

Aqualene: High Adventure to Clean Energy

Chapter One

Somebody wanted him dead.

Awareness crept over him upon awakening in Seattle's lower downtown section. Beneath his sprawling frame the wet greasy asphalt chilled his bones. One eye before the other blinked away a smear of blood and rain dribbling down his forehead. His mind cleared the undefined gray matter that comes with losing consciousness. The damp crumbling alley came into focus.

Someone had clobbered the 31 year-old mineralogist, and whatever blows he'd been lucky to survive wouldn't be the last attempt on his life. He knew he must move on from where he lay, perfectly still, listening, waiting ... for what?

Who'd tried to kill Adam Harlow?

Six years he'd given to Chemtx Corporation, a local firm in the business of designing hydrogen cell technology for transportation applications. Without warning, the axe fell, purging him and a cohort into perpetual dampness, amongst the hungry, the agitated ... the desperate ... the deranged.

Insubordination had become unavoidable. Push-back waited no longer for Adam Harlow. Not after watching his labors to develop safe reliable components get shelved away by paper-pushing clowns upstairs. What sort of business model hacks up its quality-control department ... to scrape out a few more bottom-line cents?

It wouldn't be long now before Frank Chamberlain and his boardroom cronies would be run out of town. Reports of their first wrongful death case had already made headlines. An inferior fuel cell, marketed by Chemtx, had exploded under the hood of a hydrogen-electric car on a New Jersey turnpike.

There'd been little to aim for at Chemtx.

Inside two months Adam had adapted to the worst of urban street life deep in the heart of town. Confrontations in chilled rain and putrid gutter stenches had toughened Adam. Attempted muggings and assorted back-alley threats had been traumatic in the wake of his leaving a cushy office life. Beggars demanding food, cash, cigarettes, liquor had become an integral part of his life which he'd quickly grown to accept as reality.

Hard cold reality had changed him. Made him stronger. In bad times full employment is always a luxury. It was something else to walk in another man's shoes. Adam Harlow was less a stranger to the streets. To survive is to adapt, and if one could not adapt, one died and made room for those who could adapt.

Local jobs had long disappeared from Craigslist, and rarely could work be found in the Seattle Times classified. Unemployment translated into raw survival for most of the common public.

Now somebody wanted him dead. For good reason, given certain developments transpiring in recent weeks.

Adam propped himself up on one elbow and gingerly slid a hand inside his jacket. He was surprised to find his wallet still intact. The quarters and some folded

ones he kept in a worn leather pouch for amiable beggars were untouched. Who could be after his blood, not his money?

During his past year with a paycheck, nearly half his monthly salary had gone to helping his mother steer out of a pending foreclosure and to shore up lingering healthcare debts. There was no telling what might come of her humble home, last remnants of her security. She had relied on a few caring neighbors back in Dakota who'd promised to help.

But everyone had problems of their own.

Having little cash in reserve, Adam first had resolved to vacate his over-priced downstairs studio apartment in a rundown section of Seattle's Fremont neighborhood; once a trendy locale for affluent twenty & thirty somethings until the place had fallen into a slum, in tandem with hard times. Inside of nine months before getting the axe at Chemtx he'd been strong-armed for cash three times on the city bus, while daytime burglaries cleaned him out too many times to bother the cops about it. The day before moving he'd been held up at gun-point while leaving a Fremont Arco station. Armed thugs jacked his early model Saab with one goal in mind: To suck out his six-gallon ration, which sold quickly on the black market for three, four, maybe five times what he'd paid at the pump.

Times were tough everywhere.

Adam's head throbbed. He staggered to his feet, detecting no one lingering about. An unmarked delivery truck stood several feet off to his left. Its hazard lights flashed but he saw no sign of the driver. Gray light penetrated drizzling skies, suggesting Adam had been out cold for several hours. Beyond the surrounding brick walls he recognized the tops of neighboring buildings. He was within two blocks of his original destination. The bustle of foot traffic some twenty yards beyond the dumpster where he steadied himself brought mild relief. In the denser sections of town daylight hours were reasonably safe.

If nothing else downtown living had eliminated the long bus commutes and other assorted dangers where police presence had become non-existent. In the heart of town Adam could hang on. For he'd seen worse among those he considered friendly faces, many of whom he traded meager assistance. On the street, generosity is remembered and reciprocated in the smallest of notions. Here Adam had invoked his most frugal cash-saving survival skills. Reminiscent of his college days, he'd resorted to watered down soups, potatoes, rice, and noodles. Cheap carbohydrates.

He was hungry now and longed for a single egg in boiled ramen. He'd warm it over from a batch he'd prepared yesterday in a tiny microwave oven adjacent to his narrow cot situated in a dusty corner of his underground lab.

