A Novel and Efficient Synthesis of Cadaverine

S A Scoggin

A NOVEL AND EFFICIENT SYNTHESIS OF CADAVERINE

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MONDAY

The wall was cold against his side. He pressed even harder, waiting for the familiar dampness to pass through his shirt.

This far below ground the temperature of the earth was relatively invariant - about 21 degrees Celsius - and would stay unchanged down deep into the crust, maybe a mile or so. Not far from a comfortable room temperature, yet it felt to him like a glacier. The ancient grey concrete heat sink conducted away his skin's vital energy, leaving behind only a numbing chill.

Ten feet above and on the other side of the wall sunlight baked the ground; down here was clammy shadow. The wall was the color of rust, as well as he could ever make out. There was no proper light anymore. The fixture on the ceiling was broken, the metal corroded. Whatever piece of machinery this room once contained had been unbolted from the floor and hauled away long ago. The chewed fittings stuck up still. His first time here he had tripped over one and struck the wall. That was the day he had heard.

This space had been important once, something vital to the building and its oblivious occupants. There had been an engine, carefully engineered, thoughtfully tended. Where

had they gone, those who had made it fast. Did they remember it? Did those who had serviced it ever pause up in their daylight and wonder why it no longer called to them?

The wall pulsed. It hummed with echoes of distant actions. Other rooms still housed dynamos. Secured to their floors, they ground their gears. Belts whined, liquid gargled down return pipes, containers crackled at pressure differentials. Dissonance, consonance, the harmony of voices joined in the concrete. He pressed his temple to the wall and the voice came again.

It is done?

I don't care, he thought. *I don't care about it.*

You must go there. I understand.

No. Don't say it.

I will be here. Change will come. It comes.

He shook his head, rolling his forehead back and forth on the abrasive surface. *They can't make me go.*

You must go.

It's dead there. I can't go there.

It will come to you there.

Will you come to me there?

No, I am here. Change will come here.

I won't let it. I won't let them.

I am here.

I won't let them do it.

I am here.

Laura Mikkelson slammed her palms down on the chipped ebony stone of her bench top. WHOP! Dust balls scattered. WHOP!

"What's up?"

She spun around. "Nozick! Where's my fucking rotovap?"

Nozick shrugged. He moved her aside with a gentle hip nudge and looked down at her bench. It was pitted and worn, but shiny clean - except for a bulbous "H" shape formed in a dusty residue: the unclean memory of the metal stand which had once borne the weight of her rotary evaporation apparatus. "Forget took it, I guess."

"He can't take my rotovap," she wailed. "It's mine. Shaftner doesn't have any extras. What does he expect me to do? I can't do shit without a rotovap!"

"Well, you could have mine, but -" he nodded across the laboratory to an equally empty space on his bench. "Forget got it first."

Laura looked around in disgust. "Jesus H. Christ. What else is he going to try and sleaze off with?"

"I heard Nash told him to take whatever he wanted, just take it and get the hell out."

"But that wasn't even his rotovap. I stole it from Hendrickson's lab."

Nozick opened one of her drawers and took out a round glass flask about the size of a tennis ball. "I heard he rented a 12-foot truck. I'm surprised he didn't ask you to help him load it in."

"Fuck him. I'm hiding all my glassware until he's gone."

“No hurry,” he said. He tossed the flask into the air. Laura snatched it at its apogee and jammed it into a pocket. “He’s showing his house today. Won’t be in at all.”

“Will you help me?” she asked.

Nozick smiled a toothy one. “You bet. Oh, gee, Dr. Forget, I don’t know what you’re talking about. I only had one condenser. Yeah, we all shared it. But it broke, just the other day. Sorry. Say, when are you leaving?”

“Something like that.”

“Okay, right after the exam.”

“What exam? I thought cumulatives were all done.”

“No, the language exam. Proficiency in a foreign language must be demonstrated before the awarding of a Master’s degree. Or a Doctorate. Sprechen ze deutch?”

Laura sighed. “I took one year of Spanish when I was a freshman. In high school.”

“Ah. Habla espanol!”

“In organic chemistry? Not a chance.”

Nozick shook a finger at her. “You must prove your mastery of a relevant language so that you may hobnob with your fellow wizards globally. You may choose from German, French, Spanish, Chinese, Japanese, Korean, Russian, Portugese-”

“Portugese? How many organic chemistry journals are there in Portugese?’

“Portugese Journal of Chemistry.”

Laura poked his belly. “Bullshit. What’s the exam like?”

“You enter the sacred room of Babel. The most high potentate D’Arcy entrusts you with an ancient scroll written

in a strange tongue. You divine its meaning. You scribble down as much as you can in two hours. Then some poor underpaid bastard undergrad in the Languages Department grades it."

"Not faculty? Not chemists?"

"Like we have faculty who can read Portugese."

"So how do these undergrads know if it's a good translation?"

"They don't have a fucking clue if it's a good translation or not," Nozick said. "They don't know a heterocycle from a heterosexual."

"And you're taking it in German?"

"Don't be daft, woman. I don't know squat German. I am, however, fluent in..." He went to his desk and pushed aside a pile of manila folders covering a thick book: FRENCH-ENGLISH CHEMICAL DICTIONARY. "...French."

"Really?"

"Open book exam."

"You know French?"

"I will shortly."

Laura took the book from him. "So even if by some miracle you pass, what the hell good is it? You haven't learned scientific French."

"You *are* naive. You remind me of the time I was a young and stupid first-year graduate student."

"You've only *been* here two years."

"Whatever. I went to D'Arcy once and said, 'Gee, Professor Chairman, seems to me like it would be a good

idea to be able to read the German literature: Beilstein, Agnewende Chemie, Justis Lebzig, light fare like that. When can I enroll in the Department's Chemical German course?' I even said it like I was absofuckinglutely convinced it was real. There was no doubt in my mind that we would have a Chemical German course in the graduate school, right? BUZZ! Wrong! But thanks for playing! Nope, he sez. We got no stinking Chemical German course in this here department. So then I say 'Gee, Professor Chairman, does that mean the Department will pay for us to go and take a class in the Languages Department?' And he's all like BWAHAHAHAHA!" Nozick clutched his stomach, doubled over in mock hysteria.

"So," Laura said, puzzled, "if you didn't already know German-"

"Or Portugese."

"-how could you learn it?"

"You can't! But you still have to pass the exam."

The man pauses over the salad bar, studying in the sneeze shield the reflection of the room behind. He can see detail in each face as it is enlarged in the slight concavity of the plexiglass. He shifts a bit to bring another face into focus as his right hand slowly waves a pair of tongs, apparently searching for the perfect leaf of Romaine in the big silver bowl.

Some of the faces are above him in the official hierarchy, even the detailed one that only a select few in Congress and

the administration are privy to. Most would be below him, as far as he is allowed to know. On his chart, hidden away in a locked drawer, the organizational plan contains a fair number of empty boxes. He shifts again to an unknown face. He might know this man's name but be unable to match it with his living presence. He finds another, a side view, and tries to recall.

It is habit. In this place, no relationship is unexamined for long. Faces are watched in reflections, tapes reviewed, communications dissected for internal treasures. The organization might change in an instant. No questions are ever asked, not here, not with faces watching faces.

He taps the edge of the bowl. Two times, as if frustrated by the hunt for satisfactory lettuce. At once, one of the cafeteria workers appears. The worker is small, stooped. He could be any age over fifty, native to any country north of the Equator. The patch on his breast, red sewing-machined script flowing on white, says: 'Nil'.

"Can I help you find something?" this Nil asks. There is an accent there, soft, deliberately obscured.

"Have you any red leaf lettuce today?"

Nil touches the man on the forearm. "Come with me. I have some in the back."

The man follows behind the service line, down a short dead-end hallway lined with industrial refrigerators. Their stainless steel doors are a palette of translucent swirls, complex flowers and abstract scenes in finger grease. The man slows to consider this. Is there repetition, a pattern? Some key sequence beginning the encoding, a message

hidden in its mundanity? *Discount nothing, no matter how slight, how minute, how disarmingly trite. Question, suspect, examine.*

Then Nil pauses at the last refrigerator until the man joins him. The door opens to partition them from the world.

"I have several bowls prepared here," Nil says loudly. His affected slouching posture has evaporated. "Please help yourself." As he speaks, he twists the temperature control knob up as high as it will go. A compressor kicks on underneath, rattling metallic, signaling its need for replacement. Nil looks at the man without expression.

"One. Domestic," the man says. *He has swept here. He wouldn't let me speak it he hadn't.* He knew that there was a mike here, Nil's mike. That was to be expected. A professional was allowed certain unspoken privileges. Nothing personal. He would do it too.

Nil nods. The man takes a small yellow sticky note from his pocket. It is folded in half. Inside is a single name. Nil looks at it once and puts the paper in his mouth. He begins to chew.

Well, the man thinks, *you've got to have some fun in your job.*

Assistant Professor of Chemistry Matthew McAllister was at his desk early. He had caught the very first Green Line trolley coming through North Station at 5:15 am. At that hour, his companions were either those who practiced some ungodly avocation which required a predawn

commute or the last diehard clubbers who had managed to survive the gap between the 2 am statutory last call of the public house and the 5 am opening of the MBTA stations. Remnants of Puritan planning, the last subway cars were shut down well before 1 in the morning, so patrons new to Boston or simply tardy from drink might stagger cursing out to the sidewalk at 2 and face the prospect of walking home or searching out a taxi. Many of McAllister's fellow riders this morning had appeared to be Hispanic. In one of those melting pot oddities, their bodies had infused the chill air with fumes of Irish Spring.

Now the sun was rising over Commonwealth Avenue, and its brilliant yellow summer wavelengths focused on his desk. The grade book was already there, open. It was still stiff and new - he had only the fall semester of grades in it. Printed on washed-out paper an unenthusiastic shade of pond-scum green, it looked like something rescued from the recycle bin.

Nine o'clock, and the motionless tip of his pen was a sundial, its shadow pointing to an empty square, a black-bordered box full of nothing but olive. At seven o'clock the umbra had intersected the A's (Michelle Aaron). Two hours later it had only traveled as far as the B's (David Bailey). Around noon, he knew, the sun would be over the roof and gone from his desk.

Still the infernal square remained empty. He had denied that this could happen again. In the fall he had sat in this same position, that time snow splatting against the window, no marking of time on the page. The awful feeling was back,

redoubled. Faces went with names now. He had made the error of allowing himself to learn the stories which went with the faces. The one who sat nights reading the text in a cancer hospice while holding the hand of a comatose young woman-skelton. The one who was living on cases of macaroni and cheese. The one whose parents had sold half their farm to make tuition. The one who was the first to graduate from high school, let alone set foot on a university campus. The ones who had never done anything great or base and who had not suffered but sat in every class and did every set of problems and did the best they could. The litany was a mistake. The feeling swept him again.

I have no business judging these people. Who the hell do I think I am?

His immovable pen aimed at a square, the very last in a row begun by a name: “Susan Bao”. The name was followed by twenty-five squares each filled with a two-digit number. Two of those were in red. Eleven quizzes, eleven laboratory reports, two examination grades: midterm and final. Their sum was scribed for all time in a most somber black tincture. All that remained was the assignation of the letter grade, the only evidence the University would have of these months of hers. Stamped irrevocably onto the transcript which would follow them like a dog the rest of their lives. He had thought to block any passion from contaminating the process by reducing it to a simple, soulless algorithm. Multiply the two highest exam scores by two and add to the lowest exam score, make a simple sum of the quiz scores, dropping the lowest, then add the laboratory report credits

in blocks of ten, appropriately devalued to bleed off the stress of bench work on novices. The totals plotted onto graph paper: sums on the ordinate, frequency on the abscissa. In a class of 144, the distribution was a soothingly classic bell-shaped normal distribution. This mountain he sliced vertically into segments according to a recipe sent down from the College of Arts and Sciences so that the percentage of A's in Introductory Organic Chemistry among the premedical students was the same more or less as that in Survey of the History of Mankind, the class recommended to all the varsity athletes.

The names up to Susan Bao had been self-evident, their scores well inside his penciled boundaries. Now came Susan Bao, damn her, with her total accumulation of points only two out of two hundred shy of the border which would put her into the heady world of the A-. There she sat, two points, one percent, on this side of the B+ fence, looking over at the much greener pasture of the A- neighborhood. After all, what was the difference? B+, A-, B+, statistically all the same. But not to the University Registrar, and not at that moment to him, not enough to inspire him to bring the pen down and make the mark her score deserved according to his own algorithm.

He had endured many grading sessions in graduate school. This decision tree was nothing new. To determine the final grades for huge classes, all the lecturers and teaching fellows got together and made a distribution much more populated even than his current curve, to try and make the grading somewhat uniform across all the sections.

Students whose total points were very close to the fence - either way - were automatically appealed. The senior lecturer would call out the name of the one being judged, a happily oblivious student who did not suspect that they were being subjectively measured in this system all had been publicly promised was completely objective.

Philip Strauss, the professor rumbles. Who has him? C+ or B-?

B- if he had come to discussion groups, asked questions, given an effort. B- if he had made his face known. B- if he hadn't pissed the graduate student off. Screw him, C+ if he had.

B-.

Jasmine John, the professor looks around again. D+ or C-?

None know her face, her tits or ass. D+.

Susan Bao?

Susan Bao?

He hadn't asked his two teaching fellows for help.

The door opened. He looked up and nodded at Paul Geiger. Geiger closed the door behind him and sat down next to the desk.

"Day of Reckoning." Geiger was looking at the grade book.

"Do you happen to know Susan Bao?"

"Doesn't ring any bells. Why?"

McAllister let out a long sigh. "I can't decide whether to

give her an A-. She's right below the cutoff. I need to ask Budnick if she deserves it. Have you seen Budnick today?"

"Nope. How far off is she?"

"Two points. Out of two hundred."

"Shit." Geiger spat. "You have to ask? She should get spotted fifty points for putting up with this place."

"You'd give her the A-?"

"Fuck no. I'd give her an F. Big fucking humiliating F. Maybe she'd get the hell out of her and into a better place. Maybe one of those technical institutes where you learn something useful, like soldering and shit."

"You aren't helping."

Geiger slapped a small broadsheet newspaper onto the desk. "Seen this?"

"The Daily? No."

"Going to graduation?"

McAllister stared even harder at the square. It remained empty.

"Well?" Geiger said after a polite pause. "Are you?"

"Am I…what?"

"Going to graduation."

"Uh. Sure." McAllister motioned to his bulletin board, shingled three deep in notes, memos and pictures. "Dean Nash sent me a letter. I have to go."

"You aren't paranoid enough to believe that the Nash takes attendance there, are you? Maybe staples it to your tenure rec in three years? Think maybe Forget forgot to show up a couple of times and now -"

"It doesn't hurt to go along with the program."

Geiger smiled a toothy smile entirely empty of true emotion. “Ah, yes. The program. Let’s examine that. Let’s see whose name is on the program for the commencement address. The keynote speech, the inspirational exclamation point. Pretend you spent four years of your young life and several tens of thousands of Daddy’s money. You want a graduation to remember. The perfect day under clear blue skies and all that. Don’t you? You want to be able to say.... Who was your speaker?”

“Iaccocca”

“An inspirational talk by a man of accomplishments, a guy with something real to share. Say MIT gets Mahatma Gandhi. Harvard busts out Winston Churchill. BC calls with two or three of the Pope Johns. And Allston University has....?

“I don’t know. Who?”

“Stewart Horton Lynch. President of Allston University. Famous for something. A man of foot note. Legend on his own dime.”

“Yeah, I guess I would be pissed if I were a senior.”

“No,” Geiger said. “you’d be pissed if you were Susan Bao, a sophomore. This will be three years in a row that Lynch sends the mortarboards out into the cruel world.”

“Jesus. How does that happen?”

“Hey, they vote on it. He just wins every year.” He paused. “And then you wonder –“

“Who counts the votes?”

Geiger made a his hand into a gun, cocked it, fired one round at McAllister’s head. “Now you’re asking the hard

questions, Mac. Lynch counts the votes. So the chances are very favorable that one Susan Bao, should she manage to struggle through, A- or no A-, will accept her sheepskin with the immortal words of President Lynch echoing in her ears."

But McAllister was lost in the square again. Geiger gave the newspaper a spin and it floated with remarkable aerodynamics into the trashcan. "You need to find Budnick," he said, rising. He opened the door, peered out, up and down the hall, then slipped out.

"Where the hell *is* Budnick?" McAllister muttered. "Oh, what the fuck." He shook the pen and engraved a bold A- which ran out over each of the four sides of the square.

Alan Perry sat in the outer office of University President Stewart Horton Lynch, taking an inventory of the decor. His chair was one of four: dark scarlet leather, low arms trimmed in mahogany. The walls were paneled with rectangles, teak maybe, hand carved into bas-reliefs. Ancient Grecian themes. The Parthenon, Olympus. Perry had spent enough time inside mansions and capitols and gone unobtrusively about enough billionaire residences to know quality. Lynch's secretary sat at an antique desk. Queen Anne, perhaps even authentic. The secretary was no antique. The light overhead was provided by a chandelier that looked to be the twin of the one he'd spent a drunken hour or so admiring one night in the Green Room at the White House.

Note: Do not let the press see the man in this setting. Better yet. Don't let the press in the building. This is no venue for selling him as a fiscal conservative.

Perry kept all his reminders in his head. He had learned long ago that jotting notes while his clients watched made them nervous. Add to that the possibility of his private thoughts going astray through neglect or malice. He now kept no diary, wrote no letters and sent emails as spare as if he were paying by the word.

The secretary was engrossed in a romance novel. Perry had been waiting for fifteen minutes. The phone had not rung once. The secretary had read three pages.

He briefly considered a show of force. The secretary had thick red hair pulled into a French braid, full lips, green eyes, and a noble nose, straight and almost too sharp. When Perry had come in, she had given him a look to let him know that she knew that he knew that she was beautiful. He had a fleeting visceral urge to introduce himself straight out with a dropping of names like a hail of incendiary bombs which would certainly dazzle a lowly receptionist slash secretary. Hey, he had just wrapped a successful interim Senate election for the Democratic candidate from Washington state. Before that, he'd guided the new mayor of San Francisco into City Hall, and rescued the faltering campaigns of two Southern Representatives. During the San Francisco effort, he had collected celebrity endorsements by the fistfull. Actors and actresses were calling him still, offering their services. They were great window dressing, though few kicked in any serious cash. He

could casually drop A list names now. Names equaled power, and women slash receptionists slash secretaries loved power.

But he didn't. The turnip truck he had once fallen off of was way down the road by now. The secretary could be a mole. She could be nuts; or a drug-dealing street-walker; or Lynch's personal relaxation toy. She might need fifty grand quick for her mother's operation and the associated rush of briefly heading what passed for yellow journalism in Boston these days. Her name might combine nicely with some colorful verb to make a memorable Herald front page.

So he just waited until Jack Hennessee opened the grand wooden door and nodded at him to come on in.

Perry knew Hennessee from way back. They had worked together on the very first Dukakis campaign. The run for the honor of becoming Governor of the Commonwealth of Massachusetts, that was, not the disastrous, soulless, deballed presidential run of '88. Perry had watched that one in horror from the sidelines after the Duke's brainiacs decided that Perry was too callow to sit among their august number.

Hennessee was a thick block of Boston Irish, a ruddy archtype right down to the shamrock lapel pin and his abuse of the letter 'r'. He was a triple Eagle from Southie: Boston College High School, Boston College, Boston College Law School. His only deviation from canon was a preference for rum over whisky, attributed in his extended family to emergence of that drop of blood from a long-dead Portuguese sailor which made them black Irish.

But the client, University President Lynch, he had seen only in photographs. In those, he had thought that Lynch resembled Moe Howard. In person, Perry saw that Moe was taller and had a better haircut.

Note: Demand seated debates. Get Rico from Salon Newbury over on the qt.

Lynch was standing by one of the floor-length windows. He gestured Perry to a chair, then turned his back on them and stared outside. Perry sat and waited, again. Lynch did not come around to shake hands. Hennessee cleared his throat. Lynch whirled around.

"See that building?" he barked, pointing across the street to a grey concrete parking garage. "I made the sonofabitch who holds title to it a fair offer. A hell of a generous offer. More than it's worth. The bastard just won't give it up. Can you believe that?"

Perry shook his head. "That's-"

"That land is rightfully mine!"

"Is there a title issue?"

Lynch snorted. "I'm trying to build a campus here, Mr. Perry. This isn't Harvard or Boston College. Allston University doesn't have alumni wriggling all through the state government like maggots in a bowl of week-old cat food. You can bet that if I did, he'd sell. Yes, and damned quickly."

Note: Work on client's metaphors.

Laura pushed open the door to Professor Shaftner's

laboratory without knocking. She had finally become accustomed to thinking of the labs as workplaces rather than private rooms after spending her first week or so in September politely knocking on closed lab doors. Even if said lab door was already open, she had stood outside and tapped on the frame, so afraid was she to interrupt the tremendous intellectual thunder that must be taking place within. Not once had there been a friendly “Come in”. If there was not silence there was a resounding chorus of obscenities, or stentorian suggestions of alternate destinations for her and the varied activities she could take place in when she arrived there. Now she just opened doors and walked in.

The lab was quiet. Automatically, she pressed her safety glasses into place. These always hung from a Croakie around her neck. Trust no one, Nozick said. She walked further into the room and saw Paul Geiger standing in front of a hood. He didn’t look at her or make any motion that he knew he had an audience. He was holding a large glass syringe filled with a brilliant yellow liquid. The syringe’s needle was stabbed through a rubber septum into a glass round-bottomed flask. Gently encouraged by the pressure of Geiger’s thumb, the yellow was falling drop by drop into an emerald solution vortexed in its middle by a spinning stir bar.

“Hey”, Laura said. “Whatcha making?”

Geiger gave her a glance from the corner of his eye, behind his old-fashioned black rimmed lab glasses. “Diazoketone.” He nodded to the flask. “Acid chloride.” He

trembled the syringe. “Diazomethane.”

Laura took a quick step back. Geiger was concentrating on regulating the drop rate from the needle. Geiger had been here for years, and he still had all of his fingers and both eyes. Laura had the impression, she didn’t know exactly why, that he knew what he was doing, so she waited a long time, maybe 20 drops, before she spoke. “Working with diazomethane always makes me nervous.”

Geiger nodded soberly. “You have to respect something toxic *and* explosive. This is a little more than a hundred millimoles. Enough to do kill the whole hockey team and blow all the ice off the rink.”

“I was always told to use unscratched glassware. Clear jointed, no ground glass.”

“That’s right. Don’t want any nucleation sites. Microscopic razor edges – decomposition - BOOM!”

“I never thought I could use a regular syringe. I thought the plunger surface was ground.”

“It sure is.” Geiger let a spurt of several drops go into the flask.

“So it’s safe?”

“Hell, no.” Geiger smiled. “It could go off anytime.”

Laura took another step back and touched her glasses, pushing them firmly back up her nose. “Okay. Anyway, I was wondering if you guys had a spare rotovap.”

“Why? Yours break?”

“Forget took it.”

He snorted. “I thought you were coming into the group with some of your own equipment.”

"So did I. Believe me. He took Nozick's too."

"Yeah? What's Nozick doing about it?"

"He's taking a masters."

"Some see the master's degree as a sign of failure," Geiger said after a moment, "that the person could not persevere to the doctorate. Especially Ph.D.s think that way. You and I know, however, that those with an M.S. after their names are the most perceptive of humans."

"So why are you still here?"

"The masochist says: 'Hurt me.' The sadist tells him: 'No.' I know where I can get my hands on a rotovap for you. But not until Forget leaves. That rat bastard will gnaw the varnish off the cabinets. When will our world be brightened by his departure?"

"Wednesday. Maybe Thursday."

"Good. Bring in anything you want to save and stuff it in an empty drawer. They're scattered around. I'd love to catch Forget snooping around in here." He smiled and closed his eyes. Imagining, she thought, something horrible and wonderful.

Laura took the first gap in Geiger's attention and fled through it. She felt the diazoketone/ diazomethane potential energy as a fireball, sparked by its instability, fed by its ethereal environment. It would take only a bounce of energy above the ambient and a microscopic discontinuity on the glass surface to break down the diazo group, point heat the solution, vaporize the ether, and finally detonate the fuel air mixture with a yield the military would envy. The fireball existed and did not yet exist as she walked

quickly into the hall. Geiger was the cat in the box as she shut the door, both alive and dead at once.

Geiger turned from the hood at last and put down the empty syringe, unaware of the paradox of his death/nondeath. He unscrewed the green plastic top from a clear jar, reached in with a pair of tweezers and pulled up a flat white plate. The whiteness was made translucent almost to its top by liquid wicked up from a shallow pool at the bottom of the jar. The plate was thin glass, five by ten centimeters, and the whiteness was upon one surface only, a thin layer of silica dust. The albedo of the plate began to increase at once as the volatile liquid evaporated from the silica, helped along by his gentle breath blown thorough pursed lips against the surface, until the whole plate was a homogenous bright alabaster. Geiger then unscrewed the top of a jar identical to the first. This one was filled with purple vapor and crusted on the inside with tiny ruby-black nuggets. He carefully dropped the plate into the red fog and watched as two spots on the plate, oblong and perfectly-matched, side by side, slowly took shape and became coral and then cardinal and then maroon. At the bottom of the plate he had drawn a fine line in pencil. One spot rose straight from the line, from a region marked “sm”. Its twin rose from the mark “rxn”.

Geiger’s face was placid. He removed the plate and flicked it like a small playing card toward the window. It spun, wobbling but true, through the open portion and out

into the world.

McAllister collides randomly with students in the street. He is a Brownian particle in the plaid and denim fluid, carried by the gross bulk properties of the medium across the trolley tracks, in front of angry drivers impeded at their green light in fear and hatred of the herd. In one hand he holds a half-empty bottle of raspberry iced tea, warm now as the day.

His fellow travelers do not notice him as their judge. They accept him as one with the school as it mounts the curb and, startled by the looming stygian bulk of Pebble Science and the mighty shoulder of MBA Rock, scatter to the left and right. McAllister is left abandoned upon the lowest step on the stairs leading to the main doors into those twin towers.

He has been deserted, he is now sure, because they smell his fraud. Unworthy; his judgments are flawed; his instructions unintelligible infant gurgling; his grade book good only as evidence buttressing the future charge that he has betrayed their trust.

It isn't the same this time. It is much worse for some reason. Perhaps the finality of the second term. No immediate chance for redemption, no buckle-down and remount the horse, just a summer to stew in the result. Will it always be such torment? He decides he must retire now and go into industry.

A whistling from above, past his ear. A cracking tinkle,

sharp by his foot. He looks down, still stupid with defeat. He gapes at the shattered remains of a thin-layer chromatography plate. It is an ignoble end for this one. He has always used these plates, never thinking of them as individual entities. They come out of boxes, packed by the gross, manufactured each the exact match to its neighbors, the color of fresh snow and seeming sterile. He would grasp them gently by the edge like an brittle photograph. The TLC plate is my magic eight ball, McAllister thinks. In a thrice it answers my questions. Pure, Impure, Try Again. It saddens him to see this one in shards approximating its rectangular past, mixed already with the rubbery grit from the road, cigarette butts, and chewed fragments of Bic pens.

What is this one trying to tell me? Yes? No? Ask again later? If only I had a TLC plate to spot Susan Bao on and a solvent to run her up the plate and a standard against which to judge her migration. A standard which will make a tight round spot, easily seen under the UV lamp. Then I can stay here and not be eaten by this rock.

He looks up at the silent edifice of Pebble Science, which was actually built to be the face of MBA Rock but has been somehow colonized by users of TLC plates. Above is the clear blue sky from which the plate did not fall. He slides his sneaker along the step, shoving the shattered plate into a tiny grave-like mound and goes into the building.

McAllister climbed straight up and found Geiger adjusting a Teflon valve at the bottom of a slim glass

column. “A TLC plate just fell on the street,” he said.

Geiger did not react. “Really.”

McAllister looked at the nearby window and the opening so suspiciously - open. He sighed. “How’s the work coming?”

“It’s coming.”

At least he had the good goddamned sense not to ask Geiger when he was going to be done. But done with what? Done with his thesis work? Done with his thesis writing? Done with his farting around? It was rarely specified what was to be done, just ‘done’, but the uttering of the phrase inevitably smacked of insult. Too late. Apparently his benign question had served as well. Now Geiger was on the defensive and counterpunched with a well-honed rapidity.

“Still happy you came here instead of someplace with real laboratories?” Geiger jerked a thumb at the ceiling. McAllister looked up automatically, knowing what he would see there. Shaftner’s lab was one of the ones carved from inside MBA Rock, in what was originally a simple classroom. Creating a functioning laboratory by retrofitting a space not designed to support the requirements of a laboratory was not trivial. Wall space had been cleared for four hoods - fume cupboards, as they were known in the UK - big elevated enclosures like fireplaces, with one large window that slid up on tracks to give access. Powerful hidden fans sucked the air and any hazardous fumes in that air out of the hood through the ductwork and safely out of the building. That was their ideal function, in new construction. Even in the best and newest construction,

hoods pulling air to OSHA standard were noisy, though code now had the ductwork padded away behind sound-muting walls. Here in Shaftner's cobbled-together bastard of a lab, the whole shebang was exposed, round ducting and squirrel-cage fans lagbolted to the ceiling. Two of the ancient metal-framed windows had several of their small panes removed at the top where the ducting butted into them. This was the terminus of the hood exhaust. It looked juryrigged, but it did work. Shaftner's graduate students could now generate any number of noxious, sickening gases in the fume cupboards and suffer no ill exposure. The toxins would be sucked away: up and out the window. Of course, once there, they might sink to street level or float up or blow sideways to be sucked into an entirely different and unsuspecting lab. The worst flaw in this whole system was the need for makeup air.

