

CHLOROPHYLL TIDES



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Chapter 1

Genesis Protocol

Emilie stood in the narrow pool of task light above the main bench. The lab around her was compact and precise. She had arranged everything in reach. Cold plasteel, labelled vials, a console that showed more numbers than comfort allowed. The containment vessel rested in a cradle, its internal temperature stable, dissolved gases at set ratios.

She steadied her augmented fingertips against the vessel's port and read the bio-signatures through tactile sensors embedded in the pads. Heat flux, ionic gradients, motility of suspended units. The interface translated them into tactile pressure and minute vibration. Prototype-36 held coherence under load. No clumping. She adjusted the injector's flow-rate by half a unit and purged an air bubble. The headset chirped once. Stable.

She touched her throat, a habit that had not faded. The carotid pulse was clear under skin that already felt too thin. She set out the injector: temperature-maintained barrel, microfilter in place, ceramic plunger with precise feedback. Nothing there was decoration. Everything served a function.

On the wall, her notes filled three displays and one battered clipboard. Chloroplast integration protocols: lipid-envelope carriers, membrane fusogens, transit peptides custom-fitted for human cytosol conditions. Neural pathway mapping: filament genesis near endothelial niches, climb along perineurium, breach points at dorsal root ganglia, safe voltage ranges. Photosynthetic enhancement sequences: stacked genesets for light harvesting, excess energy dump pathways, carbohydrate shunts to avoid osmotic shock. She watched the checklist

scroll and then ignored it. She knew the sequences as well as the bones in her hand.

She sterilised the injection site with ethanol and iodine in sequence. No ceremony. Cotton, antiseptic, a brief sting. She folded gauze against the angle of her jaw and practised the approach twice without puncture to set muscle memory. Her breath stayed even. She had trained it to.

She unlocked the containment vessel and released 2 millilitres through the sterile port into the syringe. The solution was pale green, a stable suspension with a faint internal glow when she tilted it. The photoreactive units aligned in a way that produced ordered pulses. She watched for a full cycle. Consistent amplitude, regular period. No collapse under the syringe's thermals. She held the barrel up and checked the meniscus. She tapped the plunger to clear microbubbles and confirmed the needle bevel orientation.

Her voice recorder captured a final entry. "Subject: Dufresne, Emilie. Time stamp: 23:58 CET. Cellular coherence: optimal by phase variance thresholds. Chlorophyll concentration: ninety-four percent of theoretical maximum under bench illumination. Neural interface proteins: stable; no denaturation signal. Proceeding with carotid injection per Protocol A."

She positioned the needle at the point she had marked with a sterile pen. The angle was shallow. She slid the steel through dermis and fascia with steady pressure until a slight loss of resistance signalled vessel entry. She drew back a fraction, saw a dark swirl, then depressed the plunger in a slow, controlled push. The solution joined her blood. Warmth moved from her throat across the right side of her face and behind the eye. Her pulse quickened then adjusted.

The nearest monitor displayed heart rate, blood pressure, oxygen saturation, pH, haemoglobin spectra. Heart rate rose fifteen beats, then stepped down. CO₂ dropped. A secondary line displayed a new absorption shoulder in the visible range. She tasted metal at the back of her tongue. A green hue edged the world, most visible around the

console's whites. She pressed gauze to the puncture and applied a steri-strip. No bleeding past the dressing.

"Injection time: zero-zero-zero-zero CET," she said. "Immediate effects: warmth along right carotid territory, metallic taste, mild chromatic shift favouring green."

She tapped the command pad and enabled full continuous monitoring. Subdermal sensors came online. The internal mesh sent data across to the console: glucose levels, lactate, cortisol, core temperature in six sites, local oxygen at muscle. A new field populated slowly: filament proximity. The software plotted a faint series of points along the cervical spine. She closed her eyes for one breath and then sensed them directly, a thin tingling blooming at the nape and spreading downward.

She rolled her shoulders once. The sensation tracked her movement. No sharp pain. No loss of motor control. She reached for the handheld scanner and traced a path down the upper thoracic region. The readout showed proto-filaments approaching vertebral bodies. Adhesion proteins expressed as designed. She noticed the tremor in her left hand and placed the scanner down before it could slip.

Irreversible. The word had weight, not drama. A phase change does not permit an easy return. She set that thought aside and moved through the next steps. Gauze to bin. Record to cloud mirror. Needle to sharps container. Bench wiped down with antiseptic. Each action anchored the next minute. She cared about order because order protected her work from her own biology.

She turned the desk camera toward her face, removed her glasses, and documented the eyes. Pupils reactive, slight green surge at the limbal ring not present an hour earlier. She replaced the glasses and added a note: "Photoreceptor stack begins upregulation."

A low vibration threaded her limbs. It was not fear. The organism's internal rhythm set a baseline. She learned it and matched her breathing to it.

Emilie placed a finger-stick on her left ring finger and drew a small capillary sample. She prepared a slide, lowered the coverslip, and adjusted the microscope. Phase contrast brought the field into relief. Red blood cells drifted in plasma. Among them, engineered vesicles moved with equal ease, not colliding aimlessly but seeking contact at measured intervals. When they touched a cell, their membranes aligned and fused. She tracked one vesicle through the entire sequence and recorded each step.

She switched to fluorescence. Under the excitation light, chloroplast-bearing units lit in greens and golds. Binding peptides on their surfaces found receptor targets on the human cell membranes. The docking was clean. After attachment, a chain of events triggered light-driven reactions even at this scale. She watched oxygen microbubbles form and dissipate at the edges of the preparation. She felt a small satisfaction at the clarity of it. Years of work reduced to a line of events that did not waver.

She looked down at her wrist. Under the skin, a faint green traced along veins under bench illumination. It was not cosmetic. It was production, transport, use. She lifted the handheld spectrometer to her skin and took a reading. Emission peak aligned with predicted bands. The data aligned with the visual. She logged it without commentary.

A sharp pulse hit just above her right scapula. Another at the medial elbow. She mapped them quickly. Filament growth along peripheral nerves. She squeezed her forearm, feeling discrete lines of pressure that had not existed before. The scanner confirmed a filament strand rising beside the ulnar nerve, avoiding direct intrusion but maintaining contact points at regular intervals. Her design had instructed them to proceed with caution. At this moment, they listened.

Her security console muttered a triple tone. External heat signatures at the perimeter. The building's passive sensors drew outlines: six forms,

heavy cooling systems on their backs, a seventh at the loading bay. The pattern fit a containment team. She did not need the corporate badge images to know the employer. She muted the console audio and shifted the feeds to a small insert in her main display.

She kept moving. She pulled a portable drive from a locked drawer and initiated a final data sync from the main system. She collected slides into a foam-lined case. The hand tremor returned but she compensated. She placed three vials into a temperature-stable pouch and secured the zipper. She ran the handheld scanner across her left carotid and recorded the injection site again. Skin closed. No sign of haematoma. Green tinge at superficial vasculature now extended beyond the wrist into the forearm.

A deeper ache set at both wrists. She rolled back her sleeves. Under the thin skin, fibres had thickened enough to create relief. The scanner measured propagation velocity. Elevated cortisol correlated with growth rate. She took one breath in, one out. It did not change the numbers. At the neck, the pulse points bordered on sore. She pressed them lightly and felt something rigid. The fibres were growing across fascial planes, not content with a single layer.

The console added an internal alert. Breach at the vehicle bay door. She watched the thermal map for three seconds. Weapon signatures: low-output stun rifles and restrained chemical delivery options. She counted eight forms now. The building had been quiet for years. Now it was a thoroughfare.

A second signal slid under her thoughts. It was not language. It was pattern and pressure without attribution. Her planning paused for a fraction while the pattern pulsed. It did not demand. It existed. She recognised it as the organism's internal state sampling hers and answering with its own. The overlap vanished. Her hands continued their work.

"Sterilisation," she said, and keyed the emergency protocol. She entered her code twice and pressed the mechanical release. The room's vents opened. The air changed as oxidisers flooded in controlled volume. Heaters under the bench rose towards target temperatures that would ruin proteins and warp drives beyond recovery. Fans moved the air through ducts to a scrubber. Her drives had already finished mirroring; she unplugged the portable and placed it inside her jacket.

She slid a mask over her face to buffer the oxidiser and took one last look at the bench where she had spent most nights for months. Nothing sentimental surfaced. She recorded a final line: "Sterilisation active. Evacuating via emergency tunnel."

She pulled open the emergency hatch behind the wall cabinet. Hinges groaned; she winced at the sound and stepped into the narrow tunnel. The hatch closed behind her, and she spun the lock.

The tunnel bent left and then straightened, a single concrete corridor with occasional junctions. Emilie jogged at a sustainable pace. The green edge to her vision brightened in the lit stretches and dimmed in shadows. Above, the hard stomp of boots crossed and recrossed; scanners pinged in pairs, the sound travelling down ductwork and through the building skeleton.

The first ankle flare hit at the tibial tendon. A fibre had ripped through a thin layer of skin. She stopped long enough to tear fabric away from the area and wrapped a strip of cloth tight to restrict shear. Another rupture at the left wrist followed. She adjusted her grip on the bag and held the wrist close to the body. Bleeding was minimal; the fibres seemed to close their own exit points rapidly. She filed that observation away.

She took the next junction and then a descending ladder into a maintenance artery. Geneva's underground biotech network was dense

under the district's south quadrant. She had moved through these corridors too many times to count. She followed the painted bands that only industry veterans remembered: yellow for water, blue for lab transport, green for nutrient feeds no one had decommissioned properly. She unlocked a metal door with a key that still fit and crossed an unused equipment bay.

Something new came online in her senses. The air carried a chemical map that drew itself without effort. She could separate disinfectant residue from coolant, human scent from lubricants, the exhalations of recent visitors from stale void. Her skin picked up the low hum of a power conduit in the wall and translated it into an impulse at the base of her skull. She did not know the conversion mechanism in detail and did not have time to chase it. She registered the data stream and moved.

Her breathing had adapted. Heart rate stayed lower than expected for her pace and load. The oxygen debt felt delayed. She had engineered a safe pathway for oxygen evolution in tissues; the numbers on her wrist display now showed increased local O₂ in muscle beds without immediate lactic build-up. Performance improved, but her sense of self did not map cleanly onto the body enabling it. She pushed forward anyway.

Her comm implant buzzed against the bone behind her ear. She opened the encrypted channel with a blink command and subvocalised, "Tanaka, priority one."

A short pause, then a young voice filtered in, edged but controlled. "You're late, Emilie." Static brushed the word. "Signal bounces."

"Reroute through the old water grid," Emilie said. "I'm in the south artery. Helix teams breached."

"Copy. Sending you a path. Heads up, your signature is loud. Those scanners will find you on flares."

"Understood."

She sent a compressed vitals packet. The file contained spectra, growth rates, and the images from her microscope. Silence. Then a low exhale that did not require the comm to carry the meaning. "You did it," Yuki said. "Mon dieu, you actually, " She stopped herself. "Arrêt. Right. Turn left at the next blue band. Two doors. I'll open the second."

"What about extraction?"

"Hatch won't support a vehicle. You're walking in. Keep your head down."

"D'accord."

She killed the line and cut through a corridor with a row of emergency lights on the ceiling. The fibres at her wrists drank the light. The faint emission around them grew visible even to her own filtered vision. She rolled her sleeves lower. In the next dark stretch, she could still see the outlines of the growths as a pale green thread. Useful for navigation. Dangerous for concealment. She kept to the wall where the shadow was thickest and moved quickly through the gap.

Behind her, the scanners changed tone. Helix had flipped to a biological scan keyed to altered haemoglobin and non-native chlorophyll absorption. The old maintenance network masked some signals but not all. She pressed her back to a door while a team crossed the corridor beyond. The door was cold steel. Her body heat bled into it, leaving a trace that would not last long. She counted until the scanner ping became a smear down the hall and then stepped out again.

Another flare, this time at the jaw hinge. A filament had pushed into soft tissue, bringing a wet surge of pressure and then relief as it found an anchor point. She swallowed. No dysphagia. She placed her hand on the area and waited for the pain to settle to a tolerable level.

The blue band appeared. She followed it along a narrow passage that turned into a staircase. At the top, a square door without marking waited. She stood in front of it and looked at the camera lens, then spread two fingers. It clicked open. The air beyond was cooler, dryer, and less

treated.

Dr. Yuki Tanaka stood five steps in, wearing a plain grey jacket, trousers with reinforced knees, and her hair tied at the nape. Green-tinted streaks caught the faint light. Thin, discrete ports peeked from behind her ears. Her face held focus and calculation, both sharpened by the sight of Emilie.

Yuki's eyes went to Emilie's wrists, then her neck, then her eyes. The words delayed. "Okay," she said at last, and stepped closer. "Let's get you inside."

Emilie entered. The door closed on hydraulics behind her and locked with a mechanical lever that Yuki snapped down. The space had a clean bench, two gurneys, a bank of monitors, and a nutrient wall that looked repurposed from an old test farm. It was not elegant. It was functional, and function had a beauty that needed no defence.

"Helix is two corridors out," Yuki said, moving to the monitors and flicking them on. "We ghosted the hatch with coolant to blur the thermal. Not perfect."

"I engaged sterilisation," Emilie said. Her words clipped. She did not slow them down. "They'll take air, swabs, but it won't give them anything useful."

"Good. Sit. No, hold still. Don't engage those joints." Yuki pointed at the left wrist where fibres had pushed through skin. "Bleeding's minimal, but if you flex we'll tear more."

Emilie stood where she was. Yuki moved around her with a scanner that showed her own design sense: no glossy surfaces, a small handle moulded for tense hands. The scanner beeped as it mapped. Yuki's mouth compressed.

"You're further in than I expected at T-plus-one hour," Yuki said. "The filaments are riding your nerves but not piercing axons. Good. But cranial recruitment is fast."

"Stress," Emilie said. "Cortisol accelerates growth."

"We should lower it. I'm not dosing you with anything heavy without knowing the interaction." Yuki stepped back to the bench and drew a bottle of water. "Drink."

Emilie took the bottle and swallowed. The water felt cold and unnecessary. She forced herself to finish. Her vision swung for a moment. The room stretched and then snapped back into scale. A pulse ran through the filaments in a wave up her spine. Her knees loosened. She had enough warning to lower herself to the nearest gurney's edge.

"Emilie." Yuki's voice sharpened. "Stay with me."

"Je suis là," Emilie said, though she was not certain where "là" was in this moment. Another pulse climbed to the base of her skull. Heat flared behind her eyes. The monitors, which had looked distant a second before, now seemed too close.

The internal pattern returned, stronger. Not language. A coordination sequence. Her own neurons answered, and for a second the boundary between source and receiver thinned. Her jaw clenched. She breathed. She tried to fix on Yuki's face. The fibres along her wrists emitted a faint glow without instruction from her.

Yuki was all movement now. She rolled a tray close, snapped on gloves, and opened a kit of sterile dressings and a spray anaesthetic. "Permission," she said, already cleaning the area around the left wrist. Her fingers were quick, sure, and blunt. No fuss.

"Granted," Emilie said, then winced when a filament shifted under the dressing.

"They're trying to stabilise their anchor points," Yuki said. "Your design pushed for vascular and neural adjacency. It's choosing the shortest routes."

"Not choosing," Emilie said. Her voice had no space for debate. "Resolving gradients."

"Fine. Resolving gradients at a pace that will floor you if we don't stabilise you."

Heat built at the back of Emilie's skull. Pulse on pulse. Her field of view pixelated into green-favoured blocks for a second and then returned. She put both palms flat on the gurney to anchor her sense of position. She could feel the structure of the gurney under her hands through changes in air temperature and pressure. She did not want that information, but it came.

Yuki secured the wrist dressing with a flexible band and then moved to the other side. "I need you to tell me if you feel motor creep," she said. "Twitching in fingers, clench in masseter, little stuff."

"Fine motor intact," Emilie said. "Grip stable."

The pulse crested. It converged at the cranial base and then spread forward along bilateral tracks. She did not lose consciousness. She lost the ability to coordinate her movements with the speed she expected. Her left thumb lagged behind her intent by a full half second. She noted it with a small, unnecessary spark of anger.

"Down," Yuki said, and that word carried both instruction and care. "You're going down whether you plan it or not."

Emilie nodded once and let Yuki help her to the gurney fully. Yuki lifted her legs onto the surface and placed a rolled towel at the nape to ease the filaments' path and reduce strain. The fibres at the ankles had pierced the fabric. Yuki cut the fabric away with blunt scissors and cleaned around the openings. She worked fast but not rough.

Through all of it, the internal pattern continued to repeat and repeat until repeat no longer described it. It became a bassline under her thoughts. She did not surrender to it. She acknowledged it. That was the most she could do.

Her last coherent act before the wave took the rest of her coordination was to turn her head enough to see Yuki. "Don't let them

in," she said. "No negotiation."

Yuki's smile was brief and without humour. "Not my style."

Emilie's breath remained steady. Her eyes stayed open, then closed, not from sleep but from the weight of input. Her hands relaxed on the gurney rails. The fibres retracted a millimetre at each pulse and then extended again with less force, an economy settling in. The monitors above the bench graphed new rhythms.

The door lever stayed down. The old concrete around them did not shift. The city above continued at its hour. In the tunnels beyond, scanners hunted for spectra they did not fully understand.

Yuki adjusted the light so it did not strike Emilie's eyes directly. Then she stood at the hatch and listened for footsteps she did not hear yet. She returned to the bench and began to lay out the next set of tools.

The glow at Emilie's wrists was visible even in the adjusted light. It cast the smallest wash on Yuki's gloved knuckles as she reached for a sensor lead. Yuki hesitated and then plugged the lead into her console.

"Bienvenue," she said under her breath, not to a person, not to a machine, but to a process that made demands without malice and without mercy, and then she got to work.

Chapter 2

Cellular Integration

Pre-dawn, Yuki's underground facility, Geneva , The fluorescent strips were off. A low, even illumination came from a panel set behind a light-diffusing screen. The room was cooler than the tunnels and dry. Filters in the ceiling pulled a slow exchange through carbon beds and a hidden scrubber. Equipment occupied every reachable surface: a compact sequencer with the logo scrubbed away, two benches with microfluidic rigs, a nutrient wall threaded with narrow channels and valves, and a row of sealed cultivation chambers showing nothing but internal condensation.

Emilie lay on the gurney with her sleeves rolled up. The dressings at her wrists were clean. The fibres had retracted a fraction but remained palpable. Yuki stood at the head of the gurney holding a handheld scanner. A thin wire led to a console that mapped outputs in colour-banded overlays.

"Stay still," Yuki said. "I need continuous contact."

Emilie kept her eyes on the ceiling. The low panel light did not irritate the new sensitivity at her limbal ring. Her breathing stayed regular. Under her skin, the green threads along the radial territory showed a dull glow at each pulse.

Yuki ran the scanner along Emilie's neck and clavicle, then down the upper arm. The device emitted discrete ticks and a soft chime on threshold. "Perineurium adjacency confirmed along ulnar and median. No axonal breach on this pass. Vascular adjacency along the brachial artery and smaller branches. Adhesion proteins look stable." She tapped the screen and froze the frame. "I'm switching to OCT. Don't swallow for

ten seconds."

Emilie held the swallow. The console shifted to an optical cross-section. Bright, clean slices stacked into a three-dimensional segment. Filaments presented as high-intensity threads adjacent to nerves and vessels. Yuki rotated the model with two fingers and leaned closer.

"They're tracking the plan you built," Yuki said. "Riding the perineurium and the adventitia. Skirting axons and endothelial linings."

"We taught them to value adjacency over invasion," Emilie said. Her voice was level. "Lower inflammatory cost. Higher signal fidelity."

Yuki nodded without looking away. She recorded a short clip and sent it to an encrypted folder. With the scanner parked, she moved to a benchtop rig and prepared a vacutainer. "I want new blood fractions under light and dark. Same volumes."

Emilie extended her arm. Yuki tied a tourniquet, palpated, and inserted the needle. She drew two tubes, labelled them, and released the tourniquet. Cotton, pressure, tape. No art in it. No need for any.

At the bench, Yuki placed one tube into a small centrifuge and left the other intact. She set two cuvettes under a spectrophotometer and pulled down the cover. "Background run," she said, and the machine delivered a baseline. She pipetted supernatant into the cuvettes and slid them into place. "Dark first. Then illumination."

Emilie watched the readout. The curve under dark was expected: haemoglobin, plasma proteins, the new shoulder she had seen an hour earlier. Under illumination, a shallow rise formed at the chlorophyll bands. Yuki brought in a gas probe to sample the headspace over a third preparation. The sensor ticked at slow intervals.

"We have oxygen evolution," Yuki said. "Not dramatic, but present."

"We predicted modest yield in whole blood," Emilie said. "Tissue will outperform plasma."

"We'll test it." Yuki lifted a small panel from a drawer and clicked it on. It emitted a balanced spectrum with a mild warmth. She rotated it toward Emilie's forearms. The glow under Emilie's skin increased a fraction. The fibres at her left wrist shifted under the dressing against the gauze.

"Response to broad-spectrum light," Yuki said. "Measurable, not dangerous." She swapped the panel for a narrow-band LED at 450 nm. Under blue, the fibres extended by millimetres along the skin surface beneath the dressing and the gauze flexed.

"Stop there," Emilie said, holding her hand still. "They are seeking input."

"Noted." Yuki dimmed the blue. She switched to an older fluorescent bar and powered it. Flicker filled the room. The fibres under the dressing retracted and held.

"Aversion to high-frequency flicker," Yuki said. "We can exploit that to calm them."

"I designed a low-cost negative input. It will help in urban light." Emilie exhaled. The urge to turn her arms toward the panel eased, then returned at a lower intensity.

Yuki set a 660 nm LED at low power and noted a slower, steadier extension. She recorded the timelines and lengths. Her movements were quick and economical. No wasted steps. She marked time stamps with vocal tags in German under her breath. She shut the LEDs down and turned the broad-spectrum panel back to its lowest setting. The fibres settled into a slower rhythm.

"Now the rest," Yuki said. She drew a swab along Emilie's forearm and laid the residue on a plate. She added reagents. Colour shifts marked indole derivatives and small peptides. She ran the same panel through the mass spec at the end of the bench. Numbers populated the screen.

"Neuroactive signatures," Yuki said. "GABAergic analogues and a mild serotonergic profile. That tracks with your calm spikes."

