cook had stopped to look at it with his spatula raised. Then the anchor came back, and he went back to the grill.

"I ordered toast," she said. "Everything else takes twenty minutes."

"You said hungry. I thought that meant dinner."

"We can have two things."

She waited while he took off his jacket. He got one arm stuck, which seemed excessive, given the day.

"How was work?" she asked.

"Long." He had decided in the garage that tonight would not be about Whitfield. "Tell me yours. Something big, you said."

She told him about the plant she was going to build. Not the restricted part; the town, the old switchyard, the number of people who might get work. He liked hearing her want something so badly. He also liked that she could not stop moving the sugar packets into little groups while she talked. When she noticed him watching, she pushed them all into one untidy heap.

"You can leave them," he said.

"I know I can."

The waitress set the toast between them. Ada reached for the crisp point of his triangle and put the pale middle of hers on his plate.

"That's a terrible exchange," he said.

"Mine had more butter."

"Your defense gets worse."

She smiled. "How's the studying? June, right?"

"June." He meant to leave it there. He had the next sentence ready, something about practice tests. What came out was, "They cut the program. The law-school one. It was a footnote."

She set her toast down. "Cut it how?"

He told her. At first it came out as an account of the email, with the exceptions and the reservation of rights. Then he heard himself explaining why the firm was entitled to do it, as if that had been the question.

"I was counting on it," he said. "I know I shouldn't have. I was."

"Of course you were." She reached across and squared one of the sugar packets on the heap. "Auric has tuition support. I don't know what jobs there are, but I could—"

"Please don't." It came out harder than he meant. She took her hand back. "Sorry. Just, not right now."

"I wasn't saying you need rescuing."

"I know. I need to have dinner with you. I can look at jobs tomorrow."

She sat back. For a moment he thought he had spoiled the evening. Then she opened the menu and asked him whether breakfast-for-dinner was a real category or a failure to decide. He said he could defend it either way. They ordered eggs.

Her phone rang before the food arrived. She looked at the name and answered. By the time the eggs were on the table she was outside, pacing a rectangle on the sidewalk. He ate because he was hungry, and because deciding whether to wait seemed like more work than he had left.

When she came back, the yolk on her plate had set.

"I'm sorry," she said. "They couldn't find someone to sign off the change."

"They found you."

"Yes." She looked at his empty plate, then at her own. "That sounded smug. I didn't mean it that way."

He believed her. She ate the cold eggs without complaining. He told her about the maintenance man and the light. She laughed at the man's joke, then saw that Mateo had not quite joined her, and let the laugh end without explaining it.

Outside, her truck was parked behind his. She stood close enough for him to smell the diner coffee on her breath.

"Can we try another meal?" she asked. "One I'm there for."

"Yes."

She put a hand on his jacket, just below the collar. He had time to misunderstand the gesture and begin saying something, and then she

kissed him. Her hand was cool. His own hands stayed uselessly at his sides until she drew back and looked at them.

“You can help,” she said.

“I’m getting there.”

This time he did. A car came out of the lot behind them and they moved apart, laughing at the horn and themselves. Ada found her keys. He watched her get into the truck, then drove home, opened the law-school spreadsheet, and scrolled down to row forty-one.

First-generation attorney. In the column beside it, where the money was supposed to come from, he deleted *Whitfield Pathways* and left the cell empty. The exam was still in June.

CHAPTER 3

ADA — Navajo County, September 2027

The oil came out of the valve the color of weak tea, which was better than Ada had expected from a transformer that had lived through forty-eight Navajo County summers.

She let the first pint run into the waste bucket to flush the spigot. Then she fitted the glass syringe to the tubing, cracked the valve and drew back slowly, watching the barrel for bubbles, because a bubble would carry off the very gases she was paying a lab in Phoenix to find. Wilson Tsosie held the flashlight over her shoulder. He had worked thirty-one years at the Casaverde Generating Station, the last eight of them watching it die, and Auric had hired him back at consultant rates because he knew which of the old drawings lied.

“Unit Two main,” he said. “She ran hot every August of her life.”

“Didn’t we all.” Ada closed the valve, kept her thumb on the plunger while she capped the syringe, and wrote on the label in Sharpie: CASAVERDE U2 MAIN / BOTTOM / A.R. Her knuckles were gray with the dust that lived on everything here.