Four hoods such as Shaftner's - antiquated as they might otherwise be - sucked an enormous volume of air from the room every minute, air which had to be replaced to keep the exhaust fans operating under a reasonable load. This air, the makeup air, was drawn in from outside, through ducts similar to those exhausting the potentially-contaminated air, through another once grand but now mutilated window. This air was bone dry and bitterly cold in winter and sopping wet and blistering hot in the summer. In labs with modern HVAC the temperature was hard to control. In this set up it was damn near impossible. A huge olive-drab box fixed to the ceiling near the windows warmed the air in winter by means of a grid of steam pipes. It worked well.

Usually much too well. On cold days, McAllister had often entered the building by this door. Bundled in his down parka, knit cap, and wool scarf, he would look in and see that Shaftner's grad students were working in tank tops and shorts and glistening with sweat as the steam pipes rang with pops and clangs warming the makeup air to a jolly 95 or so degrees Fahrenheit. They suffered this, they had explained to him the first time they saw him staring in, openmouthed, because to complain meant that somewhere in the bowels of the old building a wheel would be turned, and the room would thereafter be a more seasonable 55 degrees. This seemed to be the overnight setting, because before nine o'clock you could see your breath. By noon, however, a truckload of sand could have been spread, a volleyball net tacked to the walls, and a very nice luau conducted. It was acknowledged in Shaftner's lab that secret forces within the University were out to crack them. Not by the usual pressures, but as the ancients used to break up boulders: via the alternate application of fire and ice.

"We'll have real laboratories soon enough," McAllister said. Geiger leaned back against the bench and crossed his arms. "What? You're not happy to be getting a new lab? You have seen the plans, haven't you?"

Geiger sniffed. "Plans? I can draw you a nice picture of a crown. Does that make you the Queen of England?"

"Huh?"

"I don't need a new lab. I need six months of uninterrupted work to have a whisper of a prayer of an

Italian ice's chance in Hell to get close to this fucker." Geiger pointed to the wall. High above his old wooden desk, over an ancient slate blackboard, was taped a wide sheet of computer paper on which Geiger had drawn a molecule. Once bold black on white, it was now greying on yellowing, the compact structure labeled underneath: DESPIRIMIDE.

"Because all I have now are dead ends. The Diels-Alder route gave tar. The Claissen rearrangement gives the wrong regioisomers. Sharpless epoxidation of the side chain did not go for some reason. I could give a four hour lecture on what didn't work. Unfortunately, you can't write a thesis on what didn't work."

"So what's Shaftner's current suggestion?"

"Shaftner who? Can't place the name."

McAllister smiled. "Yeah, my advisor was never around either. He had consulting gigs at Dow, Pfizer and Genentech. We didn't see him for weeks at a time. His postdocs taught most of his classes."

Geiger jumped away from the bench and doubled his fists. "Shaftner couldn't get thrown out of Dow. I never see him because I avoid the motherfucker like the organic chemistry plague that he is. He hasn't read through an issue of JACS or JOC or JMedChem in ten years, but that doesn't stop him from leaving me long lists of things to do, 99 per cent of which are futile if not outright ridiculous. Even the things he thinks he knows he knows wrong. He kept reminding me in one step to the Claissen intermediate: 'Remember that LAH will give 1,4 reduction.' It's goddamn borohydride that gives 1,4 byproducts, and I told him that

fifty times and it didn't sink in."

"I didn't-"

"So don't tell me about your fucking advisor and his fucking cush consulting jobs, because *I* don't even consult Shaftner anymore. You think he can get me a job at Dow? They'd laugh his punk ass out the door and send security to stomp the shit out of him in the parking lot. The Diels-Alder route was his. All the other ways I had to come up with. You should hear the shit he thinks will work. It's fucking ancient history."

"Well, how do you know unless you try?" McAllister realized too late that he had crossed the line. Geiger tensed for a second, then relaxed his hands and smiled that insincere smile of his.

"Don't go and say shit like that to anybody else around here that doesn't love you like I do, Mac. You know our motto."

"Sorry. What?"

"No body, no crime."

Lynch was still talking when his secretary buzzed. Hennessee had spoken five words in the hour; three were 'yes'. Perry's sentences had all hung in the air with dashes after them, as Lynch would launch into a reply before Perry could even finish the query or thought:

"Once the press has a -"

"Your lack of elective-"

and "We'll brainstorm some television-"

The remainder of the hour was Lynch on his fiscal policy (he was for working and not shirking), Lynch on the Boston Redevelopment Authority (socialist bastard pointy-headed bureauocrats), Lynch on educational reform (no one left high school until they read Cicero in Latin and Plutarch in Greek), Lynch on modern architecture (mesmerized by self-indulgent, immature so-called geniuses). It took Perry maybe half an hour to conclude that Lynch had a firm position on each question mankind had ever formulated and an answer to every obstacle ever encountered. And Lynch's position was not only the correct one but the only possible correct one. Next topic.

"Yes, Miss Halliday?" Lynch even cut off his own buzzer: "Buzzz-"

"You have a three o'clock with Dean Nash. Should I cancel?"

Lynch jumped up. "No. That's important."

And the United States Senate? Perry thought. *Chopped liver?*

Lynch at last shook Perry's hand - briefly and insincerely, Perry felt - and rushed out with a quick "Gentlemen".

Hennessee turned to Perry. "So. Let's talk strategy." He said the word *strategy* like it might be a physical commodity they could order out with a side of General Gau's Chicken.

"Shouldn't he - wouldn't he like to be here when we do?"

"No. Not necessary. All we need to do is let Lynch be Lynch. He's his own greatest asset. We'll just worry the

details."

Perry nodded. "When was he thinking of announcing?"

"Oh, hell, he wanted to dive in as soon as he decided, three weeks ago. That's how he is; that's why people love him. He doesn't fuck around. He wanted to call the Globe, the Herald, the TV stations and get moving. I had the devil of a time convincing him to wait until you were free."

Oh great. Now I'm the prick that made him late for the Crusade. "Good." Perry said. "He should wait until the last possible moment before filing papers. The public likes a private citizen with strong opinions. But once he's in, he's another damned politician, and his opinions are presumed to be compromised. He's got a useful pulpit here. His actions and statements make news because he is president of a large private university. And once he does announce, we'll try to make it clear that he's running reluctantly. Out of a sense of public duty. Stooping to soil his hands in this dirty business - but not by choice. No ambition but to serve the citizens of the Commonwealth and the Republic. He's never held office, never been tainted by association with the stinking shitpot the media has decided public service is."

"The news editor at Channel 25 owes me" he continued, formulating the items as a list in his head. "Their 6 o'clock is number one right now. I'll try to get them to do a fluff piece on Lynch. That'll get 4, 5, and 7 worried about what they don't know. I've got my polling consultant working on some issue and personal surveys so we can get a snapshot to start from. Do you have any Nobel possibility in the faculty? Doesn't have to be a lock. Close is good enough. We can

hype them too. Reflected glory, proof of administrative prowess, that kind of stuff. Peace prize is always good. Hard science would be the best. Literature will do. Economics only as a last resort. People hate economists for some reason."

Hennessee had been looking out the window, listening to Perry with a faint but happy smile on his face. He looked around, suddenly serious. "I'll look into it."

Laura walked into the small classroom where the Chemistry Graduate Examination in the Proficiency of a Foreign Language was being organized. Eight students were just beginning their translations. Nozick was in the back row flipping rapidly through his French-English dictionary with one hand and scribbling in a blue book with the other. He looked up, saw her, and whispered, "Como este? Sacre bleu, mona mi."

Laura held two books in her right hand. She moved these slightly away from her body so that D'Arcy, who was in a desk facing the room, would not be able to see her left hand. She gave Nozick the finger and smiled innocently. Nozick muttered, "Meurde. Punta mucho loco." and kept writing.

On D'Arcy's desk were two piles - a stack of five hardcover books: three in shades of green, one blue, and one maroon. Beside these were stapled copies of papers from the literature.

"Come on in." D'Arcy said, noticing her at last. "What language?"

“German, please.”

D’Arcy searched through the papers. Each had its language written in red in the top right corner - in case it wasn’t obvious from the alphabet or characters on the front page: Japanese, Spanish, French, German. “Here you are. Two hours, translate as much as you can.” He bent down and picked two blue books out of a box lying at his feet. “Come back when you fill these.”

Laura took the flimsy paper books. Each one was about 20 pages. And she was supposed to fill these with a true translation of a highly technical report written in a foreign tongue? Kaput, she knew. She went to a desk next to Nozick and plopped her stuff down. Two blue books. One German paper. Three pencils. Two books borrowed from McAllister. She sat and started to read the paper. It was from Helvetica Chemica Acta, Volume 75, 1992, page 1825: ‘Reaktion von 2-Diazopropan mit 1,3-Thiazol-5(4*H*)-thionen”. Okay, that wasn’t too bad. Reaction of 2-diazopropane with a heterocycle whose structure would be found in the paper. Submitted by Grzegorz Mloston, of the Institut fur Chemie der Universitat Lodz. Lodz? That was in Poland! She had to render into English some organic chemistry written in German by a guy who grew up speaking Polish. For Christ’s sake. The coauthor was Heinz Heimgartner at the Organisch-chemisches Institut der Universitat Zurich. Heinz had to be a German, didn’t it? Just because he worked in Switzerland, that didn’t mean a thing. They were all closet Germans there, weren’t they?

She opened the smaller of her two borrowed texts.

German English Dictionary for Chemists, by Austin M. Patterson. Wasn't anyone German anymore? Of Antioch College. Where the hell was that? The first copyright was...1917? That was during the War to End All Wars. In 1917 German chemists were gut shot, rotting at the bottom of a trench. Or brewing tanks of mustard gas, coughing up chunks of putrid lung tissue from the inevitable spills. None of them were available to take a call from Professor Patterson regarding the nuances of the proper definition of Kieselerdehydrat. Or - she ruffled the pages - Drusensekret, n. glandular secretion. Seitenkettenisomerie, f. side-chain isomerism. Flugsan, f. quicksand.

McAllister had these two texts in his lab. Luckily. She'd rushed at the last minute downstairs to the Chemistry Library, suddenly determined to take the language exam. She knew it was futile. She felt like Rhett Butler, donning the Confederate grey only when the war was lost: a grand display and nothing more. She would take the exam for her own edification. Test herself against it, take its measure so she might gather and hone the tools to defeat it when next they met in battle.

But between D'Arcy (she didn't suspect that he would sweep up the lot) and the graduate students who were actually taking the exam and the graduate students who were blowing off the exam with a book in their possession nevertheless and the undergraduate premedical students who would keep each and every book checked out for the term, ignoring notes polite and threatening, so their dear friends and peers would not have access, there were exactly

no chemical translating aids left on the shelf. She had determined on the stairs that she would take it in German. But when she saw the yawning hole in the stacks where the German texts were to be found (PF 3640.B45 by the Dewey), she was yanked up by the reins. German was the traditional language of organic chemistry. At least it had been, up until the fifties, maybe sixties. Now even the volumes of the great Beilstein, the heroic effort of the Teutonic organic chemical community to compile in one source every new molecule - its preparation and its properties - was published in English. To the last generation of chemists, especially those on the Continent, this was heresy, an iconoclastic nightmare the equivalent of the Pope standing in St. Peter's conducting Christmas Evening Mass in Ebonic. But no German text? Okay, then; French. You could almost decipher French by picking among the words borrowed from that tongue. Paramour, charade, flambeau. Cat, hat: in French chat, chapeau. But there were no texts in French. Nor in Spanish, Russian, Italian, Greek, Japanese, Chinese, Korean, or Inuit.

"What's wrong?"

She looked up. An embarrassed McAllister was in the next row, looking at her through a gap on his side where some books had not been reshelved. Her side was picked clean. It was PF 3640 A through Z, all the chemical translation dictionaries.

"What?" She barked at him. He blinked three times.

"You were saying something... German?"

She stopped and rewound. She had been muttering to

herself, she recalled. An angry repeating *FUCK!*

Mainlanders always expected Hawaiians to know several languages, thinking that racial diversity gave them some genetic polyglot head start. Japanese, French, German, various Polynesian dialects, Dutch if they knew their history from a source other than Mitchener. Of course she was saying *FUCK!* In English. Because she did not know how to say it in any other language, which was precisely why she was, yes: Fucked. “All the fu-.” She stopped, took a deliberate breath. “All the German dictionaries are gone. Hell, they’re all gone. I was going to take the language exam.”

Oh - he had said, still red-faced - I have a couple you can use. And she’d followed him to the basement of Pebble Science, to McAllister’s laboratory and a desk there where he kept useful references. They were his books by possession, found in the lab when he moved in, along with boxes of junk, old and broken scientific apparati, and various unused and unusable furniture. The space had been, apparently, the junk drawer of the department for many decades.

The paper before her was nine pages long, average for a full paper, pp. 1825 to 1833, and divided into four parts: 1. Einleitung, 2. Umsetzung von 2-Diazopropan mit 1,3-Thiazol-5(4*H*)-thionen, 3. Diskussion, and the unnumbered Experimenteller Teil. Number one sounded like ‘enlightening’. Sure enough, it meant introduction, preface, preparation. The introduction of gases into a reaction medium, for instance, or in this case, the introduction of the

authors' rationale. Why these reactions, why this line of research? Number two was obviously 'How we made these things', by reacting 2-Diazopropan with 1,3-Thiazol-5(4*H*)-thionen. Umsetzung was more precisely a transposition. The accurate rendering of the heading would still be reaction, though. Neither component transposed anywhere. Three was discussion. The last was the experimental part. It didn't even need a heading, really. Every synthetic organic paper had an experimental - even if it were one paragraph - and they all looked very similar. Just to make sure she looked up Teil: part. Yes. It was just too easy.

She looked at the clock. Fifteen minutes had gone by. She realized that she didn't know the exact requirement for number of words translated. Probably just enough to impress whatever undergraduate humanities major they could dupe into evaluating the clarity of her translation for minimum wage. Still, one two three…nine words translated in fifteen minutes extrapolated to a total of seventy-two words in two hours. She looked at her two blue books, still empty - she had been scribbling on her scratch paper. Seventy-two words would fill maybe four lines, five writing large. No one would be impressed.

Then Paul Geiger came into the room and everyone glanced up. D'Arcy asked him what language he would be translating. Geiger shrugged and looked at the pile of dictionaries. "I don't know. What'ya got left?"

There were giggles and guffaws that D'Arcy seemed not to notice. Laura knew it was Geiger's sardonic commentary on the test, one he had probably practiced alone in front of

his hood. It was funny still, but she could not laugh, because the truth suddenly was not funny. But I will do this, she thought. I can. All I have to do is piece it together. It's just a puzzle.

The first sentence in the Einleitung was 'Vor kurzem berichteten wir uber 1,3-dipolare Cycloadditionen von Thiocarbonyl-yliden mit 1,3-Thiazol-5(4H)-thionen 1.' She sighed and turned to the Vs. Vor meant if or from or before or formerly. Kurzem was not a chemical term; Patterson didn't acknowledge it. In the paperback layman's (*lay Herrs*, she thought) dictionary which was her other weapon, it seemed to mean soon or shortly. Berichteten was not in either book. Perhaps it was a longer form of berichten, which it was, and meant a report. That had to be it. Wir she thought she could skip - it had to mean were or was. She looked it up anyway and was chagrined to see that it actually meant we. So much for the clarity of German. Uber she knew was over from the cheerful ditty "Deutschland Uber Alles". 1,3-Dipolare Cycloaddition they had cribbed from English and tried to disguise with an extra e at the end of dipolar and a capital C in the middle of a sentence. Von = of from by in about. Thiocarbonyl-yliden again was a thinly veiled English for the thiocarbonyl group, though she wasn't sure what the suffix -yliden meant. There were barely a dozen or so words in the German chemical text that started with y. 1,3-Thiazol-5(4H)-thionen was one of the structures in the text, number 1. That was the same in either language.

At the top of a fresh piece of scratch paper she wrote the

sentence with each multiple possibility of meanings stacked up in that word's place in the sentence so that she could make the clearest choice from and in context. It ended up looking like a super-advanced grammatic deconstruction: (If from before formerly) (soon shortly) (report paper) we over 1,3-Dipolare Cycloaddition (of from by in about) Thiocarbonyl-yliden with 1,3-Thiazol-5(4H)-thionen.

She opened a blue book at last and unraveled that into: *We have previously reported the 1,3-dipolar cycloaddition of various thiocarbonyls with 1,3-Thiazol-5(4H)-thione*. She looked again at the clock. Forty-five minutes had now passed. The exam was almost half over, and she had translated only the most trivial sentence in the nine page paper. The next sentence went on for miles. Einmal mehr erwies sich bei diesen Umsetzungen, dass die exocyclische (C=S)-Bindung von 1 sehr reaktiv gegenuber.... She felt her eyes burning, starting to tear. She had come here promising only to scout out the enemy, but once she had started in, she wanted to win. Now nothing was for fun, there was no warm-up. But this was futile. She flipped the paper over and threw down her pencil so hard it bounced off the desk. Nozick whispered, "Ja. Das is mein kugelrohr, senorita.".

The paper came to rest sprawled out, only the last page visible: the list of references, LITERATURVERZEICHNIS, and the last of the paragraphs of experimental details. Shit. The experimentals were so simple, so independent of country of origin. The structural names of the chemicals were bound more or less by the IUPAC rules, and the *I* stood for International. Solvents, salts, times and

temperatures were all in English or in the scientific Esperanto easily transposed by a native English reader. Experimental descriptions freely used the shorthand of referring to chemical structures as 1 or 5 or 7b and could be inspected as such in images scattered through the text. You could grasp these by inspection, for structures were universal. And each experimental described a reaction shown structurally in the paper. 1 -> 2. One is made into two by the action of 2-diazopropan and Fumaronitril in CHCl3. She could breeze through the experimental once she got there, but she would never get there at this rate-

She bent down and picked up the pencil from the floor. Nozick said softly, “Dinna be looking up ma kilt, lassie,” but she did not even hear him. No one had told them to start at the beginning. She had just assumed it. And an undergraduate German major? There was zero chance that the German degree had a chemistry requirement, thus there was that same chance that the grader would know the lingua franca of chemistry. They might follow sentences like the very first one of the paper. They wouldn’t be sure of the pronunciation of the chemical names, but they would gather the intent. The intent and aim better than she, no doubt about that. The Experimenteller Teil, though, was another animal. It was her turf. Thick with the arcana of organic chemistry: empirical formulae, shorthands, strange formalities, the code of the abstracted specta: (1H-NMR: 7,22 (br s 5 arom H);3,86, 3,70 (AB, Jgem=15,0, PhCH2) and so on. It was as mother’s milk to her and anyone versed in the art.

So it came to her. To defeat the enemy she had not to translate the German into English, but to translate the German into Chemical. She had to render the paper in a subdialect of English - Organic Chemical - most of which would be as foreign to a humanities student as Kaszachestani, but proper English none the less. And when the translation forced the translator to open the Oxford Dictionary to obtain the English in her English, Jesus, if she could make the grader look up and cry for assistance? That would impress them with her prowess. Wouldn't it?

She opened the unused blue book and turned her paper to the first experimental. 'Equipment used,' she wrote rapidly. 'Melting points were obtained in a Buchi SMP-20, in a capillary and are uncorrected. Infrared spectra were determined on a Bruker IFS-45 in solvent or in a KBr pellet, reported in cm-1....' She did not have open either of McAllister's books.

It was with almost equal parts hysterical excitement and paralyzing fear that Jen Perelli entered the Chemistry Library. Folded up in her hand was a sheet of copy paper, blank except for the notation: *Azerb. Chem. Comm. 34(4) 344-356*. These abbreviations represented information suddenly vital to her: On pages 344 to 356 in issue number 4 of the volume 34 of the journal Azerbaijani Chemical Communications was the treasure potentially hidden.

She'd found the clue quite accidentally, in a footnote in the reference section of a paper she had been reading for

another reason altogether. Specifically, she had been tasked by Professor Stringfellow to prepare some catalysts for his olefin polymerization Grail. He'd been trying to horn in on the supposedly lucrative field of inventing ways to make polymers. The more she had learned of it, the less she thought of it. Dow Chemical alone probably had hundreds of Ph.D.s working on the technology, with thousands of support persons and millions of bucks. Stringfellow, with his four graduate students, was living in a fool's paradise. But she did not really care, as long as she generated some publishable results, enough to get the hell done and out. Stringfellow was dreaming of patents, licensable technology, a spin-off company.

His latest phantasm was an iron chelated to a larger complex that had an aluminum atom gripped tightly on the other side. He had some sketchy synthetic ideas, left for her in a manila folder on her desk. They called for trimethyl aluminum, a nasty reactive reagent that she did not look forward to using, some lengthy organic synthesis of the polydentate chelating ligand, some ferric and ferrous salts readily obtained from Aldrich or the subsubbasement morgue, and the simplest ingredient of all – iron powder.

The thought of iron powder triggered her recall of something she had read once about the quality and sieve size of the powder greatly affecting the yield of… what? She had spent almost an hour digging through Feiser & Feiser, March, and Vogel before she found it in Wilkinson's preparation of ferrocene, submitted to Organic Syntheses back in 1964. The checkers of his procedure had noted that

the yields sucked when they used plain old iron filings but were pretty good when they used fine iron powder obtained from the reduction of the oxide with hydrogen.

That had lead to another paper, this one in Angewandte Chemie International Edition, that dealt with the synthetic uses of iron powders and ferrocenes. In one footnote, the authors had briefly mentioned that the attempted use of aluminum-chelating ferrocene derivatives as polymerization catalysts had failed, some carbon-carbon bonds in the monomers being instead cleaved. She had stared at that for some time. Was it possible that you could be so fixated on *making* carbon-carbon bonds that you didn't realize the potential value of *breaking* them? Then she had thought about iridium and rhodium. Iridium and rhodium liked to be chelated. Properly chelated, they could be persuaded to bust right into the middle of an otherwise happy carbon-hydrogen bond. Sometimes, rarely, they would pick up the electrons that bound two carbons, pull them apart and hang onto both loose ends for a while. And then there was this business of tying it to a nice ferrocene.

The carbon-hydrogen trick was nice, and useful, but lots of people had made lots of these catalysts. They were okay at adding hydrogens and taking hydrogens away, and that was fine. But the second use was the tits. Find a catalyst that chewed on carbon-carbon bonds and you had a way to take tar and break it up into gasoline. You could take old tires and brew them into diesel oil. Dead grass might be churned into ethanol.

There was the excitement, clear enough, but there was

always that shadow of fear. Fear that someone *must* have seen this too, someone with more skill and smarts than her. Someone who had been able to just look at it and say: Nope. Or someone who had gone immediately into their well-equipped lab and done the necessary experiments. Someone who did not have the millstone of a Stringfellow about their necks.

She'd looked up from her desk and called over to Benni DeJesus. "Benni, do you know if we have Azerbaijani Chemical Communications?"

"Sure," he'd said. "Doesn't everybody?"

"No, I mean do we have it in the library? *Azerbaijani* Chemical Communications?"

"Of course. Everybody has that one. I get it at home."

"Fuck you," she'd hissed, then picked up her notes and stormed out.

Benni watched her go, blinked as the door slammed. The thing was, he was being sincere. He did receive Azerbaijani Chemical Communications at home. He didn't know why. He'd never asked for it. He'd never even known it existed until the first time he looked at the cover. He'd figured it was some odd screwup in the Azerbaijani Post Office, a one-time cosmic aberration, but every two weeks a new issue was in his apartment mailbox and now he had on to two and a half years worth stacked up in a closet.

Jen stopped inside the door of the library and looked down at the journals nearest. Alphabetically, there was Accounts of Chemical Research, Acta Biotechnologica, Acta Crystallographica, Advances in Polymer Technology,

Agricultural Chemistry, Aldrichimica Acta, Analytica Chimica Acta, Analytical Abstracts, Analytical Chemistry, Analytical Letters, Analytical Sciences, Angewandte Chemie International Edition, Annual Reports: Section A (inorganic chemistry), Annual Reports: Section B (organic chemistry), Annual Reports: Section C (physical chemistry), Annual Review of Biochemistry, Applied Magnetic Resonance, Applied Organometallic Chemistry, Applied Physics A: Materials Science and Processing, Applied Physics B: Lasers and Optics, Applied, Spectroscopy, Applied Spectroscopy Reviews, Australian Journal of Chemistry, and down at the very bottom and at the very end, the puke-green cover of the latest issue of Azerbaijani Chemical Communications.

She bent down and lifted up the swiveling shelf that hid the older unbound issues, but these went back only eight months. She needed the volume two removed, two years back. These must be bound, shelved in the stacks in back. She passed by the librarian's desk, unmanned now, and found the corresponding line of hard-bound books at the end of the As. Here were the permanent forms of the soft-cover single issue larvae. Sent out to a binding shop, the thin individual volumes were combined by year, shorn of their flimsy covers, and glued and sewed into thick dense tomes rugged enough to last a hundred years of occasional examination. It was no exaggeration. The oldest volume of the Journal of the American Chemical Association in the stacks was from 1895, and it was in its original cover.

But the youngest bound Azerbaijani Chemical Communications was from five years ago.

“Fuck this!” Jen moaned. “Fuck me!”

John Xavier Hennessee, called of custom Jack from some medieval etymology whose details were long forgotten to all but perhaps the Jesuits who had educated him from kindergarten to Juris Doctor, set foot on foreign soil. Cambridge, Massachusetts. Not two hundred yards from the northern bank of the Charles and so not a half mile from the Boston City line - easily within sight on this hot and strangely arid day were the Prudential, obviously, and the Hancock, both the Elder and the Younger. The Elder with his shaft atop, the beacon finger flashing its faded pastels to give the citizenry a three hour forecast. *Steady blue, clear view. Flashing blue, clouds are due. Steady red, rain ahead. Flashing red, snow instead.* And all the alabaster and brick of the Financial District. Through the gaps in the Boston skyline he might have seen the stones of Castle Island and the hilltop of L Street.

He stood less than five miles from the place he had been born, the South Boston street where he had lived continuously from diaper to pinstripes, stood in a land not unknown but still strange to him: home to liberals and progressives, and most importantly, Over the Line.

Jack X.'s influence was great within the territory defined by Boston elections. Boston Mayoral, Boston City Council, Boston School Committee, the Suffolk County seats in the Massachusetts Senate and House of Representatives. Not one Cambridge vote figured in any of those many boxes. If

they couldn't vote for Jack's man, they were invisible. There was a converse to that, though. Here in Cambridge he might be invisible as well, shorn of power due to his lack of favors owed. Thinking this, his hand of its own rose to his breast pocket to feel the shape within.

He slid a five through the grimy plastic passageway to the driver. The taxi stank. Sharp in his nose like sauerkraut, and the driver who Hennessee had taken for a nice white lad, European if not Irish altogether, had spoken some gargling tongue which induced in Jack the mad irresistible impulse to clear his throat. Luckily the driver had understood "MIT". Everyone understood "MIT".

The taxi left a low cloud of bluish smoke as it yawed back into the traffic. Hennessee looked up, then up some more at the building's granite front. The columns were Ionic, rising from terraces of grey slab. The inscription above it all was simple, bold, grand. Classically educated, his eye did not jar at the rendering of MASSACHVSETTS or INSTITVTE. He just knew that he was supposed to be impressed, and for an unarmored flash he was.

Then he remembered the gist if not the text of what old Frankie Belz had once told him: The flashier the door, the easier the mark who opens it. Frankie had been a grifter, a con man, a man who turned pattering brogue and a confidential smile into personal wealth. And though Frankie had said *mark* and not *voter*, the broad principle was the same. In any case, the memories were all contaminated by close storage with similar truisms. The heard memory was coming now, and he was able to put

sound to place to face. Frankie had also told him that the restaurants with the best views always served the worst food. This in a public house overlooking Day Boulevard where a roach was free climbing a print of the Pope stapled over the bar.

Up and up and up still, the building so hard by the road that it was a cliff stretching into the sky. The clouds, wisps evaporating as they streamed like a time-lapse weather video over the top of the precipice, the juxtapostion of movement, sheer bulk, and head angle making the observer close to stumbling backwards. This was the effect Bulfinch wanted for the State House, which would have been this instant in plain view across the widest part of the river but for the granite stop in Jack's face. Majesty and a sense of monument, a work of nature more than man, an edifice to humiliate the entering supplicant. Bulfinch had built Massachusetts a secular church, its gold leaf on the dome a beacon to focus God's good intent. MIT had just built the front of God's house.

Jack had been as close to God as this before. Three times he had made the pilgrimage to the heart of the Jesuit universe and three times he had kissed The Ring. The first time he was still young enough to be properly stupified by the crimson cloth, the gold, and the whole and timeless gravity elbowing him like a monastery of rude shades. The last two times he had been preoccupied with roughing out the overhead, the vig, the nut, and wondering whose list the guys in the multitude of other rooms had to get on to land their gig. He had recognized the loss of his simple

appreciation of the place on his second visit, but he did not mourn it. Familiarity always was necessary precedent to an easy acceptance. His second day in Heaven would be one of looking behind the curtains and clearing off a small flat topped cumulus cloud for a desk.