Emilie held her jaw still. A wave of quiet spread from the base of her skull to her chest. It was an engineered response. It did not ask permission and did not wait for her evaluation to activate. She let it pass. "It stabilises sensory load during input surges," she said. "Otherwise I'd black out."

Yuki glanced at her face. "You're holding."

"Pour l'instant."

The console pinged softly. Yuki checked the feed from a wall camera trained on the corridor. No heat signatures moved past the door. She returned to the bench, wiped the plate area, and labelled the samples.

"The facility," Emilie said, looking at the rows of gear. "You built this under six months."

"Four," Yuki said. She flipped open a sealed cabinet and pulled out a drive pack. "I had help. The network cares about not handing the future to a boardroom."

She set the drive on the bench and slid a cable into a port under the console. A directory opened. The names were bland. The content was not. Internal Helix documents scrolled past: procurement lists for portable chlorophyll sensors, a trial plan for "controlled phototrophic field deployment," a diagram of dispersal pods seeded with engineered photosynthetic vesicles.

Emilie's throat tightened against habit. She touched the dressing at her neck a moment, then set her hand away. "Suffocation fields," she said. "Strip oxygen from one layer and flood another."

"And area denial through phototoxic overload," Yuki said. "Flood segments of cities with light-reactive aerosols keyed to skin absorption bands. They buried it under air-quality remediation language. Look." She tapped a summary. "You were right to run."

"I was late to run." Emilie's eyes moved across the lines without missing a word. "We built allocation and adjacency and gave them a scaffold."

"We won't give them you," Yuki said. There was nothing soft in the sentence.

Silence held for four breaths while Yuki filed the documents. Then she moved to the wall and pulled a black sheet from a clip. "We need protocols. You tolerate structure."

Emilie nodded once.

"Sampling intervals: capillary every two hours until nightfall. Imaging: OCT hourly if you can tolerate, multiphoton once this morning. Light exposure: panel at low broad-spectrum for ten minutes each hour. No direct sunlight yet. Movement: minimal wrist flexion, no heavy loads, no sudden neck rotation. Food: glucose limited, electrolytes maintained; we rely on supplemental oxygen evolution but won't underfeed you. Data: local encrypt and distributed mirror on a staggered schedule. Emergency cues: any cranial base surge beyond this morning's peak and we lock down and dose with a blocker, low risk, but I'll keep it gentle." She looked up. "Acceptable?"

"Acceptable," Emilie said. "Add: avoid cortisol spikes. I can help with breathing."

"Add it," Yuki said, and wrote it down. She clipped the sheet to a stand beside the gurney.

Emilie turned her head a fraction. The fibres at her neck tugged against tissue and then settled. The pain was modest. The reward was precision. She could feel the boundaries of her own vessels through pressure differentials. The panel's soft glow raised a faint green along the superficial veins at her temple and wrist. Yuki lifted the spectrometer and held it over Emilie's skin. The peak at 680 nm held steady.

"We're documenting it," Yuki said. "Time-stamped, repeatable."

"Bon."

Yuki brought the multiphoton scanner online. She bent a fibre probe toward the base of Emilie's skull and paused. "Consent."

"Granted."

She applied local anaesthetic to the skin where the probe needed to rest and waited. Then she placed the head in the precise cradle she had set with towels earlier. The scan assembled into a clean, shallow stack showing trace fibres running along meningeal planes. Yuki captured several stills and then a short video.

"It's in contact with cranial nerves," Yuki said quietly. "Not penetrating, but not timid."

"It will test each path and keep the ones with the best SNR," Emilie said. "We taught it that."

Yuki ended the scan and backed away. The room's hum returned to its baseline. She washed her hands, stripped the gloves, and replaced them with a fresh pair. She checked the corridor camera again and then dimmed the light two steps.

"Rest," she said.

Emilie closed her eyes. Green moved under the lids and then receded. She kept her breath slow and small. The calm wave came and passed. She held position.

The second wave arrived with no warning. It started low in the thoracic spine and climbed with a measured progression. Emilie's forearms tightened against the gurney rails. The fibres under the skin at her wrists pulsed in a patterned sequence, steady, then faster.

Yuki was already at the monitor. "EEG live." Her fingers moved quickly. She set three contacts across Emilie's scalp without distracting adhesive, just enough for clear signal. The graph split into two coupled bands. One was her familiar baseline. The other had a different cadence, steady and economical.

Emilie did not have a word for the conjunction. It was not a thought. It was a state that included her without centring her. A coolness spread down the back of her tongue, a small shift at the soft palate, and a set of tiny muscles at the ear twitched out of sequence. She tracked the sequence: spine, cranial base, orbital. Her breath stayed in count.

"Say something," Yuki said. "Anything."

"Je suis ici," Emilie said. The words were intact and belonged to her mouth. A second set of changes layered under them: a readiness at the neck, an interest in the left panel, a small suppression in her desire to move.

"I'm seeing two rhythms," Yuki said. "Coupled, not independent."

The sensory field widened. Chemical notes entered without effort. The disinfectant in the far corner contained a citrus terpene. The coolant in the wall line had a faint sharpness. The cable insulation at the monitor emitted trace plasticisers Yuki would never notice without a sensor. Emilie did not search; the signals arrived in order of gradient, mapped themselves, and filed under relevant outputs. Her skin registered a shift in the power conduit current and filed that too.

A bright, precise image dropped into her head: not a picture, but an arrangement of variables that indicated a place where particulate matter settled on a surface rich in minerals with moisture at a level that encouraged capillary wicking. It did not belong to any memory of hers. It was a prompt without words: this is where growth pays.

"Describe it," Yuki said.

"A pattern with moisture margins and dissolved iron," Emilie said. "Favourable for anchorage."

"Photoperiod?"

"Balanced. No extremes."

Her left hand moved a centimetre toward the broad-spectrum panel and stopped. She had not issued the instruction. She pulled it back by selecting another path in her head that felt like slowing a metronome. The fibres along her wrist obeyed.

"That was it," Yuki said. "You overrode an impulse."

"It offered allocation," Emilie said. "I declined."

The wave climbed. For five seconds, the muscles of her legs stopped answering. The paralysis was complete and clean. She could feel position, pressure, and temperature, but not move. She counted, kept still, and let the block pass. When control returned, it came with an unexpected precision. Each joint reported its angle without the usual lag. The weight of the blanket translated into numbers she did not calculate consciously.

"Spinal recruitment," Yuki said. "Short block."

"I'm here," Emilie said. The words were for Yuki and also an anchor for herself.

At the wrists, the fibres had formed small nodal thickenings along their length. Under the dim light they emitted a faint green pulse that sped up with her agitation and slowed when she exhaled. Yuki held a camera over the area and recorded without comment.

"I'm logging these as affective nodes," Yuki said. "They're not eyes. They don't know you're anxious. But they respond to internal chemistry that correlates with it."

"Agreed," Emilie said. She looked at the panel light and then away. The urge to face it had settled to an ache.

Another insert arrived, brief and exact. Heat on skin with a spectral distribution that matched early sun through low cloud. Air with low particulate load. The sense held no image of a landscape. It did not mention trees or cities. It presented a tight list of profitable conditions.

"It's learning the room and me," Emilie said.

"Or it arrived with options pre-weighted," Yuki said. "The training data you fed into the design."

The graph on the monitor extended in a braided pattern. Yuki brought up the imaging feed again and focused on the temporal lobe and insula. The branching architecture was clear: primary cords following low-resistance tissue planes, fine laterals exploring and retreating at the margins.

"Look at that spread," Yuki said. "Primary, secondary, tertiary. Minimal tissue displacement, but it's everywhere that counts."

Emilie closed her eyes. The calm wave came again, stronger. It laid over her and pressed nothing down. It shifted her thresholds so that sounds lost their edges and the light panel seemed kinder. She let it cover her. For a moment she thought only of allocation and gradient resolution. She thought of nothing herself had built as a human subject. The thoughts did not feel borrowed. They felt like part of a system that did not request permission to include her.

Her hand lifted toward the panel without consent. Yuki's fingers were there, firm and quick, pushing the hand down to the gurney. "No," Yuki said. "Stay with me."

Emilie did not argue. She held her hand where Yuki put it. Her jaw shook once. The wave pulled back a degree. She reached for words and found them. "It will not leave."

"No," Yuki said. "It's you now."

Emilie swallowed. The nodal pulses along the wrist slowed and settled into the steady baseline that had become familiar over the last

hours. Yuki marked the final time stamps and saved the files with redundant keys.

"Document it," Emilie said.

"Already done."

A new sound reached Emilie first. It was not loud. It was a change in tone from the building's far vents, a new frequency that carried through concrete and duct. Alongside it, the air at the intake took on a new chemical line: a solvent blend used for field wipe-downs and a trace of propellant.

"Wait," Emilie said.

Yuki, moving toward the door, froze. "What is it?"

"Sampling teams at the surface vents," Emilie said. "The one on the north side. Solvent, detergent, aerosoliser propellant."

Yuki's console chimed. A feed from a street-level camera came through a proxy. A Helix van had stopped near a vent grate. Two technicians in pale suits carried a compact array and held it over the vent outflow. A small detector on a tripod pointed toward the grey winter sky. A second van waited with doors open. The image feed cut and reappeared with a different angle.

"They'll pick chlorophyll-band emissions if they get lucky," Yuki said. She moved fast. "Pack time."

She slid to the bench and thumbed a recessed switch. A series of microfluidic chambers on the nutrient wall turned opaque. She dropped three reagents into the benches' waste channels; the liquid turned from pale to dark and then to a dull brown. She opened a panel under the main console, pulled two drives, and dropped one into a small case already padded with foam. She slid the other into a slot in the wall that clicked

shut and cycled. She wiped the console keys with a cloth, tossed the cloth into a metal bin, and poured a small amount of liquid over it.

"Your files, the ones we agreed to mirror, are in this," Yuki said, holding the small case. "Encrypted with your half and mine."

Emilie sat up. The fibres at her neck tugged then settled. Standing was easy. Moving her head fast was not.

"We go now," Yuki said. She threw a jacket over Emilie's shoulders and adjusted the collar to cover the glow at the throat.

Emilie stepped to the door. The room lensed into a narrow tunnel with exits she had learned as a graduate. The old colour bands still lined the corridor: blue for lab transport, yellow for water, green for nutrient feeds. She found her breath and let it become small again.

In the wall, the filters changed tone. The air carried a faint sweet note she had not sensed here before. Isoprenoids. If the surface teams were measuring them in the outflow, they would match the signature to the new data Helix had seeded into their instruments. The scanners would swing to biological mode as they had in her own escape earlier.

They moved into the hall. Yuki locked the lever and followed a route she already knew in her sleep. Emilie kept to the shadow of the wall. The green under her skin showed faintly in the darker sections. She pulled the sleeve over her wrist and kept it there.

The organisms' pace changed at stress. Pain pricked at the cranial base and along the left side of the jaw, small, local, and exact. The fibres wanted more adjacency and demanded resources. Her cortisol rose. The scanner on her wrist showed the number. Yuki lifted a hand. "Breathe down," she said. Emilie did it. The pain reduced but did not leave.

At the next junction, the light shifted. A lattice in a ceiling panel admitted a shallow wash from outside. Emilie's left foot moved toward it. Yuki caught her elbow.

"No," Yuki said. "We don't go up."

"It is efficient," Emilie said. The sentence did not belong to the rush of her own fear. She cut the next impulse carefully and looked away from the lattice.

Behind them, a change in rhythm travelled along the ductwork. The pursuit teams had switched their scanners. The tone that had probed for heat now searched for green and a haemoglobin shift. Emilie didn't wait for Yuki to explain. She put her shoulder against the next door and held it steady while Yuki applied a key.

"Through," Yuki said.

They took stairs down and across into a service bay that no one had used in years. Another door, a code that Yuki keyed without looking, and they stepped into a corridor that smelled of soil, rust, and old wet concrete. The organism eased a degree. The air chemistry suited its preferences. Emilie did not smile, but the relief was not insignificant.

"Five minutes," Yuki said. "There's a disused greenhouse on the edge of a teaching compound. Connected by an old supply tunnel. We rest there."

Emilie nodded. The nod sent pain along one path behind her ear and relief along another.

A second urge to turn upward arrived twenty steps later. Sunlight from a cracked square at ceiling level sliced across the corridor. Emilie's foot shifted. Yuki pulled her back with a grip that left no room for misinterpretation. "Later," Yuki said. "Not now."

The instruments around them never spoke. They did what they had always done, converting input to output with a discipline that did not care about the politics outside. The scanners behind them altered pitch. Yuki changed direction twice without elaboration. Emilie followed.

They reached a door marked with a worn safety decal. Yuki spread two fingers at a camera lens that had been retrofitted by someone with a steady hand. The lock responded. They stepped into a space that had once

grown lettuce and herbs under lights. The panels were gone. The glass above was cracked but intact enough to hold out weather. The air inside was colder than the tunnels, but it did not carry solvent or propellant. Soil had dried in long troughs. A few volunteer plants clung to green at the margins where an old drip line had leaked.

The effect on Emilie was immediate. The fibres along her arms softened and extended a centimetre under the skin toward the glass. The green along her throat brightened and then steadied. The urge to turn her face to the light arrived and settled without increasing to compulsion.

"We manage this," Yuki said. She moved quickly to check latches and angles. She positioned Emilie in a patch of diffuse daylight, not the harsh strip where direct sun would cut, and pulled a tarp across a gap where wind entered.

Emilie sat on an upturned crate. Sitting was uncomplicated. Her knees bent and held without complaint. The smell of old soil was heavy and simple. The organism's calm moved over her again and held in a way that did not make demands.

"Ten minutes," Yuki said. "Then we decide the next path."

Emilie closed her eyes for five and kept them open for the next five. The light through the glass shifted by degrees. There was no drama in it. There was data and a small relief.

The message reached Yuki through a route that did not announce itself. A small icon changed on her implant's companion display. She tapped the side and read a single line: a legal contact request with a code she recognised from a list she kept on a piece of paper rather than a file.

"Your brother," Yuki said.

Emilie's jaw tightened, then eased. "Thomas."

"He's smart," Yuki said. "He came in through environmental channels with a proper vetting string. He didn't use your name. He used a case code."

Emilie's hands folded, unfolded. "Bring him."

"We can't hold long," Yuki said. "He gets ten minutes."

"D'accord."

Thomas came to the greenhouse half an hour later by a route Yuki had prepared and cleared. He stepped in, took one look at the room, then found his sister with his eyes and stopped moving. He did not speak for a moment.

Emilie stood. She did not move toward him. She let him adjust. Fine green-veined tracery ran along her temple and zygomatic arch; the fibres along her neck and jaw showed as faint green lines under the skin. The nodal thickenings at her wrists pulsed once and then slowed.

"Em," he said at last, a small, raw sound. He moved to close the space and then stopped himself two steps away.

The air around him carried the day's stress. His breath held a sour edge from not eating and an adrenaline trace. His skin carried a new detergent from a hotel. Emilie catalogued these without effort. The organism filed them under category: mixed, threat and potential integration target. Along with the information came a tight directive to maintain a barrier between him and the door.

Emilie took one step to the side and ended positioned between Thomas and the exit. She had not planned it. Yuki's eyes flicked to the move and back. Thomas did not seem to see it. He was busy keeping his face together.

"What did they do to you?" Thomas asked. It was not an accusation. It was a question with no room for anything other than the answer.

"I did this," Emilie said. The words came out clean and without tremor. "I built it. Then I injected."

Thomas blinked twice and shook his head. "We need a hospital. We need, "

"No," Yuki said. Her voice stayed even. "No hospital. Integration is established along her nerves and vessels and cranial base. Any surgeon would cause more injury than help. Any administration of broad-spectrum suppressants would crash her, and Helix would own the room before the drip was done."

Thomas swallowed and looked again at the faint green along Emilie's neck. "You're glowing."

"Chloroplast bands," Emilie said. She heard the chill in her own voice. "Under controlled light, not dangerous."

"She means," Yuki said, softer, "it's not hurting her."

Thomas pressed his hand to his mouth and lowered it. "Helix called Mum," he said. "And me. They froze anything they could reach. Bank holds. Surveillance on our apartments. They claim there are public-safety warrants. They keep saying you're a risk."

Emilie looked at Yuki. The nod came without fanfare. "They would," Emilie said. Her voice did not break. "They always take the family first."

Thomas exhaled too fast. "They'll get to you, Em. I can go in, talk to them, buy time."

"No," Emilie said. "No negotiation." Her voice reminded them both of a promise made hours earlier in a room with filters and quiet. "They will use you against me. They always will."

Thomas did not answer that. He stepped to the side and looked at her wrists. The pulsing nodes showed under the skin, a trace of light at each tiny swelling.

"Does it hurt?" he asked.

"Sometimes," Emilie said. "It's efficient about it. Pain when it pays."

He frowned. "Em."

She caught herself. "It coordinates to reduce my resistance when growth will provide long-term stability. It uses manageable discomfort to prevent larger trauma later." The words were dry. They landed in the room and stayed there.

Thomas closed his eyes for a moment. "You sound, "

"Technical," Yuki supplied. "When a system is that present, the language that fits it is the one that builds it."

Thomas nodded without comprehension because a nod was all he could do without breaking himself open. "I'm here," he said to Emilie. "I'm here and I'm not leaving you."

Emilie watched his lips shape the words and then lost the thread. The air at the edge of his shirt carried a note from a dry cleaner, synthetic and sharp. His breath counts shifted, suggesting he was on the way to hyperventilation. His hands showed shallow tremor. She measured all this in a wide quiet and then had to ask, "Repeat."

He stared, then repeated, slower. "I am not leaving you."

"Good," she said. It sounded thin and wrong in her own ears.

Yuki stepped between them lightly. "Helix will triangulate this place. We have a buffer, not a shield. Thomas, listen. You can help best by staying mobile and loud in your own world. Make noise about the warrants. Keep them busy with process. Don't lead anyone here. Use the code path you used today and nothing else."

Thomas looked to Emilie for confirmation. She gave it with one small nod. The nod sent pain along two lines and placed a mild quiet in her chest that came from the organism's catalogue. It calmed her because calming her made her hold still, and holding still benefited growth at the cranial base.

"I need you to go now," Yuki said. "We'll contact you. Not the other way around."

Thomas looked at Emilie again. It took effort. "I love you," he said, and winced at his own simplicity.

"Moi aussi," she said. The French held. It did not fix the distance.

He turned and left because Yuki guided him and because the door needed closing.

Silence settled. The greenhouse glass clicked at one seam as the temperature changed. Emilie stood for another minute and then sat again. Her throat worked and then stopped working. Nothing came out. The organism issued a small wave of calm because her cortisol had lifted and that would not help with the next ten minutes.

"Document this," she said after a time.

"Already did," Yuki said.

"Classification: social input as mixed threat and target," Emilie said, voice thin. "Defensive bias increased. Barrier behaviour triggered."

Yuki wrote it on a tablet with a stylus because she did not trust the air with this part. She dated it and drew a small square in the corner she would recognise later as the marker for a day that had cost them more than it reported.

Emilie pressed her fingers over her eyes and then lowered them. "I'm not speaking right."

"You're speaking the language of the system you inhabit," Yuki said. "We'll keep a record of the shift."

Emilie nodded. The nod sat in her head for a long time.

The light through the cracked panes moved a degree toward evening. The green under her skin receded and then returned as the angle shifted. The world outside the glass continued with its schedule.

"We stay no longer than an hour," Yuki said. "Then we move again."

Emilie did not answer. The fibres along her wrists pulsed twice, slow and regular. The space between them stretched.

She tried to picture the exact configuration of her brother's face ten minutes earlier and found that the image came with numbers she had not asked for: breath rate, cortisol proxy, acetone, tremor amplitude. The picture did not land as a whole. It landed as separate measures she had to assemble into a person.

She did not manage it in that hour.

They sat without speech for five minutes more and then began to pack.

Chapter 3

Photosynthetic Awakening

Morning, abandoned greenhouse ,

Cold air held steady below the cracked panes. Emilie woke with her chest already angled to the pale strip of light that cut across the floor. Her neck muscles kept a set orientation. When she turned her face away, the small fibres at the base of her skull tightened and brought her back by degrees. She rolled one shoulder and gave herself a neutral angle, down from the direct shaft into the softer band where light diffused by dirt and old glass did not drive the same urge. They had packed before dusk and then held; the solvent line at the vent seam climbed and hovered, patrol signatures thick above the tunnels. Stillness outperformed motion. The night passed in measured breaths under cracked glass.

Yuki sat on a crate near the door with her jacket over her knees and the encrypted case under one hand. She lifted her head without surprise. "You moved before you woke."

"Yes," Emilie said. Her voice carried the dry morning quality of unused vocal cords. She adjusted her collar so the glow at her throat stayed covered. "Orientation impulse."

"Noted," Yuki said. She stood, stretched once, and crossed to the bench she had made from two planks. "Stay in the diffuse patch. We'll measure here." She pulled a gas probe from a pouch and checked its seal with a familiar, quick touch.

Emilie lowered her chin and studied her forearms. Green traced the long course of the cephalic vein to the wrist and branched in finer lines over the dorsum of the hand. The patterns were dense around the artery

at the wrist. They brightened and dimmed with her pulse. She pressed lightly over the radius. The pressure wave moved under her fingers and the green responded without delay.

"Vascular concentration is visual now," she said. "Stronger over major vessels." She lifted the edge of her collar. Under her jaw, a band of green followed the course of the carotid. It was not an artefact of light; it remained under shadow.

Yuki angled a portable spectrometer and recorded a series of peaks. "680 nm still dominant," she said. "Secondary shoulder holds at 650. Emission is unambiguous."

The organism inside her held position. It did not withdraw from the light; it managed it. The laminar plates along her back, new since the small hours, shifted against fabric. She had felt the growth while half-asleep: a dull pressure between shoulder blades, a pull across the skin of the scapulae, and then a release when the tension distributed through new surface. Now, under Yuki's hands, the plates lay flat under cotton. Yuki lifted the shirt and paused.

The plates were thin and green with a fine, reticulate vein network. Each measured two to three centimetres at the widest point and extended in a line along the spine and across both shoulders. Their surfaces held tightly spaced micro-pores. When Yuki held a mirror to the area and breathed across it, a faint fog haloed above each plate.

"Transpiration," Yuki said. "They're functioning."