Renee DeLong—a woman he knew little about, except that she was a significant player inside NASA—had recruited him among others around the country to help resurrect a lost fuel formula. The federal government had been developing a highly volatile liquid alternative to the nation's failing gasoline supplies. Labeled *Aqualene*, its properties were highly complex, derived of a specific blend of largely unknown but readily available minerals whose elements when correctly and precisely processed could rapidly extract the hydrogen from salt water. Through a potent but stable fusion sequence, an incredible burst of heat and explosive energy could be generated. Clean heat, many times more powerful than fossil-based fuels. A

rather remarkable substance of a subtle blue tint when balanced perfectly, as DeLong had described it. Before concluding their interview, she'd insisted this was the answer to America's economic woes.

An accident at some secret lab, in a location she did not reveal to him, had interrupted the data-collection sequence. Whatever data NASA had been tracking had been lost instantaneously to some uncontrollable fire. Clues of the formula's makeup now remained sketchy, according to DeLong. While an inferior specimen from earlier tests was available to Adam for analysis, it lacked the potency necessary for widespread manufacture. The higher grade had to be found and duplicated. And for that, a handsome reward was to be offered.

A labor of love, DeLong had confessed while outlining the non-salaried assignment. A dangerous undertaking in all likelihood. And now it seemed such reality was bearing out some truth. Someone had taken a lethal whack at him in the middle of the night.

Adam was dealing with something he knew little about, yet it was in him to embrace such ventures. Since childhood he'd been a fool for long-shot tasks, those yielding lofty results, high returns. Presently, though, his doubts were adding up, and fast. The minerals cited by NASA to construct *Aqualene* were largely unknown to the average mineralogist. There would be other scientific unknowns, anomalies, obstacles ... and with no financial backing to carry him. The bank account he'd watched erode away was all but depleted.

Logistics presented their own issues.

"Absolutely no Internet transmissions!" DeLong had firmly stipulated; a matter of security. This meant travel, which had become a major obstacle in America.

So, here he was, pitted against all odds. Contracted work that paid nada ... unless he could hand-deliver definitive results to NASA's Jet Propulsion Labs in Pasadena. If nothing tangible ever came of his toils, he'd reasoned, NASA's brainchild might keep him off the cold damp streets until summer.

Memory of his plight in the pre-dawn hours drifted back into his aching skull. A vehicle, silent, unseen, had pulled up onto the sidewalk. A powerful arm, extending from the window, wielded a blunt instrument of some sort and had struck Adam from behind. He'd stumbled, fallen, and then somehow managed to get up and run in a dead sprint. The spins overtook him within a block or two. Desperately he'd searched the shadows for cover, finally dropping to the pavement in a notch between the slimy brickwork and a soiled dumpster. It was there, concealed from the side streets, Adam Harlow had been fortunate to lay unconscious.

Now, he wondered, if someone wanted him dead they'd be searching for him, or perhaps monitoring his every move. So, where ... or when would they strike next?

Swaying over his feet, he moved blindly toward a rusted drainpipe protruding from the brick wall. Enough water dribbled from it to rinse his face clean. Gingerly, he raked the half-dried blood from his hair. He'd been lucky. Probing his head, the gash appeared to be superficial; the result of being the attacker's moving target. His aches would pass with some nourishment. He longed for sleep, a luxury he'd not enjoyed for days.

Hundreds were on the *Project* inside clean, safe, warm government labs. Positions filled by tenured scientists. Meanwhile, Adam Harlow had been working

from a five-pound bag of lunar & earth bound minerals, along with a diluted sample of the formula, inside a dingy room beneath the streets of Seattle's condemned historic underground section. DeLong had pulled some strings with the city, arranging for him to occupy the unseen spot, disguised as a tectonic monitoring station for the U.S. Geological Survey.

The rain water from the pipe helped clear his mind. Adam Harlow was eager to get back to his humble lab. Wary of trouble ahead and behind, he made his way to Sonny's Place, a small lunch café off First Avenue near the bottom of Yesler Way. It was there Adam could access the basement lab, through a back door behind the café's kitchen.

Rounding the corner, he found a handwritten sign taped to the café's front door. CLOSED. Adam tried the knob. It turned easily. He stepped inside and closed it gently, pausing long enough to glance at a clock on the wall to his right. Almost noon! What the hell was happening? The joint was dark, stone silent?

"Over here, Mr. Harlow." The voice came from a dimly lit corner to his left. Sonny's tone conveyed the imperative rather than his usual sing-song greeting. "Let me introduce you to Detective Larry Fischer ... and please, sit down, my friend."

Adam paused long enough to scan a stretch of police ribbon cordoning off the kitchen entrance to the Underground. Had the cops come to shut him down?

He pulled off his jacket and slid into a chair across from the detective.