Below the great columns were steps rising from the sidewalk up to the huge main doors. And now the doors burst open as though the whole of the student body had been in one class and that just let out, and they came rushing down the falls toward him: the chattering and the dumb, faded blue and scarlet and white, plaid and plain, the sharp quick ones at their head and past him onto the crosswalk and then the slower ones, singly reflecting or doubly discussing. He gripped tightly to the handrail, and they flowed around him. He was just turning back from following them with his eyes when a tall black girl - gap-toothed, her stiff wire ebony hair streaming back - came sliding split legged down the double rail. One bare leg went under his hand so that his fingers traced a path up her equally bare hip and passed beneath. She was wearing a sheer yellow dress. He could see her nipples, darkness against dark when she hopped off, yelled, "Sorry!" and ran across the street.

Jack's native red went one full shade darker. He looked around, guilty, suddenly robbed of the poker face of the dealing man. But no one seemed to have noticed that he had just been the involuntary recipient of a quick stroke up a strange woman's thigh at a little past high noon under the graven name of William Barton Rodgers.

Laura sat on the cool tiles of the lab floor, the backs of her bare knees pressed flat down, her back against the ageless acid-tanned pine drawers. Under her right elbow was a cardboard box, a substantial container belonging to "Abel Packing and Moving, Somerville, Mass.". Under her left elbow the nearest bottom drawer opened full to its stop, tilting down under its load of miscellaneous glassware crusted with chalky residues, hairy worn electrical cords, blocks of greasy grey metal. She was holding up the very first piece taken from the top of the pile. It was glass, Pyrex most likely, although there was no manufacturer's mark. It had probably been hand blown. When? It could have been last year or last century. The design offered no clues: about ten inches long, it was essentially two concentric cylinders, the space between them leading out on either end to a nipple. The classic straight-bore condenser design, but where an everyday condenser would be fitted at top and bottom with ground-glass joints or at least accommodations for corks or rubber stoppers, this one widened out into globes, each of equal size. Each globe had a shiny silver wire sealed into it so that an electrical path was made from the outside to the interior. One globe opened into some kind of hemispherical joint she had never seen before that would lead to - what? A vacuum pump, maybe, or a cylinder of gas.

The open drawer was a junk drawer, a miscellaneous collection of equipment of no ready use yet which held the promise of being useful sometime in the future. Porcelain

Buchner funnels able to hold a kilogram of solid, pear flasks with straight tubes instead of jointed necks, an aluminum box bearing two screw terminals, a huge glass syringe which accepted some kind of a threaded needle.

And this electric condenser thingy. It was living in the drawer of weird shit because it could not be discarded. If you couldn't tell what it was, you couldn't be sure you would never need one. And it looked wicked expensive. Better to toss it back into the junk drawer. This was the provenance of all the occupants.

But she didn't put it back, and she didn't put it into the cardboard box. She held it tightly, briefly but fiercely incapacitated by a metaphoric stroke. When she had joined Forget's group, she had opened each drawer in the lab one by one to see where all the equipment was located and to get an overview of what resources she had. She had found then this same glass dumbbell and had actually taken it out of the drawer and put it on her desk for a few days, but not because she knew how it might serve her. It was then as it was now, a mystery, but - in her excitement and enthusiasm - it had been a mystery promising rewards within. She would soon know what this McGuffin was, she had promised herself, and she would hook it up to the vacuum pump or the wall outlet, whatever drove the thing - maybe both - and she would become conversant with it, an expert in its use. And then she would design a better one. The sum of human knowledge would incrementally increase, and she would have been the author of that, forever and without contest.

Now a new and devastating analogy came to her with a sickening certainty. There was an Empire out there, a realm of knowledge peopled by curious experimenters. They lived in their Empire and were never satisfied that what they knew was wholly complete - maybe not even wholly true. They questioned themselves each day, read accounts of each other's quests each evening, spoke together and argued into the night. The Empire was furnished with instruments which were mute yet would give a response to a query. The response was never false, so the challenge was to submit the proper query. The Empire was appointed with utensils and tools and containers sufficient that these queries could be prepared.

There was such an Empire, but this place she had gotten to was not part of it. This was a distant outpost, long forgotten and no longer in communication. Its radio was broken, the codebook long out of date. There would be no search parties, no rescue.

The dumbbell had been prepared carefully, perhaps even lovingly. But it would never increase the wealth of the Empire. She weighed it in her hand as a projectile. She must free it from this bondage. What surface would break it? Pyrex, properly annealed by slow cooling in a glassblower's oven to flow out the lines of stress that were the scars of heating, could be as tough as the old greenish-glass Coke bottles. Not the drawers opposite her. Wooden. The nipples might pop off on impact or on landing on the rather soft tiles, but the whole would endure to be an even greater abomination to her eyes: function waiting to be found, yet

when found, futile. The stone lip of the hood, the same solid black rock as the bench tops. Yes, yes, but such a slim target. The piece striking the slate reef amidships might only snap in two. She looked to the steel radiator beneath the window at the end of her aisle. Jagged edges, long thin teeth, and a painted stone wall behind that. It would serve. One motion and this innocent would be tiny unidentifiable shards, each too small to recollect its past life. It would be a quick and merciful end.

The door swung open and there were the sounds of Forget. Laura froze, her guts in rebellion, heart pounding, stomach or liver or whatever organ it was that made the primitive muscular implosion right behind the navel, the vestigial response that is equal parts fear and hatred. Two other boxes filled with her glass booty were stacked in the aisle. He would begin to vent, to make those ridiculous jerking chopping hand motions, squeaking angrily in that voice which had never followed his body through puberty. She closed her eyes.

Although it seemed that Nozick had been at AU forever, in fact he had begun working for Forget only six months before Laura set foot on campus. Nozick had walked into an empty lab - really and utterly empty, drawers hollow, hoods lacking even the support lattice of the metal bars, one wooden desk with no chair. And no equipment. And no way to obtain equipment because of Forget's pusillanimous and pathetically desperate acceptance of the University's lowball, insulting offer of “support”, so Nozick was conditioned to say what he says whenever he sees a piece of

glassware without a Lojack device bolted to it:

"Can I borrow that?" Nozick said, standing there being Not Forget.

It was not Forget, just the fear and hated Golem of Forget.

Laura made motions as if to pitch the apparatus at Nozick. "You rat bastard. I thought you were the head rat bastard. You were jingling your change, you sonofabitch."

It was the jingling of the change in the approaching Nozick's pocket which had worked its malevolent spell upon her mind and drawn the shade of evil over the innocent. Wait. No. He was not innocent. He knew what that muffled metallic tinkling would catalyze: the specter of Forget quick-walking in some rage down the hall, perhaps slamming his fist into an innocent locker, his right hand drawn unconsciously into the pocket, trembling there in a percussive fury as the resident keys and small change sounded their warning din, the bell on the cat. Laura and Nozick had so often done this in imitation that the joke had evolved to habit. One would be lost in thought, back to. The other would slink into range: just out of arms reach - to guard against a reflexive roundhouse hook - and set to shaking a pocket, sometimes two together with whatever would make a jangle inside them. So maybe Nozick was innocent of premeditated sin. He had absorbed the vile habit like some flatworm fed its pulverized fellows takes on their vices.

Nozick opened the box nearest him. "Pretty fucking slim pickings. Still, the very fact that there are any pickings at all

means that Forget didn't bring enough boxes the first time. He'll be back."

"I thought he was, you turd."

"You taking that...thing?"

"I don't know," Laura said. "But I hate to throw it away."

"Forget'll take it. You'd be awed by the carrying capacity of a twelve foot U-Haul truck."

"I'd rather put it out of its misery than let that prick have it."

"Ritual sacrifice? There's a thought."

He pushed the resume back across the table. "I'd put this guy at the top."

She picked it up and scanned it again. "Really? Over this one?" She pointed towards another sheet lying between them. "I would have thought he was much more qualified."

"He is, in many ways. He went to one of the top graduate programs in the whole world. Got his degree in four years. His advisor's on the short list for a Nobel. Recommendation's five star. These are all danger signs."

"How can there possibly be a problem?"

"The odds are good that he gets in here and expects to run his own research group. It's what they are groomed for, but that kind of stuff doesn't hardly exist anymore. Academics are working with an outmoded view of industry, where we used to have an R and D wing that was left alone to follow their whims and hope that something profitable came out once in a while. Now we have flat management

trees, cross-functional laboratories. The product cycles are compressed. We do research and development and manufacturing all at the same time – on the fly. We have customers on the phone wanting to know when, how much. Why is it so much? Or so dilute, or so whatever. We don't publish much, and when we do they are mind-numbingly dense patents. We'd rather keep secrets. This guy will want his name out there. He'll see himself as a thoroughbred trapped in a yoked team within a year or so and be gone, probably back to college. We'll have to go through this process all over again. Now this other guy didn't have as easy a time of it. It took him longer to get his degree. He had to teach much more than the golden boy. Pretty good practise for dealing with customers. Both these guys had to think their way around the scientific obstacles, but the one I want had to figure out how to get the job done on a limited budget, with improvised equipment and not much of a support system."

"So then tell me why we're advertising for a Ph.D. at all. If we're actually lowering the bar, why don't we interview at the batchelor's level? It would save your budget quite a lot."

"It would, but we need a mix of degrees. See, what people don't realize is that the Ph.D. isn't just the next degree. You don't just get your B.S. then reenroll in school and go to more classes and take some more tests and get the next diploma. There's a big gap between the two. They are in two different worlds. When you are an undergraduate, you are paying the school. The school wants you to be happy, to keep paying tuition.

“Once you get into graduate school, though, you aren’t a paying customer anymore. Graduate students are employees, paid to teach, sometimes - if they are lucky – paid to do research. The school could not care less about your happiness. You want a raise, benefits, more or less of anything? Tough. Go ahead and quit. There’s some kid in Pakistan eager to come over and do your work and not piss and moan.

“Then there’s the exit requirements. The undergraduate sits back waiting to be filled with learning. The Professor speaks, the undergraduate absorbs. Regurgitate the data on a few tests correctly enough and you are home. The Ph.D., on the other hand, means that you have done some original research. Sounds simple, but what it really means is that you have to be constantly defending yourself, explaining what you did and why. It leads to questioning all of the work of everyone else. Why did they do it this way? Were their conclusions correct, their evidence airtight, their reasoning sound? You need to be a skeptic. A doubter, a demander of proof. A B.S. given an SOP might think it comes down from on high, cast in stone. He or she will handle it with care. A Ph.D. will immediately get out a hammer and beat on it to see if any rotten pieces fly off.”

The spirit of a graduate student of science is sustained largely by promises. The day is long and the labor is not justly compensated. The reward for today's sweat will come on some tomorrow, that day being next year or in several

years, when the tallyman sums the many accomplishments lent to the Empire and writes out his script. Perhaps it is a postdoctoral stint at Cal Berkley, another season in the sun. Maybe a job at Merck, access to a multiplex of toys. Maybe even the big ticket: the ass-end lowest professorship at a real honest to god University chockablock with graduate students - fodder for another turn on the cycle of delayed gratification.

One of the many pathologies resulting from participating in this system of unsecured credit is a heightened sense of those fine vibrations in the ether which may signal some retraction from the big guarantee. The workers in the field miss nothing. The ripples in the tops of the crop, the whispers on the breeze, the tilt of the Massa's head. All are dissected, chewed over and digested in communal exchanges; debated, projected, expounded upon.

Even here at MIT, the place everybody seemed to know. Professor Arbus Bleem, tenured and chaired in the Department of Biochemistry, knew it far better than most of his fellow wizards, for he had spent his formative years in Norway. And not the ruddy-cheeked football-mad blonde Norway, but much farther north. Far enough that the famed ever-cheerful Scandinavian temperament was not sustainable during the months the sun lay below the horizon. Where even the largest house – and the average was not so very large at all - shrank in around the grim inhabitants from the pressure of the relentless night outside. In the tiny village where he had grown up, they learned a particular kind of human sonar that detected

subtle fluctuations in the mood of those close about so that they might alter course just enough to preserve the formation, the harmony of the unit. Failing that talent, or perhaps in time just growing weary of its practice and its need, they studied to pull the eternal ripcord. Bleem's mother herself had taken that path. They had found her just around the corner of the woodshed, lying on her back atop the snow, seemingly in the middle of making an angel. Open eyes as if she were stargazing, not with any wonder or interest, but tired of those points of light too far away to warm, so frigid they did not even twinkle. Wishing them away, taking the final measure to make them go away.

So Professor Bleem was cautious in his word and deed. He knew that he was watched and that his every motion would be exaggerated. This was why he always left his office door open. Always. He had even looked into having it unscrewed from its frame and permanently set off to the side as a grand and reassuring gesture, because he had found that a happy lab was a productive lab. And a happy lab was one convinced he had no agenda which did not include their well-being and ultimate promotion. But there were fire regulations in the City of Cambridge which prevented Buildings and Grounds from that action, though B&G was willing to bend the rules for Bleem, as they had a great regard for those members of the faculty, staff, or student body who had the good sense and manners to treat them with the deference due skilled craftsmen. B&G might be townies, locals who bowled, fished, and even ventured to play the Lottery quite against what at the Institute was

calculated to be a self-evident impossibility of return, but if Assistant Professor Feng Sheng Dik Ling wanted his cold room's 220 volt junction grounded properly and fitted with antispiking circuits, then he had better not talk to them like they were lesser mortals simply due to their disinterest in such fluffy things as differential equations. Bleem never did, for his widowed father was a North Sea fisherman, and Bleem had built a dory at thirteen using only traditional tools. He still had the plane on his desk, a fine iron and maple piece passed down from his greatgrandfather. B&G treated this as though it were a splinter of the True Cross of Norm Abrams. They would have genuflected before it - if carpenters had ever gotten as ritualistic as the masons.

He could not have the naked doorway that he desired, but he could and did rearrange his office so that his desk was visible to anyone coming down the short hallway which left the broader main corridor and which led to the cold room, the centrifuge room, and at the terminus, his office. The two rooms being crammed with the most useful tools of biochemistry, a heavy foot traffic was constant, waning only slightly for a few predawn hours. So it was that within several minutes, many in Bleem's group had looked to the end of the hall and seen their mentor in a familar repose: leaning back in his antediluvian swivel chair, his head tilted so that he was sighting down his long nose at the target seated across the desk, his hands making a church and steeple at his lips as he digested whatever the other was presenting.

The other being Jack, although they did not know that.

Looking was permitted; eavesdropping was understood to be just over the already liberal line. Jack could not know this. The door standing open had bothered him from the moment Bleem had sat down without closing it. Jack had waited, glancing periodically at the opening. Bleem did not help, made no move towards closing it, incredibly did not even seem to mind that words might leak out into the common, that anyone might look in and observe their business.

"Ah," Jack managed to say after a long pause, his eyes involuntarily going to the door again. "I appreciate you seeing me on such short notice."

Bleem nodded solemnly. Though Jack had presented himself as representing Allston University, Bleem still had a notion that he was in reality associated in some way with the City of Cambridge. Perhaps officially as part of the City Council, those solons who could be relied upon to hyperventilate in chambers while contemplating the latest Luddite cause, the current one being the great evil of genetically altered foodstuffs. The City Fathers had so far banned the sale within Their Fair City limits of any fruits, vegetables, or cereal grains whose chromosomes had at any time in their evolution been sliced, spliced, enhanced, deleted, sequenced, or in any manner touched, examined, or even considered as entities separate from their organic whole in thought experiments by genetic engineers. They had been on the verge of forbidding as well all research which could potentially be used to produce such abominations. There happened a long back-and-forth

regarding the proper categorization of the tomato for the purposes of the legislation, whether fruit so as to conform to usage or as vegetable so as to conform to USDA guidelines, that began as a question but degenerated rather rapidly into a vicious name-calling exchange on the edge of screaming that unmoved habitual onlookers realized had nothing at all to do with the vine in question but was just another foil upon which the current entrenched positions could be divided anew. It would end, as was usual, in a vote of three in favor of whatever the question was and two against. While these pleasantries were in process, aides in the fore- and backgrounds hunched over their cell phones in deep and revelatory conversations with wiser beings who pointed out to them that while the combined displeasure of the Star Market and Stop and Shop Corporations was great indeed but could be borne for the greater good, their proposal that Harvard University and the Massachusetts Institute of Technology simply quit the avenue of research onto which every laboratory and every researcher was endeavoring to lay foot upon if not already there would not serve them in reelection. Even leaving aside that biotechnology was the pulsing life force of the several dozen companies actively rebuilding some of the nastier buildings on the back streets of Cambridge to suit their new image, spending locally a fair part of the obscene amounts of cash which for the past several years investors across the globe had been queuing up to press upon them. Ideology was all well and good and commendable and stuff, the callers agreed, but against the giant crashing wave of billions in

endowments and billions in investments it was not the board to ride.

So the matter had been tabled, but Bleem knew it would elbow its way to the fore again, and perhaps this gentleman here was the harbinger of it. Oh well, Bleem truly enjoyed a good argument. He was willing to spend any afternoon standing on the sidewalk dueling with placard-bearing Cantabrigians who were righteously incensed by the hubris shown by Bleem and his ilk as they centrifuged and electrophoresed what was the exclusive domain of God. Or Gaia or the Great Spirit or the Life Force. No matter whoever or whatever it was that was in charge of the ordered Universe, their devotees possessed a firm and often cruelly loud conviction that Bleem was not welcome to inspect its fabric too closely.

He thought this argument before him today might be epic, for no other reason than the efficiency of his secretary, Mrs. Ramamurthy. Any work he had been able to do for the past decade was owing to her ability to protect him from his own availability. Four foot nine of denial and obfuscation; polite obsidian impenetrability. There were two doors into Bleem's office: the one he never shut, which opened to his laboratories, and the one Mrs. Ramamurthy labored never to be caused to open, which led out into her smaller office and then into the main pedestrian hallway and so on into the outside world. One legendary day the President of the Institute had the stones on him to just walk into her universe and ask for Bleem. She had kept him in her outer office for ninety minutes, where he cooled his well-shod

heels waiting for Bleem to be available. She entertained him with small talk and periodic phone calls where she inquired of Bleem to a dial tone, hung up with great resignation and rang up a fresh dial tone to cancel the imminent appointments of a string of greatly disappointed persons of mighty import. And then when Bleem destroyed her ruse by poking his head in to ask her a question, the President had his audience, but only after apologizing at length to Mrs. Ramamurthy for the inconvenience.

Jack therefore had Bleem's attention even before he spoke. A man who could talk his way past Mrs. Ramamurthy was a rare case, and no matter what form his petition took, Bleem was sure it would be presented by an orator of uncommon persuasive vigor.

The visitor's eyes were still upon the open doorway, his chin up, lips parted, a word being processed in his speech center but waiting there for some signal. Bleem made no move to improve their privacy, and eventually Jack looked back to the man behind the desk. His head tilted almost imperceptibly away from the breach as if some internal gearbox had shifted.

"Professor Bleem," he began, "I think we can do each other a great service. If you don't mind, I have a modest proposition."

Oh, sweet Jesus, Mary and Joseph, thought Bleem. *He's got his fucking theory on him.* For Jack had slid his right hand inside his coat and brought out a long, slightly bulbous envelope. Drew it out like a magician's deception, smoothly, without looking at it, and laid it flat on the desk

in front of him. Then slid it three inches towards Bleem in between the massive plane and a neat stack of The Proceedings of the National Academy of Sciences so that it was exactly hidden from the open doorway.

The visit had suddenly and unexpectedly turned on Bleem. He had such astonishing faith in Mrs. Ramamurthy that he was amazed by this breach, but he had to admit that the theorists had the best chance of bamboozling even her sensory array, for they could not be caught in a lie. Many exuded a smooth confidence in their imminent elevation to some scientific sainthood which would rapidly follow just as soon as their theory was revealed to the astonished, deeply appreciative world. Bleem wondered how the popular image of kooks represented them inevitably as unshaven, mumbling, pasty-skinned, and cadaverously-thin. Those adjectives were really more descriptive of his graduate students and postdocs. If you wanted to cast for a professor, even an emeritus, you could do far worse than the average kook possessed of a theory.

Which is what the various members of Bleem's group thought they were seeing as they glanced down the hallway: a professor, perhaps emertius, i.e., not a kook. Nothing but the ordinary; their man Bleem deep in thought, his large sharp-edged face that stood out farther from the head as you looked down it, from forehead to cheek to lips to chin, a cattle-catcher of a face, and across from him his polar opposite, though colored much the same: red and white and rose mottled together but never blending pink, the visitor's phrenology the antithesis to Bleem’s. The stranger's

forehead was Neanderthalic and lead his whole person into a room, the nose and chin following somewhat behind.

"Well," said Bleem, "what can I do for you?" His inflection of the *I* was so as to convey the pitiful inadequacies of Bleem's worthiness to receive the other's Most Righteous Theory. Bleem poised himself to spring into any opening presented him with a referral - name and exact directions from Bleem's door - to any one of several Professors of Physics, Chemistry, Biology, Food and Nutrition, even one in Nautical Engineering, who had been so kind in the past as to refer visitors in possession of several Secrets, Hidden Meanings, and Theories to him.

"What I need is just one name. What you need is...." Jack nodded once to the envelope.

"A name."

"That's right."

A name? Bleem thought. *The name of the Chief of the Government Conspiracy which is suppressing his work? He wants to trade the Theory for it, so he must not want this named fellow to have it instead of me.* Bleem usually enjoyed his obsessed visitors, thought they were in all ways time wasters. Indulged, they might be entertaining, but even those rare ones who turned peevish or boorish he treated as if he recognized them as fellow travelers seeking the truth of things and the story of the world. They simply were fascinated by the wrong data. But he did not like this demand for a name.

"And what manner of a name would you be seeking?"

Jack leaned forward, looked once more to the open door.

The hallway was empty. "I need the name of someone who will be receiving the Nobel. It is soon, isn't it?"

"Soon? No, the Nobel is awarded in December." *So your Theory has been stolen, is it? Vengance now is thine upon the pretender who has perhaps with his own hands broken into your Cambridgeport apartment, third floor rear in a badly-weathered triple decker, and surreptitiously copied from your dog-eared notebook. Or as you were nodding off in a Harvard Square doorway one winter midnight he padded softly up and gently pried it from your cradling arms, then photocopied it at the Kinkos?*

Jack's face showed it was a bad turn. "December. That's too late."

"The actual ceremony is in December." Bleem said. "The laureates are announced in the middle of October."

Jack perked up. "Middle of October! That's perfect!"

"And you said you wished to know the name of the winner now? Did you have a particular discipline in mind?"

"One of the sciences, please."

Bleem made a pucker of his lips. Theorists were never so imprecise; just the reverse. There was one small but heavy Postal Service box sitting down in his lab that contained five hundred or so typed pages - single spaced - shipped to him by a gentleman in Washington State who had deduced from meta-analyses (using his own proprietary algorithm) of Nuclear Overhauser Effect NMR data published over the past decade that the structure of RNA as described in the textbooks of the day was completely inaccurate. So inaccurate, in fact, that it could have only been the result of

a deliberate, wide-ranging scientific conspiracy which he and Bleem were to expose together. The analysis, discussion of results, and operational plan of action was presented in such high resolution that all details were sharp and clear and totaled about eleven pounds.

"You wouldn't mind telling me why you think I would know who any of the recipients would be? And why you would wish to know this if I did?"

Jack smiled a huge smile that Bleem could not reduce to motivation. "Because you are connected. And you're Norwegian."

It passed through Bleem's thoughts first that it was entirely possible that the fellow did not know that Alfred Nobel was Swedish, and that in December the media would be flying to Stockholm, not Oslo.

"The answer to the rest of it is simple. I want to hire him."

Now Bleem could die in peace, for the whole gamut had been run. From exacting revenge upon those who disrespected their Secret Arguments to calling upon them as peers, the Theory species had presented to him with all the motivations in between. But this was the very first time one had been looking to find a Nobel Laureate to make him an employee. Bleem almost asked after the nature of this employment but held his impulse just in time to avoid what he feared could elicit the Niagara of all marketing plans. But at least the motive was now in the open, and it stamped the other as harmless. Annoying and persistent perhaps, but crazy in a benign fashion and therefore now safe enough to

be made ammunition in the unnamed game in which Bleem and peers bounced these supplicants back and forth. Bleem ruffled through memory's debit file and pulled out an IOU.

"As it happens, I do have a name for you, a colleague of mine, though in physics, not any kind of biological study. Is that acceptable?"

"Physics is fine."

Bleem wrote out the name on a pad and passed it to Jack. "Carol Saltonstall. He's presently at Northern Arizona. I hear that he is on a short list." The short list happened to be Bleem's shit list, but Carol was a particle physicist, and who knew but that the next collision spray his graduate students analyzed would show the trace of some ring-the-bell particle which would upset the apple cart of the current model and start the chain reaction which could end with Carol in a tuxedo bowing to the King of Sweden, set to the background music: the gnashing and grinding of a hundred sets of opposing teeth in the heads of CERN villagers.

Jack started to say something, reading the name, but the phone rang over his first word. Bleem answered, holding into the air an apologetic finger for one second of indulgence. He listened to a question and answered it in a sentence which was more than half acronyms, turning his chair about and reaching up into a bookshelf for a skinny, untitled notebook. He flipped it open to one of the many pages marked by yellow stickies jutting out the side and read off more acronyms buffered often by numbers, volumes, and names of salt solutions and their necessary molarities. When he turned back, his visitor was gone.

Standing up, Bleem shrugged. That hadn't been so bad. No long soliloquies, no wandering, disjointed discontinuous logical proofs, no fist-shaking. Just a name on a scrap of paper and....

Afternoons, the sun through his tall office windows tested the limits of desktop albedo. The journals, lists, pieces of glass ware and plastic ware, incandescent in the rectangular spotlight. A blinding display, seemingly random and unarranged, but to Bleem it was an array ordered by necessity of the moment and mentally catalogued for retrieval. The white envelope, however, was not in his database.

He reached down to pick it up and hesitated only long enough to consider the remote yet finite possibility that it was thick enough to contain an infernal device. But the visitor had been carrying it in his breast pocket. And the flap did not seem to be glued down. Bleem flipped the envelope over. It was not sealed. He picked it up and put his fingers into it, spreading the white paper away from a thick mass of that familiar green.

The grassy field hard by the Charles River apparently was not benefiting from its proximity to the water. The spring had been dry for New England, only a fraction of an inch total measured at Logan over the past three weeks. Dry and warmer than the historical norm had left unirrigated grass like this soccer pitch the color of straw but not as soft, its needle remnants now prickly memories of green blades.

The longer this drought lasted, the higher the standing cloud of dust rose among the busy many-colored legs of the sides who gathered here in the afternoons.

Laura and Nozick were lounging under a scrub tree where an oval area had retained enough life force to make a reasonable cushion. The setting sun was touching the city horizon behind them at just the angle to reflect in bronze lasers from the thousands of windows on Beacon Hill and the Financial District. The aluminum of the Federal Building burned as hot as the alabaster cities Laura envisioned in terms familiar to her: sun-bleached chub bones and old conch shells, at every singing of America The Beautiful.

"Get this bad where you come from?" Nozick asked, tearing up a handful of brown grass. He offered it to the wind, but there was no reply. It returned slowly to his lap in a thousand death spirals.

Laura brushed her jeans where some stray deceased blades had landed. "Two days without rain is a drought there. In the low country, anyway. High up on the volcano, they might get no precipitation for months. But nothing grows up there. When it rains, you just get wet ash mud."

"Did I tell you I got a job?"

"You lucky bastard! You know you didn't tell me! Where, where?"

"It's a little shop called Combichemdotcom. Internet startup over on Albany Street in Boston, near City Hospital."

"Oh," said Laura.

"Oh what?"

"Nothing. That's great news."

"Sure," said Nozick. "But it's not real chemistry, isn't that what you mean? Nothing stinks, nothing blows up."

"Fuck you. I just meant that I didn't know you could program."

"Program shmogram. You know HTML, right? Well there's XTML, which has more definitions in it, and one of them is CML - chemical markup language. Lot of potential there for embedding real chemical... Am I boring you?"

"Yes. When do you start?"

"I already started," Nozick smiled. "Been working there since January. You remember the Web? It's world wide, but I only need it to reach across town."

"You were working on your new job in the lab?"

"Absolutely. That's why I moved my desk out from the wall, so I could see Forget come in. I'd have a big old page of structures in ChemDraw ready to pop up on the screen in case he got nosy."

Laura looked behind her. The goals were unguarded, both sides gone to the pubs for moisture. Except for a woman walking her dog away from them on the narrow asphalt path which followed the river, there was no one around. Across the river the traffic sped on Storrow Drive and not fifty yards behind them Memorial Drive was likewise humming with the commute, but the cars were too quickly past to contain credible witnesses.

"Shall we?" she asked.

Nozick looked at his watch, then the sky. "They don't

shoot the fireworks off until way after nine, on the Fourth."

"But it'll be dark by then."

"That's the point, son. There are things in this world better done in the dead of night. This is one."

"I'm not your son," Laura said.

They sat and watched the traffic and the lights come on in the Hancock and the planes and helicopters passing up and down above the Charles.

"I thought you had a job lined up at Novartis."

"I did," Nozick said. "have an interview. There and Pfizer. Had one scheduled at Proctor and Gamble, too. But after I'd had a look around and thought about it, I realized that the parts of those organizations that I'd want to work in were run by the Ph.D.s, essentially. They tried not to make it too blatant. Maybe they got some consultants who convinced them that they were team-oriented, flexible, horizontal organization, cross-functional. Still, in the end, the chemists with bachelor's degrees are the monkeys, and the doctorates turn the crank and collect the coin. With a master's I'd be the bastard child, and much closer to the monkeys than the organ grinders."

Laura had no opinion on that, and again they sat quietly until Nozick pointed out to her that Mars was visible. The absolute darkness essential to the fullest enjoyment of their mission would soon be at hand.