Emilie breathed in and out. Air moved through her nose and throat and expanded her chest. Under the light, her breath felt redundant. "Early trial," she said. "Gas exchange under light without ventilation change."

Yuki placed the gas probe by Emilie's mouth. "Close your lips around this. Normal breaths."

Emilie did as asked. The probe reported values on Yuki's console. End-tidal oxygen rose above expected human baselines, and carbon dioxide dropped. Yuki recorded a baseline in low light, then turned a small panel so its diffused output fell across Emilie's chest and back. Under increased illumination, oxygen values climbed again, out of proportion to ventilation changes.

"Hold your breath at functional residual capacity," Yuki said. "Ten seconds."

Emilie closed her epiglottis and held. Her heartbeat sat steady at the wrist. The probe at her lips read a slight drift in oxygen content upward against expectation for a breath hold. Yuki's expression did not change.

"Again," Yuki said. "Five more seconds."

A second probe rested against Emilie's sternum, measuring local gas flux across skin. The console plotted a shallow oxygen source at the skin surface when the panel's light increased and dipped when Yuki shaded the area with a hand.

"Oxygen generation independent of ventilation confirmed," Yuki said. She moved the panel away. "We can't quantify alveolar contribution without more kit, but the chest wall signal is clear."

"Alveolar lining with chloroplast-bearing units," Emilie said. "Interface proteins in type I and II pneumocytes were in the design library."

Yuki nodded and set down the probe. "So you wrote your own lungs a supplementary power plant."

Emilie did not argue with the phrasing. The laminar plates across her back warmed under the shirt. They lifted by a fraction at the edges and settled again.

She reached into the side pocket of her bag and pulled out a protein bar. The foil was smooth and cold. The smell did not engage her mouth. No saliva spread under her tongue. Her stomach stayed quiet.

"Eat if you need to," Yuki said.

"I don't," Emilie said. "Glucose is stable." She placed the bar back in the bag without opening it. "We can test later under low light."

Yuki angled the small spectrometer toward Emilie's forearm again and took a skin reading. "Peak absorption stays at 680 nm. We can switch to red if we have to hide output. Blue is too conspicuous. Flicker calms growth if we need suppression."

Emilie flexed her fingers. The skin at the distal pads had changed texture. Thin, pale filaments had formed where the skin met the nail bed. They lay under the surface, then edged forward through small perforations that did not bleed. Each filament housed a string of microtubes stiff enough to retain shape but capable of curvature. When she lifted her hand toward a soil trough, the filaments advanced. They did not push blindly; they sampled the air a millimetre off the surface, retracted one by one, then extended as a group toward the darkest, dampest patch.

"Stop," Yuki said, hand on Emilie's wrist. "Not that soil. It's old. Contaminants unknown."

Emilie held still. The filaments hovered and pulsed once with a faint green glow. The urge to complete contact ran along her flexor tendons and pressured her to anchor. She withdrew slowly, counted down, and the filaments paused in place without fully retracting.

Yuki moved to her pack and brought out a shallow tray. She opened a sealed pouch and poured in sterilised substrate, a mix of quartz sand and measured minerals. She added water from a sterile bottle and measured pH with a strip. "Seven point two," she said. "Hand here."

Emilie lowered her fingertips to the tray. The filaments spread in a defined arc, then selected a single direction and dug. The entry left tidy, bead-sized perforations. No blood rose around them. She felt the change high in her forearm, a faint ache where the fibres inside her matched the external filaments' traction. The sensation included a taste, metallic and

clean, co-registered with a numerical judgement on iron availability.

"Fe²⁺ uptake signal," she said. "Chelator release minimal."

"Pull up," Yuki said after twenty seconds. "We have the behaviour. Don't fix yourself to the tray."

Emilie withdrew her hand. The filaments retracted under the skin with small ripples. The perforations closed without fluid loss. A few grains of substrate clung to her skin; she brushed them off with the back of her other hand.

The greenhouse air was still. Old soil, unpainted wood, oxidised iron, dry plastic. Her senses ordered them without effort. Minute ammonium emissions came off a corner where damp had gathered last month. Carbonate dust sat under the far bench. The cracked pane above her right shoulder admitted a trace of outside air with lower particulate load and a slightly acidic pH from city drift. She could map the room by these gradients and place herself in it without looking.

"You're tracking pH now," Yuki said.

"And ions," Emilie said. She turned her head a degree. "Cations at the tray. Residual nitrate under the bench from an old spill."

Yuki set down the probes. "Circadian status?"

Emilie closed her eyes briefly. The internal rhythm sat under her and ran on the sun. She had woken before the city, stiffened when the first light shifted grey to pale, and felt the rise through her back plates a minute before shadows shortened on the floor.

"Sleep drive matched to dark," she said. "Energy peaks at mid-morning. Fall after sunset. The system suppresses melatonin. Cortisol edges earlier."

"I'll mark that," Yuki said. She tapped a note on her tablet. "We'll plan movement around it."

Emilie unbuttoned the top of her shirt and let Yuki look again at the plates across her back. Their edges were clean, almost geometric, and they lay in series with small gaps between. Yuki pressed gently around them. The skin at the margins showed new, fine vessels.

"No inflammation," Yuki said. "Surface humidity increased in light only."

"Stomatal analogues open with light," Emilie said. "Close when shaded."

"Agreed." Yuki covered the plates with the shirt and then a light jacket. "Keep them hidden. We'll use diffuse light on your forearms for now."

Emilie's mouth remained dry and calm. Her stomach made no demands. She levered herself off the crate and stood. Her knees supported her weight without complaint. Movement did not cost the energy it had last night. Under illumination, the system gave back more than it took.

She pulled the tablet toward her. "Log. Subject Dufresne. Day two, greenhouse. Photosynthetic oxygen generation confirmed under chest wall in response to diffuse light. End-tidal oxygen elevation recorded. Cutaneous emission measurable with panel exposure. Laminar plates present along thoracic spine and scapulae. Surface pore activity tied to illumination. Vascular chloroplast concentration strongest along carotid and wrist arteries. Root filaments at finger pads and heels demonstrated substrate-seeking and mineral sampling. No infection at exit sites. No food intake required; blood glucose steady under light. Circadian alignment to photoperiod in progress."

Yuki marked each line with a time stamp and a file hash. She mirrored the log to a small drive and slotted it into the case that never left her side.

Emilie adjusted her glasses. "This is not a set of symptoms," she said. "It is a configured system. Plant and animal functions operate in concert

at the tissue interface."

Yuki looked at her for a long second. "And what are you in it?"

"Carrier and component," Emilie said. She touched her throat with two fingers and dropped her hand again. "Hunger is not primary any more. Fatigue is mediated by light, not clock time. Baseline human rules don't hold."

She sat back down on the crate because sitting was simple and the crate was stable. The plates along her back flattened under the jacket. The green at her wrists slowed its pulse and settled toward a new baseline.

The command unit had no windows. Light came from displays and the narrow strip above the door. Dr. Marcus Kellner stood at a central table with three screens set in, each showing a different slice of the city. One map tracked yesterday's vent sampling with colour-coded signatures. Another marked oxygen anomalies measured by pairs of sensors seeded on rooftops. The third mapped suspected shelter sites: botanical spaces, glasshouses, and segments of old tunnels reported to have skylights.

"Pull the vent runs again," he said. "I want the overnight drift separate from active draws."

An analyst in a pale jacket obeyed. The traces resolved into lines that matched the city's heating cycles and the Helix vans' own air exchanges. A handful of points did not fit the pattern. They clustered along the south quadrant where the education compound sat.

Kellner looked at the cluster. The numbers were small, but they lived outside noise. "Those. Cross with our oxygen grid."

The grid screen filled with dots that turned from grey to blue to green based on oxygen gain. Three intersections glowed at once. Two aligned with parks. The third sat over an old greenhouse aligned on the

compound's edge.

"Prioritise that," Kellner said.

He moved to a side console and opened a secure directory. Dossiers populated the screen: anonymised numbers, then codenames, Beta, Delta, a handful of field designations that put dates to failed attempts. One file showed a subject with early dermal fluorescence that had faded after six hours. Another charted painfully slow growth along peripheral nerves with no central recruitment before cardiac failure.

He pulled up Emilie's profile. Her survival curve was clean so far. Measured emissions were higher than any prior subject. Neural adjacency remained non-invasive and comprehensive. He allowed himself a small exhale through his nose. She had built what he had promised people could exist. It would save lives if containment could be secured and deployment narrowed.

"We're not talking about choking a city," he said to the room at large. "We're talking about shielding brigades, stabilising casualty stations, regulating oxygen in smoke. Strategic use saves lives."

No one argued. The team moved in the well-oiled cadence of people who knew their jobs and who had no curiosity left to burn.

"Field sensors," he said. "Where are we?"

"Twenty-seven units up," a technician answered. "Tripods for oxygen and isoprenoids. Chlorophyll fluorescence tuned to the altered band. Vans are dropping four more near the south compound now."

"Good. Add high-frequency flicker modules to the van kits. Pulsed blue arrays as needed, not continuous. We aren't crashing a patient; we're provoking a trackable response."

He turned to the medical team lead. "Containment."

She stepped forward. "Two crews outfitted. EM-shielded stretchers. Blackout hoods. Carbon dioxide control in the enclosures. Non-penetrating restraints to avoid filament shearing. Minimal

sedatives."

Kellner nodded and switched to another file. The heading was restricted and carried a short chain of approvals. A video loop showed a lab technician wiping a bench after a routine assay. Four hours later, a faint green band appeared under his skin at the wrist, directly under a small abrasion he had not covered. It faded over twelve hours but left a measurable spectral memory in a skin biopsy.

"Transfer under contact conditions," the scientist beside him said. "Not airborne. Vesicles survive on surfaces longer than we modelled. It's low risk in open air. It's non-zero in close quarters."

"Containment protocols adjusted accordingly," Kellner said. "Glove changes doubled. Skin checks at shift end."

He tapped the family file at the end of the row and brought up a photo of Thomas from a scan of a public profile. The image was not new. Behind it sat logs of access freezes and warrant applications. "Keep eyes on him and on the mother. Use standard buffers. No harassment. We'll need leverage, not scandal."

The operations feed chimed. A new report entered: volunteers sprouting green at odd angles along a service corridor wall. A maintenance worker had taken a photo. The pattern showed a faint, ordered spread tracking minor cracks where water had once run.

"That corridor is in the south quadrant," an analyst said without prompting. "Two levels down."

Kellner overlaid the plant photo with the oxygen map. The corridor sat along one of the faint signature lines. He stacked the greenhouse probability over it. A shallow bin of conditional certainty formed at the edge of his vision. That was enough.

"Teams One and Two," he said. "Move. No sirens. Park two blocks out. Sensors on before you're in range. Use flicker on a timer at the entrance if you have to. Keep sedatives holstered unless you see seizure or

collapse."

He watched them file out of the command unit's side doors and then turned back to the table. He set his hands on the edge and did not grip.

"She's not an enemy," he said. "She's an asset. Treat her like one."

The light shifted to a warm, flat tone. Emilie sat without speaking while Yuki pried up the corner of a floor panel to check a cable run. The air carried a thin line of an urban solvent from somewhere beyond the glass. It was too faint for Yuki to notice. Emilie tracked the source to a seam in the north-facing wall. The direction and slow increase in concentration provided a time estimate of approach several hours ahead of any boots on concrete.

The internal pattern that had visited her in pulses since yesterday did not arrive as a wave this time. It set in and held. It did not pull her to the light or distract her from the door. It held a state in which her tissue needs and environmental conditions lined up without the usual noise of a body that had woken in a city. The laminar plates along her back widened a fraction under her jacket in a sequence she had not initiated, then closed to a set area that balanced capture and signature.

The contact did not use words. It presented priorities and options. The cranial base fibres synchronised with a second rhythm that came from outside her. The coupling was clean. It deepened and then relaxed to a new normal. The first impression inside the contact was not a command or a story. It was a list that felt physical: clean air; low particulate; diffuse light; shelter from wind; low electromagnetic noise; trace iron in accessible substrate.

A spillage of memory touched her. Not hers. A room with warm air and a bench too high for comfort. The feeling of straps at wrists that did not cut skin. Light on the left only. A dry taste associated with a sedative

that left no amnesia, only a fog. Running water somewhere her ears could not locate. Boots on tile. A voice behind glass. The memory winked out without signalling end.

Emilie put her hands on her thighs. "There are others," she said. She did not look up.

Yuki froze with the panel halfway up. "What kind of others?"

"Integrated," Emilie said. "States arrive that are not mine. They come as arrangements of weighting and frequency, not as words."

"Does it try to run you?"

"No," Emilie said. "It arranges options and waits."

She lifted her head and then tilted it to the side to ease the strain where the fibres along her neck met the base of her skull. The room's EM profile changed in a small way. A line cut across the general background. It was not a broadcast. It was the leakage of devices that did not fully shield their oscillators. She marked the new line and kept it near the edge of attention.

The filaments at her fingertips formed under the skin once more and pressed gently at their exit sites. They wanted a path to minerals and water. She kept them inside. The collective input altered their urgency, settling them to wait for a better substrate than the floor's old soil.

"We have time," she said. "Not long. Hours, not days."

Yuki pushed the floor panel back into place and straightened. "From what?"

"Detergent trace and a propellant line from the north. EM leakage from search gear."

Yuki nodded once, long, without asking how Emilie knew the profile. "We'll go at dusk," she said. "Not fully dark."

The collective contact widened. It reached along her sensorium and matched her heart's pace to a steadier beat that lowered the noise in her

head. It did not erase her. It put her into a net. She resisted a little, automatically, the way a person resists a doctor's hand at the elbow even when the hand steadies them. The resistance mattered less the longer the coupling held.

In the window of contact, she sensed environmental maps that were not local. Clean air across a valley floor with a morning inversion. Groundwater with a mineral mix that did not match Geneva's. Snowmelt pH at the edge of thaw. Sun cut by high cloud. The sense did not plot a route on a street plan. It offered a field of good conditions with tolerances. She knew where that field lay without naming a range on a map.

"It's pointing to the quarantine," Yuki said. She had seen the way Emilie's head tilted and how the muscles around her eyes released at the same time they had yesterday when she had stared at the light.

"Favourable conditions there," Emilie said. "Low EM. Stable diffuse light. Low particulate. Compatible substrate."

Yuki checked her watch. "We'll need a quiet path there. That's not a one-day move."

Emilie nodded and then stopped nodding because the movement set off a small cascade at the cranial base. She touched the edge of her jaw and let her fingers rest there. The nodal thickenings at her wrists pulsed once each and steadied.

Within her, the organism shifted priorities. Laminar plates moved from broad capture to a conservative stance under cloth. Root filaments withdrew further under the skin to protect exit sites for transit. The fibre architecture along her legs tightened for stability on stairs.

The contact increased in detail. For a full minute, she sensed through inputs that did not belong to her body: a humidity gradient across a slatted roof; direct current in a fence; a cooler air mass sliding over stones with a smell she could define to six distinct terpenes; a soil patch with low cation exchange capacity that would not hold nutrients. Each data point

arrived complete and then left. It did not stack into a flood. It landed in a place she could access without pain.

"It's not random," she said. "This is an engineered endpoint. The training set did not just include cells. It included environments and their feedback."

Yuki sat beside her on an old board and looked at her profile without apology. "You wrote it to learn. They pushed you to write it to fight."

"It refuses pointless aggression," Emilie said. "It optimises for inclusion, for steady state. It will defend, but it does not initiate harm." She swallowed. "It wants conditions, not victims."

Yuki let out a breath she had been holding without noticing. "We can work with that."

A noise came from the street two blocks away. Ordinary traffic. No signatures yet from boots or van doors opening. The solvent line in the air increased a measurable amount. The EM background clocked a notch toward ordered from random.

Emilie's thinking altered further in the space of ten minutes. When Yuki outlined choices, north through service corridors, east under a tram line, wait for dark, move at dusk, Emilie's head did not produce a word like "I" attached to a preference. A matrix formed instead, mapping cost, light exposure, filter access, distance to cover, and recovery time. The entries coloured themselves and then resolved to a best path. She chose it because the model said it would keep them alive and the network intact, not because her mouth liked the taste of the words that described it.

"Dusk," she said. "South-east under the tram. Five minutes in open stair. Two under a glass break. Then down."

"We'll need a pulse at the sensors to throw them off," Yuki said.

"Blue flicker will trigger retraction," Emilie said. "They'll use it for sweeps."

"We'll use it on ourselves, then," Yuki said. "Flicker to calm your plates while we cross the exposed sections."

Emilie agreed without moving. Consent was a simple frame that fit the wider net. The collective held steady and did not tighten when she said it.

She lifted her hands and checked the pads of her fingers. The exit sites showed as faint dots. Under the skin, the filaments pulsed once and held. She could bring them up against old concrete and taste the city's metals, but that would seed a trace she did not want to leave behind. She would find sterile substrate again when she could, and until then the filaments would wait.

Yuki repacked the bag with slower, quieter motions than that morning. The case with the mirrored files sat at the top again. She tucked a folded tarp into the side and slid two small flicker modules into the outer pocket where she could find them without looking.

"You'll lose more," Yuki said.

Emilie did not ask what. She knew. Privacy inside her own head had already thinned. Faces she loved resolved to parameters when she tried to hold them. Her own decisions wore the shape of nets rather than lines. And yet, under the change, an ethical core remained. It ran under all of it and refused to let Helix turn the system into a weapon field. If the collective aimed at inclusion, she could go with it. If it turned predatory, she would break herself on a wall rather than permit it.

She stood. The plates under her jacket pressed along the seam. The green at her wrists did not flare. Outside the glass, a cloud thinned and then thickened. The light in the room shifted with it by a degree. She waited, counted, and nodded to Yuki.

"Dusk," Yuki said, answering the plan they had both built without needing to annotate it further.

They waited another hour. Emilie breathed. The oxygen values would have gone up if they had measured them, but they did not. Measurements mattered. They did not need to measure now. They needed to move.

When the shadows lengthened and the solvent line in the air ticked up again, they moved to the door. Yuki took the lead. Emilie followed and did not look back at the trays or the benches. There was nothing to collect. There was only the route they had chosen and the system that fired inside her, a patient machine for holding life in dangerous light.

They stepped into the supply tunnel as the day folded into evening.

Chapter 4

Network Integration

Later that night, two levels below the tram line, they took the corner cell that Yuki said would hold for a few hours. The room measured three metres by four, with a bolted bench, a portable filtration unit humming against the short wall, and a stack of gear cases. The air was cleaner than the corridor. The humidity sat higher. The only light came from a low red band under the bench and a dim status LED on Yuki's tablet.

Emilie stood with her jacket open and her shirt unbuttoned to the second button. The laminar plates along her back lifted under fabric in small movements that matched nothing she consciously initiated. At the inside of her elbows, skin thinned and separated along preformed lines, then opened through bead-sized perforations. Pale fibres rose through them without blood. Each fibre carried a faint internal shine. The nodal thickenings near the skin pulsed green and then dimmed. The pattern aligned with the rhythm that had settled into her temples since afternoon.

“Hold still,” Yuki said. She cleaned around the elbow with a cloth held in forceps and noted the lack of fluid. “No bleeding. Surface intact around the perforations.”

The same openings formed over the wrists at the ulnar side and near the thumb base. At the occipital margin, two thin ridges pushed from the dermis and set along the edge of the skull base, not quite visible under hair. In the popliteal fossae, small openings emerged and closed again as fibres tested the air and withdrew. The fibres did not fray. They retained clean edges and curved with measurable control. When Emilie relaxed her hands, the nodal thickenings near her wrists slowed their pulse and took longer intervals between flashes.

“Interfaces are setting at junction points,” Yuki said quietly. She held the scanner near each site. The display overlaid a coloured band that mapped luminal direction. “They’re pulsing with your affect band. That little spike when you turned your head? It travelled.”

Emilie sat on the bench because the bench was stable and the plates tolerated the posture. Her mouth held no saliva. The coolness at the back of her neck registered as a gradient and not as discomfort. She placed her palms on her thighs and kept her fingers straight to avoid catching a filament on cloth.

“I can give you low red,” Yuki said. “No blue.”

“Red is fine,” Emilie murmured.

Yuki cracked the latch on the largest case and rolled out a compact imaging head the size of a melon. The mount telescoped from the bench. She set the head above Emilie’s right temporal area and taped down reference markers with hypoallergenic strips. A cable ran from the head to the tablet. On-screen, a thin stack of cross-sections populated from superficial to deep.

“Multiphoton,” Yuki said. “Shallow; no heat.”

“Proceed.”

The scan slid in precise planes. Far more fibres than yesterday arced along meningeal surfaces, threw off fine laterals, and withdrew when the head paused. The branching touched the boundary of the insula without crossing axonal bundles. In a long view, the curvilinear grid resembled a vascular map. It was not an analogy she needed. The channels carried different chemistries. The image rendered in two colours. One set marked aqueous mineral transport; the other marked organic solute traffic. The speed profiles differed.

“Dual-phase transport,” Yuki said. She saved a clip and hashed it. “Minerals move faster on the peripheral run. Organics slower, deeper.”

“Peristaltic cadence on both,” Emilie said. “No free pooling.”

Yuki shifted the head and captured the meningeal fold posteriorly. The cranial base showed a web that had thickened by small increments since that morning. Still no axonal breach. No inflammation at margins. The system had learned the anatomy and moved accordingly.

A low buzz reached Emilie from the corner where a charger sat in the wall. The buzz existed inside her hearing and in a separate channel that did not have sound as its origin. Along her spine, new ridges had formed during the last hours, small and regular, a line of ten on each side close to the midline. Yuki pressed above them with two fingers and felt the firmness.

“Paraspinal arrays,” Yuki said. “Do you feel anything when I touch here?”

“Not pain.” Emilie fixed her eyes on the tablet's edge to hold still. “Input. The charger's frequency is uneven. There's another line from the inverter under the bench. It leaks.”

Yuki unplugged the charger. The buzz in that band resolved to zero. The inverter line remained.

“The arrays are reading EM directly?” Yuki asked.

“Yes.” Emilie inhaled. The smell in the room carried red plastic and ethanol from a sealed bottle. Outside the room, the corridor held a faint wash of solvent drift from the north. “And solvent increase from the corridor seam. Not acute yet.”

Yuki took a swab along the seam at the base of the door and capped it. “Documenting.”