Behind them, past the switchyard fence, Redfield was coming up out of the dirt. Six months since she had said yes to Mara Brennan in a parking garage, and the grade was cut for three halls, the first steel was standing, and a row of white battery containers that had come up on flatbeds was already a working wall. Auric’s design agents had laid out the whole campus in an afternoon in April and re-laid it eleven times since, each version a little better than the last. What they could not do was make anything arrive.

Auric owned delivery slots for nine gas turbines, bought in July from a Texas developer that had decided it preferred cash to power plants. Brennan called the price “a little over sticker, and the sticker is fiction.” There were brokers for turbine slots now, and Ada had a standing Thursday call whose entire agenda was where in a factory queue in South Carolina their machines currently were. The turbines would need step-up transformers. A new one was thirty-eight months out from a plant in Korea if you paid the deposit that week, which Auric had. Unit Two’s old main had the right voltage, the right pad

and the wrong birthday. If the gases came back clean, if the paper insulation inside had not been cooked brittle, Redfield got its first three hundred megawatts two years early. If not, the model would build an elegant schedule around a hole.

In April she had asked the model how to shorten a transformer's lead time. It had given her nine ideas. Seven she had already tried. Two were illegal.

"Reyes," Wilson said, as they walked the syringe back to her truck. "Holbrook Reyes?"

"My father was Rafael."

He nodded and looked at the line of old towers leaving the yard. "He climbed for the co-op. Good hands." That was all, and she was grateful for exactly that much.

* * *

The county planning and zoning commission met in Holbrook, in a hearing room with a ceiling fan that ticked on every rotation, and on the second Thursday of September it was full of people who wanted jobs.

Auric put her name on anything with physics in it, because hers was the name the county trusted, so her slide said what she had made it say. Three hundred megawatts would go into Redfield in phase one and three hundred megawatts of heat would come back out, every watt of it. The answers left on fiber. The heat stayed here.

The objection came from the Rim.

"Ifeoma Okonkwo. I direct Mogollon Ridge Observatory, thirty miles south of the site." She was in her fifties, gray at the temples, in a fleece vest with a coffee stain on it. "We are not here to stop a campus. We're here about two things it makes and doesn't sell."

She put up a photograph: the northern sky from the ridge, black down to a faint smudge of Holbrook on the horizon. Then the same sky with Redfield's lighting plan added, a gray dome swallowing a fifth of it. "Your perimeter floods are four thousand kelvin. That's daylight. You'd be building a small Albuquerque under our north horizon." Next slide. "And heat. Our best nights come behind a cold front, when the wind turns north and the air goes clean and steady. A north wind brings us whatever's north. At thirty miles your plume is weak, and I'll say so before your engineer does." She looked across the room at Ada. "Weak is our whole business."

The chairwoman leaned toward her microphone. "Doctor, in plain terms. Does it shut you down?"

"In plain terms, it makes us worse at the one thing anyone still pays us for, which is measuring faint things carefully." Okonkwo took her laptop off the lectern. "That's a slow way to get shut down. We'd prefer not to."

When it was Ada's turn she gave the numbers and did not decorate them. The plume model was hers. Dr. Okonkwo's version was, if anything, too kind to Auric; she should be using the January soundings. A man in a Casaverde Cougars cap made a sound through his nose. The commission continued the item two weeks for conditions.

In the lot afterward Okonkwo was unlocking a Forest Service pickup with a cracked windshield.

"You told them my model was soft," she said.

"It was soft."

"Come up and look before they vote." Okonkwo got in and rolled the window down. "Tuesday, around sunset. Bring a jacket. You've seen your model. Come see the sky it's about."

* * *

Mateo drove up from Phoenix that Friday after work, three hours up the Beeline and over the Rim in the dark, and had booked them into the Wigwam Motel on Hopi Drive because, he said, he was not going to see Route 66 for the first time from a Hampton Inn. Their room was a concrete teepee with a 1950s Chevrolet parked outside it that belonged to the motel and did not run. He read the registration card aloud in the office.

"Management is not responsible for items left in wigwams," he said. "They thought of that. Somebody lost something in a wigwam and sued."

"You want to represent them?"

"The plaintiff. Obviously."

On Saturday morning she drove him west on the frontage road with the coffee still too hot to drink, along the line her father had helped rebuild the summer she was nineteen. The towers came at them one after another out of the flat, steel lattice, three conductors, a string of glass bells hanging at each crossarm. She did not decide to count them. She heard herself doing it under her breath.