"I can get you a job there too," Nozick said softly. His whisper folded into the traffic noise so that Laura had to process the sound for a whole note to extract the words. She saw herself for an instant as an asset. It was a great and

hopeful emotion to have filling her, the idea that she could get up from this grinding patch of weed and move in any direction, and anything she would do she would do well and good. She could go to Albany Street. She could go anyplace, because she had a brain and a tongue and two eyes and was never afraid to ask what was this thing, what does it do, and how could it be done better?

That sucked her sight to the box Nozick had carefully laid down beside them. "How much?"

"Forty-three five a year. Health, dental, four weeks vacation, and stock options."

"Holy Christ," Laura said, dividing by twelve. Their graduate stipend was several hundred a month, for the eight academic months, with summers being catch-as-catch-can among research grants and summer teaching. Nozick was proposing three and a half grand a month, year round.

"And stock options. Did you hear me? Let's say we work there a year and take the maximum options and we get one percent of the firm and IBM or some other bunch of idiots with way too much cash come in and buy up the IPO or take us over for a billion or so. We'd be filthy fucking rich! For doing nonblowup chemistry in a nice climate-controlled room!"

Laura hugged her knees to her chest and rocked happily, imagining herself a multimillionare.

"You ever see If I Had A Million?" Nozick asked. Laura shook her head. "Old movie. Black and white. It was on the other night. Premise is, some rich old guy gives a million

bucks to four random strangers. To pick them, he drops water on a phone book from an eyedropper. This was back in the thirties, when a million was real money and there were still phonebooks. The first three winners are pretty lame, but the last lucky guy was W. C. Fields, who has just been run off the road by a reckless driver, so he uses his new cash to buy fifty or sixty old cars and hires guys to drive them behind him in a long line. Whenever he sees somebody driving rudely, he floors it and runs the guy off the road. The two cars get smashed to hell, and he climbs out of his wreck and shouts 'That'll teach you, you road hog!' Then he goes to the next one of his cars in line, pays off the driver from a big roll of bills and takes off looking for another road hog. That gave me my current dream."

"So who would you be - the old rich guy or W.C. Fields?"

"No - I'm going to hire thugs, maybe one a week, who will ring Forget's doorbell and when he answers it, beat the crap out of him. I'll have the day and time vary, just so he has to go through life wondering exactly when he gets the living shit kicked out of him."

"Bad karma."

Nozick made two fists. "Karma cannot be paid without some mortal vehicle to deliver for past transgressions. Forget was some seriously-fucked-up horrible person in a previous incarnation to deserve this life. Butt ugly and stupid as a paving stone."

Laura leaned back and looked into the darkening sky. "Now?"

Nozick shook his head. "What do you think?"

"I think," she said, "that if I got a great job like that, I would never have the courage to finish."

"For what? You won't hit the big payday working for Monsanto. You'll have a good salary and never anything more."

"I have to finish. I want it."

"Why?"

"I don't even know. I need my Ph.D. I need to have the paper. You want to know why I need it? I want to know how you can live without it."

Nozick shrugged. "Maybe I won't be able to. I might go back to school someday. But it sure as shit won't be here at Smart Juice University."

Laura closed her eyes expectantly. "Explain that."

"Okay: Jethro walks into the kitchen and sees Granny holding a big jug. He says Hey, Granny. What's that? And Granny says, It's smart juice, boy. So Jethro grabs it and says, Lemme have a swig. So he lifts up the jug and takes a big pull. Then he spits it all out in a big spray and shouts, Granny! That's turpentine! And Granny laughs and does her little jig and says, See, you're getting smarter all the time!"

"Christ," Laura said. "That's even relevant."

"Come and listen to a story 'bout a man named Jed," Nozick sang, rather discernibly. "Took Elly May and he threw her on the bed."

"What?"

Nozick pulled the cardboard box toward him. "I said that the time has come for all good men." And he opened the box and lifted out the mysterious Pyrex dumbbell.

They had made some modifications to it. Although its true functional nature was not known, they had adapted it to this, its end use. Nozick and Laura had washed it out with soapy water, then rinsed it with ethanol and dried it with a heat gun. Under a nitrogen atmosphere, they had with great care and respect filled the inner of the glass sleeves with molten potassium metal that had ran silver as mercury into its new home and slowly resolidified to fit its new abode. Laura had felt something like a priest of ancient Egypt ritually preparing a body for mummification. Except that mummies were tarred up to last for eternity, and the Pyrex corpse was fitted with a quite reactive metal which wanted only a drop of the good Charles to initiate its fiery passage to the afterlife.

Nozick held the offering in both hands, away from his body, exactly horizontal, a holy man with one of his relics. The silvery surface of the potassium was more perfect than the best mirror. It reflected the stars, the city lights silver and blinking red, their dim faces in a strangely wonderful elongated fisheye lens. The effect was of a timeless perfection, which it was - in a metamorphic way. Nozick had long before brought some of this very potassium up from the subsubbasement chemical morgue because he liked the way it looked. It had been formed in short stubby cylinders packed into its protective oil bath like metallic kosher dills, in a slightly amber gallon jar, with a tin and wax seal on the top and a yellowed, hand-written label clinging to the side. It was not dated. It could have been manufactured in 1950 or 1850. Even 1750 was not out of the

question.

Now they were standing as far out into the river as they could on three flat-topped ebony rocks that formed a little natural jetty. Nozick handed the cylinder to Laura with great solemnity. "Madame, would you be so kind?"

Laura took the loaded glassware gingerly. She bounced it lightly, testing its weight, judging the thrust necessary to heave it out as far as she could without causing her to go all Third Law backwards off of the rock.

"We commend to the deep this thingy," Nozick boomed out in some kind of accent he probably thought to be a facsimile of James Mason. "It was a good thingy...though we knew not what it did."

"It's commit to the deep, not commend to the deep," Laura said.

"Whatever it is," Nozick declared, still in character. "Better this watery grave, a quick merciful end in the hope that it will someday be resurrected in Paradise than to be taken to the pit of Hell itself by the lying thieving son-of-a-demon whose name decent men dare not speak."

"Amen." Laura wound up and slung her charge up into the night sky.

For a long moment they lost it, she had managed to toss it so far. Then it hit the formless water, and they saw it spinning its way beneath the surface.

Nothing happened, but they did not breathe. Laura had plugged the nipple inlets, the small channels the water would have to enter to encounter the potassium, with tight plugs of Kimwipe tissue. The water would work its way

through, eventually, but how long that might be they did not know. It was an experiment, the first and most probably last of its kind. Their only fear was that the tissue would prove so unexpectedly water resistant and the cylinder so dense that it would sink to the bottom of the Charles and stay there until dawn came to chase them home. Then it might rise up like an ancient mine from a forgotten war and scare the hell and bejeesus out of the Harvard lads rowing by in their coxed eights.

Laura let out her breath and was just about to ask Nozick for reassurance when she saw a light beneath the water. It was a point, possessing no width or length or apparent depth, that glissandoed into the visible spectrum from some ultraviolet starting place and was now hovering in the blue, teetering on green.

I love chemistry for that, she thought. Bringing these things into contact that would be otherwise forever happy alone, never knowing their potential for change. Gathering complex molecules from the world, sequestering them from light, oxygen, heat, and water in an inert solvent until their irresistible urge to diffuse drives them into the influence sphere of the others in solution and the kinetic and thermodynamic inevitabilities begin. Change. There was nothing more delicious than creating a new molecule never before known on the planet and probably never in the whole of this universe, and navigating that journey from known to novel with nothing but your thoughts and a few milliliters of anhydrous tetrahydrofuran.

Nozick was behind her to the left, and she was turning

her head to see what his face would tell her when he seized the whole of the back of her shirt and yanked her. They flew together onto their backs just as a billowing dragon's breath cloud exploded amber over them, illuminated for an booming instant both sides of the river, cars, goals, trees, buildings, and them, then was gone back into pitch black even darker than before for the sudden destruction of their night vision.

Nozick sat up. On the river, several dozen hissing, popping demons flew randomly about on the surface: chartreuse, ivory, and turquoise by turns. They flickered out one by one until the night was reestablished.

Laura's pulse was thundering in her ears, and she found that she was panting. She stood up and looked around. No cars had stopped. No sirens. No one running to see what was the matter with the suddenly detonating Charles.

Nozick walked back out onto the stones and looked down into the water. "You know what I hate about chemistry?" he said. "Doing something totally amazing in chemistry is like pissing your pants in a dark suit. You get a warm feeling but nobody else notices."

"What the fuck you doing?"

Charlie Travares didn't turn around upon hearing this challenge. Instead, he reached into another pigeon hole, plucked out a sheet of yellow paper – folded in thirds, sealed with an inch of clear tape, and addressed in longhand pen to Bill Budnick – and tore it open.

“Looking to see who’s teaching with me,” he said. He wasn’t worried about being caught. Adam Winn had been right behind him in the hallway before stopping off for a quick piss.

Adam stepped up beside him and took from another cubicle two envelopes, a stiff red cardboard mailer, and a sheet of paper identical to that addressed to the unpresent Mr. Budnick. The graduate student mail drop was this grime-blackened wooden grid of rectangular holes screwed to the wall. It was one of the only reasons to come into the Graduate Student Lounge, that dark closetlike space in which no one had ever managed to lounge. Twice a year D’Arcy’s secretary, Marylou Hitchman, ventured into the gloom and replaced all the names. Crisp black letters on white sticky tape. It was the only reliable source of information in the whole Department about who had dropped out.

Adam opened his sheet. “101,” he said. “Stringfellow’s section. How about you?”

Charlie patted his breast pocket, from which his folded notice peeked. “310 with Wizened Nuts.”

“Budnick?”

Charlie read the sheet and shrugged. “No assignment. I didn’t know Hendrickson had summer money.”

“He has to be getting a research grant, though.”

“Not necessarily.” Charlie took out another folded sheet. This was his third year in the program. It felt like ten. Adam, a first year man, had just joined Whisenhut’s group this term and thus still had some innate trust in the

goodness of the world and the fairness of the system that was yet to be beaten from him. “Some professors have been known to cast their people loose for the summers.”

“Jesus,” Adam said. “You’d have to get a job. You’d never get any work done.”

“Or maybe you shouldn’t be working for someone who can’t support a group, eh?” Charlie fanned himself with the unopened sheet. “I got research money one term. Fall term two years ago. Some one fell asleep at the ACS and gave Wizened Nuts some Petroleum Research Fund money. They heard he was a greaseball and thought he was a new energy source.”

“That must have been sweet.”

“Fucking A it was. Being able to come in every morning and work straight through the day. No lectures to sit through looking like you were interested. No discussion groups to lead. No whining undergraduates coming by the lab to ask stupid goddamn questions whenever they feel like it. No tests to proctor and grade. Nothing. Just a wide open lab all day every day. You, young feller, don’t appreciate it yet. You’ve only taught one semester when you were also trying to work, and that was a Mulligan. Nobody expects you to get anything done in the lab until your second year anyway. This is what it is for a week of teaching: three hours of lecture, four or five hours of discussion group, two hours of official office hours, and three to five hours wasted outside of those hours answering questions because you’ll not be a big enough bastard until you are into your fourth year to tell the firm-titted wide-eyed blondes to go away. So

what's that? Like fifteen hours a week shot to hell right there. And that's not even counting preparation time. Reading the text, doing the problems beforehand so you don't look like an idiot in discussion groups. And that shit isn't even in a row – that's a big problem. It's blocks of time spread out here and there, always in the back of your mind so you really can't just sit in the library and think or tinker with a reaction at the bench. One eye always on the clock. What a monumental pain in the ass."

"A friend of mine from college goes to Berkeley. He said he is on a research grant already. He had to teach one year."

"Then," Charlie asked, "why didn't you go to Berkeley?"

Adam looked down.

God damn it, Charlie thought, then said, "A couple of years before I got here, a group got in some trouble. One of them was teaching a big lecture class that happened to have a shit load of premeds in it. They were coming by the lab and asking for this guy every ten minutes. So the group closed and locked the lab doors, but the premeds would pound on the door until someone had to come and open it and tell them the guy was not in if he wasn't. Sometimes when he was. Then one day when the guy really wasn't there they put up a sign in the window that said: don't bother knocking, that their TA had passed away, they were all sorry about it, but he was deceased and please don't knock on the fucking door. The guys in the group hadn't stopped to think that they were dealing with premeds. Who of course immediately called Mom and Dad. My TA is dead, what am I going to do, this will probably affect my grade in some

undeterminable manner. And Mom and Dad call the University and scream bloody tuition nonpayment, which gets the attention of Dean Nash, who comes down on D'Arcy like the Nazis on Poland and the shit rolls down the hallway in a tidal wave."

Adam blinked. "Geez. What happened to them?"

"Supposedly, D'Arcy delivered them all formal letters of reprimand. In person. They read them en masse, silently, then they took them out into the hall, tossed them in a pile, and lit them on fire. Then pissed on the ashes. Then told D'Arcy if he ever came into their lab again they were going to do the same to him."

"Come on." Adam said.

"True story," Charlie said. "Two of them had been here six years. Motherfuckers like that you better not cross." He crumpled the paper in his hand and underhanded it in the direction of a dented grey trash can. It bounced off the wall and skittered to a stop on the tiles next to another sheet that was just unfolded enough to show: Geiger, Paul. Chemistry 101. Professor McAllister.

McAllister certainly does not notice the brief reddish-yellow glow on the northwestern horizon. Head down, he is shuffling slowly across the boulevard to the trolley stop. After another long day of too little real work accomplished, he is exhausted and depressed. A brand-new BMW swerves around him, blowing its horn. He glances at the back window and sees, as he expected, an Allston University

decal.

The two-car trolley that comes is moderately full, but when he climbs up the steps, he sees one seat open and drops into it, sighing. The woman next to him looks familiar, though she is turned away from him. Something about her hair makes him look past her into the darkened window at her dim and colorless reflection.

She turns her head and he recognizes Cynthia, the stockroom manager. "Hi," he says.

She considers his face. "Professor McAllister?"

"That's right. How are you?"

"Peachy," she says, but he can tell she isn't any kind of fruity right now. The trolley dips into the Kenmore tunnel, cutting off the sky. Out the window now is concrete, old, spotted with rusting metal eroding, rushing past. "How was your day?"

"Oh...." He would usually reply in kind. Small talk, call and response according to the bland social norms, conveying no real information. But something - probably fatigue - makes him blunt. "It was crap. I spent all day grading. Making the curve and worrying about the kids who were so close to getting the next best grade. I didn't get any work done. A total waste."

She looks at him, more concentrated now, shedding the polite distant face. "You want to know what I did today?"

"Sure."

"I destroyed a kind old man."

McAllister sees that her eyes are filling and turns away to read an ad over on the other side of the train. She keeps on,

not taking the opening he has tossed her to let whatever she was starting to quiet. His gesture signifies that he is willing to forget what she has just said, to let her shift to another, less intimate topic. *We never had this conversation.* But she wants now to tell him, to unload on someone to whom the names will be faces.

"Nash called me this morning and told me to help Professor Colder clean out his lab. He said that Colder was ready to give up the space. You know that Colder hasn't had a grad student in four or five years. He doesn't have any money. He just teaches and works in the lab by himself."

"He teaches a lot," McAllister says. "Three courses this semester, I think."

She nods, working her lips with her teeth, distracting the tears. "And the undergrads love him. I hear this all the time. They tell me shit they would never tell you. They think he's like the absentminded professor. He has that dark blue suit he always wears, and he forgets to zip his fly. So he's flashing bleached cotton at them, but they can't figure out how to point it out to him, so they let it go." She laughs. "But he's patient and kind. Two things alien to this place."

The car is jolting, yawing sharply. Their shoulders touch briefly before McAllister slides away to give her more room.

"So I rounded up some of my work study kids and took them down to Colder's lab. He was sitting at his desk, reading a journal, very absorbed. I knocked and came in. From the way Nash had talked, it seemed like Colder would be waiting for us. I said, 'Professor Colder? We're here to help you clean out your lab.'" She looks out the window. The

car is stopped at Park. Some get off, some get on. McAllister thinks that the story is over, that he has somehow missed the point. She might get up and leave. What does he say? *Could you start over from the beginning, please?*

"Then I saw the look on his face. And I knew that he didn't know we were coming. Nash had never spoken to him, never warned him at all. The poor old man had no idea...." He sees the tear balloon out over the lower lid of her left eye and fall to her shirt. She makes no move toward it, or toward the next one. "That sonofabitch Nash. I haven't felt like such a piece of shit in a long, long time. Colder just got up, closed the journal he'd been reading, and walked past us, out of his lab. I was sick. What had I done? To this harmless man? He walked out standing up straight and didn't look back. I didn't see him again."

"Jee-sus," McAllister breathes. "Did you clean out his lab?"

"What do you fucking think?" She snaps at him. "I am never going in his lab again. That rat bastard Nash can do it himself." She stands up and walks to the door. The car is slowing for Government Center, and she steps out as soon as the doors slide apart.

TUESDAY

It was five-thirty on a late spring morning in Allston, Massachusetts. Unlike some of the other neighborhoods in the City of Boston, Allston had never had its own independent political being. Historically an area of industries in the Town of Brighton, it had been given its own name just a few years before Brighton was annexed by Boston. Large swaths of Allston land had once been railroad yards, slaughterhouses, and livestock pens. There was absolutely no reason to think the cosmos had arranged events so that the teeming campus of the University had ended up just where thousands of head of dumb cattle had once milled aimlessly waiting for a hammer blow to the skull.

The dawn sun was just beginning to back light where on a less humid day the horizon would be. The jet stream had bent to the north, allowing the tropical air mass afflicting the southern part of the Atlantic seaboard to ooze up over New England. Tuesday was promised as "The Three H's" on local news: Hazy, Hot, and Humid. Conditions which Yankees routinely beseeched their mighty God for when in the frosted black of winter but could not cope with when their foolish prayers were actually answered, as Northeast

construction did not ordinarily include whole house air except in the newer public buildings and the lavish homes of those who would spend such days as this boating off the Cape anyway.

The previous day had been scalding, and the temperature had not fallen during the night - suggesting to the living world that it was a time to husband energy, to lie low, to minimize motion. Birds, flying insects, trees, even the tiniest flea sensed it. With the atmosphere in stagnant gridlock and the fauna soporific, the morning brightened in an eerie stillness.

Except in one second-floor classroom-turned-laboratory, where the lights blazed and the inhabitant was moving about maniacally. Professor Anthony Forget ("It's Fore-*zhay*, for Chrissake! It's *French*! Fore-*zhay*!") was packing glassware into cardboard boxes. He had a stack of folded boxes at one hand and at the other, two groaning full, duct-taped shut. He was harvesting the row in which Laura had rediscovered her sacrificial artifact, plucking out Ehrlenmayer flasks from a high, narrow drawer and dropping them into the box at his side as though they were some hard green fruit which could not bruise rather than clear fragile glass.

A hand tested the bolted door. The shaking rattled the glass, and Forget straightened, looked to see that the newspaper pages he had taped together and then over the inside of the window was unpierced. He smirked and was reaching for another handful of Pyrex when he heard the metallic slicing of a key working into the lock, and the door

opened.

His face underwent the transformation often described as darkened, which in Forget's case was more of a change of hue, from pasty uncooked dough-white to a blotchy rose, like a nasty rash, accompanied by contraction of the muscles around the nose. Forget's angry countenance was a caricature of that emotion, frightening to small children, comic to all others.

The intruder was no small child. Cynthia Angress, the stockroom supervisor, looked coolly at Forget, whose color was quickly fading, as she removed her key from the door. She opened her fingers and the ring of keys reeled back into the holder clipped to her belt.

"Good morning, Professor," she said, not looking at him but estimating with an experienced eye the cargo he had already boxed. Nash had given Forget permission to take with him what equipment he had acquired in his three years. Forget was busily interpreting that permission to mean that he could acquire equipment merely by laying his eyes upon it, as a weapon acquires a target. He had a rental truck backed up near one of the doors that opened onto the little parking lot out in back of Pebble Science. Cynthia had just been looking down from her window and saw him unlock the truck, stuff in five heavy boxes, glance around like an animal whose lot in life was prey, and scuttle back into the building. For more booty, she had guessed, and she walked down to his lab.

One sunless winter afternoon before she had even met Forget, Harvey Nash, Dean of the College of Arts and

Sciences, had oozed into her office. It was a sunless winter day. Her office was on the top floor of Pebble Science and gave her a view over the Charles. Out of the huge old inefficient metal-framed windows the low unbroken cloud cover over Cambridge was like a swirl-textured ceiling the color of damp paper mache. She had her feet up on the wooden tongue that slid out from under the top of her oak desk and was sipping Earl Grey – hot - when Nash entered without knocking. Nash had a lifeless grey skin tone straight out of a news photo from the Eisenhower era and the puffy, formless face of one who ate too many simple carbohydrates. Plus, he was short - shorter than Cynthia's five nine. She did not have a prejudice against short men, did not think them inherently prone to behaviors any worse than taller men, but she had anecdotal experience that a man who was predisposed to that uniquely male vanity which must see his ego protected and worshipped would display boorish, childish symptoms exaggerated by his lack of physical stature.

"Good morning, Miss Angress," he had said, accentuating the Miss.

Cynthia had swung her chair around and looked at him, then at the clock behind him. "Dean?" Though he was in some ways legally her superior and could theoretically fire her, she did not stand up or offer him a seat.

Nash walked to her desk, pushed back a stack of lab manuals, and sat, his right butt cheek supporting his weight, his arms crossed at the wrists.

This is way more familiar than I want to be, thought

Cynthia.

"I'm sure that you heard about our new faculty hire," he said, as though rhetorical, as though she was already privy to the details. Which she was, and that owed nothing to Nash. The Department conducted the process of filling a faculty vacancy like the College of Cardinals ran the papal elections, but the Department did not even deign to signal its decisions with puffs of smoke. The candidates had given no lectures, met with none of the staff - and few of the current faculty. There was no apology given for their methods, nor had Cynthia expected one. It was predictably the Nash she had come to know: tight control, paranoia, fear of the unknown.

But Cynthia had her sources, and she could not resist. "You mean Anthony Forget?" The name had not been announced yet. Nash's eyes narrowed just for an instant.

He wants something, she thought. *Otherwise he'd been all over that like plastic flowers on his mother's grave. One more leak for him to track down and plug.*

"Yes," he said mildly. "He's rather a special case, fundswise. He's in the process of obtaining several grants, but for the time being he will be operating mainly at our indulgence. Naturally, he will look to you for assistance in the way of equipment and supplies. The administration is concerned that if we indulge him too much now, he may lose his... enthusiasm for pursuing the securing of those grants. You understand me."

Cynthia nodded. *Yes, I understand. you are spewing bullshit all over my office. You hired someone desperate*

for a job who was willing to swallow his pride and accept your lowball offer of a miniscule salary with a couple thousand dollars of startup funds and you're already trying to screw him even more. You'll work him to death teaching too many classes for a few years, then deny him tenure. Rinse and repeat.

"Good." Nash got his rump up off of her desk and smoothed the front of his pant legs absentmindedly. "We will give him nothing from the stockroom or any surplus equipment until he can pay for it by grant."

"I understand," Cynthia said.

And Nash had left, without himself understanding that she had not actually agreed to anything - and that he had just made Forget a new ally.

But Forget had ultimately proved himself incapable of telling one end of a gun from the other. He turned away from her steady gaze and pulled out another couple of flasks. Cynthia had never spoken to him about anything but chemistry and the necessary paraphernalia of chemistry. Even when she had endowed him with a working gas chromatogram from her secret supply, an old but fully functional Hewlett-Packard which would have cost him at least twenty grand to buy, his thanks were as brief and perfunctory as if somehow he thought it was he doing her a service.

He put the flasks - three 100 milliliter round-bottomed flasks with ground 14/20 joints, ($34.40 apiece) - into the box. They clinked loudly, glass on glass, and Cynthia winced.

"Would you like some help packing?" she said. "I have two undergraduates on work study who can come in today."

He looked up nervously, suspiciously. "No - no, thanks. I'll be...done by then." And he opened the next drawer.

You fucking asshole, she thought, suddenly furious. *I stole most of this for you. Or looked the other way when you stole it.*

She left without a farewell, which would have been a deliberate rudeness had it been toward any one in the world other than Forget, who took no notice. Ten steps down the hall, she heard the lock turn in the door. She gritted her teeth and walked more quickly. She had given Forget heaping boxes of useful glassware, heating mantles, clamps, electric rheostats. She had done it to spite Nash, sure, but she always expected to get at least the larger pieces back, or to know where they were so the next crop of needy graduate student could "borrow" them. Now Forget was stripping the place, apparently with the consent of Nash. It was as though they had joined in this unexpected and unholy conspiracy to defraud her. She rounded a corner and punched a bulletin board so hard that several of the top layers of notices busted free of their tacks and fluttered to the floor like buff and green leaves.

No one was lurking this early in the morning in the hallway of the upper basement in Pebble Science. As the day warmed up, though, they would come. If they arrived in pairs, one would stay out in the landing of the stairway to

watch out for - in descending order of panic - their research advisor, Dean Nash, or Cynthia. If they came in threes, the third would be stationed around the corner to cover any less likely discovery from the corresponding level of the management building. Then the primary conspirator would slide back the stainless steel cover on the ice machine and commence bailing shaved ice into a cooler. At that point they were committed. There was no excuse now, no plausible song and dance that could conceal what they were about, which was: preparing to blow out of the lab for the beach. The lookouts sweated even though the upper basement never heated up, for if their research advisor chose this moment to blunder down upon them, on his or her way to the stockroom storage in the subbasement or even preparing for descent into the subsubbasement and its inky cul-de-sacs and the chemical morgue, they would lose not only the portion of the day they would have to spend back in the lab bustling about vigorously before they could make their next attempt, but they would lose a large portion of their moral currency deposited in their individual accounts by virtue of previous earnest labor.

So no one was about to see McAllister perform his voodoo dance. Neither of his graduate students were in the habit of coming in to work in the lab before ten, so they were not witness to his primitive display. One, Patrick Moran, worked two shifts: when the sun was up he studied for his doctorate in chemistry and when the sun went down - way down - he was the lead vocalist/guitar/manager of a band called I'll Have A Window Seat. Moran, another guitar

player, the bass player and a drummer played loud, rapid ska. McAllister had gone to hear them once at the Middle East over in Central Square. He had stood as far in the back as he could, not from shyness, but because the power output of the assorted speakers stacked haphazardly atop one another at the front of the stage was out of all proportion to the lack of depth in the venue. Indeed, the technology and expense evident behind their sparkling ebony cloth gave the lie to the appearance of abject poverty one would otherwise suppose the band to be in the midst of. Which they were. McAllister knew that Moran's stipend from teaching left him with only his mouth gasping above the poverty line. And he was the rich one in the band, the one on whose floor the drummer was now sleeping.

What a weepin' and wailin' dung a Caymanas park
What a weepin' and wailin' dung a Caymanas park
Long Shot - him kick de bucket
Long Shot kick de bucket...

McAllister was singing into a glass microphone, actually a synthesis tube he had designed. It was a simple reactor for peptide synthesis he was using to prepare lipopeptides by the solid-state method. A stout Pyrex tube, threaded at the top for a plastic cap, a glass frit sealed in the bottom, thus permeable to liquid but not to the several cubic centimeters of plastic bead trapped between. Below the frit was a stopcock by which the liquid could be drawn off. Today he was using the classic Merrifield polymer, polystyrene beads 200 to 400 mesh studded on the outside with chloromethyl groups which would react and covalently bind the nitrogen

of an amino acid so that where the bead went the acid must follow. Then McAllister could add amino acids to the one fixed to the bead, one at time, to eventually build up a peptide which would all the while remain attached to the beads. The soluble reagents and unreacted amino acids from each step were washed out through the frit with the reaction solvent. A peptide chemist would stop at the end and decouple the peptide from the bead with trifluoroacetic acid and be ready to move on. But McAllister was making a lipopeptide. He would attach at the last step not an amino acid but a diacyl glycerol, two-thirds of a molecule of fat, and that would change everything. Peptides were water soluble; lipopeptides were both water and organic soluble - they acted a lot like detergents and foamed like hell when agitated in solution. Peptides were robust; lipopeptides were prone to breaking down by losing one or even both acyl groups at extremes of pH and temperature.

McAllister was not worried about that at the moment. He had begun to shake the reactor in time to his tune. The dry beads whacking by their thousands off the inside of the plastic cap and then rebounding in a minute stream of clacks from the frit brought some distant association to mind, some aboriginal sounds, rain sticks, dry gourds, leaf skirts. A spontaneous chant, a spell song attended by his shaker of incantations. He faced where he thought east to be, and sang a welcome, speaking it out in some tongue he did not know. It became a summary of all things in the world past. Then he pivoted to the north wall and shook his magic rattling flask high over his head and celebrated the

moment that was always now. To the west, to the doors, became a entreaty to the future. Finally to the south, and he dropped his hands as if helpless before some awful truth. Four points of the compass, four walls, three eras, three times. There was a leftover. It was not a symmetrical ritual. He felt incomplete.

Outside, even as early as it was, the sun was beginning to heat up the eastern wall of Pebble Science. McAllister thought he should be able to hear the cracking and popping as the stones expanded against the cooler foundation. He knew that by extrapolating what he knew to be true to predict what might be found in an unknown situation. It was the same process as designing an experiment. If he found that acetic acid did not cleave the tertiary butyl esters on his lipoprotein, he would try next with trifluoroacetic acid. Because it was a stronger acid, it might just push the reluctant reaction over the hill of activation energy. He had a body of experience; it was fuel for a manifold of possibilities, combinations of reagent/solvent/time/temperature to try, and a rough conception of the likelihood of success so that he could mentally prioritize them for action. The checkers game of the scientific method was to him now automatic, but he could still remember his first semester in organic chemistry and the general sensation of entering into a work shop, walls thick with tools whose functions were unfamiliar to him. He felt now the same kind of distance from understanding, and as he put the shaker down on the bench, he felt unarmed and alone.