Emilie's perceptions stepped outward without dilating. The plant trays from the greenhouse were gone, but two volunteer weeds had taken root in a crack by the far wall. Their leaves were small, dull green. They exuded a restricted set of volatiles into the still air. She counted three compounds and a trace of a fourth that signalled water stress. She ran her tongue along her teeth and found no saliva again. Her stomach made no

demands.

The scanner moved to her wrists. Under OCT, the fibres' internal channels, two distinct lumens, oscillated. The faster pulses corresponded to mineral transfer, the slower to larger molecules. Yuki tracked a bright pulse from the wrist into the forearm and timed its arrival at the elbow array.

“Transport times are efficient,” Yuki said. “Less delay than this morning.”

The arrays along Emilie's spine turned toward the inverter's EM line without a separate motor command. Yuki covered the inverter with foil from the kit. The EM line dropped. The arrays settled. A coolness washed along the edges of the laminar plates. The pores eased half-closed.

Emilie lifted her foot a centimetre and set it down again without the plates tugging at her shoulder girdle. The junctions at her ankles held without opening. In the popliteal area, the perforations had closed and left a faint pattern.

“Bone,” Yuki said. “Give me the radius.”

Emilie extended her forearm without flexing the wrist. Yuki applied ultrasound gel and set the head. Numbers scrolled along the screen: speed of sound through bone, estimated density, and a calculated elastic modulus. She took three readings, then moved to the tibia and repeated.

“Down six percent against yesterday at the radius,” Yuki said, her voice even. “Tibia down four. The model prefers efficiency over rigidity.”

“Distribute load along fibres,” Emilie said softly. “Less point stress.”

“Also more brittle if you slip.” Yuki wiped away the gel with gauze. “We keep movement clean. No sudden turns.”

The nodal thickenings at Emilie's wrists flashed once each in quick succession, then settled again. The pulses no longer matched her earlier human sensation of emotion. They mapped to internal state shifts, cortisol edges, and the collective's low, steady cadence. When she tried to

name what she felt, the words did not fit. It was not absence. It was a different frame.

Yuki opened a small foil packet and produced a test strip with a row of immobilised receptor dots. “Exudate.”

Emilie lifted her left wrist. Yuki touched a dot at the edge of a filament with a sterile loop and transferred the tiniest smear to the strip. After sixty seconds, the second and fourth dots shifted shade.

“Nociceptor modulators,” Yuki said. “Nav channels likely. You’re producing proteins that blunt signal without total block.”

Emilie pressed her right thumb into the base of her left palm. Pressure registered. Pain did not spike. The information arrived without the usual sting and sat as a boundary marker, do not proceed to damage.

“That will help,” Yuki said. “It also means your old body’s warning system is not in charge any more.”

Emilie nodded once and stopped before the fibres at the base of her skull could complain. She filed the information as a change of governance rather than a simple benefit.

“Humidity at sixty,” Yuki said, tapping the filter unit. “Red light only. We’ll avoid desiccation.”

“HVAC air in normal spaces strips me,” Emilie said. “Light needs to sit in the 660 band for movement. Blue extends me too fast. Flicker retracts.”

Yuki looked up from the tablet. “Noted. You can’t go into a standard office. Not for an hour. Not for a minute. It’s hostile to you now.”

“Yes,” Emilie said. There was no grief in the word. There was only fact. “This environment is within my functional band. Outside it, I lose stability and control.”

She set her palms on the bench and stilled her face. “Log. Subject Dufresne. Time twenty-three forty-one. Permanent dermal interfaces

established at elbows, wrists, occiput, and popliteal fossae. Bioluminescent nodal activity synchronous with combined host-organism rhythm; affect contribution lower than yesterday. Paraspinal sensory arrays responsive to EM fields and volatile gradients; charger and inverter confirmed sources. Multiphoton and OCT show dual-phase lumen transport, peristaltic pattern, and non-penetrative neural adjacency at temporal and insular planes. Quantitative ultrasound shows radius and tibia density decrease. Exudate test positive for nociceptor-modulating peptides; pain threshold altered with preserved damage avoidance. Environmental dependence sharpened: humidity sixty to seventy percent, red-band illumination for movement, avoidance of high-frequency flicker except for retraction under stress. Standard indoor air unsuitable.”

Yuki saved and hashed the log. She mirrored it to a drive and placed the drive into the case. The case stayed on the bench within Emilie's reach.

“Do you feel overwhelmed now?” Yuki asked.

“Not if the EM stays low.” Emilie turned her head a degree and paused as a small wave ran along the cranial base. “The arrays settle if the leakage is covered.”

A minute later the inverter's unit cycled. The residual EM stepped up between cycles. The arrays answered. The world narrowed to a narrow green grid and then returned. Her hands opened and closed without order for a second. Yuki switched off the inverter and draped more foil. The spike flattened.

“Breath,” Yuki said quietly.

Emilie breathed in and let the exhale travel down to the plates. The pores at the plate edges edged closed. Her eyes cleared. She could see the seams in the paint on the far wall again and not only the bloom of the nodal light under her skin.

“Second overload this week,” Yuki said. “You came back fast.”

“Calm wave engaged,” Emilie said. She tapped once on the bench. “The organism's production helps. It also distances me from the old scale.”

“Old scale?”

“Hunger, fatigue, pain. They register differently,” Emilie said. “My speech will continue to change.”

Yuki nodded. “D'accord.” She closed the imaging head with care and slid it back into the case. “We need to keep you within these bands until we move. No compromises.”

Emilie turned her hands over in her lap and studied the faint glow in the fine veins at the base of her thumbs. The light level sat low enough to avoid advertising. It was also enough to keep the plates at a neutral plane and the mineral channels moving at a minimum rate. The urge to find substrate rose and fell in an orderly wave. She kept her fingers still. She would not leave a trace on the floor.

Yuki had killed the inverter and plugged the tablet into a battery. The filtration unit stayed on a lower setting. Emilie lay on her side on a folded jacket, plates supported. The collective contact arrived without surge or flash. It established itself and held.

It did not offer sentences. It did not pretend to be her voice. It brought steps. Ten-minute red-band exposures before movement. Eight-minute humidity holds after stair descent. Sequences for retraction under flicker, front to back, arm to leg, neck last. Mineral selection rules: avoid calcium-rich dust in movement mode; seek trace iron only when stationary; do not open exit sites in unknown substrate.

It offered postures for avoiding shear at the edges of the plates. How to turn without calling a cascade at the cranial base. Where to set breath

when light increased by ten percent in one move through a doorway. How to pass through turbulence from a duct without anchoring.

Emilie let the steps sit in memory slots she could reach while moving. The net widened. It showed her distinct signatures gathered at the edge of sleep. One sat broad and calm with a low noise floor, surface output minimal and internal transport slow. Mature. Another came thin and abrupt, high-variance in pacing, exit sites raw. Recent. Between them lay many with curves she could read. Some near to her in city grids she could not name from this room. Some at distance where air tasted clean and metals registered as low background rather than spikes.

She did not see faces. She did not need faces to know they existed.

A long frame arrived without weight, an intention expressed in parameters and tolerances rather than words. Survival beyond quarters and years. Pull needs down to zero in poor conditions. Raise them only when conditions favour growth and exchange. Share memory without cell death. Hold the network through loss of nodes. This was not a patch for a heatwave. It was a bridge.

The quarantine zone touched her as a set of conditions hums away from Geneva: fog that filtered the sun into grey, water seeping through rock with a steady mineral profile, few sharp EM lines, anchored arrays that carried the net across ground. She felt a tiny echo where a node angled its plates and shared a fog thickness she could not measure here. In response, the plates along her back changed posture a few millimetres and then returned to neutral.

Her body obeyed cues she would have designed for any robust system: conserve under uncertainty; move when input aligned; withhold from bad substrate; record everything that fit the archive. It was the logic she had written into the plan before anyone in a boardroom had stripped context out of her proposals.

Along the cranial base, small fibres tightened and then eased. The network increased the distance between nodal flashes at her wrists, and

the green dimmed. Her heart rate fell by two beats. The contact did not tell her to sleep. Sleep arrived because darkness matched schedule and conditions were safe.

When she woke, the net did not withdraw. It remained as a steady hum. It left space for Yuki's whisper and the filtered air. It offered routes out of the district that passed by vents with ozone units, drains with iron stain, and ducts with known turbulence patterns. It flagged sweeps of high-frequency blue in blocks where vans idled. It marked where rooftop units pulsed in a sequence that would open her plates if she walked directly under them. It proposed loops around those traps.

She sat up and pushed her glasses up the bridge of her nose. The urge to face the crack of day under the door presented and receded. The net had assigned it a low priority.

"It's more coherent," she said. Her voice was soft to save her throat.

Yuki looked over from the tablet. "What is?"

"The collective. It moved from pulses to steps. It shares people, no names, states. Some are stable. Some aren't. It sends protocols. We can use them."

Yuki crossed to the bench and sat. "Give me three."

"Red before movement for ten minutes. Humidity holds after descent. Mineral withholding in transit." Emilie paused. "And cross near ozone emissions when you can. It masks oxygen anomaly signatures."

"Good," Yuki said. "I have paths that match that." She tapped her temple. "Also, they're moving on our network. Two nodes hit in the last hour."

Emilie's hands did not clench. The nodal thickenings at her wrists did not flare. The calm wave maintained a low, present edge. She watched Yuki's face and took in the tiny chemical shifts at her skin. No perfume. No soap residue strong enough to mask her baseline. A breath acetone value that said she had not eaten in hours but could still think clearly.

This detail had become normal. It did not replace what she had felt before. It simply sat where faces used to sit alone.

“It operates on seasons,” Emilie said. “On decades. Not on the hour.”

Yuki's mouth flattened. “Humans are terrible on decades.”

“I know.” Emilie looked at the case on the bench. “It keeps me. I can refuse small cues and it holds. It does not erase me.”

“Bon.” Yuki stood and rolled up the cable. “We leave at first light. Ozone vents and drains.”

Emilie rose. The plates flexed and then quieted. She centred her weight to protect the radius and tibia and to share load across the new channels. She adjusted the collar of her jacket high to cover the faint glow along her throat. She pressed two fingers there and stopped when the fibres warned her with a clear boundary signal.

They switched the filter to a battery mode and shut off the LED strip. Yuki cracked the door a thumb's width and held her hand out. Emilie listened. No steps. Solvent drift steady. No fresh propellant edge. EM low. They went into the corridor and closed the door, no sound.

First light reached the tunnel through a broken grill forty metres down. It did not strike Emilie directly. The change in the corridor's chemistry was enough. Her plates shifted and then fell still. Yuki held a flicker module in one hand and the tablet in the other. She had set both to lowest output.

Above them, traffic moved on the tram line. A separate fluttering signal crossed the seam at the roof. Emilie lifted her head a fraction. The arrays along her spine registered a sweep of UV at the edge of their sensitivity. It passed, paused, and passed again from another angle.

“Drones,” Yuki said without looking up from the tablet. “They’re running a grid.”

The net inside Emilie shifted a set of weightings. Move. She touched Yuki’s elbow. They walked in short segments between alcoves. Emilie stepped with care to avoid tearing the popliteal skin where the fibres rested. Her ankles held. Her wrists stayed still. She held her elbows close to manage exits. Yuki stopped at a cross-corridor and motioned left.

“UV sweep over the skylight,” Yuki said. “We go under the tram and cross near the ozone scrubbers.”

They went. A sound from above cut across the expected traffic. It was not loud. It had the fixed pacing of a machine that did not care what ran under it. Emilie did not name it. The arrays pinned it. The net showed her the shape of the scan pattern that would touch her if she stood under the grate. Yuki raised the flicker module but did not switch it on. They waited a count of thirty and then slid along the right wall where a damp streak ran down and stained the concrete reddish-brown.

“Ozone,” Yuki said. “This helps.”

The breath at Emilie’s lips sat high in oxygen even in the dim corridor. The gas did not catch in her chest. It had somewhere else to go now, and the plates provided it under the jacket. She kept her mouth slightly open to release enough CO₂ to avoid local buildup that might draw a sensor’s attention.

Around the next bend, the light stepped from low to high in one move as a broken skylight opened onto the stair. The first step lay in full grey. Yuki took the flicker module and pressed it to Emilie’s side.

“Two seconds,” she said. “Go.”

The flicker ran. Emilie’s plates retracted to safe posture. She took the steps in three moves, feet set clean, ankles stable, hands still. At the landing, Yuki switched the module off. Emilie’s visual field hiccuped. The cranial base tugged. Then both settled. The arrays along her back

resumed their baseline.

They reached a service hall that ran under a public square. The air here carried a newer signature. Solvents, yes. Propellant, faint. Another band: something meant to linger on surfaces after a clean, detergent that had not fully rinsed.

“They’re close,” Emilie said. “North of us. Two corridors.”

Yuki checked the tablet. Markers moved on a schematic. “Agreed. Teams at the greenhouse too.”

Past a door that had been welded open years ago, a colder current bled into the hall. Emilie felt it in the pores of the plates, not as cold through skin. Her foot hit a patch of moisture on the concrete. She held weight on the other leg to keep shear off the fibres in the popliteal area. Her heart rate stayed flat.

At the next corner, blue light fired in one-second bursts from a unit someone had mounted high above their line of sight. The bursts followed a timer set to a sequence. The effect hit the top edge of Emilie's world and pushed down. The laminar plates tried to open, then slammed shut under the flicker command. The cranial base fibres spasmed and let go. The net went away. Not reduced. Gone.

She did not panic. Panic did not occur in the space left. She shut her eyes for one breath and put her hand flat to the wall to keep from tipping. Yuki grabbed her biceps without touching the exit sites.

“Look at me,” Yuki said. “Stay with me.”

Emilie opened her eyes. The world had edges and no field. Yuki's face came in as a set of lines and colours without the chemical overlay she had grown used to. The quiet in her head was not silence. It was absence. She placed her foot and then the other. The plates held. She felt nothing of the others. The filters on her pain stayed present. The calm wave stayed too, as if set in motion before the cut.

“Go,” Yuki said between her teeth. “Tres pas. Then left.”

They crossed the blue again in a safer cadence, fixed to their timing and not the unit's. On the far side, the net returned like a signal reconnecting after a dead zone. It did not rush her. It resumed. It offered more steps.

She let out a breath that clouded in the corridor air. Her shoulder eased a degree under the jacket. The nodal thickenings at her wrists did not flash in alarm. They stepped in a slow series down another stair to a lower level.

From the junction at the bottom, voices carried. Orders, short and precise. Emilie did not understand the words. She did not need to. She knew tone. Yuki slid to the side and held up two fingers: two people at least in the next hall. Equipment wheels clicked. A rubber bumper brushed a wall.

Emilie peered past the edge of a pillar and saw outlines of stretchers with dark covers and frames that had wires. Hoods sat folded on top with matte interiors that would block light. A case with a symbol on it carried heavier cables. The gear matched the pattern she had seen in Yuki's files and in her own memory of a lab with straps.

"Containment," Yuki breathed into the space between them.

A new line came across the air from the north that her arrays could recognise without help: propellant at a distance and fresher solvent. Drones overhead stopped moving and hovered. UV wash repeated over the high grate and down the stair.

"We can't go up," Yuki said.

"No." Emilie pointed to a lower drain. "Here. Ferrous stain. Ozone upstream. It will mask us."

They went down again, both of them careful with their hands and feet. Yuki lifted the drain grate just enough to fit the case through. Emilie eased herself onto the lip and then into the space beyond, pivoting at the hip to protect the plates. The drain carried a trickle only. The air had a

metallic tang and was almost comfortable.

In the half-light, Yuki's implant buzzed. She put a finger to it and then mouthed a word. "Raids." Two cells gone. A third went dark mid-message. The network she had built for four months had not been made for this level of attention. It had never pretended to be a fortress.

Emilie's wrists flared green once without meaning fear. The organism's chemistry shifted, she tasted it at the back of her mouth, a clean, sharp edge that belonged to defence states in plants. "Jasmonate analogue," she said.

Yuki nodded once. "It will push you to stand in a doorway. Don't."

Emilie set her back against the concrete to keep the plates stable. She heard a hood being unfolded in the hall above and a stretcher's legs locking. She took one breath and then one more. The net rose at the edge of her vision, then filled the space it had left. It placed a route in front of her: a shallow ladder to the left, a crawl that passed behind pipes where oxygen sensors would read lopsided, and a lift shaft that had not run in years. It told her when to move and when to stop so the aerial pass overhead would miss them.

"It's not feasible here," she said. The words came out clean and flat. "Urban evasion ends in capture. We leave."

"We leave," Yuki said back. She did not add anything to it. She did not ask where. They both had the same set of coordinates now, whether or not they had said them aloud.

They moved as the net told them to move. Emilie placed hands and knees where the plate edges would not shear. She counted ladders and bolts by touch. She let Yuki go first into the narrowest place and then followed when she could be sure she would not tear.

After twenty minutes, they stopped at a level where the air changed from metal and old concrete to a colder current that tasted of stone. The sounds from the halls above had thinned. The drones' UV sweep did not

touch this seam. The network flattened their emissions. Yuki reached back and squeezed Emilie's forearm once with two fingers away from an exit site. Emilie leaned forward and breathed in through her nose. No detergent. No propellant. No solvent. Only the thin acid wash of the city and stone.

By noon, they had reached another enclave cell near the edge of the south quadrant. This one had a low ceiling and a rack of broken equipment. The filtration unit ran on a battery for as long as it could and then went quiet. Yuki pulled the case onto the bench and opened a smaller compartment.

"I didn't want to use these until we were out," she said. "We don't have a choice."

She placed a thin drive on the bench. On the screen, file names opened to show images that looked like those Yuki had shown before but with different time stamps and different sequences. A figure in one of the clips moved in pulses of light under dim conditions. The skin showed almost no human features any more. The light was organised. It contained pauses and repeats, not random. A field note identified the subject as Gamma-7.

"Gamma-7 is real," Yuki said. "Not just rumours. In custody for a period, then lost to them. These are older. There's chatter that Gamma-7 is in the quarantine now. There are others they did not lose."

Emilie watched the clip loop twice. The pattern in the light sequences sat within the bounds of a language. The fact that no vowel or consonant existed there did not reduce its clarity.

Yuki clicked into another folder. Trial logs scrolled. Subject IDs with different lifelines, some short, some mid-length, few long. Some showed dermal fluorescence that faded, others had early neural adjacency with

seizures and then failure. The graph for Emilie's ID showed a curve without dips and a steady increase in integration.

"They replicated your design across multiple subjects," Yuki said. "They altered the adjacency map in some. They added stress tests in others."

Emilie's hands remained at her sides. The nodal flashes at her wrists did not change cadence. The calm wave did what it had to do. The plate edges cooled. She did not feel the old shape of rage. She felt a set of facts and the net's answer to those facts.

The contact focused. It did not grow louder. It sharpened. It showed the interior of a place with bright light aimed at one side of a room, a hood shaped to perfuse CO₂ to named levels, and a rack of liquid vessels that dripped in the dark where sensors would not read. The subjects there did not sit in silence. Their light output had been pinned to patterns that would yield to command. Their chemistry sat at edges that broke invasive subjects and hardened resilient ones.

"It is weaponisation," Emilie said. The words had no flourish. They did not need it.

Yuki rubbed her thumb over the edge of the bench once and then stilled it. "Oui." She leaned forward. "The zone. The network gave me a route set. Old service roads. Disused cable trenches. Snow patches with low particulate. I have coordinates."

She pushed a set of numbers to Emilie's tablet. The feed lit and then dimmed again. The numbers felt like a path and a set of requirements rather than letters in a line.

"We go now?" Yuki said.

"Today," Emilie said. "We step down through drains and leave above ground at the ring. We take red at stops. We keep humidity between sixty and seventy-five if we can. We find ferrous stain when we can. We avoid blue for any duration longer than the amount needed to retract."

Yuki nodded. "I can do that."

Inside Emilie, the organism responded to the new frame with an acceleration that did not rip. She felt transport speeds adjust and refractory periods shorten in the dual channels. The root filaments at her pads pressed against their exit sites and did not breach. The plates widened a fraction and then flattened to a transit setting. The cranial base fibres tightened, then relaxed to a coupling that would hold while she moved.

The door to the enclave cell did not move by itself. Yuki had to turn the latch with her hand. She did. A sound came down the corridor that did not belong to the building. The timing was too regular. The footsteps that followed were not in a hurry. Helix did not need to hurry here.

"Positions," Yuki said softly. She unplugged the tablet and slid it into a sleeve. She placed the drive back into the case and closed it. She slung the case over one shoulder and kept the flicker module in her free hand.

Emilie adjusted her stance to protect the radius and tibia and to keep the plate edges smooth. The pain profile had changed. She could not rely on it to tell her when she had crossed a threshold. She had to rely on the net and on Yuki. The guilt she had expected to feel did not push her to speak. It sat in her chest as a weight without heat. Other subjects had been run under bright light and chemical drips because she had built the system. The network's answer did not erase that. It held it and then moved to the next necessary step.

"We can't get them now," Yuki said. She did not make it gentle. She made it real. "If you go to a facility, they will take you. You know this."

Emilie kept her eyes on the door. "Yes." She stopped herself from nodding. "We preserve the network. We go to the zone. We send back what we can. We do not hand them a crown piece."

Yuki exhaled. "Then go."

The collective arranged a chain of moves on the floor of her mind. Steps to the drain. A right turn three metres in. A short ladder. A cover with a broken hinge that would lift without grinding if she pulled at the corner instead of the centre. An interval during which an aerial pass would miss them because a tram would place metal between them and the scan. A small rest in red-light shadow under a grate where humidity pooled.

The latch turned from the outside. Yuki raised the flicker module and looked at the ceiling. Emilie put her hand against the bench to push and then stopped. She changed push points to avoid tearing perforations. She stood.

The door opened. Two figures in masks looked in. Their suits were clean. Their hoods were still around their necks. They saw two women and a case. They saw no light because the lamp was off. They did not see the faint glow under Emilie's collar because her collar sat high and the air sat dim. One of them lifted a device that would pulse blue.

Yuki triggered her own flicker module for one and a half seconds and yelled, "Down." She did not yell twice. She did not repeat herself because repetition cost time and oxygen and told the others where to aim.