"Fourteen," she said. "Fourteen. Fourteen."

Mateo looked at the towers and then at her.

"He was on a structure out past Joseph City," she said. "July. A hundred and nine. He came down and said he was dizzy and sat in the truck with the door open, and they gave him water, and by the time anybody understood it, it was past understanding." The next tower went by. "Fourteen."

He reached over and took her right hand off the wheel and held it on the console. She let him. She drove with her left and kept counting, aloud now, because stopping would have been worse. Fourteen. Fourteen. Thirteen.

"That one's missing a bell," she said.

"Is that bad?"

"It's a report." She laughed, and the laugh came out wet, and he did not let go of her hand. She pulled onto the shoulder past the next tower and wrote the structure number in her notebook, left-handed, because he was still holding the other one, and then sat with the engine running and the air conditioning on high. He did not say anything. He was better at that than she had expected.

They ate lunch at the café on Navajo Boulevard. He told her about Whitfield. Probity wrote the first draft of everything now, and the partners had announced the second phase of something they called the transition for October. His June score had come in high, high enough for the schools he had wanted at twenty, and there was still no money behind it. He told it as a funny story, which it partly was.

She did not mention that Auric had a tuition program. It cost her something to leave it out, and she could see him see her leave it out, and he squeezed her ankle under the table with his foot.

Her phone went while he was paying, which he insisted on, since she had paid for the wigwam. The lab. Unit Two's dissolved gases were low across the board; furans were low; the paper had another twenty years in it if nobody did anything stupid. She laughed out loud in the café, and the woman at the register looked over.

"Is that the transformer?" Mateo said.

"That's two years."

"Congratulations to the transformer." He held the door. "I'd like to meet it."

* * *

The road up to Mogollon Ridge left the highway at a cattle guard and climbed fifteen hundred feet in a set of switchbacks the truck's autopilot declined to attempt. At the top there were three domes in the ponderosa pines, a shop building and a bunkhouse, and air so still that Ada stood beside the truck for a minute with the door open and listened to nothing at all.

Okonkwo came out of the shop building wiping her hands on a rag.

"Dr. Okonkwo," Ada said.

"Ify. Everybody on this mountain says Ify." She took Ada up the outside stair of the largest dome to a grated catwalk forty feet above the needles. To the north the plateau ran down and away, flat and blue, for fifty miles, and thirty of them out, small in the last of the sun, Casaverde's two stacks stood over the switchyard with her cranes beside them.

At the rail, on a wooden tripod that had been repaired with hose clamps, stood a brass refractor about as long as Ada's arm, the metal gone dark as honey from being handled.

"That's not a display piece," Ada said. "It's aimed."

"It's aimed at you." Ify put her palm on the tube. "The big instruments don't have eyepieces anymore. This one does. Go on."

Ada bent and closed one eye. Her site came up small and upside down, and it was boiling. The stacks swam. The crane booms bent and straightened and bent again, and the first steel of Hall A wavered like a coin at the bottom of a creek. She was looking through a day's worth of heat coming up off thirty miles of September rangeland, before Redfield had rejected a single watt. She did the sum she had come up the mountain already knowing how to do: this, plus three hundred megawatts, every night, on the bearing she was looking along. It came out the way it came out in her model. Seeing it took longer. She stayed at the eyepiece until her lower back told her to stop.

"Who did it belong to?" she said, straightening.

"Ruth Hollis." Ify sat on the top step of the stair. "Night operator at Halsey Run, in West Virginia. Forty-five-meter dish, the kind that can't steer, it just lets the sky go by. I was a summer student there in '96 and she was the only adult who talked to me after midnight. She

bought this for six dollars when she was young and kept it on her porch for fifty years.” She looked at the brass, not at Ada. “April 2014, she was seventy-four and the dish was closing in the fall. She heard a tone. Narrow, at twenty-one centimeters, drifting wrong for anything we put up. Eighty-three seconds, and then nothing, and she listened at the same time the next night and the night after that and it never came back.”

The sun went. The stacks to the north turned into two dark lines and then into the red lights on top of them. Ify went down for a thermos, and they drank the coffee on the stair while the sky finished going, which took most of an hour.