The tools he needs today must be feathers and fur, candles and powders, crystals and icons and none of it in the Aldrich catalog.

The human body does not one thing that is not determined by some receptor system. These biomolecular communities intercept signals from the outside world and collate them into messages which percolate up from our unconscious. The photoreceptors extant in some way at the back of our knees regulate circadian tides of neurotransmitters; pheromones evaporate from a brunette's armpits; the soft stroke of a hand at our back as we sleep is like oil upon the watery crests of EEG tracings emanating from so far down in the brain stem that we could never waking have any influence over their angry peaks.

So it was not a surprise that even the leathery-souled Geiger strode into the building that fine bright spring morning whistling a tune whose lyrics included no references to death, depression, or failed love. He tripped lightly down the gleaming tile hallway and tossed open the door to the lab without remembering to flip his usual ritual bird in the direction of Shaftner's office. The lab was ablaze from the sun. The amber bottles of solvent on the top of his shelves reflected red and orange and prismed bright hues of apricot across his desk. The round-bottomed and Erlenmeyer flasks he had washed the night before and hung from white plastic fingers over the sink glowed, serving as deformed fisheye mirrors showing twenty and more

miniature happy Geigers opening the freezer.

From an iced-over metal tin he removed a thin glass tube capped with a tiny red hat. There was about an inch of a clear liquid in the tube, and he held it up to the light and nodded with a laugh. For here was the source of his cheer: two milligrams of a simple tetrahydrofuran derivative, its core a pentagon ring of five atoms - four carbon and one oxygen. Though it was substituted in three positions, though the second carbon bore the exotic selenium, it was still unremarkable. Geiger, grizzled in spirit but with only four years of daily organic synthesis, had no obvious reason to take such pleasure in its construction. But he did, for this tetrahydrofuran was a model study, a proof of method. DESPIRIMIDE, the fading structure hovering over his desk like a tombstone, contained just such a tetrahydrofuran. The all-*cis* stereochemistry of the substituents in the DESPIRIMIDE ring - the three appendages to the ring all pointing up so they were on the same side of the plane of the ring - was not easily formed. Geiger had, he was convinced, thought up a new way to construct the necessary arrangement. That would have been accomplishment enough, but he believed that he had also been able to cleverly place the selenium so that it could later be used to attach the tetrahydrofuran ring onto the rest of the required rings.

He believed. He had so far only circumstantial evidence gathered from one silica gel thin-layer chromatogram. He knew that the spot which corresponded to the starting material was no longer present in the reaction products,

which on the plate were three very different species. One was unmoved from where he had applied the spot, at the origin, and was probably some salt, polar, unwilling to move with the hexane and ethyl acetate running up the plate. Another spot appeared all the way up the plate, right at the line he had penciled on to mark the farthest advance of the developing solvent. This one was no doubt an oxide of tributyltin, the final form of one of the reagents in the reaction mixture, tri-n-butyltin hydride. But the most beautiful spot was the one in the middle of the plate, just above where the starting material would appear if present. This was the largest spot when viewed under ultraviolet light, and when Geiger put the dry plate into a glass chamber containing iodine crystals, the spot rapidly darkened to a deep violet as it complexed the iodine vapor. Both were manifestations he expected from the compound due to the selenium atom. He had no reason to expect the reaction to have proceeded so well, and he was trying to stay calm, to put down the vile hubris rising in him, the worst sort of jinx, a cosmic beacon that the sadistic yet befuddled being which was the god of chemistry might not ignore. So at three in the morning he had calmly taken the whole of the reaction up into hexane and washed out the water-soluble byproducts by shaking with brine, then dried the hexane over anhydrous magnesium sulfate, filtered it, concentrated it, dissolved the gummy residue in deuterated chloroform, filtered it into an NMR tube, and - just like he could care less than nothing what it were - gone home. That was to throw the god/demon/sprite/gremlin off the track.

Then he walked the three blocks to his apartment and slept like a stone buried deep in the quiet earth, and when the summer sun rose incandescent over the Fenway, he leapt from his futon and rushed to his curtainless bedroom window. A flex of his biceps and it was up - his head poking out like Scrooge on Christmas morning, looking for the lad to send round for a goose. Joy!

So in that mood he proceeded down the hall and turned to fly down the stairs to the basement room in which waited the Varian, Judge of Protons. The Judge would tell him what he needed to know by examination of the hydrogens in his - his! - furan. And, Geiger told himself with such breathlessness as a thought could possibly be, it did not even matter if he had not made the exact molecule he hoped for. It did not matter even if he had made something else, something which could not possibly serve as a foundation for building his despirimide. Because whatever he had done, he was sure it was a reaction not described in the literature, leading if not to the furan, then to some very similar class of compounds which may be structurally integral to another natural product, anti-cancer agent, killer of AIDS, headache powder, whatever. It really didn't matter. As long as he could knock out a dozen or so related compounds, he could publish the method, first in Tetrahedron Letters as a short communication, then in the Journal of Organic Chemistry as a longer paper. Then he would find a natural product built around his - his! – furan (or whatever it was) and make it using the Geiger conditions. No - the Geiger reagent. The Geiger reaction. Or

he would build just enough of the natural product to show that you *could* make it using the Geiger reaction if you cared to fuss with the details, which he would not. He would be off to other, more important matters, leaving the Shaftners of the organic chemistry world, the second-raters, the small-minded noncreative grinders who squeaked through their careers by the grace of drips and drabs of grant money tossed down to them solely to paint the fine, almost irrelevant, details upon the mighty edifices constructed by the real creators of the world, the rare minds who brought forth gems like the Geiger reaction.

On the second flight of steps, the ones leading to the basement, he saw the unmistakable back of Geoffrey Stumm, but not even the awful visage he knew was on the other side could dampen his smoldering pride and expectation. He quickened his pace and passed Stumm, holding his breath involuntarily the same way a full bus from the elementary school goes unnaturally silent on the road past the cemetery. Stumm did not react or offer a greeting. Geiger did not look back. The Judge was waiting.

Geiger's touchstone, the Varian 90 Megahertz Nuclear Magnetic Resonance Spectrophotometer, had its own home in the topmost basement level. It required a room which remained at a constant, cool temperature and was situated in such a location that vibrations were minimized. It needed these conditions because the measurements that Geiger - and the other graduate students and faculty who were preparing and analyzing organic chemicals - required of it were it were much like magic. If a needle is one millimeter

thick, then the haystack the Varian searched for that needle was one thousand meters high. That was a quantitative analogy. The qualitative, intuitive one was that NMR was fucking magic. You put a compound into solution in a little tube, dropped it into a magnet, and obtained the structure. Intermediate in the sequence were the mysteries of nuclear spin, the puzzle-solving fuzzy logic of the human brain, and the improbable transform of Fourier.

Geiger opened the door and instantly sensed something was very wrong. The bright sour-blue tinge of the fluorescent lights and the three-note-chord murmuring hum of the basement were unchanged, but there was an audible and tactile gap where once had been a soft rush of cool wind from the air conditioning vent.

The room had been emptied. No chairs, no metal desk, no stepstool. No magnet, no console. No NMR. There was only a 8½ by 11 note taped on the wall, printed:

TO ALL NMR USERS,
Abel Movers is moving the NMR to the new building.
N. D'Arcy, Chairman

One of Chairman D'Arcy's favorite tasks is showing off what he has come to consider over the last twenty years to be his Chemistry Department to prospective graduate students. He has one in tow this morning, a chubby, downy-cheeked lad who hails from the Midwest. Newly minted B.A. in Chemistry from Inson College, he has followed the

gradient of science by its scent upstream to Boston. Unfortunately, both the Harvard University and the Massachusetts Institute of Technology Departments of Chemistry have declined his offer to join them, but he is sure that Allston University will be an acceptable substitute. Hadn't his teachers always told him to go to school in Boston? Well, four years later, the idea seems as good as ever. After four years in a slumbering forested enclave, he is more than eager to pitch his little tent in the bright intellectual light of Boston, MA.

Harold Tardiff was so ready for life at Allston University that he practically jumped into his Volkswagen in his graduation gown. He has a three month lead on the late summer date he has been told to report for the Graduate Entrance Examination. Sleeping on the floor of another Inson alum who is going to law school at Boston College, he has already begun to look at apartments close to the AU campus. His naturally ruddy cheeks are looking somewhat pale now; as a matter of fact, he is looking a bit like a zombie as D'Arcy drags him towards the new building.

D'Arcy has just revealed what the graduate teaching stipend will be for the upcoming year. In the low - very low - four figures per month, it seems minimal even by Harold's recent rural Pennsylvania standards. But D'Arcy offhandedly disabused him of his instant mental multiplication by twelve, telling Harold that the stipend was for teaching and paid over only the eight months of the school year. Now the young lad's brain is busy computing: multiply by eight, divide by twelve. Compare to the rents he

has seen in the Globe classifieds. The answer is unsettling. He did not count on having to find summer employment. He had a vision of long hours in the lab, sun streaming in the windows, softball games by the river, drives to the beach.

They approach the new building. Harold sees the enormous brick cube, set back from the street by a wide patch of weeds and dirt which the construction company is still using as a staging and storage area, much of it roped off by yellow caution tape. D'Arcy is more excited now. He has been running on about the scientific amenities that will be available in the new space, all of which have bounced right off the uncharacteristically grim Harold Tardiff.

"...on the benchtop," D'Arcy is saying, "and the latest hoods. Nine feet long with complete services. Each researcher was allowed to design their own laboratory, so I think you'll find that the groups will be very happy with the equipment and the way it is deployed."

It occurs to Harold that perhaps D'Arcy has forgotten that he has already been admitted to the Graduate School of Allston University and does not need to be sold on the place quite so hard anymore. Then it occurs to him that the Chairman is maybe just really happy to be getting a new building. They have stopped at the entrance, where further progress is prohibited by large signs:

HARD HAT AREA
AUTHORIZED EMPLOYEES ONLY

and by the presence of a burly man wearing a Howe Construction shirt and a bright silver security badge.

"Perhaps I need to get a hard hat," muses D'Arcy. "I must be authorized."

Geiger stands in the middle of a bare space, arms out, head thrown back, eyes shut. Still clutching his thin glass tube, he sees all: through his eyelids, through the ceiling, piercing all the floors, into D'Arby's office and out the roof, his vision breaking past the top of the building to the blue arcing void high above. He feels the atmosphere around him thin. He could try to scream – but no one will hear. The sound will not carry, and he does not even dare try for fear that there will be no way to refill his lungs.

Alan Perry opened the door to his home and his childhood hit him in the face in the puff of stale air the door fanned over him. There were Passover latkes exuding out of oil that could never quite be removed from the tiles behind the range top. There was the kugel and roasted chicken and sour cream and brisket. There was the waxy smell of candles, the kerosene smell of oil lamps, the burnt wood and singed paper smell of the fireplace which was now cold and strangely clean.

His parents had not lived here for two years since moving to Tampa, and he had not lived here for real since leaving for the dorms of Brandeis twenty years ago, but still

this house was home. High above a small winding road that led down and fed into Brookline Avenue and then into Washington Square, the house was a behemoth of the late 1800s - three stories rising from an unusable, impractical rock-walled basement where the air always felt oily and damp.

He had advised his parents to sell the old place. He certainly did not want it - it was way too huge and would take too much attention for him to covet. But they were content to hang on to it, mostly because the second-floor tenants, Lev and Iryna Yudin, had become their close friends. It had been mostly his doing, too. In his teens he had been caught up in the neoZionist enthusiasm sweeping Brookline and had talked his parents into sponsoring a Russian immigre, who turned out to be Lev, an elderly engineer. Then they worked to bring over his wife Iryna, a nurse, and set them up on the second floor. Alan happily moved to the third floor.

The Perrys - who had been Perensteins not too many generations ago - and the Yudins got along famously. Lev and Iryna were passionate, talkative Russians. Childless, they had many intellectual interests and were soon dragging Alan's parents along to plays, poetry readings, and other events of the mind. The only drawback was that Lev had a heart problem that forced him into retirement almost as soon as he arrived in the States. Iryna found ample work and was soon a shift supervisory nurse at Beth Israel, where her language skills – Russian, of course, and also some Lithuanian, Latvian, and Estonian - came in handy. The

couple lived comfortably, but only just. When the Perrys decided to move to Florida, they could not bear to sell the house. The Yudins could not afford to buy it. They could not have even afforded to keep it if it were give to them outright. And they did not want to follow their sponsors and old friends to Florida. There was no Russian Jewish community to speak of there, certainly not one to rival that of Brookline. If the Perrys sold, the Yudins would certainly have to move. So the Perrys simply did not sell, but remained owners in absentia.

Alan came home to an empty ground floor, but he knew that the Yudins were right upstairs. He would go up and say hello later. For now he slung his bags into the front room and laid his laptop out on the dining room table, left behind with all the other furniture by his parents, who had gotten bit by a strange desire for Southern yellow pine once they arrived in Tampa and had filled their condo with a combination of yard sale treasures and Gulf Coast artisan hand-crafted antebellum reproductions.

He turned on his computer and plugged it into the phone jack. The modem connected - the line was live. Good old AT&T or Verizon or whoever they were now had powered the lines up as requested. He logged onto his ISP and checked his inbox at www.alanperry.com, his professional site.

He had come to rely on the polling skills and instincts of his friend Dom Sibini, an old hippie from Queens who still wore a ponytail, believed in democracy, and was intuitively connected to the Zeitgeist. Within an hour after Jack had

asked him to come on board the Lynch campaign, Alan was on the phone to Dom. And here in the inbox was a thick virtual folder. Alan went to see if there was coffee in the freezer while it downloaded.

There was no coffee, so Alan drank a can of room temperature Goya pear nectar while he began to read Dom's report. He opened the file Dom had named Deep Thoughts, which would be Dom's take on the attached results of his telephone and personal interviews.

Al-

Christ, you know how to pick the hopeless cause, don't you? Lynch has the lowest Van Camp ratio I've ever measured - basically, few people know who he is, and of the few who do know, 93% give him less than a 5 on the adjusted Schubert. To know him is to not love him, apparently. You pull this one off and you are a god.

Dom

The main page of the Allston University website was built around a large picture of happy students strolling on a dense green lawn toward a chrome-and-glass building. Tree branches entered the frame from off camera, reinforcing the impression of a bucolic campus nestled in the rolling New England landscape. The photographer had contrived to exclude from the shot the Mass Pike, Storrow Drive, or any hint of the acres of concrete and asphalt upon which the remainder of Allston University students wore down their

Doc Martins. Sharp-eyed surfers, perhaps native to the Boston area, might wonder exactly where this building waited for those chipper virtual students, and those enrolled at the University might believe that in their travels up and down the long urban campus they would certainly come across it eventually. But none ever did. Which in itself would incite no suspicion, for the campus of Allston University stretched across the whole of Allston. School buildings - added through the years, mostly by purchase and occasionally by construction - were interspersed with and indistinguishable from businesses and homes and apartment complexes. The chrome-and-glass building itself was nowhere among them. In fact, no one knew where it was. The web designer had copied it off a CD of stock images for an example, and the University had never given them one to substitute.

Text surrounded the picture, large words which were links to informational pages of which the University was especially proud: ACADEMICS, DEPARTMENTS, FACULTY/STAFF, ADMISSIONS, STUDENT LIFE, and LIBRARIES. The libraries link led to an overview of the Allston University Libraries. Further down the page, under Departmental Libraries, were links to the libraries maintained by the several Departments of study. One had to scroll down for a while to see them, but they were the same type size as all the rest. Including the link to the Library of the Department of Chemistry, which by point weight was apparently the same magnitude as the Libraries of the Departments of Law and Medicine. It was an electronic

illusion. The Library of Law occupied a whole floor of the monolithic Law Building, and the Library of Medicine served its hundreds of daily users from three floors high in a venerable brick structure. It was really the Library of Science and Engineering which was their peer in volume of written learning. The actual Library of the Department of Chemistry consisted of four small internally-connected rooms on the first floor of Pebble Science. These had been classrooms when the building was constructed. In that year of 1910, there was no need for a room dedicated as a library. There was then only one journal of chemistry, The Journal of the American Chemical Society, which most faculty members subscribed to and kept in piles in the corners of their offices. Specialist journals were years away. A chemist of the day probably knew by name and had shaken hands with all the workers in his field.

But the number of chemists was growing, the number of their publications increasing. The War to End All Wars was inconveniently fought against Germany, previously supplier of all chemicals. Local industries around the Allied world needed acids, bases, dyes, solvents, and that necessity spawned chemists and chemical plants in abundance beyond the borders of der Fatherland.

So as the volume of chemical information increased, in 1922 the Department had declared a room on the first floor to be the library. They had constructed a few shelves to hold the journals to which the Department subscribed and toted in a table and chair for the occasional reader. In 1939 the next room down the hall was converted into storage for

back issues. In 1952, the third room was colonized, and in 1961, another explosive spurt in science after the Sputnik debacle dictated the confiscation of the fourth and last room. The original doors from the hallway accessing these last three rooms were locked from the inside. Patrons entered by the original room, which still served as the reading room. The latest issues of the three dozen odd journals received into the library were put out on oak shelves. Unpadded wooden chairs tucked around rectangular tables served all who wanted to enter, for this room was open to the general community. At any time you would find one or two graduate students leafing through the fresh issues and clusters of undergraduates reading or talking over problem labs - quietly - so as not to draw the baleful bifocaled glare of Lucille Slowic, the Chemistry Librarian. This majestic woman sat at her desk much like St. Peter sits behind his at the Pearly Gates. Lucille had arranged the room so that anyone who dared to think to enter the next connected room would have to pass fully under her inspection.

It was the next three rooms of the four that were holy to the chemists who had delivered them into Lucille's care. The first held the Chemical Abstracts, the collected concise descriptions of all papers published in every chemistry or chemistry-related journal anywhere in the world. These thick black tomes lined the room floor to ceiling, and sitting in their midst one could actually feel the chemistry knowledge field generated from the concentration of so many results. The field created a bubble surrounding you as

you sat at the tables leafing through the abstracts. You grazed back in time, from the young high-gloss ebony of recent volumes to the dull flat black of those volumes worn by decades of searching hands.

The Abstracts were a time machine, a communication device for sending notes back, back to 1907, the year of the first collection of condensed chemical publications that bore the name of Chemical Abstracts. You could no longer call up Professor Dennis and ask him about his experiments on Hydronitric Acid, as he had passed in 1936. But the abstract to his 1907 paper on the subject was there. His students had gone on to faculty positions and industrial plants, and their subsequent works were abstracted as well. The chemists they trained formed the next generation, and so forth. It was a Biblical genealogy of begetting. The tree branched and forked until the dates approached your time, and if you were worthy and good, it might enfold your contribution into itself, and you would have been joined to a new family.

Still, all this was ink on paper, with all the weaknesses of printed information, foremost of which was the piecemeal manner in which the information could be retrieved. For the graduate student of organic chemistry, it usually boiled down to the ability to find something approximating the right recipe. A plus B always seemed to give C, at least on the lecture hall blackboard, but how much A? How much B? What to dissolve them in? How high to heat them? How long to let them stew?

Consider the plight of Stumm, who sits there now, in as still a pose as is possible without medication, staring down

at the sheet of paper on the table before him. In the center of the paper is the structure of a compound which D'Arcy has drawn for Stumm to synthesize. It is not complex: a benzene ring substituted with a chlorine atom, a nitrogen atom, an oxygen atom bound on the other side to a carbon atom, and a carboxylic acid group. D'Arcy does not know if the molecule, although seemingly uncomplicated, has ever been prepared, or if it can be prepared. Neither does Stumm. It is a chemist's daily plight: how to prepare a molecule using as much of the knowledge of others and as little of your own effort as possible.

Stumm has trudged about the building, the wrinkled sheet in his pocket, until he fell as if by random into the room which holds the answer to his query. D'Arcy has not given the molecule a name. It might reasonably be called 6-amino-2-chloro-4-hydroxybenzoic acid, numbering the six carbon atoms of the benzene ring in order, starting at the carbon bound to the carboxylic acid group and going first towards the chlorine atom because it is the heaviest atom attached and then arranging the substituents in alphabetical order. But there are other equally legitimate conventions. It might be called 2-chloro-4-hydroxy-6-aminobenzoic acid - if one wished to list the groups in order of their distance in carbons away around the ring, beginning with the carboxylic acid. Or it might be called 2-amino-4-hydroxy-6-chlorobenzoic acid, if one were to ignore the method that suggested chlorine be the group that specifies the direction of numbering the ring. The structure was also fairly named as ortho-chloro-para-hydroxy-ortho-

aminobenzoic acid using the classical descriptors for substitutions about a benzene ring. It really didn't matter; a chemist versed in the art would instantly reconstitute the same picture from any of these names.

The chemist in industry, moreover, likes to name chemicals like they were pets. These monikers are trademarkeable and stencil nicely on the sides of barrels and tank cars. So if D'Arcy's compound was a commodity, it might have a short name like Tamerol or XD-500. On the other hand, if it were a rare and precious substance which had so far only been obtained by laborious extraction from the mucus of some emerald-green endangered rain forest frog, some natural product chemist might have been privileged to name it. Verticillatamine or thomasidioic acid or rutaecarpine.

The little molecule might have twenty names, each as valid in its way as any of the rest and just as nearly useless to poor Stumm. Unfortunately for him, the true nature of an organic compound even as simple as the one D'Arcy desires can only be approximated by a name. Molecules gather into families and communities whose commonalities are reactive tendencies governed by their structures: the bonding order of their elements, the way those elements are situated in three-dimensional space about the reacting center, the relative electronegativies of those elements. None of these vital parts of a compound's personality are simply captured in alphanumeric. There are efforts made, broadly, to categorize by name. Morphine was isolated by Sertürner in 1805. He took an acidic solution of opium

extract and added ammonia to the water. When the solution became basic, a solid precipitated out which when ingested - in analytical amounts - put the investigator into a sound sleep. This the dazed chemist named for Morpheus, God of Sleep, with a suffix to denote that it was alkali-like, that is, alkali drove it from solution: morphine. So too were cinchonine, quinine, strychnine, and brucine of the same family of alkaloids eventually isolated. But morpholine is not of this family, though it contains the nitrogen atom and bears the -ine which characterizes the alkaloids. Morpholine is a small molecule, a solvent and reagent which has virtually no chemical reactivity in common with morphine. And methionine is not thought of as an alkaloid but as an amino acid.

A frustrating corollary of this deficiency in the language is that two molecules may behave virtually as identical twins in a particular chemical reaction but have few parts of their many names in common. This is what is ailing Stumm now. He has not been able to find any reference in the abstracts to the reaction he seeks: methylation of 6-amino-2-chloro-4-hydroxybenzoic acid. Indeed, he will never find one as hard as he looks or as lucky as he may be, for there is no such reference. It happens that the exact same reagent and conditions that are commonly used to methylate morphine to codeine would work admirably on Stumm's compound, but Stumm does not have the organic chemistry background to know that his small molecule has several of the same features as morphine, and he does not have the tools to find the information.

The old doorway beyond Stumm is locked, its rippled translucent glass darkened by a board covering the other side, the gilded outline of 181 MOOR hand lettered on the glass barely visible. Though the shelves reach nearly to the high ceiling in most of the room, near the door they are short enough to see that the original chalkboards, actual slabs of thin slate bolted somehow to the wall, are still in place. A wide band of molding runs across the top of the chalkboard. Here someone has scratched into the yellowing paint words so deep from repeated tracing that they look like actual carvings chiseled into alabaster. Whether the original artist retraced his or her lines or if generations of admirers each added a bit of depth to honor the wisdom cannot be discerned. It reads: TWO WEEKS IN THE LAB WILL SAVE YOU AN HOUR IN THE LIBRARY.

What Stumm really needs sits on an old typing table just around the corner in the next room. There, a computer is plugged into the only network outlet in the library. The solution to the whole name problem had been resolved in the most satisfying way. A picture of the desired compound can be used to search the electronic version of the Chemical Abstracts against its millions of stored chemical structures. Even more useful, parts of a compound one needs to make can be used as queries, and answers found that are themselves only part of larger structures. Stumm could find that morphine reference and be on his way.

But the Universe again conspired against poor Homo Stumm. Several years before, President Lynch had picked up his copy of U. S. News and World Report, turned to the

article “America’s Most Wired Colleges and Universities: Prepared for the Future.”, ran his eyes down the list and did not find any entry for Allston University, though the list was fully one hundred and fifty schools long. This brought on a Presidential tizzy and resulted in a crash program to run cables of every kind between and among every AU building. Opportunistic chairpeople of academic departments took advantage of this momentary largesse as the act of accidental insanity it was and submitted long detailed lists with accompanying marked floor plans so that network ports might litter their buildings.

D’Arcy had a different approach. He ignored the whole thing. He never used a computer and saw no need for them. Sure, there were some individual groups who did. Dubie for one, and Khan. Finally, after the AU IT guy who was coordinating the installations had called D’Arcy five times and Marylou Hitchman ten times, the Chemistry Department request was sent. There was only one port requested, in the Chemistry Library.

The day the technicians came in to run the cable and install the port, Whisenhunt had been in the stacks reading. He asked the men what they were doing, asked them when they would be working on the third floor, his floor, putting ports in his lab. They looked at him blankly, and he jumped up and left muttering. Less than an hour later, a group of five faculty members en massed into D’Arcy’s office to have a few question answered.

The answers were: No, the request time had passed. No, there was no second round. No, any more work would have

to come out of Department funds. No, there were no funds for that this year. No, none had been budgeted for next year.

Thus where Stumm might have sat among a bank of computers in some other library, perhaps catching the eye of some pitying soul who would have actually helped him find what he needed, in reality he sat staring at the structure on the paper and wondering what deity he had offended to deserve this.

When she looked back on the whole affair years later, Sh'Nika Denton would describe her actions as a big bad idea, but she was never able to decide where she should have stopped. The ill-advised decisions, the wrong turns, the tumble of the die onto its worst side. It was a series of tiny things that each slipped past her without being challenged. It reminded her of a movie she had watched on Channel 38 very late one Saturday night, a black-and-white movie about an airplane that crashed on a beach. An investigator tried to reconstruct what had brought the plane down with the help of one of the airline's stewardesses, who had been the only survivor. The others on his team, all white men in short-sleeved white shirts and skinny black ties, had been unable to find any mechanical reason for the crash and so were blaming it on the pilot, who hadn't survived. But one of the pilot's friends fought this conclusion. He thought instead it was a series of smaller missteps that doomed the flight. They went to great effort to

reconstruct the flight, even loading up a similar plane and flying the same route at the same time of night, as though they were fishing for Fate with the same lure. It turned out that a drink had been spilled on some electronics and that had caused the crash. They spent a lot of time pissing and moaning about Fate, especially after they found that a simple glass of liquid in the wrong place at the wrong time had sent so many people to their graves. Sh'Nika had realized halfway into the movie that it was cribbed shamelessly from Thorton Wilder's The Bridge Over San Luis Rey, which she had read when she was in the fourth grade and used to wander about the Mattapan Branch of the Boston Public Library grazing undiscriminately on books that caught her eye. This one had a picture of struggling figures falling into a deep canyon. A monk who had seen them fall tried to analyze why five innocents had fallen from a broken rope bridge - a hooded, one-man prehistoric NTSB. Eventually he figured out that he could never figure it out, and in the end he was burned at the stake for even trying. But the makers of the airplane crash movie gave it a happy ending, like the 1950's couldn't handle a random Universe. It was right after that she found out you could order books from the other branches of the BPL - hell, that there *were* other branches - so she read The Cabala, Woman of Andros, Heaven's My Destination, Ides of March, Eighth Day, Theophilus North, and The Alcestiad, or A Life In The Sun. But she liked the first book the best. Wilder knew an essential that everyone who lived on or near Blue Hill Avenue knew. The Universe was not random

- it was evil. It did its best to push you down, into the street in front of the Dudley bus, kick you over on your way to school, catch you alone in the street in the deep twilight. The white men in the movie couldn't be expected to know that. Their Universe had rules. In their Universe you wouldn't be eleven years old and playing four-on-four in Franklin Park on a summer afternoon and have some older kid sprint right through your game, the fear like dried foam all over his mouth and chin. And he wouldn't try to hide behind your team just as another kid starts pulling the trigger on a tin pistol with tape-wrapped grip, one-handed like he was Dirty Harry, lack of training and practice and now the movement from the elbow guaranteeing that the slugs spray out in a wide cone that ignores you and your suddenly frozen team and the crying target and instead finds the five-year-old girl who had been sitting quietly on the dirt just off the edge of the asphalt. Because in the Universe as seen on Channel 38, the good guy has some magic juju lead repellent that lets him roll behind a car and avoid a deadly hail of automatic weapon fire tracing back to a dozen cold-eyed killers. In the Blue Hill Ave Universe where no music played along, you could be five and attract one lead slug.

So you survived to be eighteen years old in Sh'Nika's neighborhood by making good decisions every day, most conscious, some instinctive. But Allston was not her hood, and she had made a mistake. She had assumed that the rules changed just because the sidewalks were brick and the light posts were made to look like antique cast iron. Most of

all, she had let Ederildo Cruz play the rabbit. He had led her down a hole and everything down here looked like Fate paying back.