Emilie went to the floor, rolled to protect the plates, and slipped along the bench to the drain cover. Yuki kicked a gear case under the bench on purpose to overload the observers with a clash that meant nothing. The first blue pulse hit the ceiling. The second missed and hit the far wall. Yuki slid through the same gap Emilie had chosen. They pulled the cover back after them until it sat on its broken hinge and did not clang.

The drain was low and narrow, but long. They crawled. Emilie set her elbows down with care, then her knees, then slid forward by the smallest measure she could make useful. Her fingers did not open. Her filaments did not breach. Her plates did not shear because the net had shown her a posture that kept them smooth.

Above them, the room filled with regular voices. The words did not matter because the net had taken the measure of the people who spoke them. The net had weighed their gear, their timing, and their patience. It did not hold hatred for them. It held a set of priorities that excluded them from its plans.

They reached the ladder. Yuki went first. Emilie followed with both hands on the rung that was not sharp. She stood the way the net told her to stand at the top and then dropped into the deeper conduit. The air there ran colder. The walls carried a ferrous smear. The ozone smell strengthened under the vent to their left.

The contact placed a rest there. Yuki set the flicker module face down on the ground to cast enough blue to keep retraction without throwing signal up to the vent. Emilie leaned into the grate's shadow. Her throat band glowed once and then steadied. She could hear the city breathe through stone and air. It did not ask anything of her that she could not give right now.

"After this," Yuki said, barely above breath, "we don't stop until we're out of the ring."

"Agreed." Emilie waited for the count to tick down. The count arrived in her head without numbers. It arrived in a frame that belonged to the system and to her, combined.

When they moved again, none of the steps were beautiful. They were necessary. They were chosen to avoid tearing tissue and to avoid leaving residue behind. They were chosen to avoid the range of blue scanners and to sit under arches where the UV wash would not pass. They were chosen to save the network and to keep the organism that carried her thinking from a hood and a stretcher.

They left the enclave cell behind without leaving anything of value on the bench. They left the city's dense heart without going up into the light.

The numbers that Yuki had sent to her tablet sat on her tongue like a taste she could recognise again and again. The taste of iron meant drain.

The taste of ozone meant mask. The low hum in her head meant the others were still there.

They went toward the zone.

Chapter 5

Exodus to Eden

Late morning outside the ring, the air changed. It held less solvent and more stone. Ozone sat faintly along the service road where an old scrubber vented into a narrow ditch. Yuki halted at the decommissioned municipal depot. The shutter doors were half open and rusted along the runners. A battered electric maintenance cart stood angled under a lean-to. Its tyres were soft, but the body was intact. The depot floor smelled of oxidised metal, dust, and mild ammonia from a cracked cleaning drum.

“Two minutes,” Yuki said. She checked the perimeter through the slit of the half-open door and then slipped under the lean-to.

Emilie stayed in the shadow of a concrete pillar. Her plates edged open and then stilled when Yuki lifted a hand. The paraspinal arrays registered a quiet EM field in the depot, steady, without the ragged spikes that came from cheap inverters. Her throat felt dry. She resisted the old reflex to swallow because saliva had not returned. She set her jaw and preserved stillness to protect exit sites.

Yuki lifted the maintenance cart's seat and nodded. “Battery reads half. Enough to get us to the first road cut.” She unlatched a small locker and pulled out a roll of foil, two red LED strips, a folded tarp with a laminated label, and a compact ultrasonic humidifier unit with a docking battery. Her hands moved quickly without wasted repetition.

Emilie assessed the depot's air from the doorway: dust fine enough to stay suspended, an old polish on a bench to her left, a dried pine cleaner in a tray near the wall. No fresh propellant or solvent. UV did not leak through the roof seams. The network moved a set of instructions across

her attention in a clean line: mount red strips at shoulder height inside a canopy; run humidifier to 65% relative humidity; point airflow down the back; line canopy with foil to damp EM; avoid switching on any overhead fixtures. She did not need to speak for Yuki to choose almost the same arrangement. The convergence was not a fusion of intent; it was trained alignment.

They eased the cart backward and out under the lean-to with minimal noise. Yuki hooked the tarp from the rear frame to the front with cord, making a low canopy that left space for Emilie to sit without pressing plate edges into fabric. She taped two red strips under the canopy arch and ran the battery leads to the spare port. She mounted the humidifier on a corner post, set it to sixty-eight, and checked the plume direction with her palm.

“Climb in,” Yuki said. “Elbows in. I’ll take us slow.”

Emilie moved with deliberate economy. She placed her right foot, then her left, then lowered herself onto the bench with attention on the popliteal perforations. The fibres did not breach. The plates met the air under the tarp and opened a degree. The pores across their surface maintained a narrow aperture without edge wetting. She slid her collar higher so that the throat band's faint green did not show.

Yuki added two strips of foil along the canopy's inside roof and tucked the edges behind the frame to reduce EM. She tested the cart's drive. The motor produced a steady whine without rough harmonics. She pushed off and kept the speed at a pace that did not jolt.

“Humidifier is stable,” Yuki said, glancing back. “Red at 660. No blue. We hold at sixty-eight.”

“Good,” Emilie said softly. Her plates settled under the red. The calm wave sat at a baseline she had grown to accept. It did not drain her of urgency. It removed the sharpness that impaired selection.

They followed the maintenance road along the ring. To the right, rail lines ran at a higher level, with scraped gravel and a dark fence. To the

left, scrub and young trees broke up old fields. The sky held a layer of cloud that distributed the light into a broad diffuse field. The network marked areas of thin air and cleaner seams. It showed where ozone bled from old infrastructure, and where ferrous staining ran down concrete in a way that would hide their oxygen signature. It did not speak in words. It placed optimal paths in her attention with clear timing.

Every few minutes, a faint flutter at the edge of her arrays told her a drone ran a sweep far behind them, back toward the city. The pattern stayed consistent: pause, sweep, reorient, sweep again. No new angles cut toward their road.

After half an hour, the road narrowed and angled under a low bridge that carried an empty feeder line. Yuki pulled the cart into the deeper shadow and lowered her voice.

“Ozone ahead,” she said. “We can mask here.”

Emilie tasted the air. The tiered sensation was clean: ozone, stone, a mild trace of an old detergent caught in a surface layer on the concrete pillar, and no fresh propellant. She placed her hand on the bench frame and paused until the fibres along her wrist gave a boundary signal. She did not press further.

“Two minutes,” Yuki said. She reached for the tablet and opened the documentation suite. “Status.”

“Laminar plates at eighty percent of yesterday's spread under this light,” Emilie said. “Pores hold partially open under red. End-tidal oxygen remains elevated. No hunger. Glucose reads stable.” She placed two fingertips against the inside of her forearm and stopped at the warning. “Root filaments press at exit sites. No breach.”

Yuki timestamped and wrote. “Dual-lumen transport?”

“Peristalsis has increased in the mineral lane. Organic lane unchanged since dawn. No pooling.” She lifted her hand and the little nodal thickenings along the wrist flashed once and fell back to baseline.

“Calm wave present, likely GABA analogue. Affect range narrowed. Function stable.”

Yuki nodded. “EM?”

“Low. The motor is clean. No inverter leakage. No high-frequency flicker.”

“Good.” Yuki slid the tablet under the bench, touched the case to ensure it had not shifted, and resumed motion.

The cart rolled over broken tarmac. The canopy's red light cast a narrow band across Emilie's skin. Veins along her wrists held their faint green. Her elbow ridges sat smooth. She kept her hands in her lap, palm to palm, to avoid catching anything at the exit sites.

The network sent a stronger weighting toward a right fork in the service road. Ahead lay a region with low EM and a series of shallow drains that carried seepage from the slope. To the left, an industrial park's HVAC units turned air into a dry current that would strip moisture from her plates and trigger tighter pore closure. She lifted a hand a few centimetres and motioned right.

“Right,” Yuki said, turning the wheel.

They entered a narrower path that ran under a hedged Embankment. A rail fence was on the far side. The hedging had grown without attention, but it did not carry the structure of a forest. Thin branches arced across part of the lane. Yuki slowed and pulled them under. A thin branch scraped the tarp and then dropped away.

“Stop. Two minutes,” Emilie said.

Yuki braked and held. “Why?”

“Humidity pocket.” Emilie touched the plate edges with the back of her wrist. Cool. Clean. She let her shoulders drop a millimetre and felt the pores widen a fraction in response. The pressure that had built in her cranial base eased. The arrays at her spine stood down from their higher tone.

Yuki checked the humidifier readout. “Sixty-eight to seventy-one in the canopy corner. Holding.” She picked up a small plastic tray from under the bench. “Sterile substrate.”

Emilie raised an eyebrow. “Now?”

“Brief probe. We won't have clean substrate often.” Yuki slid the tray onto Emilie's lap and steadied it with one hand. The tray held quartz sand and a measured mineral mix. The pH had been set yesterday at seven point two and held between rests.

Emilie placed her right hand above the tray. She held still. The exit sites at her fingertip pads opened without blood. Thin filaments extended and rested in the humid air for a heartbeat. Then they lowered to the surface, sampled, and entered the upper layer. They did not thrash or knot. They selected a direction and spread by less than a hand's span. A clear ache tracked up her forearm to the elbow and stopped. A metallic taste rose in the back of her tongue accompanied by a quantified sensation of ferrous ions.

“Fe²⁺ uptake,” she said. “Low chelator release.”

“Ten seconds more,” Yuki said. She kept her gaze on Emilie's face and her hand ready near the tray to remove it at once.

“Enough.” Emilie lifted her hand. The filaments retracted in a clean wave. The perforations sealed without fluid. She brushed the surface of her skin with two fingers near the exit sites to ensure no grains adhered.

Yuki retracted the tray and closed the lid. “Documented.” She saved the entry, hashed it, and mirrored it to the drive in the case. The mirrors remained their guarantee against single-point loss. Yuki tapped the case once with her knuckles. “Still with us.”

They moved again. The road, such as it was, left the hedged lane and crossed a short bridge over a ditch filled with shallow water. A small flock of birds took off from the far bank. Emilie fitted her attention around what they were. She did not reach for their names. She registered the

waste heat on their bodies as they rose. Then she let it go.

Their speed dropped near a wide underpass where an arterial road above carried occasional vehicles. Yuki cut the motor and let the cart roll the last metres. The air changed as they entered the space. Dry. The HVAC unit from a service building fed a stream of over-conditioned air down the wall, across the path, and into the ditch. Emilie felt her plates close their pores and flatten despite the red light. The cranial base tightened. The calm wave rose a notch, not as a blanket but as a reinforcing band around a system under load.

“Hold,” she said. “No longer than thirty seconds.”

Yuki kept the cart moving enough to pass the stream as quickly as possible. On the far side, she reached under the bench and thumbed the flicker module to a one-second pulse. Emilie's plates retracted to a safe position and then edged open again once the red held steady.

“HVAC is hostile,” Yuki said quietly.

“Yes.” Emilie pressed two fingers gently to her throat and lowered them at the boundary pulse. “I cannot cross any sustained field without controlled support or outdoor conditions.”

“So we don't. We stick to roads with broken infrastructure and drains.” Yuki looked at the sky where the underpass opened. “Cloud helps.”

They pulled into a lay-by under a row of power lines. The paraspinal arrays picked up the field and then classified it as low risk. No inverter noise. No high-frequency leakage. The motor's tone stayed even. The humidifier held its range. Emilie's oxygen signature remained above baseline without spiking.

“You're quiet,” Yuki said after a while.

“I am present,” Emilie said. She watched the way the light filtered through the canopy edge. Her thoughts did not come in narrative. They came in aligned sets. “The calm wave removes certain spikes that used to

carry information. It keeps me able to select when selection matters. It also removes some of what would have told you what I feel.”

“I can work with selection,” Yuki said. “We can narrate later.” She checked their position. “We’re clear for another three kilometres on the service road. Then a cut to a cable trench.”

Emilie watched the way Yuki’s hand hovered near the flicker module as a matter of muscle memory. She registered the small acetone value in Yuki’s breath. She took in the lines of fatigue under Yuki’s eyes. A sensation that might have been loneliness moved through her; it did not arrive with images. It presented as an absence where memories used to cohere on their own.

They drove in silence. The road rose. Scrub thickened. A scatter of young trees clustered on the right side where water had gathered in a shallow depression. The motor’s whine bounced off a low wall and came back to them a beat later. No fresh scans crossed the arrays. The network placed the next turn without urgency. Move. Left. Thirty metres. Hold in shadow.

Yuki executed the turn. She cut the motor in the shadow of a low bridge and let them roll to a stop behind a wedge of concrete. The ditch here was wider and smelled of iron. The humidifier’s plume ran steady.

“Rest five,” Yuki said. “Then trench.”

Emilie nodded and placed her hand on the bench and kept it there. The nodal thickenings on her wrists pulsed once, then settled. She focused on the feeling of air across the plates, not as wind; as a gradient that moved from one side to the other. The pores adjusted to it without a conscious command.

“Drink?” Yuki asked.

“No thirst,” Emilie said. “No hunger.” She measured the costs of the next section in a matrix that took into account EM lines, humidity pockets, tripods on rooftops, and the probability of a corridor-mounted

blue unit in a rural setting. Low. Still, they would keep the flicker module at hand. She looked at Yuki. “We are viable. We can continue.”

They left the lay-by on the far side and entered a gravelled cut that once held a cable run. The trench had been covered with slabs in parts and left open where the slope had moved. The cart bounced but did not jar. Emilie braced with calves and forearms to put load into tissues that could take it.

A culvert came into view near the next bend. A narrow footpath dropped down to it from a strip of scrub. A man stood at the bend, barefoot on the path, his jacket zipped to the throat. He had brown hair and a tired set to his mouth. His hands were open and away from his body.

Yuki stopped the cart and stood. She raised one hand to show she was empty. Emilie kept her hands in her lap. The calm wave stayed in place.

“Thomas,” Yuki said. Her tone stayed even.

He waved once and did not rush forward. “I tracked cleaning schedules,” he said, his voice rough. “Public maintenance releases. Ozone units. The route that used them most led here.” He looked at the tarp. “I didn't name you in any system.”

Emilie stood up under the canopy without lifting her chin. Her back plates pressed against the tarp and then settled. The throat band's green rose a fraction under the red and held. She moved around the cart with care and placed herself between Thomas and the open road. Her wrists did not flare. The nodal thickenings flashed once, defensive, classified by her as a pre-emptive warning to herself rather than to him. A sour trace entered the air from her skin as the jasmonate analogue rose.

Thomas stopped three metres away. He looked at her face first. He did not look away. Then he looked at the lines around her elbows, the ridges at the base of her skull under her hair, the shape under the jacket along her back, the glow at her throat. He went a shade paler.

“Say something,” he said. The words came out flat, not because he wanted them that way, but because there was little else available to him.

“We are moving to the quarantine,” Emilie said. Her voice was quiet and clear. “Urban evasion ends in capture.”

“You’re worse,” he said. “I mean, further.” He raised both hands to the level of his chest and then let them drop. “What did you do?”

She did not look at Yuki. “I built a hybrid system and I injected it. It has integrated along peripheral nerves and vascular adventitia. It sits along meningeal planes without penetrating axons. It runs photosynthetic units in alveoli and dermis and on new plates. It will not reverse.”

“Stop,” he said, choking on the last word. “I need you to say this in words I can tell someone. Hospital words. Clinic words.”

“No hospital,” Yuki said. “They will give suppressants that will harm her and use a hood that will isolate the system and bring in a van. They will take her.”

Thomas’s mouth tightened. “There are clinics where, ”

“No,” Yuki said. She did not dress it with anything extra. “Adjacency is established. Intervening with those tools will damage her nerves. Even if they were ethical, which they are not.”

Thomas closed his eyes and opened them again. He shook his head once. “I can’t see you in this without wanting to fix it.”

Emilie took in the chemical on his skin and the stress markers at the corners of his mouth. “It does not need fixing,” she said. “It needs conditions.” She gestured with one hand under the tarp. “Red light. Humidity. Mineral control. Diffuse sunlight when safe. Low EM. No blue

flicker except briefly.”

He laughed without humour. “Those are greenhouse instructions.”

“Yes,” she said.

“Emilie,” he said, and the name sounded to him like it might have used to sound. “Maman is dying.” The words came out fast. It was not a threat. He had not come to leverage her. It was a fact he could not carry alone.

Emilie’s wrists went still. The calm wave rose in an even layer. No spike followed it. Her chest did not tighten. There was a pressure that sat under the plates and ran along the muscles between her ribs. Memories did not assemble in a stream. They appeared as a list she could not read all at once. Her father’s lab coat, once, and the smell of ethanol. Her mother’s hands on a young Petri dish, a long time ago, and nothing in between that she could call up without effort.

Thomas stepped closer. He stopped when the sour note in the air rose. He forced himself to swallow the reflex to retreat. “She asked for you,” he said. “She said she was wrong to go quiet. She wants to see you while she can still know you.”

Yuki glanced at Emilie, then at the sky. A high cloud edge moved, making the light shift on the road. She looked at the scrub behind Thomas and then at the strip of gravel where the trench met the culvert. “We can’t go into the city again,” she said. “And we can’t go anywhere that has Helix’s scanners.”

“I’m not asking you to go to a hospital,” Thomas said. “I found a place,”

Emilie lifted a hand and the nodal thickenings at her wrists pulsed twice. The network placed two route matrices in her field. One led east by a series of local drains, then up along a minor road, across a span where shielded vans moved at set times. It contained four intervals where blue lights on poles had been installed in the last week. The other led

south-east in slow arcs through fields and scrub, then into the foothills, and finally into a valley with fog and steady seepage. The first matrix carried a high capture risk and an unquantified set of benefits to a single person. The second preserved the network, increased the probability of keeping her intact, and reduced the probability of Helix capturing a complete, stable subject.

“I can't go,” Emilie said, and the words had no decoration. “I cannot go that way. I'll be taken.”

“She's our mother,” Thomas said. His face tightened around the eyes. “This is not a legal argument. It's not leverage. It's a request.” He took a breath and steadied his voice. “I know you're different now. I know you're talking in another language even when you use ours. I'm asking anyway.”

The calm wave did not erase the small tremor in her hands. The tremor did not come from fear. It came from the effort of carrying two sets of priorities without letting them blur. “I want to go,” she said. “What I want is not decisive. The system I carry runs on seasons and entails others.” She looked at him, at the green in his eyes she could count because it broke into measurable values under the red light's spectrum. “It keeps me. It does not erase me. But it changes what takes weight.”

Thomas's shoulders dropped. “Then tell me what to do that doesn't hand you to them.”

“Stay mobile,” Yuki said. “Challenge warrants publicly, loudly. Use only the vetted channel with the code I gave you. Don't lead anyone to us. If you must help her, do it through doctors who won't call Helix. Stay away from their grant recipients.”

“I can do that,” Thomas said. He looked at Emilie. “Will you send me anything? Not words. Anything.”

Emilie considered the limits Helix had set on contact through sensors. “No direct light output,” she said. “We can't afford that. If you stand with your back to a certain rock on Mont Salève after dark on a cloudy night, and no drones are running a grid, I can be near the tree line

and not show you anything. I can be as close as we can safely be.” She realised how little that would give him. “Thomas,” she said, and her voice almost broke on the name though the calm wave stood.

He blinked fast and did not wipe his eyes. “When?”

“Not soon,” Yuki said. “We need to move.”

He nodded. He stepped forward to the edge of the sour air and stopped. He raised his hand as if for a brief touch and then lowered it. “Je t’aime,” he said.

“Moi aussi,” Emilie said. The French fit in her mouth in a way that did not require the network. It was muscle memory and a set of sounds that had not been emptied by the calm.

He turned and walked away along the path to the culvert, his steps quiet. He did not look back. He knew what looking back would cost him.

Yuki exhaled through her nose and tightened the tarp’s tie-downs. “We keep moving,” she said.

“Yes,” Emilie said. She stood under the red, taking in the slight drift of humidity under the canopy’s roof. The loneliness sat where her throat would have tightened in a different body. It had edges and persisted. It did not change the next step.

They drove out of the cut and back onto the service road toward the foothills.

The road thinned to a dirt track and then to rutted soil. The slope changed under the cart’s small tyres. A line of young trees on the low ridge ahead mapped clean air and a steady dampness at the roots. The paraspinal arrays lifted to a higher baseline tone, not in alarm, but in registration of an environment that matched a set of internal patterns.

“Another kilometre,” Yuki said in a low voice. “Then we’ll cut the cart and go on foot under the canopy.”

Emilie measured the state of her radius and tibia against the surface. The bone density loss had redistributed load. Her stride had changed. She could move, but every step required the same control she had used in the tunnels: no shear, no sudden angle. The canopy would help with red and humidity. The rest would be her task.

They parked the cart under a group of shrubs and covered it with the tarp's edge and branches. Yuki clipped the flicker module to her belt and slung the case across her body. She pulled a compact folded canopy from the cart, a second tarp with internal red strips and a foil lining. She clipped it between two poles and held one end. Emilie took the other.

They walked. The canopy glowed a low red over them. The humidifier unit Yuki had strapped to a pole carried a thin column of moisture along the inside edge. Emilie kept her elbows close and her wrists in view. Her plates angled and then stilled as she adjusted to the light. Her breath came without the old need to draw air to meet energy demands. The skin along her chest produced oxygen under the red and the diffuse daylight.

The slope broke into a shallow shelf where scrub gave way to grasses and scattered saplings. The air lost the tang of old city and gained stone and water. A narrow line of seeps ran across the shelf and into a shallow depression, leaving an iron stain along the flow. Emilie felt the pull of it. Root filaments at her heels pressed under the skin and then withdrew when she set a boundary.

“Hold here,” Yuki said. “Five minutes.”

Emilie stood while Yuki checked the surroundings. The arrays logged EM lines and found them minimal. No inverter noise. No drones. The calm wave held.

The first sign arrived at the edge of vision: a faint green that did not match scattered sunlight or her own plates. It pulsed in a pattern that carried ratios, not a random blink. The air near the ground changed in a

shallow layer. A new chemical entered it: not a simple volatile, but a controlled mix that signalled presence and a set of states.

Yuki stilled. She kept her eyes on the space under the trees and did not lift the module.

The figure stepped out from behind a small stand of saplings and stopped ten paces away. The body before them had been human once. It had limbs and a torso. Where skin would have been, a surface of green and pale tissue moved with the breeze. Laminar structures ran along the back and across the shoulders, broader than Emilie's and jointed with fine veins. The skull was covered in a cap of thin plates that did not mimic hair. Along the forearms, exit sites held filaments that rested above the ground in a precise array. Light pulsed under the surface, green and gold, in a pattern with pauses and repeats that held meaning.