“She called me,” Ify said. “I was at Tucson then. She wanted me to look up the position in anything that had ever looked at it. There’s a star there, a little orange one, tenth magnitude, a hundred and twenty-some light-years. In the WISE survey it’s too warm in the infrared. More heat than a star like that should give off.”

“Where’s it going?” Ada said.

Ify looked at her. “Most people would ask what it is.”

“In my business excess heat is always a load. You find the load or you find the billing error.”

“Well. The astronomers found the billing error.” Ify loosened the clamp on the tripod head. “There’s a paper. The excess is a background dusty quasar, a galaxy a few billion light-years behind the star, lined up by chance. Most people filed it there. I filed it there. On weekdays I still do.” She swung the tube up and south, past the dome, into a sky blacker than any Ada had stood under, and worked the slow-motion knob with two fingers. “That summer, before the closing, Ruth went through the old Green Bank logs on her own. The three-hundred-foot, 1983. She found a fragment at the same position. Shorter. One fragment. She made sure both files survived the move to an annex outside Socorro, and then she went home.” Ify stepped back from the eyepiece. “There. Middle of the field, the faint orange one.”

Ada looked. Dozens of stars, more than Phoenix showed her in a year, and in the middle one dim warm point that did nothing at all.

“That’s it?”

“That’s it.”

Ify opened the eyepiece case on the tripod and drew an index card from behind the elastic strap in its lid, gone soft at the corners. Blue

ink, block capitals pressed hard enough to dent the back. Two numbers, one above the other:

A14-0381

A83-1172

Under them a ruled line, and under the line a heading: CONFIRMING STATION. Nothing beneath it.

“What’s a confirming station?” Ada said.

“I asked her. She said it was a column heading. Then she asked if I was eating enough.” Ify took the card back. “She died in 2020. The telescope came to me in a crate with a note that said *Keep it aimed at something*. The card was in the eyepiece case.”

Ada read the numbers once more as the card went back into the lid, and had them.

She looked north again, at the red lights on the stacks, and took her phone out.

“Give me a minute,” she said.

Brennan answered on the second ring from somewhere with traffic. Ada walked to the far side of the catwalk, which was not far enough, and laid it out. Rotate the dry-cooler banks so the exhaust ran east-west along the long axis and stayed low. Amber full-cutoff fixtures across the whole site, twenty-two hundred kelvin, nothing tilted up. Night setback on north-wind nights from October through March: training load down a third, the chilled-water tanks carrying the difference until dawn.

“How much?” Brennan said.

“Nineteen million capital. The setback costs you about one percent of training hours a year.”

“The county didn’t ask for setback.”

“The county doesn’t know to ask. I do. My seal is on the heat model.”

“It isn’t your money, Ada.”

“No. That’s why I’m asking you for it.” She watched the stacks. “Mara, you hired me because they believe me up here. They believe me because I don’t do this.”

Traffic on the other end. A horn. “Send it to Elena,” Brennan said. “If it clears, tell your astronomer she owes me a star.”

Ada put the phone away. Ify was looking very hard at the eyepiece.

“You talk to all your bosses like that?” she said.

“Only while they need me more than I need them.” Ada leaned on the rail. “It’s a short window. Eighteen months, they say, and the model will be designing things I can’t check. It read every interconnection filing in the western grid over a weekend in June and found two of mine that were wrong.”

“Were they?”

“Both.”

Ify laughed, once, and put the dust cap on the brass. The wind had not moved all evening. “Then here,” she said. “If your machine is so smart, have it read Ruth’s tape.”

“Her tape.”

“She called everything tape. It’s two files. You saw the numbers.” Ify started down the stair, one hand on the rail, and said over her shoulder, “Ask it what she heard. I’ve been asking for thirteen years and nobody answers me.”

At the bottom of the switchbacks the truck took the wheel back with a chime at the cattle guard. Ada turned on the dome light, uncapped the Sharpie from the oil sample, and wrote on the back of her left hand in capitals, where she would see it on the steering wheel in the morning: RUTH’S TAPE.

End of the opening sample

Thank you for reading the opening of *The Human Signature*. The complete novel follows Ada and Mateo through a fast AI takeoff and the long afternoon after it, when machines decide almost everything and the law still asks a human to sign.

Find book news and reader materials at thehumansignature.xyz.

This sample contains the prologue and the first three chapters. Its story text matches the October 2026 edition.