Ederildo had a way of staring off into the distance, even when in a small room, like the very back room of the stacks the day he originated the Hack. Maybe his inner eye saw it out on the horizon like a sail top over the curve of the earth. They were lab partners in Chemistry 445, Physical Chemistry, only the second class she had ever had with him. They were both in the Undergraduate Chemical Society but were not really friends. Sh'Nika hadn't come to AU to make friends.

"What is it they call Professor Dubie?" he asked.

She looked up from her notes. "They call him The Big Spliff."

"Why?"

"You know. A dubie is a joint. A spliff. It's Jamaican."

He looked at her, then turned his eyes back out the window. "Who calls him that? Is it just the students? Did they - did we make it up?"

"I don't know. I guess so."

"You had said once a name for Professor McAllister?"

"He's Blue Valour Man Group. He wears that blue valour shirt all the time in the winter. You've seen it."

He didn't speak for a long time. She worked out the problem and had started the next when he turned in his chair and put his palms on the table. "These names. They are like the secret names given to Indian warriors. They are our gift to them. A sacred gift. A gift of respect and honor."

"The Big Spliff? The Tumored Fly? Scrofulous Toad?" It was the kind of 'respect' that would get your ass kicked in Mattapan.

He ignored her. "We must do something so that they endure after we are gone."

It was another of the pearls in the necklace, the moments that eventually added up to inextricable trouble but which individually did not cause her alarms to go off. She had let her guard down. She had gotten comfortable and had forgotten to check behind her. She stopped for a moment thinking automatically that what any man or woman said to her was not to be trusted without verification. But she had trusted Ederildo Cruz. He was not a gangster or a punk. He was from wealth, he was relaxed and suave, and even though his skin was not much lighter than Sh'Nika's, he had an air of ownership even when he talked to Professors that Sh'Nika had always envied.

Unfortunately he also knew that no matter what pit he fell into he would be pulled out of by family. Lawyers, guns and money would always mobilize in defense of the Cruz name.

Marylou Hitchman's coffee cup ("I DIDN'T SAY IT WAS YOUR FAULT. I JUST SAID I WAS GOING TO BLAME YOU.") was descending from her mouth when Geiger barreled through the outer door of D'Arcy's office, the door handle slipping from his grasp due to the excessive torque he had applied to the door with his hip, the door continuing

on to slam into the wall with a crash that would have caused a less steady woman to spill some of the hot contents or perhaps even drop the container altogether. Hitchman was not perturbable. She looked sympathetically at the panting, sweating Geiger.

"Is something wrong?" she asked.

Geiger didn't know where to go with that. Something wrong? Everything was wrong. It was easier to think of the things that were not wrong. Shorter list, much shorter.

"The NMR." He got out after a while. "Where is the NMR?"

Hitchman shrugged. "Abel Movers must have taken it to the new building."

"So when can we use it again? Who's setting it up?"

Hitchman shrugged again. "Ask them."

An electric motor kicked on, whining protest. A thick cable larded with bluish grease began to wind around a large thimble. The cable pointed plumb, into the midnight of the shaft, quivering like a guitar string. A rusty iron cage rose up from the hole and clanged to a stop below Hennessee. The lone occupant jabbed with the heel of one hand against the door and stepped out. He was wearing a long-sleeved plaid shirt and muddy Levis rolled up above scarred boots. He looked to Hennessee more like someone who should be lobbing pound and a halfers into the bins at Hooks Lobster than the next Nobel Laureate in Physics. The man looked up at Hennessee, squinting. He had a sable

beard shot through with grey and an Arizona Diamondbacks cap squashed down over hair overdue for a trim.

"Professor Saltonstall?" Hennessee asked, coming down the steps.

Saltonstall peered up, his eyes still cave blind. He took the extended hand and gave it a brief shake. "What can I do for you?"

"Actually, I came to do something for you."

"Really." Saltonstall stopped beside Hennessee for a second, then kept going up the stairs. "C'mon - I have to get a PMT cable."

He climbed out into the small level area where a dented red Suburban was parked next to Hennessee's rented Chrysler. He opened the truck's tailgate and began to poke about among the many boxes, wires, cylinders, and other various and - to Hennessee -unrecognizable supplies. He teased out of a kaleidoscopic tangle a single black wire with cylindrical gold fittings on either end, shut the gate, and turned to walk back towards the pit. Hennessee, still standing by the Suburban, suddenly realized that the man had forgotten about him and would step onto the lift and be gone and – judging from what Hennessee had seen of the man - never remember the visitor.

Hennessee took three quick steps to catch up to where his left shoulder was about an inch away from his quarry's right, but Saltonstall did not look up. He was worrying with one end of the cable. Hennessee walked straight at the top of the steps. Halfway there, shoulders touched and

Saltonstall looked up, checked visibly through his short-term memory, and said, “Oh. Sorry.”

“No,” Hennessee replied. “I’m the one who should apologize – for interrupting your work. But I have a proposition for you that I couldn’t entirely leave on voicemail.”

Saltonstall cocked his head defensively. “Allston University, right?”

“That’s right. Can I have a minute of your time?”

The physicist looked down at the cable. “Actually…no. Sorry. I have to get this hooked up PDQ. We’ll miss the window today if I don’t…. And you can’t come down with me. Insurance.”

“Of course,” Hennessee said. “Then I’ll be brief. We want you to come to Allston University. We want you to move your entire group. We’ll fund all the work you are doing now as well as fit out two floors of the new physics building to your specifications. We will triple your salary and guarantee the maintenance of all your present industry fees.”

“Wow”, said Saltonstall. He pushed up the brim of his cap with a stiff forefinger. “That’s something.”

Hennessee held out a card. “I’m staying in Reno tonight. Give me a call.” Saltonstall nodded and put it into his shirt pocket. He took out his wallet, slid out a business card, and gave it to Hennessee.

The physicist climbed back into the elevator cage as Hennessee looked down at the writing on the card. “Excuse me, Professor Saltonstall,” he said loudly. “This isn’t yours.”

“Nope,” Saltonstall yelled, already descending into the darkness. “That’s my agent.”

The men's room in the basement of Pebble Science has only one stall, one urinal, and one sink. McAllister likes the privacy of the arrangement. It never fills up with students, being far from the nearest classroom or lecture hall. And it is conveniently just across the hall from his lab. The single stall limitation means that nobody can sit down next to him when he is taking a contemplative, relaxing crap and distract him with exogenous smells and sounds. That is where he is now, reading *Today's Chemist*. He remembers one day some time ago when he made the mistake of stopping into one of the restrooms upstairs to dump content. It was a three staller - an invitation to have the necessary meditation shattered. Sure enough, someone had barged in, slammed the door, unzipped loudly, and proceeded to empty his bowels of a prodigious quantity of gas and semisolids. McAllister had wanted to shout at him. *Shut the fuck up. Go out in the woods, for Christ's sake.* But he hadn't. He tried to concentrate on the graffiti and shut out the painful gasps and groans emanating from the unknown shitter. The decorations on the stall wall had been unworthy of university undergraduates: crudely rendered representations of the genitalia of the two sexes which were not even up to the standards of cave art; telephone numbers promising oral sex if called; declarations that certain persons can kiss another person's posterior; and the simple

and to the point two word classic: (insert name here) SUCKS!!!!! There were only two notations that were clever. One above the toilet paper dispenser read: ALLSTON UNIVERSITY DIPLOMAS - TAKE ONE. The other down near the bottom of the stall wall: BEWARE OF LIMBO DANCERS!

He had not been able to not take note of the shoes of his neighbor, whose initial paroxysm of lower intestinal geysering had subsided to the occasional wet burst. They were battered suede, soft, and with a stain on the left toe that looked in outline like the state of Florida. The owner unrolled furiously a whole graduating class' worth of AU diplomas, dabbed at his privates, and fled the room, leaving only his voluminous fetid stink.

Later that day, McAllister had run into Forget (Not Fore-*git*! Fore-*zhay*! It's *French*!) outside the Chemistry Office. Looking down, he saw the suede shoes, Florida resplendent on a field of turd brown.

She cleared her throat again. The first two had been little more than quiet hmmmms; this one bordered on a cough. Still the woman would not look up from her writing. She decided there was no subtlety needed anyway. It was her library, too.

“Excuse me,” Jen said.

Lucille Slowick still did not look up. She was and had been hunched over a wire-bound notebook, scribbling. Her hand was squeezed about a clear ballpoint pen, worrying it

across the page, leaving behind miniscule violent curlicues that Jen could not read upside down. *Maybe not even right side up*, she thought.

"I'm looking for a journal."

Slowick was sitting at her desk, the librarian's desk that guarded the door to the hallowed stacks. Jen was standing, pretty much right in the doorway to the back rooms, very much unignorable. Slowick ignored her nonetheless and kept on writing.

Jesus, thought Jen. She reached across the desk and slapped the piece of copy paper with the citation right into the path of the librarian's pen. Finally it seemed to register. Slowick stopped writing and slowly raised her head.

"I need that issue," Jen said.

Slowick's eyes made Jen uneasy. They pointed off in slightly different directions, the left one northeast and the right one southwest. The thick lenses of the woman's glasses distorted them further. Jen had to make herself stay still, though her instinct was to shift one way or the other to be in the direct line of sight at least one eye. Slowick looked down at the paper.

"It's not on the reading shelf," Jen said.

Slowick didn't respond.

"And it isn't in the stacks."

Slowick was a rock.

"Is it at the bindery?

Slowick picked up the paper and held it in front of her face. Then she put it down on the desk and resumed her writing.

“Do you know when it will be back? I really need it. MIT doesn’t have it. Neither does Harvard. How long does it take to bind up journals, anyway, because…”

Slowick’s shoulders moved. Did they go up and down? Was that a Yes, they are being bound and No, I don’t know when they are coming back? Or was it a sigh? Jen thought about grabbing the librarian by the throat and choking the information out of her. There was a Merck on the desk. Maybe if Jen picked that up and clocked the dim-witted librarian, there would be coherent answers. Probably not.

“Oh fuck me.” Jen said through clenched teeth and walked away.

McAllister put his hand on the knob of the door to his lab and paused to take a mental roll call. Xuang was visiting friends in New York. Pat was sick. That meant he would see the specter. He went into the lab.

It was standing at the chalkboard, the ancient real slate anachronism that was on the far wall. It was writing upon the slate with a piece of chalk, apparently filling up the space with a series of chemical structures McAllister did not recognize - triterpenes, perhaps, and heavily nitrated. It didn't matter. The quivering chalk marks were as ephemeral as was the apparition itself and would vanish when it did. McAllister sat down carefully in his desk chair and watched the ghost work on its problem.

It had appeared to him within a week after his arrival at Allston University. McAllister’s first week of professorship

had been seven happy days – then the despair set in. He thought he had arrived at the top of his game. A doctorate from Illinois, strong recommendations all around, two years postdoc with one of the top peptide chemists in the world. Bright lad, quite a future, strong addition to the faculty. Yet it had taken only that one week of setting up his laboratory in the basement to chase all his confidence. On the seventh day, he'd rested. In his desk chair, looking around at bare walls instead of prodigious heaps of supplies and equipment, hearing dead silence instead of the banter of eager minds, he sat wondering: *What the fuck have I gotten myself into?*.

So the shimmer in the corner of his eye was ignored, and when he did finally turn his head, he saw the shape methodically rendering from thin air, noted without mental computation the high collar, the canvas apron, the long spotless sleeves gathered at the forearm.

Various explanations for the vision flashed into his mind. Someone had slipped him LSD; he was having a psychotic episode; he was asleep; he was going insane. *Of those*, he had thought, *I hope for the dream. Followed by - a distant second - the acid.* Then he had started and jerked his arm, sending a beaker filled with Sharpies to the floor. It shattered, a minute shard tinging like a pinprick against an exposed bare patch of skin above his ankle. He looked down at the mess, then back up. The apparition was more visible now. It was standing at the bench, manipulating something. McAllister tried to focus on the foggy indistinct objects. A retort of some kind, an old distillation set up. Steam rolled

up from its spout as the ghost added some ingredient to the boiling contents and stirred it with a glass rod, almost invisible in its hand.

When McAllister finally suppressed his shock enough to stand up and confront the apparition, it had vanished. He walked through the space which it had seemed to occupy, turned, and looked back at where he had been sitting. There was the broken beaker, the scattered red, black and blue markers. *That's my brain. Randomized by smashing against a cold hardness.* He had been physically and mentally exhausted. The constant background noise of the hood exhaust fans was a pulsating, unceasing presence that had acted both as sensory overload and sensory deprivation, making the appearance of a phantom chemist nothing more than another distraction. He had just been to the lip of the precipice. He had peeked over and seen the lack of equipment, the scarcity of funds, the shoddy support services - the whole blasé face of a world no longer aware of his research, no longer interested in the slightest way in anticipating and supplying the environment he needed to answer those questions that kept on tormenting him by popping into his head, the lines of inquiry that divided and multiplied like bacteria. Myriad signposts that each pointed down a different shadowy path. Too many ways to take each one, but how to choose? How to investigate as many as possible? How to raise the posse necessary to storm them all?

He had felt as naked and alone as a babe down a well. The supernatural had been the least of his problems. He

had begun to realize that here there was natural evil: soul-sucking demons that took the form of administrators.

The shade had appeared with regularity since then, but it never came when there was anyone else in the lab. Pat and Xuang had never seen it - or had never let on that they had. But it would be hard not to comment on a chemist materializing at your elbow, so they probably had not. And he had never seen it appear in any other place but here in the lab.

Now the shade was standing back from the ectoplasmic chemical structures, pursing its lips in contemplation of its handiwork. McAllister had grown so inured to the thing that he had given up staring at it in alternating horror and fascination whenever it appeared to do its otherworldly bench work. But there was something different now. It put down its piece of dematerialized chalk and turned. McAllister had a surge of adrenaline as the ghost's eyes passed over him. Had it focused on him? It seemed as if the shade were about to speak. McAllister sat, paralyzed by a sudden fear, like he was just now seeing the spook for the very first time. The apparition opened its mouth, raised an arm and pointed - but not at him. At a place near the door. McAllister wanted desperately to look there - perhaps there was another vision waiting over there, behind him - but he couldn't tear his attention from the suddenly animated ghost, whose mouth worked silently in a series of shouts. It was enraged, violently angry, or maybe it was laughing hysterically – it was shimmering and out of focus and he could not distinguish between the two states. Either way, it

was not in McAllister's plane of existence. The catalyst was something the ghost could see but the living could not. Then, with a bright flash of lightning as soundless as the phantom's fury, it vanished.

McAllister finally turned to the door. His heart was pounding, his pulse hard and rapid in his ears. The door had been opened; the flash of light had been the rest of the room lights being flicked on. Professor Colder stood in the doorway holding a small wooden box.

"Excuse me," he said hesitantly. "I'm not interrupting?"

McAllister stood up. "Professor Colder. No. Nothing. I was just... thinking."

“For you.” Colder came to him and handed him the box. It was heavy and solid, mahogany maybe, carefully fitted and fastened by brass hinges and clasp. McAllister wanted to open it but did not. What if it were something trivial, of no use? Would he be able to keep it out of his face? He looked at Colder. What they had done to him was wretched, but Colder showed no sign of humiliation.

"I was given that a long time ago,” Colder said, “by someone who told me to use it as needed and pass it along when I was done with it.

"Thank you," McAllister said. He caressed the polished wood thoughtfully. "Say, I heard what happened yesterday, and I just wanted to tell you that...." What? What could he possibly have to offer to ameliorate that disgrace and shame? But Colder just smiled benignly.

"I appreciate your thought, but don't let it bother you. It was my time to go. I just couldn't bring myself to admit it."

Christ, thought McAllister. *He's talking suicidal. Maybe he's got some terminal cancer or something.*

"So - have you seen the ghost?" Colder asked. McAllister jerked, lost grip of the box. It slid off his lap and landed corner down on top of his right foot. He leapt up, shaking his foot. "Fuckin-!" he groaned, teeth clenched. He sat back down and grabbed his foot, ripped the shoe off and massaged his smashed toes.

"Hmmm," Colder considered. "Better put some ice on that before it swells."

"Ohhh - What about the ghost?"

"The ghost. Well, there is supposed to be a ghost that roams the basement. The undergraduates like to scare each other, telling the tale. I've never seen it, though. Too bad. Sometimes the place could do with some excitement."

"Yeah." McAllister was rolling each toe individually now, testing for broken bones. "I know what you mean."

Colder walked over to the wall and put his hand on it. "One of the things I would have liked to have been different," he said quietly, and McAllister thought the old man was talking to himself. Maybe he should try to ease the fellow out before things got maudlin.

"What's that?" McAllister asked, trying to ignore his throbbing toes.

Colder turned back to him. "The light. Or lack of light. You don't know the story, do you? Of course not. That was way before your time. Allston University was once a liberal arts college in the old-fashioned sense. There were schools of history and literature and theology, but there wasn't any

science to speak of. This was about the turn of the century. Early 1900s, I mean. Then the University started a medical school and suddenly there was a need for a science curriculum so Allston University undergraduates would have the proper training and background to be able to go on to receive their M.D. The science department - they were all lumped together in those days - worked out of an old brick building down the street about two blocks. Where the Turnpike is now. Well, the middle of this building -" Colder gestured to where Pebble Science butted seamlessly against the rest of the long gray structure "-was there, looking rather unfinished. So Julius Pebble, who was President of the University then, ordered the construction of a new wing to contain laboratories and other facilities needed to upgrade the science departments. The department was split into three - Physics, Biology, and Chemistry. Apparently, the chairman of the newly-formed Chemistry department - Sam Guilden, a physical chemist, who died about the time I was hired here - did not have the ear of Dr. Pebble, because Sam thought the Building was to have five stories. Then one day he was walking by the new building and noticed they were putting a roof on the fourth floor." Colder laughed. "Legend has it that Sam suggested they name the building after Doctor Pebble - because it was cheap and short. That's why it's dark in these labs down here."

"Well" McAllister shrugged. "It is the basement."

Colder slapped the wall. "But it wasn't supposed to be! There's a window behind this wall. The original outer wall had windows that looked out into dirt. This was supposed to

be the first floor."

"So...the subbasement is really the basement?"

"Of course. Didn't you wonder why a building had a basement, a subbasement, and a subsubbasement? Who ever heard of such a thing? Nobody had. Maybe coal miners. The company that Doctor Pebble gave the contract to was owned by his brother-in-law. They had never built anything larger than a small church. They dug a great big goddamn hole and went to work. Sure, there were supposed to be five stories originally. It was just that only four ended up above ground."

Followers of the news who reside for any time in the Boston area are rapidly spoiled by the quality of the nightly newscasts. The four regular outlets - channels 4, 5, 7, and 8 – have slick production designers and ingenious producers and fluent copywriters to support the on-air cast, who themselves are possessed of another talent often dismissed but damned hard to find. They must sit without fidgeting under burning lights and read rapidly-scrolling sentence fragments projected onto a screen, behind which is the collective eye of hundreds of thousands of strangers, without mispronouncing exotic place names or slipping out of rhythm or looking too long at the wrong camera, all the time wearing the air of relaxing at a dinner table in pleasant conversation while in their earpiece the production booth is frantically calling out camera angles and counting down to the next transition. Even the long-time minor stations – 25,

38, and 56 – have crossover sharing of resources and personnel with single-digit partner stations that results in programming almost equal to the traditional outlets. Thus it is that when one habituated to the Boston broadcasting environment travels to another market and turns on the television, those local efforts can strike the eye as on a par with the folding chair and table-top microphone atmosphere of a public-access channel.

WEBS - Channel 8 - was the bastard runt of this august litter. Share and ratings lists held a reserved place for them behind the three other outlets and left them perpetually treading water slightly above the alternative news sources. This made the station the natural prey of media consultants, as a succession of owners were lured into buying whatever palliative was being peddled that season in the hopes of climbing up the ladder. In just the past decade, Channel 8 had been, in order, a tabloid video gore station ("Keeping You Up To Date" – which really meant the traditional "If it bleeds, it leads."), a political watchdog, ("Channel 8. Your Eye On The Statehouse."), a personal chronicle ("News That Affects You!"), and a haven for environmental activists ("For A Green New England.").

Accompanying the seasonal format change and set redesigns was the regular turnover in on-air faces. The consultants would come in like reapers, scything out the old when fresh was in and winnowing out the young when reverence for elders replaced that. The one constant in the staff was Heather Bednark. Incredibly, she had been with Channel 8 for twelve long years, starting as an intern,

moving into production, and thence in front of the camera as the arts reporter. She was a bright young face when such appearance was deemed essential. A few years later, she was the professional young woman when that demographic was targeted, and she was promoted to weekend co-anchor. After a couple of years at that, she projected the essence of the suburban mom and was moved in response to a consultant's report onto the 5:30 newscast, which was the AAA league. The only promotion left was to the flagship, the 6:00 and 11:00 anchor desk, and that advance would come soon, or perhaps the next guru to march like Sherman through the studio with fiery torch in hand would whisper that whatever Heather appeared to be that year was not what was desired, and she would be banished.

That move would be made at the peril of Channel 8, for there was something about Heather Bednark that the Nielsen books could not capture. New England loved Heather. She was a local girl, raised in Lexington, and could pronounce Haverhill and Worchester and Leominster the way New Englanders knew they ought to be. She always looked happy and grateful to be there on the little screen in your front room. When she was reporting from a theatre opening, or interviewing the latest bored, exhausted movie star blowing through town on a promo tour, she seemed to be the most cheerful person in the world. When they sent her out in a blizzard to stand beside the Southeast Expressway and be pelted by snow and sleet to prove that conditions were as bad as the weatherman was claiming, she clutched her microphone and beamed into the camera,

and New England saw the little girl from Lexington High School who could still get excited about a snow day.

But Al Perry didn't know Heather. He knew the news director, Henry Zak, so that's who he called.

"Okay, Al", Henry said after the brief pro forma pleasantries were exchanged. "What do you want?"

"Hank, I want to do something for you."

"I bet."

"Really," Perry said. "Stewart Lynch is going to run for the Senate seat. You can have the announcement, exclusive."

"Lynch for Senate?" Zak was feigning incredulity, but Perry could hear the interest in his voice. Perry knew that Zak knew that most of the time, a Lynch public appearance was accompanied by outraged protesters, and film of outraged protesters made a dynamite lead story. "What do you have in mind?"

"Well, I don't want to presume to program for you, but an in-studio interview, one-on-one?"

"And to whom should I assign this audience with his Holiness?"

Perry hmmed to himself. Did it matter? "Who you got?"

"Well…" Zak thought. "You want it soon?"

"As soon as you can arrange it."

"Okay. I can't get you on the 6 o'clock news. You want more time than I could squeeze in then, right?"

"Right," Perry agreed.

"Okay. We got New England Journal at 7. Feature time is 20 minutes. Good enough?"

"That should be okay."

"Okay?" Zack snorted. "I'll have to bump off Heather's story about the Millinocket High School marching band. There'll be hell to pay."

"Heather Bednark?" Perry asked.

"Yeah. Why?"

"She going to do the interview?"

"I guess so," Zak said. "It's her show. Is that a problem?"

"No, it's just that…"

"That she's a flyweight and Lynch is way out of her class?"

"I suppose. Something like that." Perry said. "No offense. I like her work."

"You'd rather have Jordan?" Brandon Jordan was Channel 8's muckraking pit bull who relished ambushing state officials, pushing microphone and camcorder into faces as they exited their Beacon Hill offices.

"No," Perry said. "Heather will do just fine."

"Hello." The recorded voice was feminine, young, almost sexy. "You have reached the offices of Howe Construction. Our business hours are Monday through Friday from 8:30 a.m. to 5:30 p.m. Please pay special attention because the following menu options have recently changed. Press 1 for Subcontractor Support, 2 for Planning and Design, 3 for Regulatory Affairs, 4 for our company directory, or 5 for our business address and fax number. Again, thank you for calling Howe Construction."

Fucking shit, thought Geiger, looking down at the number he had dialed. It was printed right there on the jagged fragment of cardboard he had ripped off of the top of a Abel Movers box. He had not gotten it wrong. Cursing again, he stabbed the 0 key a dozen times, rapidly and hard. After a silence, the same breathy voice came back. "Please wait while I transfer your call."

After four rings, a human answered. Geiger asked for Abel Movers. Silence again, and another set of rings, then an older man's voice.

"Abel Movers."

"Hi," Geiger said, keeping his voice flat and low. "This is Dean Nash of Allston University. I'd like to check on an item you moved recently."

The other man made a skeptical noise deep in his throat, and Geiger almost hung up. But then he said, "Just a minute. I'll pull up the project plan."

Geiger heard some papers being rearranged.

"Okay," the man said. "What'ya need to know?"

"The NMR. Nuclear Magnetic Resonance spectrophotometer. It's a large instrument. You moved it out of Pebble Science yesterday, and I need to confirm that it's going right over to the new building."

"Yeah," the other said slowly. "Here it is. Moved her yesterday afternoon up to the warehouse in Burlington. No mention of final destination."

"It's coming back to campus," Geiger protested, losing even the vestige of his lame Nash impersonation. "Allston University. The new chemistry building."

“Nope. Sorry. Nothing about that here. It’s not scheduled to be put on the truck again out to the end of this plan.”

Geiger’s mouth was hanging open, but he could not get the words that made up the question out.

The other answered it anyway. “This timeline goes twelve weeks out. Anything goes on with that MNR’ll probably have to wait till then at least… Hello?”

Someone had told her electronic techs called them suicide cords. Just a couple of feet of brown lamp cord with a two-prong plug on one end and two alligator clips on the other. Of course, in regular electrical hacking, the cord was most likely plugged into at least a 110V/15A outlet, the alligator clips hooked to the guts of some television to provide temporary power. In that case, she could understand. Carelessly touch the clips while the cord was hot, and there would be a burning smell, and, if you were lucky, screaming. Jen was not worried about that. First of all, she had her suicide cord plugged into a Variac, not an outlet. The Variac was a variable transformer which plugged into the wall but allowed only a bit of current out into the cord. The voltage was increased by turning a big black knob on top of the unit. Secondly, her alligator clamps were securely chomped onto her oil bath.

The oil bath was a Pyrex dish, flat-bottomed and square-sided, that held about two cups. Immersed in the bath was a silver curlicue of resistance wire whose ends rose up through a couple of stabilizing tubing clamps to be bitten by

the jaws of the gators. When Jen turned the Variac knob, power flowed into the wire coil, heating it and the bath liquid. The whole assembly was just the right size for heating anything up to a 250 milliliter flask, so it occupied the same hood space for months and months. No farting around with the wiring needed.

The heating bath should have been filled with silicone oil. Clear, nonflammable, nontoxic, designed for just this application. Unfortunately, it also cost a couple of hundred dollars for enough to fill up the glass cup. This was steep for something that could spill and go down the little sink in the back corner of the hood. Steep for Jen's boss, Professor Stingfellow, who was Puritanically parsimonious with his money. His group knew that if they petitioned to obtain any reagent Sigma-Aldrich charged more than fifty bucks for, Stringy would tell them to go to the chemical morgue in the subsubbasement and either find it, an acceptable substitute, or the building blocks from which to make it. So long ago some desperate graduate student, recalling his mother's kitchen techniques, had gone out and shoplifted a can of Crisco from Stop & Shop. This marvelously inexpensive substance was even better than silicone oil in that Crisco returned to the solid state at room temperature. This meant that the cool and solidified oil bath could be taken out of the hood any old time you needed the space and tossed in a drawer without causing a huge slippery mess. The drawback was that Crisco burned. There was still sooty evidence of this in a rough ebony patch way up inside Jen's hood where some predecessor had come in one morning to find his

refluxing reaction gone, the clamp holding his flask melted, the flask itself empty and on its side at the bottom of the now Criscoless bath, and the whole of the inside of the hood coated with the greasy blackness of whatever Crisco became in flame.

Today she needed to warm up a reductive methylation reaction. Just to about 40 degrees Celsius, so she had barely turned the pointer on the knob off of zero. She didn't want to crank up the power. The hot oil would take forever to cool back down. She would have to turn off the juice, let the Crisco coagulate, and reapply heat. The novice often ended up playing oil bath rollercoaster. Better to have patience, to let the nichrome wire gently liquefy the greasy mass.

She leaned against the window frame, arms folded and looked away from the hood so as not to be tempted by the big shiny Variac control. Down on the street students waited to cross at the light, and in the middle of the pack was Lucille Slowick. Jen leaned closer, touching her nose to the glass. Slowick carried a big crimson book bag over her shoulder. Deep in the bag were long rectangles of white stacked together: short, medium, long. The ends of paper trimmed and bound.

Jen kept watching as the light changed and Slowick moved with the pack, across the street and out of sight. She turned, looked across the lab at Jason setting up a distillation head in his hood.

She thought about asking him: *Hey Jason. When they send journals to be bound, do they take them all mixed together? Or do they box up each journal separately, a*

year or so at a time, the box carefully marked for shipment? But she didn't. She knew the answer already.

"WHERE…THE…FUCK…IS…ALL…OF…MY…
POTASSIUM?" Bryan Hayman was hanging much of his weight on the open doors of the metal solvent cabinet and speaking very slowly. He had been repeating the same phrase for about ten minutes, ever since he had gone to grab the big brand new shiny silvery-with-a-hint-of-brass sealed-under-argon can that contained his kilogram of brand new potassium metal. There was an empty space where it had been Saturday. Or was it Sunday? Whatever, it had been there and now it was not and he had not been able to find it anywhere in the lab. Shaftner was going to shit a reactive metal brick complete with sulfurous fumes and sputtering flames when he found out he would have to purchase a replacement. Bryan had been repeating "Where the fuck is my potassium" in increasing volume as he searched. Now he kept repeating it. Maybe it was an incantation, a charm to find lost alkali. Maybe he was one missing reagent away from Cloud Cuckoo Land.