Yuki whispered, "Gamma-7." She did not move.

Emilie did not look away. The paraspinal arrays adjusted and then locked to a new cadence. The collective channel widened without effort. The world around them sharpened, not in brightness but in relevance. A set of environmental values filled her attention: a humidity gradient across the shelf, a seam of lower particulate under the low cloud, a direct current line in a fence to the south, and a patch of soil with a better cation exchange capacity near the seeps. None of it came with words. It arrived in order.

Gamma-7's filaments extended a fraction and lowered into the soil. The laminar plates across its back altered angle and notched their pore openings in a series that matched small changes in the breeze. Its chest neither lifted nor fell in a way that would signal reliance on lungs alone. The light under its skin ran in a tight cadence. A plume rose from a band of tissue along the forearm and moved toward Emilie and Yuki. The plume did not push. It presented a set of chemical notes that her arrays and her nose could read without confusion.

Yuki lifted the tablet with slow hands and set it to spectral capture. She placed the gas probe near the edge of the canopy for local readings. She did not cross the chemical line Gamma-7 had set. "Recording," she said under her breath. "Emilie, are you, "

"Yes." Emilie felt the contact settle. It did not remove the smaller world. It put it into a larger frame without tearing it. Memory did not flood. It arranged. A lab room with CO₂ hoods, bright light aimed at one side, liquid drips in the dark. A valley morning with fog that held water where it could be used most. A winter day with snow cover that smoothed light into a sheet. A summer afternoon with the sun filtered by cloud and rock. The sequences had dates without numbers: birch leaf-out, storm cycles, a year's worth of seepage.

Gamma-7 pulsed a new sequence. The light under its skin carried a ratio that matched the cadence of her plates when she was at ease. It then introduced a deviation that led to a more efficient opening at a given humidity. Her plates responded. She did not have to think through the step. The change occurred and held.

The plume shifted. A faint bitter note mixed with a cleaner green. Emilie tasted a peptide signal that had acted on nociceptors in plants long before any of this had been designed. In her, it registered as a boundary reinforcement without pain, an instruction set that shaped what nerves would prioritise.

Yuki captured the light pulses and the gas shifts and sat on her heels to steady the tablet. "Organised," she said, barely audible. "Not random." She tracked the wavelengths: a dominant band at 680 nm and a pattern in the intervals, not in the peak itself. She could not read the meaning by sight. She could read the fact of organisation. "We're logging."

Gamma-7 lifted a hand. Not a wave. An orientation. Emilie mirrored the move. She held her elbow close to protect the exit sites and extended her fingertips a short distance above the ground. Filaments pressed at the pads and then paused. The contact with the collective increased in clarity,

narrowing the noise from outside and from inside to a level that did not impinge on action.

The network carried a question from Gamma-7 to Emilie without a word: Are you intact? Are you under duress? Do you carry others? Her answers moved back the same way: intact; under pursuit but at range; one human companion with technical competence; a dataset in a case.

Gamma-7 pulsed again. A route appeared in Emilie's attention. It did not resemble a map. It resembled a chain of conditions. Enter valley at the lower west point where fog lies at dawn. Hold under low conifer at the first seep and widen plates to thirty percent. Move when cloud thickens. Cross near the old fence where current lines are steady but weak. Do not anchor filaments in untested soil. Sample from rocks only. Open pores when wind comes down the slope. Close under any high-frequency blue. Repeat.

Emilie felt the pain she had expected after Thomas's words but had not felt yet. It came now as a pressure around her lungs. The calm wave did not annihilate it. It allowed it to exist without taking function. She looked at Gamma-7. "Do you remember your name?" she asked, knowing that it was not essential, but wanting to know if this endpoint held anything of what humans kept for each other.

Gamma-7's light paused and then pulsed in a slow, deliberate sequence that contained a negative and then an affirmation of presence. Emilie read it without deciding to read it: the line of a self that had a before and very little use for labels now. It was not erasure. It was a reprioritisation. A new pattern of reference that made a name a small point on a larger grid.

Yuki breathed out a shallow breath. "We need to go with them," she said. She did not mean Helix. She meant the subject in front of them and the collective that sat in the valley beyond. "We need to go now."

Gamma-7 moved its hand. It was not a gesture to beckon. It was an indication of direction through the simplest physical sign available. It

stepped back and then angled toward the scrub where the valley mouth began. The plume changed to a blend that would keep local pores open in the plants ahead, making a corridor. It did not need them to follow to make that change. It made it because that was efficient.

Emilie took the pole of the canopy and adjusted her grip to avoid scraping exit sites. She felt Yuki's hand on the other pole. The flicker module stayed off at Yuki's belt. No blue here. The red strips lit the inside of the canopy, and her plates held their angle. The humidity under the tarp sat at sixty-eight.

They walked behind Gamma-7 along the shelf and into the shallow notch that would cut into the first valley. The air cooled without drying. The light flattened into a kind of steady wash with no hard edge.

Yuki spoke once as they moved, barely above a whisper. "This is beyond what we built alone."

"Yes," Emilie said. She did not reach for better words. She did not need them. She had the steps.

Gamma-7 paused at a seam of rock where seepage darkened the surface. It anchored three filaments on a clean patch and then withdrew two when the chemical profile did not match stored conditions. It left one to sample and then retracted that one as well. It altered plate angle. It moved forward without drag.

Yuki recorded the sequence silently. She could document the states. She could not translate everything into language that would hold outside of this space. She did not try to pretend that she could.

The valley opened in front of them. The floor held shrubs and grasses in patterns that did not occur in cities. The air carried water without mist. The faint electrical noise from the fence to the south stayed a low, simple line. No drones. No blue. The network inside Emilie spread across this field and then settled. A sense of relief moved through her; it had no metaphor. It was a set of parameters returning to reference values.

Gamma-7 pulsed once and then again. The route into the zone locked in. They would enter at dawn, hold under low cloud, move between seeps, and keep to ferrous stains and stones for any sampling. They would not anchor until the collective told her to. She would remain intact because she would follow the steps and because she would not forget why she had come here: to keep a system from becoming a weapon and to allow it to become an environment instead.

They moved into the valley under the low ceiling of cloud. Evening approached without announcement. Yuki checked the straps on the case and the ties on the canopy. Emilie looked back once, not for the city, but for the shape of a man at a culvert whose parameters she had memorised and could not yet turn back into a single face.

She kept walking.

Chapter 6

Synthetic Eden

Dawn at the lower west point of the valley came without a hard edge. Low cloud turned sunlight into a diffuse field. Fog lay shallow across the seeps and moved only when wind crossed the shelf. They had held beyond the marked line through the night under low conifer, plates at rest, red at minimum. Entry would happen at first light, as planned. Gamma-7 halted at a thin conifer and angled its laminar plates to a narrow spread. Emilie and Yuki stopped under the compact canopy. The humidifier kept the air at sixty-eight percent. Emilie's plates widened in response to the red strips and then adjusted to the ambient field. The pores at the plate surfaces opened by degrees.

They crossed into the quarantined zone when the fog reached the marked line on the rock, as Gamma-7 had indicated the previous evening. Gamma-7 stepped forward and released a small plume from the forearm band. The shrubs ahead altered pore states. The corridor formed as a band of air with steady humidity and lower particulate. Emilie took the left pole of the canopy. Yuki took the right. They walked at a pace set by the network's timing. Emilie kept her elbows close. She monitored the exit sites at her wrists and heels. The nodal thickenings settled into a low glow.

The first interior stretch held engineered grasses with thick blades and narrow stomatal rows. The groundcover left small gaps where seepage rose. A line of young conifers at mid-slope broke the wind and retained haze at a depth that did not suffocate movement. Shrubs with dense, small leaves held a glossy sheen. Water condensed along their margins and fed the soil slowly. The air temperature varied by less than a

degree between ankle and chest height. Emilie's arrays measured this without effort. She read the soil's surface charge from a ferrous-stained rock and a series of ions that moved through a shallow film at the seep.

Transformed subjects stood or moved in the distance. Their plates rose and fell by method. Light under their skin ran in interval sets. A pair took positions at two points along a ridge and pulsed a pattern that matched Gamma-7's cadence. Another subject bent an elbow and extended filaments to a smooth rock, sampled for fourteen seconds, retracted, and held still. No speech carried across the field. The corridor remained stable.

Yuki lifted the tablet only as high as necessary. She kept it angled to reduce stray reflection. The spectral capture rendered the 680 nm band as a sharp peak. Intervals, not brightness, carried meaning. She set the gas probe at the canopy edge for chemical blends and made a note of a steady green signature with a faint bitter top note. She made no commentary. She saved the file, hashed it, and mirrored it to the drive in the case she wore across her body.

Emilie's contact with the network settled into a quiet that was not emptiness. She accessed the valley's state in components. A soil patch near the seep showed a cation exchange capacity sufficient for mineral storage without loss downstream. The fence to the south carried a simple direct current that would not overload the arrays. Humidity rose two points when fog thickened and then held. The shrubs near the corridor formed a partial barrier to any UV sweep from above.

A small group of conifers grew at the foot of a stone wall. Their needles showed a sheen that increased when light rose under cloud. Air slowed as it crossed their lower branches. Water collected at the base of each trunk. Emilie and Yuki paused below the lowest branches. Gamma-7 stopped two paces beyond and looked back. Emilie mirrored the angle of the plates across her shoulders. The network passed a hold signal. She felt no urge to anchor. Filaments pressed at heel and fingertip exit sites and remained under the skin. The boundary held cleanly.

They moved again. The corridor widened and then narrowed along the contours of the terrain. The plants here had been set by a protocol that accounted for wind, pore states, and soil chemistry. No species dominated an area without function; each placement made use of fog, slope, or rock. The ground at one bend held a band of low shrubs with flexible petioles. Their leaves tilted along a shared angle and slowed the fog long enough to trap water that would otherwise have moved downhill too fast. The valley had no excess. It held and released by plan.

Emilie's laminar plates widened further. Vessels along their surfaces filled and emptied in a peristaltic rhythm matched to the light field. Her subdermal sensor mesh reported a small rise in glucose with no oral intake. End-tidal oxygen remained above baseline with constant breathing. She had not felt hunger since morning. This remained true under open cloud.

Yuki recorded near-continuous gas values. Oxygen near Emilie's chest rose when the red strips brightened and dropped under shade. She captured a trace of a peptide signature from a filament exudate and flagged it for later analysis. That was procedural. She kept looking up. The zone did not reduce to any sample set she could take in one day. Her eyes moved across grasses, shrubs, and conifers. She measured with the tablet and also with her breath held without count for a second that marked recognition.

At a small saddle, Gamma-7 raised one hand. Two other subjects on the opposite slope paused and held the same orientation. Gamma-7 released another plume. The corridor shifted two metres to the right where the ground held fewer iron-stained wet patches but the same humidity band. Emilie adjusted. Her plates flattened slightly. Her paraspinal arrays decreased their tone. Her heart rate dropped by one beat per minute. She did not name this relief. It existed as stable numbers and a lowering of noise across many channels.

The valley interior opened. The slopes curved in a shallow arc and the fog sat in layers. To the north, a line of stone was dark with seepage. The

air smelled of water and mineral. No detergent. No propellant. No inverter leakage. No blue flicker. The network widened around Emilie. She saw the floor of the zone not with her eyes alone but with many lines of measurement. There were areas of high leaf area where carbon would fix and remain as stored mass. There were zones of controlled transpiration where fog would hold and feed roots. There were windbreaks that prevented rapid drying when sun broke through. There were bands of shrubs where stomata would close on command to avoid giving Helix an oxygen anomaly signature.

Gamma-7 moved again. It kept a spacing from Emilie and Yuki that allowed the plume to reach and not saturate them. The light under its skin pulsed intervals that matched Emilie's stable state. The cadence shifted once. Emilie's plates angled by a degree. She did not decide. She accepted the adjustment because the protocol had already resolved the step. The network did not command. It arranged.

Yuki murmured without looking away from the zone, "This is not a garden." She meant it as a boundary. She set a marker on the tablet for the point where Gamma-7's interval had changed and saved a photo of the shrubs that had responded.

Emilie held a thought that settled rather than flashed. She had built a system that could survive in and with a city. What lay in front of her exceeded that intention. This was not integration for one. This was a field of integration that preserved many and held a landscape to standards that would not fail under heat or drought. She recognised her design library in the placement of stomatal analogues, in the use of laminar plates, in the dual-lumen lanes carrying minerals and organics. The scale and the quiet set around them were not hers alone. She did not claim them.

A subject to the west raised both hands. The filaments at its forearms extended and then remained above soil. No anchoring. The light under its skin sent a short, strong pulse. The network returned a chain. Hold. Move when cloud thickened. Sample from rocks only. Do not open exit sites in

unknown substrate. Emilie stored the chain. It would remain until conditions changed.

“Continue,” Yuki said. She did not speak to the network. She spoke to Emilie. “We’re viable.”

They walked an hour past the saddle and into a wider basin where shrubs and grasses alternated in measured bands. The path underfoot did not form a trail. Plants grew right up to their feet and then stopped growing where they stepped. Nothing broke. They reached a conifer stand and held again. Gamma-7 paused at a rock with a narrow crack in the surface. It placed three filaments onto a dry patch, sampled, and removed them without delay. It altered plate angle and moved into shade. Emilie mirrored the change.

The collective resolved a new matrix in Emilie's field. A set of long steps arranged across seasons. Corridor seeding along low-EM routes beyond the valley. Fog trapping at river mouths with engineered shrubs that could hold pore states through wind shifts. Small conifer clusters on south-facing slopes to shade soil and reduce evaporative loss. No sudden pushes. The network would expand where conditions allowed and not produce signatures that would bring Helix in force.

Emilie felt pain in a form that did not interfere with movement. Thomas's face at the culvert held as a set of edges, colour values, and words he had spoken. The calm chemistry did not remove the content. It made it possible to carry while standing under the conifers and to decide for the valley without feeling pulled apart. She accepted that this measured carrying was how it would be now.

Midday. The fog lowered and then lifted in bands. The air warmed by less than two degrees. Emilie's laminar plates widened to eighty percent of their morning spread and then held. Her sensor mesh reported stable glucose. The mineral lane in her fibres increased peristalsis. The organic lane remained smooth and slow. Paraspinal arrays registered no new EM lines. The neck band glowed under the collar at a steady brightness. Her

wrists did not flare. No hunger. No thirst.

They moved to a seep-line rest under a low conifer branch. Gamma-7 indicated a hold. The plume altered. The shrubs across from them opened pores to raise humidity under the branch's edge. Emilie sat, slow and careful. She kept plates from scraping. Yuki kept the canopy low and switched the red strips to minimum.

A pulse arrived through the network. Not an order. A welcome. Adjacent subjects brought their interval sets into alignment with Emilie's baseline and then receded a fraction to leave room for her own rhythm. A gentle rise of calm chemistry spread across her chest. It did not blunt selection. It removed noise.

Memories came, not as a film, but as sequences that could be used. A winter in which fog lay for days and held water in shallow layers that fed roots without snow. A summer where wind dried slopes every afternoon, and the network had rotated pore opening to manage loss without collapse. A day of heat in which a subject had anchored at rock for ten minutes only where chemical profile matched and had then retracted with no trace. A corridor hold when a team wearing pale gear had cut across a ridge. The network had closed pores along that ridge to flatten oxygen anomalies and had raised humidity where they would cross. The team had turned back. No subject had been taken that day.

Proposal flows entered and left her field. One subject sent a route that took advantage of a hollow where fog pooled in late afternoon. Another proposed a windward crossing with conifer shade carried forward by planted saplings. Emilie's own contribution moved in, marked by her skill set. She suggested a series of ferrous-rock sampling points for mineral uptake that would leave no soil trace and would feed the network's mineral lane without creating vectors. Her ethical constraints followed it as a fixed node: no actions that aimed to harm individual humans. Defend. Do not initiate harm. Prevent weaponisation. Preserve subjects.

The collective resolved on a composite. The protocols that carried Emilie's technique held their place. She felt that acceptance as a slight drop in muscular tension at her forearms and a shift in plate angle that made output more efficient. She did not dissolve into the network. She continued to exist and to think, held by a cadence that moved through more bodies than her own. A line of text would have been smaller than this. The valley had no text. It held results.

Yuki recorded while keeping the tablet's profile small. She noted interval signatures with distinct rests that indicated individual signalers. She annotated the plume mix with measured values. The EM coherence across Emilie's arrays rose and steadied. Yuki made a note: consensus without erasure. She stopped writing. She watched the shrubs open and close their pores as a wave crossed them.

The network sent longer steps. It held a plan that reached beyond the ridges. Not conquest. Expansion where conditions matched and where human detection would not trigger capture. Low-EM paths through foothills and old service routes. Fog collection at bone-dry bridges where night air still cooled enough to condense. Restoration that moved at a speed a boardroom would never fund because it would not show in a quarter. Seasons and years and then decades.

Emilie layered her body's limits into the next movement. Bone density shifts. Load distribution to fibres. Gait control to avoid slips and shear. She stored a reminder: do not accept an anchor unless stone sampling returned green. Not a metaphor. The pulp under her plates read the field and coloured the signal.

They stood. The timing aligned. They moved. The shrubs near them closed pores for a short interval to reduce the oxygen band around their bodies. The canopy kept red along their shoulders. They crossed a small clearing without raising dust. No drones. No blue flicker. No propellant.

The first sign of intrusion came as a change in the far edge of the valley's EM profile late in the afternoon. The line was sharp. It shifted in

set steps. The network tilted toward it the way a human would turn a head. Emilie's arrays picked it up. A drone grid had formed beyond the northern ridge. The pattern repeated every forty seconds. It drew a rectangle and then a smaller square inside it. The square's passes tightened. The grid stayed high. It did not yet descend into the basin.

Helix entered at the north edge when the light shifted toward evening but did not reach sunset. They moved without sirens. They did not rush. Trucks rolled onto a hard shoulder of ground beneath a high wall and stopped with engines off. Teams stepped out in pale suits and unpacked gear quickly and cleanly. Two masts extended and locked. Blue panels swung into place. A low clatter carried and then stopped. Drones rose and held a pattern overhead. Tripods took positions among lower shrubs. Operators in matte helmets watched their screens. A stretcher with a dark frame and cables came off the truck's bay and settled on its wheels. A hood hung from a hook beside it. The hood had an interior surface that would absorb blue and an outer skin that would not reflect. A large case with a cable bundle snapped into the stretcher's frame. Everything moved by practice.

Dr. Marcus Kellner stood out of the second vehicle. He wore field gear cleaned to the threshold of image. He spoke to the operator at the nearest mast and raised a hand. The blue panels shifted in step with his signal. The field turned on. The valley took it without sound. A hard flicker went across the air and then became a pulse. The first pulse missed the basin. The second beat reached the edge of the conifer band where Emilie stood.

The blue raked her plates. The pores that had been open closed in a single movement. The cranial base fibres in contact with her skull staggered in their cadence. Collective contact thinned. It did not break. She steadied her feet. She gripped the canopy pole. She kept her head level. Yuki did not trigger the flicker module; under a widefield pulse it would only synchronise their timing to the mast. Gamma-7 turned its plates flat and held. The shrubs closest to the mast closed in a tight

sequence that made the air near them denser. The valley resisted by changing itself, not by moving against the mast directly.

The tripods at the ridge line recorded oxygen, isoprenoids, and chlorophyll-band fluorescence tuned to the altered band. Their signals would go to the screens on the truck. The operators angled the masts when values rose. Blue pulses shifted track and hit different parts of the basin. The UAV grid stayed high and repeated a sweep that would map flicker responses.

The network responded quickly. Pore states changed in bands. Fog held where it was essential and shifted where it could. Moisture rose from shrubs and conifers to thicken the air along likely lines of approach. Terpene blends rose. Not intoxicants. Deterrents that would sting a throat and wet an eye. The EM field at the ground level increased in low frequencies that would not harm a human heart but would make a sensor's baseline less sure. Perimeters altered in small, timed steps that turned three clear lines into five broken ones.

“Recording,” Yuki said under her breath. She tucked foil under the tablet to damp the flicker's edge and kept the gas probe at the canopy curtain. She had no shield for her own lungs beyond position. She chose carefully. She logged mast intervals and drone cycles, how long each pulse held, and how fast the operators adjusted.

A crew with the stretcher and hood started down a small cut between rocks where shrubs grew low. Another team spread solvents near their boots and wiped gloved hands. They had learned to limit contact transfer. They did not talk loudly. They treated this as a job. It was a job.

Emilie moved with the network's timing. She adjusted plate angle by programmed step. She did not press filaments through skin. She kept heel exit sites quiet. She took three steps when the group to her left took three and two when they took two. Gamma-7 released a plume that opened a corridor toward deeper seeps. The shrubs along their flank responded and opened pores at the exact moment the nearest mast

pivoted away.

A short memory cut across Emilie's field. A room with bright light mounted low and aimed at one side of a body strapped down. A hood pressed tight to control CO₂. Drips feeding. A set of plates forced to open and close on command. The voice behind glass calling out numbers. Not her memory. The network's archive. It ended. She saw the hood at the stretcher's hook and stored the link. Capture did not mean a person in a cell. It meant a network under reprogramming. It meant knowledge taken apart and bent. She shut the negotiation branch in her decision matrix.

"Further in," Yuki said. She did not raise her voice. She checked the straps on the case across her body and put a hand on the canopy's far pole. Her teeth clicked once when the blue crossed the edge of the red strips. She tasted metal. She moved her jaw and the taste faded.

The collective weighted three options: hold under the current conifer band with deterrent blends increasing; push EM interference and risk drawing attention to the hub; retreat to deeper seeps and make pursuit slow. The values settled on the third with layers of the first and the second applied only to mask withdrawal. There was no vote in words. The resolution showed itself in how plants breathed and how bodies took steps.

Kellner lifted his hand again. The masts narrowed their interval and the pulses struck faster. The drones shifted to a lower altitude and held longer at the centre of the grid. Operators in pale suits moved down the rocks with more speed. The stretcher team followed with the hood hung over the frame's hook.