His mind raced for clues. A fire in the kitchen? No. Nothing smelled burnt. A robbery? A restaurant was as likely a place as any to make off with some quick easy cash. The thought of a holdup crossed Adam's mind, yet the restaurant owner failed to display the signs of having been bodily threatened.

The possibilities were countless. Times were tough and crimes of the desperate nature occurred daily, all over town.

Fischer looked Adam up and down methodically, noting the broad shoulders outlining a slender but powerful frame, and muscular forearms. Adam's wire-rimmed lenses gave his brown eyes an unassuming, gentle appearance.

"Okay, tell me ... what's going on?" Adam inquired, looking first to Sonny and then to the plain-clothes cop.

Fischer delivered a slight nod over to Sonny.

"About ten this morning ... two men show up," he began. "And they start demanding entry to the underground corridor. So I ask 'em: 'Who you guys looking for?' They wouldn't give a name. One of 'em, a tough bruiser of sorts, he says he needs to speak with a technician in a laboratory run by the Geological Survey."

Adam watched for Fischer's interjection. Nothing.

"Next thing I know, they're forcin' their way past me and disappear downstairs. That's when I called the police."

Fischer raised a finger and drew in a breath between taut jaws. Slowly he phrased his first question: "Do you know *what* they were looking for, Mr. Harlow?"

Sonny locked an expectant gaze toward Adam, his curiosity heightened.

Adam's mind raced for explanation. Anything to satisfy Fischer ... without getting into details. He'd been ordered to keep the *Project* under his hat. The wrong people would be snooping around to learn what they weren't supposed to know. The lab was under some degree of automated surveillance, a level of security DeLong

had expressed serious doubts. The underground section had been largely barricaded by the city. For decades only one or two access routes had remained open for employees working the steam tunnels.

Adam had permitted himself to recruit a few others to handle some of the repetitive testing. The operation was piecemeal and part-time. He'd rationalized help in light of improving his odds of discovery. Even just two qualified helpers beat going about it solo.

There was Moi Song, a Chinese exchange student to help write computer algorithms. She'd been working upstairs part-time for Sonny while she studied coding at the University of Washington, three or four miles a way. They'd gotten acquainted in the café and he'd offered her a few extra hours a week to develop a computer search model. Hiring strangers carried some risks. He'd known that. On the other hand, finding nothing of *Aqualene* was guaranteed failure.

Adam's thoughts returned to the detective's question, still undecided about his answer.

Like a hole in the head, he needed the cops and the media profiling him for running an undisclosed research operation in a condemned section of 19th century Seattle. A confession could jail him for handling classified data, if not conspiring to reconstruct a highly combustible substance beneath metropolitan streets. Weeks ... or months might pass before the police department could verify Adam's legitimate possession of NASA's minerals.

Fischer leaned forward. "Mr. Harlow, tell me, what is the nature of your business downstairs?"

"It's all really quite tedious and mundane," Adam hesitated, his eyes scanning the vacant restaurant again. "I analyze soil samples, some of which contain sedimentary compounds embedding highly intricate molecular structures, indicative of regional tectonic shifts." Brilliant, he thought, how it all just rolled off his tongue. And in some round-about way it was true.

More important, Fischer seemed to be buying it. He'd shrugged a shoulder and begun tapping on his electronic tablet.

Adam and Dr. Heinrich Mann, a professor of Atmospheric Sciences on loan from the University of Wurzburg in Germany, had shared data on NASA's venture two weeks earlier. That was hours before Mann deployed for a post aboard the International Space Station. The two conceded the lost secrets of *Aqualene* would take tens of thousands of trials to arrive at the exact molecular structure that had mysteriously vanished from NASA's test equipment last year. Mann had agreed to stay in touch and was eager to hear what news Adam could offer on any progress he was making. Mann promised to do what he could from ISS to decipher more details about the minerals.

Adam's mouth became dry. His chest tightened. What had occurred down in his lab to invite a police investigation? Before he could prepare himself for more technical Q & A, Fischer was on the prowl with another question.

"Mr. Harlow, tell me ... how well did you know Mr. Kabib?"

Adam blinked. A knot grew deep in his throat as he mentally played back the detective's question a second time. He sprang suddenly to his feet. "What do you mean: How well *did* I know Mr. Kabib?"

After meeting the middle-aged chemist from Cairo in the steam tunnels where he worked for the city's maintenance, Adam had hired Gamil Kabib six hours a week to help run the algorithms that Moi had programmed into Adam's laptop. He'd been rather efficient, testing and evaluating NASA's stash of minerals. Mr. Kabib had been scheduled to come in early that morning, after pulling a late shift at the steam plant a half mile north of the lab. Before Kabib's arrival, Adam had gone out for fresh air and a midnight snack.