Russell Bratton came in whistling a mashup Sousa march, stanzas of The Thunderer interspersed with random snippets of The Washington Post. Bryan fell away from the doors and turned on him. "WHERE…THE…FUCK…IS…ALL…OF…MY…
POTASSIUM?"

"Eat shit." Russell said. "I didn't touch your precious

potassium."

"Well, someone did. It's *fucking gone*."

Russell shrugged. "Maybe Geiger has it."

"*Geiger*? Why would *Geiger* have it?"

"Do I look like Geiger's fucking keeper? You sure you didn't put it up on your bench or something?" It was true that Bryan's benchtop was a busy place, where the last unicorn might be hidden among his rows of amber bottles, clear TLC developing chambers, heat gun, boxes of septa, and numerous other necessary supplies that he like to keep to hand. It was also true that he had five tall metal containers scattered in amongst these stores which were identical in color and size to the missing tin of potassium. Three contained thionyl chloride and two were empty, safe intermediary storage for broken pipettes and hopelessly clogged needles. Five, six – who counted these things? The potassium could be hidden in plain sight.

Bryan shook his head.

"Well," Russell said. "Stringfellow's group meeting is tonight. They might have some potassium, and I know where Coit hides a key to the lab. Anyway, I need some Raney nickel, which I know they've got by the bucket."

"What for?"

"Oh, nothing. Shaftboy had me in this afternoon for a little chat, a bit of brainstorming."

"Oy," Bryan commiserated.

"He suggested closing the ring by oxidation of the alkene to an aldehyde. Thiane, base, kill the sulfurs."

"Won't that reduce your distal diene?"

"Probably, unless a miracle occurs."

They were silent for a moment. This was a bad turn. Suggestions from the principal investigator had to be at least wrapped in a shroud of an honest attempt. Quickly and with high visibility, so that he would be convinced that you had given his brilliance its due chance. The majority of these ideas were tossed off the top of the great man's head, unformed, and not even half-baked.

"You need a cooler name," said Bryan. He referred to Russell's project, the synthesis of a small, highly compact molecule called hippasteroside which had been isolated from some kind of sea slug, or cucumber, or similar undersea snotcicle. "When I've got my own lab, I'm only going to work on things that have memorable names."

"Like what?"

"I've got a list. First, arsole derivatives."

"Methylated derivatives are legitimately Me arsoles."

"That's the spirit. Next project is bastardane."

"You going alphabetically?"

"Sure, why not? Then there's cummingtonite."

Russell raised a hand. "That's a mineral."

"So I branch out into inorganic. I'm my own boss, remember? We got cadaverine, clitorin, constipatic acid, crapinon, fukiic acid, moronic acid, traumatic acid, fucitol, sexithiophene, spamol, sparassol, vaginatin, et cetera."

"You realize that most of those are trivial to make."

Bryan shrugged. "Don't bring me down. I'm going to do *novel* syntheses. Not like them other putzes who do obvious shit. And I'm going to title my papers like: A Novel and

Efficient Synthesis of Blank."

"Bullshit. You hate that pretentious crap."

"I am joining the club. My chemistry will be novel, efficient, and – dare I say – *elegant*."

This seemed improbable to Russell. There were many journals in the library that had been defaced by Bryan's pen: glossy black ink heavily applied over any appearance of the word 'elegant' in a scientific paper. *Marilyn Monroe's ass was elegant*, he used to rant, *not some cocksucking solution chemistry*.

"And after I die, my final paper will be published posthumously: A Novel and Efficient Synthesis of Cadaverine."

"Existential," Russell mused. "And in the meantime?"

"I steal me some potassium. Sweet virgin potassium."

WEDNESDAY

Nickolai D'Arcy pulls into his usual parking spot, hard by the back door of Pebble Science and nestled into the protective lee of the granite rise. It is his by official notice: "RESERVED FOR CHEMISTRY DEPARTMENT CHAIRMAN" – lemon letters on an salmon plastic rectangle. He rolls up the windows of his Toyota and reaches into the back seat for his briefcase. He has forgotten that the previous sign actually had his name on it. It has been fifteen years since, no wonder that his busy mind has lost track that once his spot was defended by a metal sign, one impressive in its bas-relief execution, indicating that some anonymous craftsman somewhere had invested thought and sweat for him. His name had been carefully spelled out in blocks bearing raised letters and a sheet of steel pressured into accepting them. The old sign had been a work of craftsmanship: "Professor Nickolai D'Arcy". And where had it gone? Who would have wanted it besides him? The day he had noticed its replacement by the modern impersonal plaque, he had gone to his desk and made a note to call Nash. Then he had looked at the note all morning, trying to imagine the conversation. Would he complain? What – about getting something new? That was

not the way to get other new things you might actually request. Should he at least ask for the old sign? No, that was cheap, the collecting of street leavings, no better than the students who collected old couches off the sidewalk each September. If someone had not thought enough about him to offer him the sign, looking for it now might seem like begging. So the note was covered by early afternoon under more pressing papers, then eventually unearthed, considered briefly and discarded several weeks later. He never mentioned it to Nash.

He pushed open the heavy metal doors into the back stairwell.

While D'Arcy is on about his habitual assumption of office, a process timed from bed to desk to be completed at 7 am with error bars extending no longer than 10 minutes to either side, Rajiv and Priyatha have forsaken D'Arcy time for the ticking of the nanosecond gates in their laser's shutter. His motion macroscopic, Newtonian, as he ascends smoothly in the elevator; theirs quantized, flitting between energy states. D'Arcy's morning clear, already hot, blue and promising pounding sun; theirs claustrophobic in a blackened room.

Priyatha stabbed a Phillips screwdriver into the plywood stand so hard that the tool stuck, quivering. "Sixty-seven gods have cursed this damned amplifier," she said in Hindi.

Rajiv yawned and reached into his pocket for his wrist watch. "If it would work or explode – either would make me

happy. Krishna! Did you know it is 8:45?"

"Oh. No wonder I'm so hungry."

Rajiv showed her the glowing face. "AM. It's time for breakfast."

"Great. Now I'm hungry *and* sleepy."

"Want to quit?"

Priyatha shook her head. She pulled the screwdriver out of the board. "Not yet. Let's push it to 3 volts. Gods willing, we will see flames." She began to turn a screw. "How many times have we rebuilt this son of a Thuggee whore? You think they waste time at Harvard replacing pots themselves? No. Of course not. They have an electrical shop. We don't even have electrical tape."

"You are cursing the darkness instead of lighting a candle."

"Not right," she said. "I am cursing for the future. I see a desk with two resumes on top of it. One is mine and the other is the person who went to Harvard and did not have to buy their own screwdriver. One resume goes into the trash. I'll be lucky if it isn't used to wipe someone's arse."

"But will they know how to rebuild a preamp from junk parts? I don't think so. You know what Feynman would say if he were alive?"

"Okay, what?"

Rajiv made claws and dug at a plane in front of his face. "Let me out! Let me out!"

"You are going to Hell for that."

"I'm Hindu. No hell."

"We'll find one for you."

"No, seriously. Feynman graduated from MIT, but he didn't get accepted into the graduate school. So he went to Princeton. MIT had just gotten a new cyclotron, and he was pissed off that he wouldn't get to use it. All they had at Princeton was a crappy old one that broke down all the time. Feynman realized later that he was getting better training at Princeton because he had to maintain everything himself. If he had stayed at MIT, he wouldn't have been allowed to even touch their holy cyclotron."

"Except that this is not Princeton and we are not Feynmans, that makes be feel so much better."

Rajiv smiled. "So you should have gone to Princeton."

"I might have, except they had someone with integrity write the Princeton graduate school bulletin. No, I fell for the lies of unclean jackals. The Allston University catalog should have read: Marianne Burns, Assistant Professor of Chemistry. BS Stanford, Ph.D. Chicago. Research interest: not any more."

"You don't want to work for an assistant professor. They have no funding."

"And this is luxury? I wanted to work for a woman. You have no idea. You can go anywhere you want and find a man to work under. It is very rare still to have a group headed by a woman."

"And now she is emeritus. So young looking, too."

"She has betrayed all women who want to work in science." Priyatha reached out her hand and Rajiv dropped a tiny bolt into it. "She achieved a tenure position and quit on us. Now she is just a bad example, someone the old boys

can point out when they are deciding whether to hire me for a tenure-track job."

"So - her career function; the domain is time, linear; the range is some combination of effectiveness, respect, and productivity –"

"Her function was the square root of c minus x where c was the year she was voted tenure. It becomes undefined when x equals c –"

"The career function is truncated when the year equals the year she got tenure – "

"It might have been convex up, who can say?"

"And now – who cares but you?"

"She was the human bottle rocket. Hiss, shooting up, boom – silence."

On the elevator, D'Arcy is looking at the floor. He is wondering what they use to glue tiles to the floors of elevators when the lights flicker and the car stops with a shuddering jolt.

In the night of the laser room, two figures lit by halves. The jerking spark, violet blue, making them seem to move - though shape and position are unaltered. The flicker decreased in frequency and increased in amplitude, then flashed the room in blinding pure energy with a yowl like a cat completing the circuit at a 220V outlet. The flicker stopped, and the room, now eternally and completely black,

filled with the stink of burnt insulation. Priyatha cursed in Hindi, loudly and mellifluously, calling a far flung congregation to prayer.

The South Boston house that was home to the Hennessees was more modest than anyone studying Jack would have suspected. After all, a politically-connected lawyer should certainly have the roll to afford a six-bedroom spread in Beverly or Cohasset. But those observers would not be attuned to the geographically-derived credibility that was the lifeblood of Boston politics. Of course Hennessee could have moved to a tony suburb anytime he wished, but where in Weston was there a place like Molly's, where you could walk in and see state reps, state senators, judges on the federal bench, former mayors, clusters of present and past city councilors too numerous to count singly, and - observing from the depths of the far booths as potentates watching over a realm - the current nonincarcerated members of that other body which combined the executive, legislative, and judicial functions in one and who held the occasional referendum in a sound-proofed basement. This was the political nerve cluster of Boston, of Suffolk County, and much of eastern Massachusetts - just three doors down from the house Jack had grown up in. These were Jack's classmates, fellow parishoners, confidantes. Enter Molly's from a starting point in Lexington and all you would see would be a dim, low-ceilinged space full of elderly Irish-Americans sharing

quiet conversation and pints.

The house itself was old, yes, but well-preserved. A modest cream two-story neoColonial with five bedrooms, two and a half baths. Now that the next Hennessee generation – all seven of them – was off from the nest, Jack and Bridgette Hennessee lived alone.

Jack was an early riser, but this morning he had been slugabed due to his overnight flight. Reno to Chicago to Boston, arriving at 2:30 am, he made it to bed at 3:30 and missed his usual 5:30 alarm. At about 8:30, still in his robe and pajamas, he was sitting in his kitchen drinking coffee and reading the Herald when the phone rang.

"Hello," he said, still reading the sports. He expected it would be his wife calling from her Altar Guild meeting to remind him of some errand or promise due. Perhaps it would be one of the denizens of Molly's, arranging some meeting or asking for a favor. But the voice was unfamiliar.

"Hello," it said. "I'm looking for Jack Hennessee."

"Speaking," Jack said. Do these bastards call this early? he wondered. He was thinking about which of his friends he could talk to about squashing the telemarketing industry.

"Mr. Hennessee, my name is Damian Sorrento. I represent Professor Carol Saltonstall."

"Ahh," Jack said. "Yes - I have your card. What can I do for you, Mr. Sorrento?"

"I'd like to meet with you about the offer you made to Professor Saltonstall."

"Certainly. When will you be in town?"

"Actually, I flew in from LA last night. We can get

together anytime, at your convenience."

Jesus, Mary and Joseph, thought Jack. *That's efficiency*. "Well, how about… 10 o'clock at my office."

"That's good. I'll see you there. Goodbye."

"Goodbye," Jack said. This Sorrento fellow hadn't asked where Jack's office was. He had done his homework. Jack knew he would have to be sharp by 10 so he didn't enter into the negotiations still in the fog that had wrapped him since he had forced himself to get out of bed.

There, he had been dreaming. About being asleep after his accustomed waking time, the time his body and mind were acclimated to shedding dreams for the daylight, something had made these fantasies of the sleeping mind concocted while the sun shone outside more real. Perhaps the mind had already woken but the brain remained with the body, slumbering. Whatever the cause, Jack had not been at home but in a large building, carmine on the outside and wood and leather within. Looking around, he had thought to himself that it was a dream, but his mind had replied that night was past so and this must be waking images, real. Lynch was there, too, somewhere in the building. Outside was green and blue. Lynch was speaking to an audience and the roof was open; there seemed no limit. Up was the future, up was bright and clear, and in the dream Jack was suffused with a feeling of satisfaction, of accomplishment and direction.

That was when he shook the dream off of him and surfaced out of the dark lake of sleep. He had long training in Jesuit caution, and this fevered imagining of pride and

hubris had raised the blister of impending doom. He'd had to sit for a few minutes on the edge of his bed to reset his internal bearings.

He had sought out Stewart Lynch some five years before after hearing him give a talk at a Faneuil Hall lecture series. Jack's political dowsing rods crossed over the man at the podium. Sure, he was short and homely, but beauty was not everything. Energy and conviction trumped, and Lynch was well supplied with those.

The quandry that Jack was in at the time was peculiar to contemporary Massachusetts politics. The boyos had managed such a stranglehold on Boston city government and the state legislature that the benighted voters outside of Route 128 had recently chosen to elect a series of Republican governors in an instinctive attempt to balance out the power. How, Jack had often wondered, did they expect a governor whose vetoes could be easily overridden to be a balance? It was a mystery to Jack.

This continued occupation of the corner office by the opposition was a roadblock. If one was content to be a state rep or senator, or Boston City councilor, or even mayor - or be an operative behind the holders of those offices - then it was not a problem. The local field was ripe with opportunity. But if you had higher aspirations, as Jack did, the situation was intolerable. He was an operative, for life, by choice. Long ago he had observed how the front men, the office holders, were supposed to acquit themselves from day to day, and it seemed to Jack that elected officials had far too many bosses. Every voter who had cast for you felt

entitled to seek you out and tell you how to do your job. Jack was much happier to have only one person at a time who could dare to do that. Not that it happened that way – in reality, the men Jack had helped into their positions never told him how to do what he did.

Three years ago he had sat down with Lynch and told him how Jack could make life so much easier. Hennessee would slap backs in the Boston City Council and kick butts in the Boston Redevelopment Authority. He would make it possible for Lynch to expand the AU borders over the lifeless protests of the bordering neighborhood associations. He would fast track the University's construction agenda and get the Boston Police to defer to the AU campus police in the investigation of crimes on the far-flung Allston University properties. This had been an African killer bee in Lynch's bonnet at the time. Campus crime statistics were part of the public record. Or were supposed to be. Lynch had no control over the Boston cops, but a mugging on the grounds of AU investigated by the AU police force could be written up in several creative ways. A beating was after all just a dispute, wasn't it? Armed robbery was a disturbance, primarily, and a crying rape victim came under the category of noise complaint. Didn't it? It seemed only just to Lynch. Penn State didn't have an urban area bordering it. It wasn't fair that their crime stats benefited from being in the middle of cow pastures. Filing grand theft auto reports in the lost property drawer was just AU's way of evening out the inequities of geography. Now concerned parents in Charlack, Missouri (population 1431) could browse the

college guides and not be alarmed at the prospect of sending their beloved baby off to the big city. Hey, look! It's as safe as Missouri Baptist University, and it's in Boston. Undergraduate magnet of the world. Let's drive to the bank, Ma, and send them a heap o' money so Billy Bob can go and get some of that book learnin'!

Two years ago he had started to lay out hints in Lynch's field of vision. Lynch by himself would not think to submit to stand for election. He was smarter than anyone - he was adamant on that. If they wanted him to lend his vast expertise and knowledge to governance, they could just come up Comm Ave in a human wave and hold a coronation on the steps of the Administration building. To have one's name on the ballot was to entertain the thought of equal competition, and Lynch had no equal, so why participate in the farce? He stood far above the less educated populace, that rabble on which the franchise was wasted. Jack had to apply steady, subtle pressure toward the direction he wanted Lynch to move. Sometimes Hennessee felt like he was tapping on the side of a bull elephant, trying to elicit a change of heading.

Eventually, his nudges paid off. He had pointed out the manifest ways a Senator influenced national policy, for it was in the Senate that Jack had Lynch destined. That national body was such a collection of loony eccentrics and egomaniacal ideologues anyway, Lynch might be a statesman among that cast. Jack pointed out the merits of having one's hand constantly in the barrel of pork and on the lever of publicity. It was that last bone that Lynch

salivated most over, the prospect of being able to play the pedagogue to captive masses. As President of Allston University, he could make to tremble only the measly 25,000 or so students and faculty. As Senator from the great Commonwealth of Massachusetts, his rod would smite from sea to shining sea and beyond.

D'Arcy is opening his office door, hand on the knob, the door itself opened perhaps six inches, when he stops. Something's wrong. Something in his domain is not quite right. D'Arcy looks at the unfamiliar rectangle on his door. Pale taupe, maybe three inches high and twelve long. He leans down and runs a fingernail along the edge. It is raised, adhered, not integral to the door. Then he comprehends the legend, the print on the thin layer of unwelcome newness. It is a sign, some unauthorized redefinition of his space. He reads: PROFESSOR D'OHCY.

Then, because he is not paranoid enough to believe that someone hates him exclusively, he turns down the hall, walking more briskly than routine mandates, the routine all shot to hell now. He stops in front of Dubie's door and sees the same shame there: THE BIG SPLIFF. Not even the titular Prof. He doesn't have to run any farther. He sees in his mind's eye the rest of the doors in the building, each vandalized, ruined, and in a dazed rage rare to him he walks, apparently calmly, thinking only of solvents: acetone, dichloroethylene, isopropanol? - to Cynthia's office. He raises a hand to knock, though the door's window is dark,

but looks down as he does and sees that she alone has been passed over for alternate designation.

Cynthia Angress got off the Green Line trolley at 8:10 in the am with a lime L.L.Bean backpack sling over one bare shoulder. She was wearing a sleeveless fuchsia shirt carefully stretched along the shoulder line to hide the straps of her teal bra, straight legged khakis, and pumpkin New Balance running shoes. Looking up at the face of Pebble Science, she could see that someone had forced open one of the old windows in the undergraduate lab. No matter how many times she told the teaching fellows not to, they did. The sudden free access to outside air fucked up the hood balance so badly that the oldest two near the hall door would refuse to draw at all and after a time even begin to force air from the roof back into the lab, blowing ether and hexane and silica dust and the accumulated toxic debris of seven decades into the faces of the undergrads standing in front of them. But on a day like this, the temperature in the lab soared so high that if they were doing the experiment involving extraction of Alabama red lycopene and Tennessee orange carotene from tomato paste and fractionation of the two compounds on an alumina column using petroleum ether, the heat would vaporize enough of the solvent that pockets of vapor would form in the column, impeding the flow of the mobile phase and wrecking the separation. So the TAs would crack windows, trying to drive down the temperature and dampen the awful lamentations

of thirty odd premeds whose laboratory experiment was not going according to the text.

Years after the event, Cynthia would talk about it, not with the anger you would have expected and that you certainly would have felt if it had been you, but with something like comical resignation. "D'Arcy and Nash," she would laugh. "When that unholy alliance appeared in the doorway, shoulder to shoulder, lacking only one Stooge and a full pane of glass to make it a full cavalcade of fail, I knew there was a rip in space-time somewhere. Anyway, Nash asks me - commands me - to come down to D'Arcy's office. Well, with D'Arcy there, I figured it wasn't going to be an assault. Besides, I could have kicked both their scrawny asses. With pleasure. I was still pissed at Nash for sending me to clean out Colder's lab. Nope, it's an Inquisition. Angress on trial. Nash practically had a stroke, he was so excited. I expected him to shine a bright light in my eyes and yell 'Confess!' - to which I'd answer 'Pick one!' because God knows there's more than one secret I'm covering. Then I'm trying to figure out which of my secrets got fed back to him by one of his moles: was it the money from his hidden funds that I used to buy supplies? was it the tips I'd been giving to the Daily Allstonian? Didn't matter - I had deniability on every one. Nash shows me a heap of goopy brown scraps of paper in a pile on his desk and says 'Who is responsible for this?' - meaning 'We know you did it.' He was looking pretty smug, like he had the goods on me at

last. I pick up one of the bigger scraps - they're damp, like they've been sprayed with something and smelled like Lysol. It says Professor D-. It isn't making any sense to me, and probably D'Arcy can see that. He's not blind, just stupid. But Nash has concluded that whatever this is, it's my fault. D'Arcy starts to babble, and it becomes more clear, finally. Somebody went around the Department sticking fake names on faculty doors. Big stickers, pretty thick, and printed up real authentic-looking. I picked up another scrap that said GHERKIN. Christ – the perps'd plastered the names that the undergrads call the professors on their doors. Dubie is The Big Gherkin, and I hope that's because he looks sour and is pickled half the time. I don't want to know if it's sexual.

"I really wanted to read the rest. Somebody put a hell of a lot of effort into the hack. I could guess some of the ones they used, and I bet there were some colorful ones I hadn't heard about. But the evidence was mostly paste by the time I saw it. The only eyewitness besides the actual guilty party was D'Arcy - who apparently had personally gone around with a bucket of water and a pocketknife and scraped them all off before anyone else could see them, so we'll never know. They wouldn't have ever found out who did it, either, except for - . Then Nash -. Fuck, I don't even like talking about it anymore; it makes me puke."

Geiger enters the Chemistry Library with a hunger. He looks around the worn wooden shelving of the reading

room, noting the tiny marks – a miniscule lowercase *g* - he has made on the covers of the several organic journals he follows to remind himself that he has already grazed in that issue. Pacing around the perimeter of the small room like a caged animal, he sees with a building unease mark after familiar mark, his territory all secure, no fresh meat. He makes a noise: "Uhhhhhh." Back in his throat, frustration, unsated need.

Then he sees Lucille behind her desk, just the tip top of her tangled prematurely graying mop of hair showing over the divider separating her work space from the reading area. She appears to be tearing and cutting - Geiger tiptoes closer and peeks over the divider. Score! She's opening the day's mail, a heavy pyramid rich with the fat of chemical knowledge - the Copper Sulfate Blue of Tetrahedron, the Military Olive of the Journal of Organic Chemistry, the Butter Yellow of the Journal of Medicinal Chemistry. And she is just picking up the prize, the rich hunk of flesh for which Geiger salivates: Tetrahedron Letters. Two and three page communications chock full of novel ideas, applications, reagents. A dose which Geiger curses and yet can't go without, can't pass the door of the library without checking in to see if just one publication has sent him knowledge today. Curses them even while absorbing them, inhaling them, the fresh scented air that they are. These floppy thin magazines remind him that somewhere in this favored land a UV lamp is shining bright. The band is playing somewhere, and somewhere hearts are light. And somewhere graduate students are laughing, and undergrads

shout, but there is no joy in Allston Universityville. Not because Casey has struck out, but because Casey did not even get to the plate - he had to teach a discussion group. And even if Casey had gotten up, he would have had to use a broken bat that had been reinforced with cheap ass tape, his manager would have told him to look for the slider away when any damn fool knew the pitcher was a fastball artist, and the umpire would be allowing him only one strike.

He sees that Lucille has just finished entering the issue number onto her grimy 3 by 5 reference card, which was how she kept track of which journals had been delivered and which had been purloined along the way.

"Can I shelve that for you?" Geiger smiles sincerely and holds out his hand. Good citizen! Helpful hands pitching it to make a better world! Lucille looks at him suspiciously, searches the room for accomplices and terrorists. Finding no reason to suspect Geiger of threatening her possession of this 124 pages of obscure synthetic organic chemical reportage that she personally will never read, she hands it to him, then scowls as he drops into the nearest chair and opens it. She is certain that the type will wear to illegibility if too many eyes are allowed to gaze upon it.

Geiger opens the journal and turns to the graphical abstracts, the thumbprints in the first few pages summarizing in one or two structures or reactions the guts of the report within - quicker to scan for chemistry of interest than wading through long IUPAC nomenclature and oft-misleading titles. On the second page, a string of characters catches his eye. He tilts his head, quizzical, a

dog's reaction. Then he lets the pages riffle past his thumb until he is at the one referred to in the abstract. His eyebrows draw together. His lips purse. He shakes his head and sighs. He scans the paper, looking over the tables, the structures, the experimental. He nods sadly, then he begins to laugh. Loudly. Lucille looks up and makes a shushing sound, but Geiger is fallen off the precipice into that place where nothing earthly will stem the great rolling guffaws that are originating deep down in his abdomen.

Damian Sorrento entered Hennesse's office on the nose of ten. Jack saw a razor-thin man, bronzed and healthy, in a black suit over a black shirt. He wore no tie and had on a pair of shining black loafers that Jack knew had never been touched by a mechanical brush. *Los Angeles*, Jack thought. *Cross a pimp with an undertaker and get an agent.*

After they had shaken hands and Jack had sent for coffee, Sorrento opened his alligator-leather briefcase and took out a shiny Mont Blanc pen and an ordinary manila folder. "What kind of package did you have in mind for Professor Saltonstall?" he began.

"A full professorship, of course. Funds sufficient to make the transition, and laboratory space fitting to his position."

Sorrento didn't even write this down. "I'm sure that's sufficient for your average senior faculty member, but Dr. Saltonstall is A-list, Mr. Hennessee. Look, it's no coincidence that I'm in Boston today. I have a meeting with the president of Harvard this afternoon, and the chairman

of the board of MIT tomorrow."

"Okay, then," Jack retorted, dropping his smile. It was to be like this, then. "You tell me what it would take."

"Dr. Saltonstall is the premier experimentalist in the field of exotic particle detection. His team of electronics experts and theoretical physicists is the best in the world. Add them to any university and it automatically has one of the top physics departments anywhere. He was happy at Arizona State, but he wants to come back to the East Coast. In Arizona the group occupies two and a half floors – and it needs to double that to work on all the projects that are currently funded." Sorrento had made a living pitching: books, screenplays, commercials. He saw that Jack's pupils had widened at 'funded'.

"Here," he said, handing Jack a sheet of paper, "are the people who would need to be added to your faculty and the square footage the group requires."

Jack looked at the rather long list and the number of digits in the latter figure. "I'll have to get back to you on this."

"Sure," Sorrento said. "Dr. Saltonstall hopes to complete his move by the end of August. He has a major project to begin in Japan, and of course, he may be called away in December."

Yes, thought Jack, *he'd better be. But all we need is the announcement, in October. Professor Carol Saltonstall, of Allston University, will receive this year's Nobel Prize in Physics. Allston University President Stewart Horton Lynch was quoted –*

“So I will give you a call. Tomorrow too soon?” Sorrento interrupted.

Jack looked again at the square foot figure on the sheet. “No,” he said. “That will be just right.”

Laura was standing at her new bench in Shaftner's lab. In front of her was a pile of metal rings of assorted diameters, deeply grooved plates, screws, bolts, a couple of small glass jars, and a gray cylinder the size of a football. The parts had a sheen as if covered with a thin layer of oil.

Geiger came in, looked over the jumbled mess, and moved on, saying nothing, expressionless. Laura did not register those signs of doom, intent as she was on rubbing the last layer of tarnish off of a small flat disk of steel. "Did this Gast pump ever pull?" she asked, not looking up.

Geiger came back toward her. "It worked great up until about a year ago, when I loaned it to Forget."

Laura threw down her rag. "No."

"Word up." Geiger smiled. "Shafty asked me to loan it to him for a week. He didn't specify that it had to work for that week."

"Fuck - he broke it?"

"Nah. I figured if he got his hands on a pump that pulled as good as this one used to, I'd never see it again. So I took precautions."

Laura glanced at the disassembled pump. "You sabotaged it. This isn't the same one Nozick-"

"Poor sonofabitch. It was the only way."

"He spent days trying to get it to pull."

"Yeah. Sucks to be him, huh?"

"You shit." Laura said, exasperated.

"What gratitude. If I had let you guys have it, it'd be on Forget's truck right now instead of in your hood."

"But it doesn't work!"

Geiger opened a drawer and moved aside some papers. "It might if you had a rotor for a Model 23 instead of trying to get it to work with the rotor from a Model 17." He pulled out a disk the size of the one Laura held and tossed it to her. "They look the same, but the 23 rotates clockwise and the 17 of course rotates but not clockwise. They ain't interchangeable."

Laura held the two disks together. Shaking her head, she carefully put the one she had been cleaning aside and began to fit Geiger's contribution onto a shaft coming from the electric motor.

Geiger watched her for a while, then said casually "You were working on selenides, right? Allylic, benzylic?"

"That's right. Selenium displaces leaving group, alkylate the selenium, oxidize. The selenoxides are displaced by nucleophiles. Intramolecular, intermolecular. I saw some interesting rearrangements. Forget's writing it all up, soon. He says."

"Oh yeah. I saw a paper in Tett Let today. Same kind of stuff. Looked familiar."

Laura looked up in alarm. "Selenoxide rearrangements?"

"Sure. Lots and lots. Twenty or thirty examples."

"Oh, Christ Almighty. I knew we'd get scooped if that

asshole didn't get off his butt and submit. Now I'll be lucky if they publish my stuff at all."

Geiger went to his desk and sat down. "I wouldn't worry about that if I were you." But Laura had left the room.