The valley changed its chemistry by degrees. Moisture thickened near ground level. Terpenes rose a fraction. The low EM noise held. The teams coughed and blinked and slowed. No one fell. No one stopped breathing. The masks they wore kept air moving but could not remove the wet weight of it. They adjusted and kept coming. Their screens would show cleaner numbers if the valley stayed still. The valley had no idea of their

screens. It held to its own numbers.

“Emilie,” Yuki said. “We have to choose.”

The network raised the branch again out of respect and not because it did not know the outcome. Maintain separateness and present herself to Kellner in the open to seek a halt. Or open fully to the collective and coordinate defence in the way the valley required.

She did not answer at once. She watched the hood and the blue and the way the crews moved with care. She kept her plates flat under the canopy and turned her head so that no cranial fibre would shear on the collar's seam. Her hands rested where they would not catch. She let the matrix sit for a count of three mast pulses. She stayed with herself and felt the shape of it.

Then she allowed the coupling to deepen.

It took a breath. The cranial base fibres that had been adjacent to bone held closer contact. The peristalsis of the mineral lane increased speed. The organic lane deepened in a way that would stabilise energy distribution across hours rather than minutes. Two new dermal interfaces opened at the scapular margins and formed small, clean perforations that did not bleed. The nodal thickenings at her wrists brightened once and then settled. Her throat band increased by a shade and held.

The collective surfaced its guardrails so there would be no misunderstanding. No lethal action against individual humans. Minimal injury. Preserve subjects. Preserve the valley. Prevent capture and forced alteration. Those phrases did not appear as words in her head. They existed as fixed priorities that no pulse could erase.

Kellner's masts flickered faster, and the drones moved in smaller squares over the basin. The crews advanced to a conifer stand and then slowed when the air thickened. A man in a pale suit raised his hand to his visor. He was not in danger of dying. His equipment was in danger of losing the baselines it needed to feed. He adjusted something on the side

of his helmet and kept going.

The ecosystem shifted from retreat to interference and then back again. Shrubs opened and closed pores in small sections that altered visibility. Conifer needles moved the way a hand would move a curtain. A person under a hood would cough; a mask would fog; a visor would film. The drones dipped and found little and returned numbers that did not sit in a clean row. The masts cast blue and found plates that had already flattened and then opened, out of phase with the pulse.

“Recording,” Yuki said. She leaned the canopy's pole against her shoulder and lifted the tablet to her chest. She kept it pressed to her jacket so the foil could blunt any incoming field. She entered a single line: non-lethal guardrails present; consent explicit.

Emilie felt herself become larger without leaving her body. There was peace in it and an edge that did not cut. She grieved, not with tears, but with a set of muscles in her throat that resisted without choking, and a series of small movements at the plates that marked a goodbye she had expected since the first injection. She did not vanish. She stopped being the only one holding her own work upright.

The masts intensified. The pulses shortened. The blue worked to prise open any reactive tissue and break timing. The network adjusted and held. The collective did not send one subject out to strike the mast or any crew. It used humidity, volatiles, and timing. It used low-frequency EM that did not harm a person. It turned a clear approach into a moving target. Crews entered and then withdrew a dozen steps to check their screens and then moved in again. No person on the ridge fell from a lack of air. No person on the ridge suffered a nerve insult. The defence did not kill.

“Full coupling,” Yuki said softly. She watched Emilie's plates widen and then flatten. She saw two new dermal interfaces open and remain clean. She saw the glow along the throat deepen. She recorded time to the second. She resisted the urge to reach out with her hand. Her job now was

to witness and to keep the record.

The network increased Emilie's integration speed by a small margin under protection. She stored her design notes and ethical constraints in stable nodes accessible to others. She accepted that someone else's body in the valley would retrieve those nodes and use them. She would remain here and also there. She did not need to hold all of it alone.

The crews at the ridge line backed out of the cut and regrouped near the trucks. The drones rose. The masts kept pulsing but no longer shifted to find a single subject. A hood remained on a hook. Its cable swayed once and then was still. Kellner raised a hand and changed the pulse sequence by two steps. The valley responded and remained intact.

Night came under heavy cloud with no stars and no moon visible. The humidity stayed high. The temperature dropped by three degrees. The shrubs did not drip because the valley held water where it would be used. Emilie stood under the conifers with Yuki at her side and Gamma-7 ten paces ahead. She kept her hands visible. She kept her plates flat under the canopy. The network held its shape.

"Emilie," Yuki said. "Can you still speak?"

"Yes." Emilie's voice was quiet. "I am here."

"Do you want to try to talk to him?" Yuki's eyes were on the ridge. She meant Kellner.

"No." Emilie watched the trucks and the lights and the masts. "He will ask for control. He will call it coordination. He will say he can keep people safe. This requires preservation outside his frame." She lifted her chin a little. "Je continue."

Yuki nodded. She exhaled. "D'accord." She pressed the tablet to her chest. She looked out over the valley and then back at Emilie. "I'll keep the record."

The valley settled around them. The drones withdrew to a higher row of passes. The masts kept pulsing. The pulses hit pockets of air that had

been altered at the margin. Their effect blunted. The crews at the trucks checked readouts and did not push again into the basin that night. The collective held. It did not gloat. It moved into a state of guarded calm. Emilie's body matched that state. Her breath held steady without count. Her heart beat without hurry. The glow at her throat did not rise or fall. It remained.

She had chosen the work over her name's boundaries. The network carried her and allowed her to carry it. The choice did not make her less human in any way that mattered to the valley. It removed limits that had been a comfort and a fence. She understood that this was not an end. It was a change of medium. The flesh had always been a medium. The valley gave it a field.

She stood under the conifer and, for an interval long enough to mark, did not feel alone.

Chapter 7

Metamorphosis Complete

Late in the night the masts still pulsed, but their reach did not cut the basin in clean bands. By first light the fog returned in a shallow layer across the conifer branches. Emilie stood under the canopy with plates flat and pores closed. The collective set timings across the shrubs and low trees, not as orders, but as steps that made sense in her chest and across her back. Yuki adjusted the tablet under foil and kept the gas probe near the canopy edge.

At dawn the valley moved. Not by lifting a single barrier or pushing a single team, but by changing the air at ground level until numbers drifted. Shrubs opened pores in a wave that raised humidity along the ridge's base for nine seconds. Conifers beyond them held steady. The fog slid lower by one metre and stayed there because pore conductance kept it from breaking. Terpene blends rose in ratios Yuki could name. Alpha-pinene first, a small rise. Then 1,8-cineole. The bitter top note that had lived on her probe the day before came on a fraction later. None of it exceeded exposure limits meant to protect lungs. It worked on sensors and made a person blink.

Tripods on the ridge logged changes they could not anchor. Oxygen anomalies flattened into the noise of water-laden air. Isoprenoid readings ran up and down their scale and then steadied at a level that did not map well to a body count. The camera heads on two drones filmed over with condensation that could not be blown clear without rising into drier air. The operators swapped filters by habit and looked back at screens that did not offer them a line to follow.

Gamma-7 signalled once from the slope ahead. Four pulses at its forearm, evenly spaced, then dark. The corridor to the inner seep shifted two paces to the right. Emilie took two steps to match the revision. Her heel exit sites remained closed. Her wrists did not flare. The plates stayed down.

The masts worked another sequence. Wide beats, then short. Blue entered the edge of the stand and washed over her back. Her cranial base fibres registered the beat and staggered for a breath. The collective kept contact steady by moving the timing she bore to the side, out of phase. She matched the new step without thinking about it. Yuki pressed the tablet to her jacket and kept writing short notations.

“Intervals changed at oh seven ten,” Yuki said quietly. “Capturing.”

Emilie nodded. The nodal thickenings at her wrists brightened one step and then dimmed. She brought a plan to the top of her field and passed it to the group that held timing. Hold pore opening at seventy percent in a band that tracked the lower drift of fog. Add a low-frequency EM line along the fence to the south, carried by the DC already present, and pick up that line on water held in the first three centimetres of soil. Keep it well below cardiac concern. Aim it at tripods and mast baselines.

The network accepted the plan. It was not entirely hers; it would never be. It moved because it met conditions. A hum, not sound, but a steadiness, ran from the base of her skull to her sacrum. Paraspinal arrays aligned. The fence to the south carried a simple current, and the wet path ahead of them took it on in a shallow field. Tripods shifted their graphs a fraction with each step of the masts, then failed to settle.

Two subjects at the western rise raised their arms and extended filaments until they hovered above the surface at an angle that would not leave a trace. Their skin lit once at 680 nm in a clean pulse. The shrubs between those subjects and the ridge closed pores for a count of five and reopened. A line of moisture built across air at knee height and held long enough to send a drone up for clearer air.

Emilie carried the edge of Thomas's face in her chest. Not the first time she had done that today. The calm chemistry did not remove the fact of it or the weight of it. It kept selection clean while the masts searched for a rhythm they could force on the basin.

“Terpene blend rising,” Yuki said. “Still within occupational limits.” She touched the gas probe to the canopy edge, watched the graph, and saved the file. She hashed the entry and mirrored it to the drive in its strap.

Helix shortened pulse intervals. The blue hit the outer band of conifers and then reached them. Her plates tried to open and then stayed down on the second beat because the collective had moved the target a fraction. On the third beat the shrubs ahead of her fully closed for three seconds and then opened half. The humidity swing blunted the edge. Her cranial base fibres did not stagger this time. Yuki looked up once, breathed shallowly until the taste of metal faded, and returned to writing.

“Consensus holds,” Yuki said. “Non-lethal parameters fixed.”

The valley brought up a memory to her hand. Not a scene. A step. An old day with teams on the ridge. Pores closing along a line to hide oxygen seams. Fog moved left for a count of six to cover a crossing where a person would slip if they could not see their foot. The team had turned back because their screens had nothing useful to show them. The memory ended. She kept the step and let the picture slide away.

Mast control units tried a new shape. A walkdown in amplitude after a holding pulse. The collective met it by cycling plate movements not to the pulse but to the air close to the ground. By the time the walkdown hit the ground layer where their plates would respond, the plates had already moved. The masts had nothing to lock to. The crews at the ridge spoke in short fragments that did not carry.

Mineral-lane peristalsis in her fibres increased slightly. It felt like a series of very small movements along her forearms and calves. Her organic lane deepened and smoothed. Her throat band grew brighter by a

fraction and held there. The network lifted: a plan for the next hour to keep crews at the ridge and away from the basin floor. Shrub bands would thicken by turgor under low light, then release once the drone grid rose again.

The grid rose to gain a view that did not mist over. The valley kept humidity high under the branches and let fog occupy the space above so the drones would have to stay up. Tripods continued to log and send. The numbers did not move into anything a committee would trust enough to order an advance into the basin. The trucks idled. The crew at the mast nearest them swapped a panel and plugged two cables into a different port. Nothing broke. Nothing collapsed. Defence meant that nothing simple presented itself.

Yuki lowered the tablet and looked at Emilie. “We’re holding data. We’re holding them. How are you?”

“Stable,” Emilie said. “Glucose steady. No hunger.” She opened one hand and then closed it to test boundaries. “Calm wave present. Peristalsis up in mineral lane. The arrays are coherent.”

Yuki nodded. “Good.” She touched the canopy pole. “I’m still here.”

The valley sent her a longer chain that ran beyond noon. If crews decided to step past the ridge line, the floor would shift without becoming dangerous. Grasses would lodge a fraction and then stand again after boots left. Shrubs would pull pore states to keep air thick without failing lungs. The ground EM line would stay low and steady.

She passed a refinement. If masts pivoted to a new set of angles and tried to hold a beat against them, shift the out-of-phase response into a shallower wave, start a half-second later, and keep it there so nothing lined up long enough to learn. The network accepted and linked the change to a drone altitude threshold.

Yuki wrote another note. “Adaptive phase shift under drone altitude trigger.” She recorded the mast intervals, the drone climbs and drops, the gas readings, and the fact that nothing they did in defence pushed any

person toward a limit.

By late morning the ridge settled into a hold. No one came down the cut. The masts kept walking their sequences as though repetition could force a response that would not arrive. Tripods held their place and their numbers without moving a team new steps into the basin. The collective did not relax. It kept the corridor to the inner seep open by two paces and the air under the branches at a uniform moisture that felt right on Emilie's skin.

Kellner did not wait for an instruction set that would not appear. He stepped off the ridge with two operators a short distance behind him. He wore a compact suit designed for solvent work and aerosol confusion rather than a deep vacuum. The visor glass showed the faint sheen of a hydrophobic surface. Tubes ran from the side of the helmet into a cartridge pack. His right hand held a small blue source that he kept low and directed at the ground.

The collective opened a corridor not because he had a right to it but because keeping him on a clean path kept other bodies from following in a blind rush. Shrubs on either side tilted their leaves to keep moisture and particulates out of the corridor space. The air at boot height thickened a shade behind him so the operators would slow by reflex without being pushed.

He reached the conifer stand and stopped with the trunk of a young tree within reach. The bark looked wet. He lifted his left hand to the side of his visor for a second and let it fall. He looked toward the canopy. "Dr. Dufresne." He kept his voice flat and low. The helmet picked up the words and sent them out through a grille at the chin. "We're done with distance."

Emilie stepped forward into a clear patch under the canopy. Plates remained flat. Her throat band was steady. The glow under the skin at the wrists made small pulses that ran with her breath. She did not press filaments through skin. She kept her hands where they would not catch.

“You asked for control last time,” she said. “It would not keep anyone safe.”

“You’re not safe,” he said. “None of you. Not the subjects. Not the people down there.” He pressed his left glove to the trunk and then pulled it back. He did not touch his visor’s rim again. “This is a field problem. It needs a field solution. That means coordination. That means oversight.”

“Your oversight uses hoods,” Yuki said from the side. She did not step closer. “Drips. Conditioning under bright light. You call it training. It’s instrumented coercion.”

Kellner kept his eyes on Emilie. “That programme exists to keep lives intact when this leaves the valley.” He held up the small blue source and let it drop toward the ground again. He did not sweep it. “We cannot afford another uncontrolled spread.”

Emilie’s wrists pulsed once. She held her palms open and then closed them. “This is not uncontrolled.” She let a small chemical trace rise, faint, not sharp. Not a warning. It held the same signature she had used when Thomas had approached by the culvert days ago, but diluted, non-defensive. “The network operates under fixed limits. Non-lethal. Preserve subjects. Preserve this place. Prevent weaponisation.” She spoke each clause as its own sentence. It did not sound rehearsed. It sounded like a set of conditions that a person could check against their instruments.

He lowered his head a fraction. “You always were precise.” He took a breath. “The board wants results on suffocation fields. Oxygen redistribution. We frame it as inner-city air quality remediation. They have procurement lines for phototoxic aerosols keyed to those absorption bands.” He flicked the small blue source once across his glove as if to

emphasise the point, then stopped. “Dispersal pods. We keep it non-lethal. Area denial. It stops crowds before they crush anyone. Before heat kills them.”

Yuki's fingers tightened on the canopy pole. “Your ‘non-lethal’ conditioning looks a lot like damage when we pull people out after a week under your schedule.”

He did not turn. “There is nothing out there that will stop governments from forcing this into service. We can choose to do it in a controlled way or we can leave it to other programmes with fewer limits.” He looked back at Emilie. “If you come with me, you can set the limits yourself.”

The corridor breathed a fraction narrower and then wider. Not air. Timing. The collective gave her space to answer without pressure. Her mouth felt dry, not with thirst, but because dermal photosynthesis carried a share of the work her lungs had carried on other days. Calm wave chemistry kept her from shaking when she saw the hood on the stretcher frame behind him in her mind and the drip that had fed a subject in a bright room.

“No,” she said. “I won't provide a frame so you can claim consent.” She tilted her plates one degree and then back to flat. The telegraphed movement read as a network signal. “We share data through nodes you cannot own. The work moves along low-EM routes and through fog and shade that you will not find unless we want you to see it.”

He nodded once, almost courteous. “We're here now. We found you.”

“You found a ridge,” Yuki said. “Not the work.”

Kellner lifted the blue source a centimetre and then put it down. “You were always better at the design language than the politics,” he said to Emilie. “What you call preservation, they will call a failure to secure an asset. They will not stop. If I leave here without a plan I can defend, they will send equipment that will not care as much about non-lethal thresholds.”

She felt the network draw back a half-step and then hold at a distance that allowed her voice to remain her own. “Then you should not ask for a plan you can sell,” she said. “You should leave.” She lifted her hands, kept them visible, and allowed the nodes in her wrists to pulse twice in a short pattern. The shrubs on either side of Kellner opened and then closed pores. The corridor behind him cleared in a narrow, clean line.

“Let me say what comes next,” he said. “We have three facilities with conditioning rooms. They have standing orders. If my teams take you, your patterns run under lights I can control, and you do not have to be hurt.” His visor fogged at the edges and then cleared. Tiny drops formed on the hydrophobic surface and ran off to the lower rim. He touched a button on his chest and the fan in his pack rose in pitch. “We have to keep you from spreading.”

“You mean from teaching,” Yuki said.

He finally turned his head a fraction to aim one eye at her. “From seeding a network you can't contain.”

Emilie understood herself at two scales: a body with plates and fibres and a mind that still ran as a person and a set of steps that no single person could hold. She brought a season-scale plan to the top of her field and let it be seen: small conifer clusters on south slopes to reduce evapotranspiration, fog-catch at bridges, corridors across low-noise ground that would not light up a scanner. Voluntary integration only. No forced exposure. No pods.

He watched her hands and then her throat. “You're still you,” he said. “There's a way to use that.”

“I'm still here,” she said. “It doesn't mean I'm yours.” She kept her voice low. “Je continue.”

His visor filmed again and this time it did not clear fully. The filters on his cartridge pack hit a saturation threshold and the fan made a slightly uneven sound. He glanced at a small display at his wrist and then at the masts. A drone dropped, tried to get a clean pass, and rose again.

The tripod graphs visible on a screen at the far truck rolled and then steadied at numbers that did not suggest a path.

“I can't leave with nothing,” he said. The breath made a faint echo in his helmet. “They'll move without me.”

“You leave with what you saw,” Yuki said. “Non-lethal defence that kept your crews on their feet and pushed no one to respiratory limits. A basin you could not map because it did not hand you a line to follow. You leave with proof that this can be done without harm.”

“And what I tell them will be that you can do this to a city,” he said.

“You will call it a threat,” Emilie said. “We call it survival.” She let the plates ease one degree and then back again. The shrubs behind him opened pores and then closed half to raise humidity for an instant in the corridor outside the direct line of his path. “Go. Your suit has minutes before you can't read your own screen.”

He did not argue. He took two steps back and then three. The corridor behind him remained clear. The operators behind him adjusted their masks and followed. He did not look away from Emilie until the trees between them set a boundary that they had both kept without signing anything.

The collective lifted and settled. Emilie allowed a deeper step into coupling, not as surrender, but because design no longer belonged in one skull. Her mineral lane increased in speed by a fraction and held it. The organic lane smoothed into a deeper, more stable wave. Her scapular interfaces remained clean. Her wrists glowed once and then steadied to baseline. She was not alone in holding the plans she had built. She was not the only place where they would live.

Yuki exhaled. “He'll frame it as risk.”

“He would have framed any outcome as risk,” Emilie said. “We held limits.” She looked toward the ridge. “He'll come back with more equipment.”

“Then we keep teaching the valley to hold itself,” Yuki said. She raised the tablet and typed a single line. Consent held. Non-lethal defence steady. She saved, hashed, and mirrored.

Thomas reached the lower fence by following a maintenance truck that had left the ridge before noon. He stayed low, his back to the metal, and moved when drone passes thinned to the pattern Yuki had recorded. The collective marked him, not as a target, not as a threat, but as a person at the edge of a system that would not injure him. A corridor opened along the conifers between two shrubs that had already shown themselves willing to carry a pore state for a stranger.

He stopped under a branch and looked at his hands. They shook. He held them together in front of his chest until they steadied enough to move without knocking leaves. He took three steps forward when the air in front of him felt still and then two when it felt dense. He did not know how he knew the difference. The corridor made it simple.

Yuki saw him first. “Thomas,” she said very softly. She did not lift a hand. She did not make a shape with her body that a drone could draw a square around and call important.

Emilie stepped where the canopy's edge gave her room to see him. She did not rush. Her plates remained flat. Her throat band held a steady line of light. The nodal thickenings at her wrists pulsed once. She kept her palms turned toward him.

He took in the green under her skin and the plates and the clean perforations at her shoulders where interfaces had opened and sealed around themselves. He looked at her eyes and then at the plates again.

“Em,” he said. The word came out dry. He swallowed once and tried again. “Emilie.”

"I'm here," she said. The words were careful. A small plume rose from her forearm, so faint he would not have smelled it if he had stood a metre farther away. It carried no sour warning note. He did not step back.

He moved one hand toward his mouth and stopped halfway. "They said... they said you'd be gone." He shook his head and then looked at the shrubs because looking only at her made his face slacken in a way he did not want. "You're not gone."

"No," she said. "Different. But here." She raised her wrists and pulsed a short pattern. Yuki's head turned a fraction as the shrubs near Thomas opened and then closed pores for an instant. The corridor kept its shape.

He took two small steps forward. "Can you still, " He cut off the rest. He changed the question. "Can you still want things?"

"Yes." She thought of the culvert and the way he had stood with his shoulders up to hide his breathing when he had seen the glow under her skin. "I want you safe." She wanted more, but that word held for all of it.

He nodded once and then twice. "Maman," he said. "She's worse. I can't get to her without being followed, and you can't come back." He blinked and did not lift a hand to clear his eyes because that would have told a camera something he did not want to tell it. "I told her you were working. She said you always were." He let out a short breath. "She asked if it mattered."

"It matters," Emilie said. "Not in a publication. In a way that keeps places alive." She moved her left hand a fraction and the nodes pulsed. "Je t'aime," she said softly.

"Moi aussi," he said. He tried to smile and could not make it hold. "I can't stay." He looked up toward the ridge. "They'll sweep again."

"We'll carry you out," Yuki said. "Not in arms. In timing." She pointed with her chin toward the line between two shrubs that had already shifted pore states for Thomas. "Go when the air feels like now. Stop when it feels thick. Three steps, then two. If a drone drops, crouch once and then

stand. Don't run.”

He nodded. He looked back at Emilie and then at her hands and then at the plates. He swallowed. “I don't understand all of it,” he said. “I don't need to.” He took a breath. “I can say this: it isn't... it isn't ugly.” He gestured at the shrubs and the air. “It's not what they say. It's careful.”