With reserved horror, Adam Harlow began to piece together the puzzle.

The detective's jaw stiffened. His brows furrowed and tracked Adam carefully. "Mr. Harlow, sit down." Deep lines on his face twisted and he spoke slowly, mindful that Adam understand his every word. "Mr. Kabib was *murdered* a few hours ago."

Shaking his head, Adam sat stunned, a jumble of emotions boiling up inside him. "What the— How the devil... No, no this-this can't..."

Fischer patiently sipped a water bottle and gave Adam time to unravel before him. He studied the young man, a lean and muscular mix of Native and Anglo stock. Methodically, gracefully, as if he were following some ancient rite, Adam Harlow mourned his loss and collected his wits.

"I was hoping you could offer us clues, Mr. Harlow," Fischer said, ready to move on with business. "I suspect these characters didn't have the time to find whatever the hell they were after. Evidence suggests Kabib startled one or both in the underground corridor, not far outside your laboratory."

Adam gulped and stared past Fischer toward the kitchen. His jaw set, he clenched a fist. "Any chance they're still down there?"

"Strange thing," Fischer said, studying Adam. "They split up and ran in opposite directions. The killer took off somewhere up the line toward the steam plant."

"And the other one? Is he still loose?"

"My partner found the accomplice lying in the alley with a slug in his hip ... from the same gun that was used on Mr. Kabib." The detective peered at his tablet. "Richardson's the name, Thomas Richardson. Sound familiar?"

Half listening, Adam mumbled the name aloud. "I...I don't know anyone by that name. Is the bastard local?"

"He was carrying a Texas driver's license. I suspect the two were hired by a bounty organization. That may explain why one shot the other. Richardson and his partner were looking for something important. Extremely valuable. Worth killing another man for."

Adam coughed. "Look, I need to get into my lab."

"Not unless I escort you down there, but only for a minute. You're likely to muck up the evidence we need to nail these guys."

Adam turned to Sonny. "What about your employees?"

"They're okay," he replied. "I sent 'em home for the day. Miss Song is waiting to hear from you." Sonny handed Adam a napkin with a telephone number scribbled on it.

Adam breathed easier. At least one from his lab was out of harm's way. Fischer made a note of her Chinese first name, rhyming it aloud with *soy*, then closed

his notebook and led Adam down the decayed set of wooden stairs into the dimly lit corridor.

Once down below, Adam detected the smell the sulfur lingering in the musty cavernous air. Fischer hadn't taken ten steps when he halted and pointed to the dirt path ahead of them. "I suspect the two were busting up the place when Mr. Kabib came through. My partner found his body over there." His flashlight flicked over a spot several yards beyond the lab's entrance.

Adam felt a sudden urge to vomit, unable to ignore the traces of Gamil's blood stains on the ground. A swirl of confusing odors entered his nostrils. Burnt gunpowder, blood, and something else; odd smelling, unfamiliar.

Keenly aware of the latter, Adam probed for more answers. "Any evidence of a struggle?"

"Not yet. Only that Kabib somehow got in their way." Fischer wagged his finger toward the ground. "That, Mr. Harlow, leads me to wonder about the circumstances. There's little physical evidence to suggest a premeditated motive. Unless, the gunman had somehow mistaken him for"

A mix of anger and fear swelled up in Adam. Gamil had been doing what he could under hard-luck circumstances to feed his wife and two kids. Such a tragedy as this was unforgivable! Adam fought to push thoughts of revenge aside and stared over Fischer's light beam at a pile of printouts scattered on the earthen floor. The binder he and Gamil had used to keep notes about *Aqualene* was open and lying on the workbench. Some of its pages were bent and tattered. Others were missing, along with his laptop.

Fischer pulled out a business card. "We've taken pictures and fingerprint samples. Soon as I hear back from my tech in Forensics, I'll notify you." He looked down at the narrow army cot. "For now, I suggest you find another place to lay your head." Fischer reached out toward a small messy workbench and poked a pencil he'd drawn from a coat pocket at some open containers. "Anything hazardous here?"

Adam paused. "Dangerous?"

"You know what I mean: toxic chemicals, acids, flammables ... hazardous!"

Adam shrugged. He saw little he deemed valuable of his research, unaware that earlier the detectives had spooned into a plastic bag some small quantity of a blue foamy substance that had spilled over the workbench into the dirt.

Fischer sighed. "Look, I'll need to get a HAZMAT team in here as soon as we're finished with the investigation. Anything you want back will have to be claimed at the downtown precinct with this here receipt."

Before leaving, Fischer dusted more fingerprints and repeated orders that Adam stay out of the lab. Fair advice, considering the odds Richardson's partner was apt to return, and would kill anyone who got in his way.