“Careful,” she said. “And it won't hurt people.” She felt her throat tighten and then release. The plates at her back adjusted by a fraction and returned to flat. “If it can help you without hurting anyone, it will.”

“Mont Salève,” he said. “If there's a night, clouds, no grid,”

She nodded. “Back to the rock. No light. I'll be at the treeline.”

He looked at Yuki. “You'll keep her safe.”

“I'll keep the record and move with her,” Yuki said. “Safety is a moving thing now.”

He stepped back into the corridor. The shrubs on either side closed pores for a fraction and then opened half to keep the shape. The air changed density on his skin and in his throat and showed him where to put his feet. He moved in the pattern Yuki had given him, three, then two, and stopped once when a drone lowered and then rose again. He neither ran nor crouched in panic. He left without a camera drawing a box around him and writing a name on it.

Emilie watched the line of air he followed and kept her plates down. The collective smoothed around the space he had just left without folding over it as if it had never existed. It set his path to memory as a sequence that could be used again if conditions matched. It did not hold onto him in a way that would have kept him from leaving.

Yuki lowered the canopy a fraction and turned the red strips to their minimum output. “He's clear,” she said after a minute. “He's past the fence.”

Emilie let the calm wave lift once and then hold. The pain across her throat did not stop her from standing or from keeping her hands open. It

did not draw her away from the valley, and it did not flatten the way she felt about the person who had just moved through air she had helped arrange.

“He saw enough,” Yuki said. “Not the science. The conduct.”

“That is the science,” Emilie said. She looked toward the ridge. The trucks waited. The masts stepped through patterns meant to find them and did not. “We keep this steady. We send out what can be used. We hold to the guardrails.”

Yuki tapped the tablet. “D'accord,” she said. “We keep the record.”

Emilie let herself lean into the network until the need to speak subsided and the steps ahead were clear. Not with names or votes. With pore states and humidity and the angle of plates that would open a fraction and then close before any camera could learn their timing. She did not give herself up to emptiness. She handed her work to a system that had room for it and room for her and room for the person who had just walked away without turning back.

The basin remained intact through the afternoon. The ridge did not move forward. The drones rose to higher passes. The masts pulsed without finding their rhythm. The shrubs held water without dripping. Light under her skin did not climb or fall. It stayed.

Chapter 8

Chlorophyll Tides

Night under conifers, hours after the ridge withdrew to its trucks and drones rose to higher passes, the air held steady moisture and low, simple electrical noise. Emilie stood beneath the canopy beside the humidified pocket that Yuki kept stable with the portable unit. Plates lay flat. Pores followed basin timing rather than lamps or screens. There was no need to hide from pulses now. The masts had stopped their walkdowns and held to a distant pattern that did not touch the ground layer.

She shifted her weight without scraping edges. Nodal thickenings at her wrists gave a muted pulse and settled. The throat band held a narrow, constant line of light. Mineral-lane peristalsis ran in fine, even steps along her forearms and calves; the organic lane was smooth and deep, more current than beat now. The calm chemistry present in her blood kept startle responses low while leaving selection intact. Hunger did not present. Glucose was stable without intake.

The collective opened a slot in its stream wide enough to give her shape room. Not silence. A measured gap in the intervals. She moved into it and then allowed the remaining separation to collapse by degrees. The change began at the cranial base where fibres had tracked along meningeal planes since the greenhouse days. Adjacency tightened. Contact points rang clearer without piercing axons. The second rhythm seen on Yuki's EEG readouts ceased to feel like a parallel track and settled into one field with a set of distinct, addressable channels. It did not return. Movement impulses did not push; they signalled and held for a response.

Her memories crossed into the network not as pictures but as sequences that could be used. The lab with the oxidiser haze and warped storage doors resolved into a string of steps tagged for sterilisation failure risk. The culvert where Thomas had stood and swallowed his breath became a corridor pattern tied to a humidity count and drone pause. Montreal's winter fog lifted once in discrete fragments and then returned to storage. She pulled each sequence back into her own reach to test the boundary. It remained. The network did not write over it.

A long span that did not belong to any single person arrived as a set of operational chains. Conifer spacing at south-facing slopes in warm years. Pore rotation on dry afternoons that recovered water without hitting airway limits. A line of fog held low across a bridge by leaf orientation alone. Ridges that had been crossed without footprints because humidity at knee height had increased, and a person had chosen a path that did not rattle cameras or lungs. None of it required heroic steps. Each chain added to what she already knew and corrected small errors she would have made on her own.

She sent out what she had been holding. Low-EM corridors that bent around inverters. Crossings at ozone vents chosen for masking. Rock-only sampling with filaments and clean retraction from self-sealing exits. She tied guardrails to each set, no lethal action, minimal injury, preserve subjects and basin, prevent weaponisation. The network acknowledged constraints as fixed, not votes. It linked restoration routes to them and locked those links.

A small thread of grief tightened her throat, then released. The plates at her back altered angle by less than a degree and returned. She did not hide the thread. She stored it as an index to three sequences: her father's lab accident report with gaps she could not fill, Thomas's hands when he had tried to smile and failed, and the stretchers and hoods in Helix rooms that had been too bright. The network recognised them as signals that did not belong in action queues, so it left them as references separate from steps.

Steady night air kept pore cycling slow. Her scaffold took more of her weight than bone, but the change had gone far enough that bone did not feel at risk. The perispinal arrays steadied over a single low tone and read nothing sharp. She ran a test movement of both hands to the edge of her visible field and back. No shaking. The calm wave did not flatten what needed weight.

A confirmation signal arrived, four tight pulses from ten paces ahead. Gamma-7 stood beyond the canopy edge. Its laminar plates were flat. Forearm band dark. No plume. It did not step in. It indexed her node with a clear interval string and lifted the chain to the basin as a reminder that her presence had become structural. Not an ornament or a target. A bearing.

She felt the scale of time change. Days opened into a band where fog formation patterns sat beside projects that would make no visible difference for months. Decades appeared as a table of shallow slopes that would carry new conifer lines across saddles and along bridges without a single machine arriving with a flashing beacon. Her earlier work with sealed chambers and glossy lab benches was still valid but small. This was not a dismissal. It was context.

Language did not carry the feeling well. She said four syllables anyway: “Je suis ici.” She kept her voice low. The basin did not answer with a sound. Acceptance presented as a clean thread through the interval field. The network set her constraints as a spine through the next set of plans and returned a neat series of identifiers tied to her past proposals. She would recognise those identifiers whenever the plans surfaced again.

She stepped back to the canopy and let her hands rest on her thighs. The humidifier plume put a fine damp on her forearms that did not drip. Yuki did not speak. Her tablet sat in her lap with the foil-lined edge catching no stray light. She kept her head turned to reduce reflections. No further logging was needed now. The entries were already mirrored and hashed.

Emilie allowed herself a short acknowledgment to the work. “Merci,” she said. It did not carry to the ridge. It did not need to. She did not mean gratitude to a person. She meant it to a set of conditions and those who would step into them. She relaxed into the collective without surrendering her place and entered rest while the basin held its lines, separation had dropped to baseline.

Morning came with low cloud still resting on the ridge and fog in the basin, uniform and quiet. The red strips under the canopy sat at minimum. The humidifier hummed at a fixed note that did not irritate arrays or lungs. Emilie rose and stood without strain. The plates behind her opened by a measured fraction. Pores followed the valley's rhythm and then shifted to the corridor's slightly different timing as Gamma-7's plume pulsed once, faint as an exhalation most people would miss.

Coordination began as a list without names. Fog band at knee height: hold. South fence DC stable: link low-frequency EM mask to the top three centimetres of soil water. Rock-only sampling at the first seep: permit three filaments on stone; retract at fourteen seconds; no anchoring through skin elsewhere. Conifer cluster near the saddle: plantings staged for next overcast run. Shrubs at the lower line: open pores to the set degree when drones drop below a threshold that had been calculated the previous afternoon.

Emilie read and then inserted three refinements. At the left cut under a broken fence strut, restrict pore opening by one point in gusts to avoid giving masts a transient to lock on. Along the old track with iron staining, delay rock sampling to favour a later drone pass. For the afternoon, allow a shallow phase offset on plate timing tied to cloud thickness to break any new walkdown sequences that might appear after lunch.

The network accepted the refinements and labelled them with her interval mark. They would stay distinct in composite plans rather than vanishing into an average. There was no ambition in it now, just verification that the plan would behave the way it needed to behave when the next set of equipment arrived from a truck with a logo she knew too well.

Two subjects moved along the western band where shrubs caught fog and grasses lay in alternating lanes. One lifted a hand and released a constrained plume that never reached Emilie. Pore states responded in a narrow strip along the corridor and the air density changed by a small number that the gas probe in Yuki's hand recorded. She showed the graph and then lowered the tablet again. "Stable," she said. She did not add adjectives.

Seed work began without any grand reveal. The basin had prepared it during earlier seasons when the first subjects had learned where the air kept water without mistaking lungs for a storage tank. Today, the collective began to shift resources to seed bodies that would ride the fog to bridge abutments and dry slopes without scattering a visible trail. Capsules no larger than a fine grain of sand formed on leaf edges in wax layers that would shear off in air of the right wetness and cling to stone at specific pH. Pollen-like carriers with inert silica microcoats would travel the same routes. None of it was designed to enter a body. None of it tried to colonise a lung. There were no spores. There was no aerosolised infection.

Targets lay outside the basin but near enough that a person could walk to them in a morning by back roads. Bridge corners where fog pooled. Low saddles that caught wind and then let it fall. Drainage lines with iron-brown stones that could hold moisture overnight. The collective set dispersal only when the wind matched its tables and drones were far, and even then, only in small amounts that would not draw a map for anyone with a screen.

Voluntary integration protocols assembled in parallel. A path without traps. Information came first: printed pages that a person could slip into a pocket without an app ping. Pictures of plates and wrist nodes printed at low contrast so they would not flash under poor lighting. A clear statement of irreversibility. A sequence of acclimation holds under red strips and humidity control that any consenting person could try without exposure to the organism itself. A sterile tray test that imitated tactile feedback without opening skin. A gap for reflection. Only after those steps, the offer of a controlled, small-volume injection under cover of the valley or a prepared room, with precise aftercare instructions and a route to return if the world outside made staying impossible.

Guardrails for this path remained the same as the ones the basin used for defence: no pressure, no deadlines, no hoods, no lights set to force a reaction for someone else's graph. Consent would be recorded by two witnesses and a time stamp kept on paper. The network copied the steps into its policy nodes and fixed them there.

Before noon, wind across the ridge rose enough to disturb the fog. The shrubs that formed the corridor narrowed and widened in response. A drone tested a drop and rose almost as soon as it hit the knee-height layer the basin had held solid all morning. The east side of the stand experienced a brief dry gust. Pore sets cycled to hold oxygen anomalies flat with minor changes that watchful eyes could not convert into a lead. A person walking in from the ridge would have felt a shift in their throat that did not sting, found their eyes watering a little, and then experienced normal breathing again. There was no panic and no collapse. No one fell.

Work under quiet headings continued. The collective dialled nociceptor-modulating peptides until they held pain away without vetoing damage signals. It mapped EM leakage across shallow ground water and chose lines under which no one's heart rhythm would shift. It adjusted mineral-lane gating so flow stayed tight even when conditions outside tried to jack it up. Interval coding for communication simplified into repeatable sets that a subject could read without draining attention

away from their feet.

Emilie passed a hand across the corridor edge without crossing it. Her arrays picked up faint bitterness in the air, sampled by the probe Yuki held under the canopy's lip. Yuki logged numbers and then turned the screen face down. "Within limits," she said.

"Oui," Emilie said. "We keep those limits." She tilted her plates one degree and then let them return.

By afternoon the basin had prepared small packets for outbound steps. A line of seed in a wax shear along a row of shrubs near the south fence. Pollen-like grains stored near the branches that grazed the lower fog. A chain of placements set for bridges to the east once the sky clouded over again in two days. Nothing announced itself. Nothing left a path for an algorithm to trace.

Toward evening, proposals for the next week resolved without strain. Two subjects would seed along the left saddle while Gamma-7 took the corridor for a rock test near an iron-stained seep. Emilie's node would bias every plan away from equipment that leaked a certain pattern, and a new subject at the northern line would practise corridor timing for humans who needed to enter and exit without becoming part of any experiment.

The afternoon light thinned. The plates on Emilie's back moved to a rest angle that had been optimised by months of work belonging to more than one body. She kept her hands open and visible to the line between her and the basin. The network held its timing without squeezing her voice flat. She did not wish for a different design. The work in front of her fit.

There was nothing sudden about the spread beyond the fence. Days stacked into weeks with small steps that held together. Emilie remained

under conifers or moved along damp lines inside the basin; her arrays and cranial interfaces made the outside legible. She could see a bridge corner through another subject's interval strings as clearly as if she had stood there. She did not need to stand there to know.

The first seeding at a bridge abutment set a thin line of young conifers and shrubs that trapped fog in the early morning and let it go by mid-day. Downstream, a cut slope stopped shedding fine dust on days when it had shed dust every day of a dry season. The air chemistry near the new planting changed by a modest amount that a handheld device would register without setting off alarms. A person walking across the bridge would notice damp metal in their hand and nothing else.

At a saddle two ridges from the basin, seed set into thin soil in gaps where scrub had failed to hold. The next fog night brought water that stayed until after dawn. There were no footprints. Corridor shifts at the saddle timed with cloud covers meant the air kept its thickness at knee height and then thinned when steps needed to occur. No one coughed.

A river mouth to the south received seed by slow drift. The edge of the bank that had been a brown smudge on satellite pictures built a low, green band with gaps. Soil samples taken by a group of students who never gave their names showed a small increase in cation exchange capacity and a drop in surface temperature on hot days. No one presented a graph with a title that would draw a raid.

All this happened under a rule that had been fixed: no subject or seed body would enter a person without consent. Dispersal targeted stone, soil, and plant surfaces. Every corridor that opened for a person remained non-contact by design. When an ally asked in a channel whether the work could be scaled faster by cutting consent from the integration plan, the network recorded the proposal to show that it had been heard and then held to its guardrails without argument.

Gamma-7 did three perimeter demonstrations under cloud cover for observers behind hides. It raised one hand and let three filaments touch a

rock and retract after a fixed number of seconds. Its plates adjusted to wind. It released a plume that did not cross to the hide, and the shrubs in view changed pore state in a way that made a neat, quiet line in a graph. No one saw a mouth or a speech. The point did not need lungs.

Helix continued to exist. Messages about suffocation fields and dispersal pods appeared in places where board papers tended to leak. A few reporters repeated phrases about risk and uncontrolled networks. Those pieces landed next to independent monitoring station graphs that showed stable end-tidal oxygen in volunteers who crossed a corridor and left without stings in their throats. People could read both and decide whether the numbers matched the words.

Within the collective, proposals carried signatures that anyone inside could recognise. The western stand continued to push for more aggressive pore cycles when drones lowered, and the southern band kept asking for more plantings near bridges to thicken fog under city spans. Emilie moderated anything that edged toward obvious lines in satellite images and pushed for timing that kept the work out of lines of sight, caution that did not prevent forward motion. None of these positions erased the others. Composite plans incorporated parts from each and marked the origin of choices so that nothing pretended to be more neutral than it was.

In towns near the edges of the work, the basin's presence arrived as an increase in early morning damp where concrete had been dry and dust had hung in the air all summer. It arrived as fewer people rubbing their eyes at crosswalks. It arrived as plants at the corners of bridges that took water out of fog and put shade against stone that had cracked in heat.

Research institutions that still trusted public missions set up small tests with plants that anyone could purchase and left them in boxes under awnings where air moved. Yuki sent them consent language and simple instructions with her name stripped from files. She added measured data from the basin and hashed signatures that the labs could verify without knowing anything about where the original numbers had been generated.

Nothing in the packets asked for money. Nothing asked for names.

Emilie stood under conifers and read reports as chains. When someone recorded night-time humidity two points higher at a bridge and then saw three mornings with less eye irritation, she did not call it proof of salvation. She stored it in the correct place and linked it to the next set of placements, which would need to hold through a colder run.

The plan that had been called evolution for a city that had not asked for it narrowed into something workable: voluntary individual transformation for those who asked and understood, and a larger schedule of plant work that did not require any person to become a subject. The network did both. Neither cancelled the other.

At dusk near the end of the second week, the basin's intervals settled into a clean chord. Gamma-7 pulsed twice from the western line. Emilie's plates closed to rest angle. Pores at her shoulders and along the corridor edges adapted to a small change in air density. Nothing needed language. The work kept its pace.

Cloud cover to the south thickened after midnight. The lower fence carried its simple DC. The corridor for humans opened along the conifers, two metres wide and held by pore states that changed density without stinging skin. The air had a faint, clean taste that did not mean solvent or heat.

Thomas came in along timing he had been given on a line that used no names. He paused at the first hold and then walked three steps when the air in front of his face eased. He did not lift his hands. He kept his shoulders low to make his body a small target. Cameras, if they were watching, would not get a clean rhythm from his movement.

Yuki stood at the canopy's edge under the conifers with a case strapped across her chest. The foil lining stopped any stray EM from the

tablet inside from leaking into the air. She held out a sealed pouch, paper, string, wax. No electronics. He took it without leaning in. She did not step out. He did not step closer than the corridor allowed.

“Data,” Yuki said. “Field. Hashed. Protocols printed. Consent language.” She kept her voice low. “No names.”

Thomas nodded. “Merci.” He slipped the pouch under his jacket.

Emilie stood within the canopy, plates flat, hands open. She lifted her wrists and pulsed a short pattern that opened pores along his exit line by a fraction and then closed them. The path would remain clear for a short time. Her throat band held steady light. The glow under her skin stayed low.

“Je t'aime,” he said before he could plan a different sentence.

“Moi aussi,” she said. The words came without tremor. Calm chemistry held the excess that would have made them stumble.

He looked at Yuki. “What do I tell them?”

“That this works without harm,” Yuki said. “That no one is pressured. That all steps are reversible until the irreversible one. That the irreversible one is chosen or not chosen by the person with the body. That the other part, the ecosystem, works on its own schedule without asking for anyone's blood.”

He nodded again. “And when they ask about the masts,” he said.

“Tell them we stood and no one fell,” Yuki said. “Tell them Kellner turned away because the air made his visor unreadable without choking him.”

He breathed once through his mouth and then through his nose, tested the air, and found that it was simply air. “I'll keep the channels clean,” he said. “No names. Rotating drop points. Case law before headlines.”

Yuki gave a short, affirmative sound. “D'accord.”

He turned to Emilie again. “Can you still...” He stopped. The question he had asked at the fence came back and he did not ask it again. He chose a different one. “Are they listening to you?”

“Yes,” she said. “And I am listening to them. It holds together.”

He shifted his weight and looked past her to the line of trees. “I’m going to show them that it isn’t a trap. That preserving people is built into the bones of this thing.”

“It is,” she said. “No lethal action. Minimal injury. Preserve subjects and basin. Prevent weaponisation. Et toujours consentement.” She lifted her hands a fraction. The nodes at her wrists pulsed once.

He stepped back into the corridor. The shrubs adjusted pore states around him. The air thickened for half a second and then thinned in front of his face. He walked three steps, then two, then crouched once when a single drone dropped and then rose. He did not run. He left with the wax-sealed packet pressed to his ribs.

He drove north by local roads that ran under trees and past bridges that collected fog in small scoops, and he did not turn on any device that might ping a tower. At a small office where the walls showed damp at the floor and the furniture had been bought used, he laid the packet on a table and broke the seal. The paper inside held tables and step sequences. Not slogans. Hashes that someone with patience could verify against other packets that would arrive through other doors.

He met lawyers, researchers, and two councillors from a town that had watched its soil turn to dust on south-facing lots. He said what Yuki had told him to say about consent and what Emilie had said about guardrails. He added what he had seen when he had stood under conifers with his sister in front of him: that she had remained a person who could speak and decide while standing inside a system that carried more than her own lean body could carry.

They asked if the valley could spread across a city. He said the valley would not move that way. He said there was another plan: bridges that

trapped fog, slopes that held, seed that travelled by fog and stuck to stone without making anyone sick, a path for those who wanted an altered body and a separate path for those who did not.

One researcher with a tired face asked about Helix. "They will call this a threat," she said.

"They already have," Thomas said. "But their numbers do not match ours on harm." He pushed a page across the table showing end-tidal oxygen during corridor crossings in three volunteers. "No one collapsed. No injury." He placed another page on top. "And here: soil water holding deeper into heat."

He did not build a campaign. He built a set of meetings and a rotation of drops and a schedule of fits and starts that did not tempt a camera into drawing a box around any person and writing a name next to it. He left rooms before the air became sharp with hot words. He did not post a picture of his sister. He never would.

Near dawn after a long night, he returned to the fence to leave a note in a plastic sleeve on a branch for Yuki: which offices had accepted packets, which lab had verified a hash and kept quiet, which councillor had said yes to letting plants stand at a bridge that belonged to no one. He wrote, in a small hand that would not catch a camera's attention, that their mother had not asked for anything beyond the usual question and that he had told her that the work mattered. He did not say whether the answer had reached her in time.

The corridor opened for him to step back the way he had come. He did not enter. He sent the sleeve in by a stick and watched it catch on a twig near the path. Pore states adjusted to hold it against a small gust. The air did not sting. The valley did not demand anything from him other than the care he had already decided to give.

He turned and walked along the road without speed. He would sleep on a couch in an office where the paint flaked at the windows and then begin again. The packet in his jacket had become ten thin stacks spread

across tables in rooms that held no microphones worth the term. The work would not stop for lack of a press conference.

Emilie, under conifers, felt his timing at the fence as a small, correct weight on a set of scales that now held more than her own needs. She kept her plates flat for rest and let her body breathe the way it had learned to breathe in this place. The network carried her plans into the next hour and the next. She did not need to hold them alone.

The ridge remained quiet. Trucks idled and then shifted in place and then idled again. Drones traced slow passes above cloud. The basin's humidity stayed high without running over into drip. Seeds in wax shears waited for the right band of wind. Capsules on leaf margins remained where they were until fog lifted and could carry them. The guardrails did not move.

She remembered to be grateful without waiting for permission. She did not write the feeling down or push it into the network as a step. She kept it as a private readout. The night thinned into morning while the work continued with room for more than one kind of life, and there was nothing left to negotiate with anyone who came with a hood.