Sh'Nika Denton sat in her Chem 350 Biochemistry discussion group listening to the teaching assistant. He was summarizing the salient features of the Krebs cycle, and although it was nearing the end of a hot hour on a hard wooden seat and all around her were near-comatose classmates - heads down, yawning, eyes unfocussed, slumped and fidgeting - Sh'Nika was soaking in every word. She was fascinated by the coordinated flow of molecules, the cooperation necessary for the whole thing to work, like the whole of Franklin Field filled with Double Dutch teams who had to simultaneously skip rope and pass basketballs to each other. And even the slightest defect in any one rope, jumper or ball could be fatal. It excited her that each reaction she learned was already going on inside her and inside the people around her and had been going on, not needing her knowledge of it, for millions upon millions of years, since the first protomitochondria got lonely and crept inside a larger protocell for company.

The TA put his piece of yellow chalk down and stretched. "Okay," he said. "That's all she wrote. Good luck on the final." He looked around expectantly, apprehensively, fearing the deluge of last-minute panic. The hysterical realization of the pre-med that an A was suddenly only

probable and not certain. But the class was beaten by the heat, rinsed and wrung out, and gazed up at him slack-jawed, glassy-eyed. Except for Sh'Nika, who was stowing her book in her backpack. He went and opened the door. "Beat it."

The dozen students began to trudge out into the hallway. Sh'Nika followed them, herding them before her like a group of toddlers. She saw that the cluster of lifeless youths had impeded the way of a man carrying a large cardboard box. After a moment, she recognized him as Professor Forget, who had lectured Organic the year before. He was not a memorable person, a nonentity who spoke to softly at times and too brassy at other times, as if his volume control was diseased. The only thing most students remembered from his teaching was that his name was not For-*git*, it was Fore-*zhay*. It was French, apparently.

She was about to pass by him at the tail of the group when she saw coming up fast behind him a tall white girl with that look in her eyes that Sh'Nika never expected to see here on the protected confines of the AU campus. Sh'Nika's first instinct was to run in the opposite direction, to throw herself behind the first solid object larger than a bullet. But the girl wasn't carrying a gun. She had in her hand, rolled up, what looked like a small stout magazine. She walked quickly up to Professor Forget's back and started to scream at him.

"YOU FUCKING BASTARD!" she began, the breath coming like a jet out of her, carrying spit along the stream like an airbrush. "YOU ASSHOLE! YOU STOLE MY WORK!

GODDAMN YOU... PRICK!"

Professor Forget spun around, his face already a bright red. He responded, everything coming out in a shout, trying to match her intensity. "IT'S MY WORK, MY WORK! I ASKED YOU TO STAY AND FINISH IT, BUT YOU LEFT ME!"

The white girl drew back the magazine, preparing to put the thick of it upside Professor Forget's head. Something in Sh'Nika told her that the consequences of the blow would be worse for the girl than for the man. Sh'Nika jumped between them and grabbed the girl's arm in both her hands. This skinny white girl was as strong as an angel-dust whacker, but Sh'Nika knew there was no zoot involved here, just adrenaline. "LET GO OF ME! I'M GOING TO KILL THAT COCKSUCKER!"

"Don't do it." Sh'Nika said softly. "No good comes of this kind of shit."

"YOU ARE ALL AGAINST ME!" Forget continued to bawl. "YOU HAD YOUR CHANCE TO COOPERATE! I PAID FOR THE WORK! YOU MADE NO INTELLECTUAL CONTRIBUTION!"

Sh'nika was turning her head to implore him to stop aggravating her, to calm down, that he was in no danger, when the white girl reached out her leg and began trying to kick Forget, who jumped back, dropping the box. It landed hard, and the grinding sound of everything inside breaking into glassy shards filled the hall. The biochem students gasped. They had formed a semi-circle around the scene, the reflexive formation about a schoolyard fight, fascinated

by a brawl, fearing and hoping for blood. Only Sh'Nika had thought to intervene.

"Look what you made me do," Forget said, pouting now, the red flush making his face like something beaten and left for dead.

The white girl wasn't satisfied with the destruction of the box. She obviously wanted to jam the magazine in her fist into the Professor's brain, and Sh'Nika's arms were getting tired very quickly. "Look," she said to him. "I'm about to have to turn loose. You'd better get clear."

Forget looked at her defiantly. "I have *nothing* to fear from her! I have done *nothing* wrong!" But he was backing away towards the stairwell all the same. "NOTHING!" He screamed, then he ran down the stairs.

Perry could tell already that the daily afternoon sessions of the Lynch For Senate steering committee, which was him, Jack, and Lynch, were going to be needlessly tedious. For one thing, Lynch did not seem to have a moment to spare in his cramped schedule. A schedule that, to Alan Perry, seemed strangely incongruous with the job description. Admittedly, Perry had little experience with college presidents, the last interaction being his own shaking his hand and passing over the roll of plain 20 pound copy paper tied with a red silk ribbon that served to stand in for the actual calligraphied wall-hanging. So maybe he was wrong. Maybe university presidents did spend their days addressing splinter special interest groups, writing

their memoirs, and dining venture capitalists, but Perry thought there would be rather more administration and academic stuff.

So Perry and Hennessee were by themselves, waiting in the conference room off of Jack's office for Lynch to arrive from his meeting with the Minister of Agriculture of Zaire.

"The deadline for filing signatures is August 30," Perry said.

Hennessee was reading a memo his secretary had delivered to them. "Not a problem.

"And he's comfortable going out of party?"

Hennessee looked up. "Who was it said 'I didn't leave my party; My party left me'?"

"Everyone who ever jumped sides, that's who. And you know there are always repercussions."

"Can't be helped. It's too late to file in party. Besides, you know this state - it's a stacked deck. The convention is locked up a year ahead. He'd never get the Democratic nomination, and running as a Republican for the Senate in Massachusetts – you might as well burn your house down and shoot yourself in the head. No, it's the Independent route for us. This way he is the real alternative, his own man, not the sacrificial lamb or the product of the Beacon Hill machine."

Spoken as an alumni of that machine, thought Perry. *One who can't wait to get his hands back on the levers.* "So he's good with the plan?"

"Good? He's great."

Then the door banged open like a cyclone was passing

down Commonwealth Avenue. Lynch shot into the room and glared around it like a dissatisfied emperor. He glanced at the clock. “You’ve got fifteen minutes,” he declared.

Geiger opened the door to the Scull and walked through as though it were home. Hell, it was better than home. The Scull didn’t judge you. The door was always open. You didn’t have to be very clean. You could leave your shit all over the place and no one yelled at you. The beer was cheap.

The long dark wood bar on the left, scattered round tables in the center, booths on the right – all were shadows to Geiger as his eyes relaxed from attenuating the pounding sun outside to accommodate the dim light available down here. The Scull was a basement that ran from the front of the five-story apartment building to the back alley. It was a basement that had never left what Geiger judged to be maybe 1965. The floor was mottled industrial tile, blackened and cleaned so many times it was now a compromise gray. The ceiling was low, maybe seven feet at best, and the knotty pine paneling was the color of the empty Budweiser bottle rolling around under the nearest booth. The wall’s original finish was revealed in the lighter squares where pictures had once hung. This was aging opposite to the bleaching the sunlight would have affected had the two narrow windows not been obstructed by thick bushes outside and ancient red curtains inside. This was staining due to the decades of smoke from cigarettes, cigars, pipes, and joints that management had allowed patrons to

burn. The Scull was like a cheap mortuary that sold beer.

Mort was pulling longneck bottles of Budweiser out of a case and stuffing them into a cooler under the bar. He was the bartender, janitor, bouncer, greeter, and manager. Geiger had been coming regularly to the Scull since his first day at AU, five years before, and had never seen anyone acting in a proprietary manner other than Mort. Mort opened the place at noon and closed it up at 1 am weekdays, 2 am Friday and Saturday. He was an artifact, an archeological relic. Geiger had heard that he had made book for Babe Ruth, that he'd smuggled cigars in from Havana for Red Auerbach, that he once mixed Mayor Curley's favorite gin and tonic.

"Heya, pal," Mort greeted him. All patrons were 'Pal'. Females were 'Doll'. Dogs were 'Rumpwillie', for some unknown reason, but they didn't care. Dogs loved Mort. The Scull was the only bar in Boston, maybe in Massachusetts, that let in dogs. Mort had a jar of Pupparoni Sticks - on the shelf next to the jar of Maraschino cherries that begged to be carbon-dated - he dipped into generously for any canine lucky enough to be led into the Scull.

"Hi, Mort." Geiger pulled out two dollars and laid them on the bar. Mort worked a bottle under the opener bolted to the wall and pulled off the top. He handed the beer to Geiger and went back to his unpacking.

Geiger peered into the gloom at a lone figure sitting in the farthest booth and took another two dollars out of his wallet. "Hit me again," he said.

Mort picked up another beer. "Two-fisted drinking in the

afternoon, pal?"

"The sun's always over the yardarm on a sunken ship," Geiger said, getting that twisted smirk that signaled Mort's mirth. Geiger took the second beer over to the booth. Jason Haltum, one of the few remaining grad students who had entered with him five years before, was sitting motionless, head bowed, in the dark corner. "Hey Jason," he said, putting a beer on the table in front of him and sliding into the booth on the opposite side. "Here's your stipend. Don't chug it, it's got to last all month."

Jason grinned and drank some of the beer. He was a blonde with a mop of hair that seemed never to cooperate but argued amongst itself as to length and direction. He had blue eyes and great strong pearly teeth that gave the lie to dental stereotypes invoked by his Southern drawl. "Thanks." He licked his lips. "I was dry as a tick on a statue."

"That's pretty fucking dry," Geiger said. "How's things in the Stringyverse?"

"Normal."

"You mean a pile of shit steaming in the hot sun?"

"About right."

"And not the good kind of shit. Not road apples or meadow muffins that you could at least grow mushrooms in. I'm thinking it's a pile of dog loaf, the kind that makes you gag."

Jason nodded. "Like selenophenol."

"Uck. Don't remind me. Mo was using methylselenide for some damn reaction that didn't work and neutralized it

with acid and carried the flask to the sink. He was going to pour it down the drain. Stunk up the whole lab - with the septum still on it. Can you imagine if he'd tossed it into the sewer?"

"Holy hell," Jason frowned.

"Nash would have shut us down until Shaftner blew him *and* the horse he rode in on. You're lucky not to have any numbskulls in your lab."

"Yeah. Lucky. Lucky me. No reason for me to move on."

Geiger pulled a fingertip through the bead of water condensing on his bottle. "I thought you'd have enough to write up by now. Hell, you did all that asymmetric cyanation."

"Stringfellow says that's not thesis material. He says I need to finish the synthesis."

"That fuckwad. You got three papers out of that work. When's the next time he'll get anyone to be that productive?"

"Maybe," Jason said, "Maybe if I had just farted around and got out maybe one paper, he'd have let me go."

"Now he knows you're the real deal. How much can he squeeze out of you?"

"He wants me to make the sibritoxin. But I'm not getting anywhere. I put the first ring together okay, but the annulation of the cycloheptane just won't go. He's getting mad at me, but nothing will go. He’s determined that I break every one of Baldwin’s rules."

"I've been there. Look, how can he expect you to make that motherfucker? It's a project for somebody with a

support system. You've got no undergrads to bring mass through the route for you. You have to teach because Stringy can't support you, and he's got no money to buy you first-class equipment or even reasonably-expensive reagents. Where does he get off? Where do any of them get off? Oh, Christ. Don't get me started."

Jason smiled. "Where were you when I was looking at the brochure?"

"Okay, so you're in a room with Hitler, Osama bin Laden, and Stringfellow. You've got a gun with two bullets in it. What do you do?

"I give up. What?"

"You shoot Stringfellow twice."

Jason erupted, laughing so hard that beer foam started to come out of his nose, making him snort and cough and setting Geiger to giggling hysterically. Mort looked over and nodded knowingly.

The women's room door opens a crack. Nozick's head appears, a strange sheepish look on his face. It is just another room, yet somehow he is violating sacred ground. Trespassing like an uninvited vampire. He knows it is verboten, the cultural prohibition strong upon him. "Laura?" He calls softly, thinking that women all use stalls and all the stalls have doors anyway. So what is the big deal? He steps inside and sees feet under one of the stall doors. It had better be her. "Laura?"

He tiptoes to the stall and taps on the steel. The door

opens, pulled from within. Laura is sitting - fully clothed - on the closed toilet lid, wiping her face with a damp paper towel. She smiles at Nozick. "Come here often?"

"All the time," he says. "Who do you think puts all those limericks about my prodigious member on the walls?"

"Rather badly written."

"Yeah. It's hard to find English words that rhyme with penis. I'm thinking of learning Spanish. Are you okay? What happened?"

"I had a fight with Forget." She balled up the towel and threw it past him, missing the trashcan by a wide margin. "He published my work - all my selenium work - in Tetrahedron Letters, and he left my name off."

"Jesus Christ. You did all that work by yourself. You thought most of it up, too."

"He said I hadn't made an intellectual contribution."

Nozick laughed a hollow laugh. "Forget wouldn't know an intellectual contribution from a booger. So what happened?"

"Oh, God. When I saw the paper, I just went berserk. I ran into Forget on the second floor, and I swear to God I would have jammed Tett Lett up his ass if some undergrad hadn't grabbed me. Then I came in here and puked my guts out. I haven't been that upset since - well, I've never been this upset. I'm so mad I can't even cry."

"Man, this is a new low, even for Forget."

"No it isn't," she said. "Do you know why he did it?'

"Probably the same reason he does anything - because he's a frigging asshole."

"No. He had a reason. I thought it was because I had to go home when my mother got sick in December. I was still writing up the experimental, and he didn't want me to leave. But it wasn't that. It was when I came back. One night in the lab he was talking to me about some damn thing that didn't even register at the time. Staying with his group, moving down south with him, stuff like that."

"As if."

"Nozick - he was trying to proposition me."

"Ugh. That's an image I don't need. You sure?"

"I am now. Even he's not stupid enough to come right out and say play or pay, but that's what he was trying. That's why he left my name off. That's what made me puke. Not just being pissed off - the thought literally made me sick."

"Isn't there something you can do? I mean, that was a lot of work you did. He can't get away with this."

"Why not?"

"Well," Nozick said, "I don't know. The problem is, with somebody like Forget, being him is the worst punishment Nature could come up with. What on earth could be worse than having a face and smell like Forget and having to move to the University of Clodhopper? Jesus, when you're not even good enough for Allston University, what would feel like punishment?"

Laura stood up and cocked her head and said to herself as much as to him, "I'm not sure yet."

“No.” Lynch said. And Lynch always said ‘No’ in such a

way that it reverberated in the heads of his listeners: NO NO NO NO NO NO NO NO NO NO NO NO... ad infinitum. At least that was how Alan Perry imagined it, sitting there listening to Lynch beat back their every attempt to help him achieve what he professed to desire – a seat in the United States Senate. Perry had plenty of experience dealing with quarrelsome candidates. Pols loved to debate; it was a big part of why they ran for office. But Lynch was taking the habit to new levels. He naysayed every thought or idea that had not originated in his head. It was like the Monty Python argument skit except much less funny because you weren't watching it, you were trapped inside it.

And so much for Lynch being on board with the television interview. Television was a intellectually sterile patch of desert fit only for the mindless hordes, according to Lynch. He was old school. He wanted to debate his opponents from a stage in the Boston Common and let the people be swayed by his compelling rhetoric, etc. etc.

Perry waited until Lynch had lost the edge off his verbal momentum and human physiology made it necessary for him to take a breath.

"The time they are willing to give you is worth thousands." Perry said. This made an impression. Perry thought hardening the concept with a dollar sign might be the way to bypass Lynch's reflexes. "And you will have a blank slate. The program is hosted by Heather Bednark. She used to be the arts reporter, now she's an anchor and hosts New England Journal at seven. That's free near-prime time.

They routinely get a pretty good share, sometimes up to a ten. That's about 400,000 people watching you."

There. That was a lot bigger crowd than could squeeze onto the Common. Perry watched as Lynch processed the idea of worming his way into hundreds of thousands of greater Boston area homes. It was the longest yet Al had seen Lynch not speak.

"This Bednark," Lynch said at last, "is not a reporter?"

Yes! Perry thought. *Like a tornado to a trailer park.* "Absolutely not. She doesn't do politics. The agenda will be up to you."

"I should announce that I am running, then. No time like the present."

This is too easy.

Geiger had been left alone in the murky twilight of the Scull, sipping at his beer and pondering the world beyond the door. Jason, temporarily light of heart but fundamentally weighted by the prospect of Stringfellow's quixotic favors, had gone, leaving only two empty Buds on the table to mark his passing.

Geiger wondered how the tug of war between Haltum and Stringfellow would end. It's the same game he plays with Shaftner: how to be fruitful enough to earn the doctorate but not so goddamn efficient about it that the boss is tempted to pile more and more work onto you. There will come a day, he thought, when Jason is so frustrated or enraged that it appears to Stringfellow that

Jason will just up and quit it all rather than work another day at his endless and unendurable task. Then and only then will Stringfellow loosen the grip and allow Jason to defend his thesis. Geiger remembered despirimide, his own Sisyphean molecule. Will he and Shaftner have to go through the same ugly protracted process? Yes. Definitely. Not a chance in Hell that it would be otherwise.

He looked up, startled by a smallish dark-skinned man standing silently by the table.

"Excuse me, I did not mean to disturb you. May I sit?" The man had an accent Geiger couldn't place. Arabic, Greek, Egyptian, Spanish? Geiger looked around the bar. Mort had disappeared; no other patrons had come in. It was just him and this Mediterranean-looking goomer. The stranger was short and slight. Not a physical menace, but he might be carrying. Or he might be cruising for a new boyfriend. Mort might not like the idea of the Scull evolving from its niche catering to the hockey team/graduate student/alcoholic homeless bagperson crowd into a new role as the neighborhood Wonderland. But this guy knew his name. What was up with that?

"What can I do for you?" Geiger asked carefully.

"No - it is what I can do for you."

Great. He was either tying to pick Geiger up or wanted to tell him about some deity or other. "Beat it," Geiger said, watching for signs of Mort.

The man slid into the booth opposite him. Geiger wanted to jump up and run, out the door, into the bright revealing sunlight, but the stranger had eyes like a snake - cold,

yellow-cast, fascinating. "Hello, Mr. Geiger. Allow me to introduce myself."

Jen Perelli was reflecting on all the skills she had so far accumulated in the course of her research. There was plumbing - both liquid and gas - and glassblowing and electrical wiring and carpentry. In none of these was she expert, and maybe not even very competent, but she had hands enough to do what absolutely needed to be done. When her Welch vacuum pump had frozen up last month, she hadn't even thought about calling one of the local companies who repaired and refurbished them. It would have taken several weeks – which she did not want to spare – and hundreds of dollars – which she knew would not be available anyway. She'd dug out a manual and a Crescent wrench and taken the thing apart. She figured out how to clean it and put it back together, even adjusting the vane clearances, which you weren't supposed to do or be able to do without a special tool which she of course did not possess. When put back to rights and filled with fresh oil, the pump pulled a better vacuum than it had ever done before. The quiet gurgle of her pump still gave her a warm feeling.

She was about to try out another talent that she hoped lay dormant in her: Breaking and Entering. Or was that two talents? She had gotten Slowick's Brighton address out of one of the pile of phone books in the graduate student lounge. There were only about a dozen Slowicks in greater

Boston and only one L. Slowick. Jen had taken the trolley a few stops and then walked five blocks to the address, a three-story house with cyan vinyl siding and concrete front steps. Through the locked entryway window she had just made out the name on the first floor and had then gone slowly around the building dragging an empty garbage can taken from the street. At every window she stood it on end and climbed up. In most the shades were down or the curtains were drawn. Two were unblocked. One probably looked out over the kitchen sink, as she could see a refrigerator and cabinets. The other gave her a nice view of a bed surrounded by a fortress wall of unbound journals.

Now she was standing at the rear door to Slowick's apartment. The old outer door, not deadbolted, had opened to the simple application of Jen's Shaw's Rewards card into the latch. Just like on television. But the interior door had two deadbolts and a heavy knob and latch assembly against which her card was unusable.

So far it had been plausibly deniable Entering and virtually no Breaking. She didn't know how to pick a real lock. That left Breaking for real, followed by some undisputable Entering. She looked at the door – solid, no easily-smashed windows – and then around at her resources – two umbrellas lying on the floor, a brown paper bag full of empty soda cans, and a sponge mop. No sledgehammers, no chisels, no dynamite.

Hmm, she thought. *Maybe Plan B.*

Consider the office of Professor Douglas Dubie not as a regular rectangular three-dimensional volume but rather as a rigidly defined subset of all space-time. Currently occupying the center of said space, defining the origin of the x, y, z and t axes, is the man himself, a graying, slender fellow with an antiquated ponytail which was never really in style. He is reading a journal, glasses almost to the tip of his nose, a felt-tip pen in one hand ready to strike at the margins with a flourish of dissent. Upon his desk another pile of journals, then another, and so on so that even the type of desk he possess cannot be determined by sight for the heaps of books interleaved with pads of yellow paper, more journals, and assorted loose sheets of paper leaning against all sides of the desk. From the origin outward are encountered similar repositories of information crammed into bookshelves, taped onto the walls, wedged under the computer keyboard, pinned onto a corkboard. Reams of paper, white and rainbow, single and bound, flat and glossy, fill this little niche in the universe.

The volume of flattened tree pulp is distributed in the three physical dimensions by Dubie's unconscious ordering, an information density function built up through iterations of stacking and searching and restacking. It is roughly equivalent to the atomic orbitals that a screensaver spins on his computer's monitor. These bulbous petals of the nuclear flower are representations of the probability function – the likelihood that an electron occupying one of the petals is actually in that space at any one time. Of course, the late Heisenberg, he of the famous bathroom stall *bon mot*,

would quibble with using such macroscopic metaphors as ‘time’, ‘space’, and ‘is’. But Dubie lives in the macrocosm, so the densities of information that lie about him are Newtonian, real actual masses against which Dubie stubs the occasional toe.

A knock on the door torpedoes his concentration; it upends and sinks in deep water with no survivors. Annoyed, he tosses the journal onto a nearby stack of books – another perturbation in the information density function – and yells at the door to open.

Rajiv Singh comes in, and Dubie remembers - against all that Heisenberg taught mankind – exactly where he had put the latest revision to the proposed outline of the treatment of Rajiv’s thesis. He knocks about an inch off of the top of a mound near his left elbow and picks it out. A hundred odd sheets, printed throughout thickly with equations, diagrams, and explanatory text. Rajiv sits down on a chair after automatically recataloguing the assortment of papers there onto the floor.

“Did you read it?” Rajiv asks doubtfully.

“Yes,” says Dubie. “But the introduction, and especially the background, is way too long.”

“Five pages is too long?”

“Not that,” Dubie turns pages. “Your intro goes to eighty plus pages.”

Rajiv shakes his head. “That’s all experimental.”

Dubie purses his lips. It often serves him where a smile would be a more humane ornament. “It’s Bhim’s experimental. You can’t also have it as your experimental.”

Rajiv sat thinking. Bhim Vishveshwaraiah had been another of Dubie's graduate students, two years ahead of Rajiv. Bhim, Priyathat and Rajiv worked for four years on laser ionization of various atomic clusters. Bhim had written and defended his thesis the previous October and was now a postdoc at the University of Leeds. Their three research projects came from common experiments.

"But we had the same experiments. We did them together. His model was reaction mechanisms of absorption. Mine is dissociation dynamics."

"Right. But you can't use his experimental. It's not original anymore. It's coming out in P and QMN."

Photochemistry and Quantum Mechanical Notes was a journal for which Dubie served as associate editor. As with many such esoteric publications, its regular readers could convene in a school bus. Appearing in that thin little bundle was going to wipe the slate of four years worth of work? Rajiv put his hands together and held the tips of his index fingers to his lips.

"So what do I do?"

"Do?" Dubie is amazed at his question. "Do? Write experimental that backs your conclusions. You have observations galore, but no original experiments to cite."

Rajiv remembered Bhim's thesis. It was thin. Anemic. The majority of it was experimental results. Their experimental results. And Priyatha's as well. Rajiv wondered if Bhim knew, if Dubie had blindsided him with this last minute double-secret rule. Would it have made any difference? Bhim had been there seven years. His wife and

children were weary of living like beggars amidst plenty, and Bhim was desperate to get his degree. He could not blame Bhim for this. You did what you had to do.

Maybe it's the beer, thought Geiger. He had just found that he could not move a finger, toe, or nose hair. *Seven beers will do that to you.*

Across the table, the strangely indistinct man was talking. "You reach this point in life, and you see the world as it really exists. You are caught in a web not of your own making."

Whatever, Geiger thought.

"Take your situation. Yes, to study the science of chemistry is perfectly respectable, but the politics of it all, the inescapable and unforeseen consequences of your choice – there are things of which you were not informed."

That's a nice way to say the bastards lie like dogs.

"Perhaps you had a revelation, or perhaps you had the late inspiration that became a new dream. You would like to become a Professor of Chemistry. Oh, it doesn't have to be Harvard. You would be perfectly happy running a small research group at a modest liberal arts college somewhere in a rural setting. Then you discover, and somehow no one ever had the foresight to tell you this, that it is already too late. The faculty at even the smallest college all obtained their doctorates from a handful of schools. All others are shut out.

"So you accept that, unfair as it might seem to you, and

you begin to come around to the decision that a career in industry would suit you better. Shorter work hours, better equipment, no constant writing of grant proposals. As you can see the end of your studies approaching, you begin to read in earnest the employment advertisements in the Sunday paper, and those in such publications as Today's Chemist, but there seems to be something missing. You might keep track of jobs that are available at a large, respectable company like Monsanto. You see positions for technicians and jobs for ordinary chemists who possess the bachelor of arts or the batchelor of sciences. Perhaps the master's degree is required. Yet you see few openings for the Ph.D. chemists. You know Monsanto employs many, many doctors of philosophy, and you hear through your personal connections, perhaps even read brief announcements in your professional publications or see that an author of a paper you are reading is no longer where he was but is now in the employ of the Pfizer Corporation. Where did he read about that job that you cannot? Then you realize that these jobs are never publicized. They are filled by word of mouth, by passing the information through a series of connections. And you are working for someone who seems to have no connection."

What the fuck? How does he know all this?

"What you most urgently desire at that moment is that some doorway open to you, some heretofore unknown route around these obstacles."

Geiger shook himself, all his muscles contracting one after the other in a seismic wave that passed around his

body, just to prove to himself that he was not paralyzed for life. He sat bolt upright. “And I suppose you are that…door?” *Fuck, that sounded idiotic.*

The man smiled. “Possibly.”

“Uhhhh…”

Cynthia Angress looked up from her crossword. “What’s an eight letter word for ‘Potter’s Field’?” She looked back down. “It’s not cemetery. Blank blank blank L D blank blank blank.”

“Uhhh…” Russell Bratton continued. He was holding a gallon of Clorox bleach, the plastic jug cradled in his arms like an albino baby. “Aceldama?”

She wrote. “It fits.”

“Where Judas spilled his guts, according to apocrypha.”

She looked at him, frowning. “What are you *doing* here?”

“Getting some bleach.”

“No, I mean what are you doing in this graduate school knowing stuff like that?”

He shrugged.

Cynthia nodded towards his armful. “You want that?”

“Uhhh…”

“You already said that.”

Bryan Heyman came in through the open door. “Hi Cynthia,” he said. “Got my bleach?” He spoke rhetorically, as he was already reaching out for the jug.

Russell swung it away, shielding it from Bryan with his body. “No.”

Cynthia laughed. “Yes.”

Bryan looked at them, eyes oscillating to and fro. “What?”

“Price,” Russell said. “Wrong.”

“No,” Cynthia said. “Correct.”

“What the *fuck* are you talking about,” said Bryan.

“He is referring to the shelf price of one gallon of Clorox bleach, unscented,” Cynthia said.

“So?” Bryan said.

“Sixty five dollars,” Bryan said. “And twenty-five cents.”

“Bullshit,” Russell said. “I usually pick it up at Shaw’s. The store brand is a buck something. Clorox isn’t more than two, three bucks.”

Cynthia waved a hand at the surroundings. “This is not Shaw’s.”

“You’re telling me you actually sell this for sixty bucks more than a store three blocks away?” Russell said.

“Yup.”

“Why?” Bryan asked. He was looking sadly down at his perfect plastic gallon baby. It was looking like they would not have any kind of life together.

“Because that’s how much it is.”

Russell and Bryan looked at her, absolutely devoid of understanding. It was touching, Cynthia thought. They had been here so long and yet were still so green.

“When I took over the stockroom five years ago, I was given a list of things to keep on the shelves. Each item had a supplier, a cost, and a selling price. I think that Ed, the guy who ran this place before me for fifty years or so, had never

set foot in a grocery store. But I had. Round-bottomed flasks and like that I didn't know about, but bleach? And tissues, paper towels, I buy all the time. I was selling them to the chemistry faculty for way more than they cost, even retail. When I asked Nash about it one day, he said there were regulatory reasons for the pricing of research supplies and would I keep my little ass out of the big boys' business please."

Bryan was patting his baby absentmindedly. Russell was frowning.

"I know. Bullshit, right? I looked at the list again. A lot of the supplies like bleach that weren't the kind of things the big boys like VWR and Fisher carry came from a company in Newtonville. You know Newtonville?"

They shook their heads in unison.

"A part of Newton. I was driving nearby right after that. I had the supplier list in the car with me, so I went looking for the Harmler Brothers Laboratory Supply warehouse. Found it in a strip mall. Funny kind of warehouse, too. Fit it all in a rented mailbox in a little UPS store."

More blankness from her audience. She sighed.

"One hand trying to clap is for suckers," she said. "The real puzzler is – who is the low bidder on a no-bid contract?

THURSDAY

Heather Bednark entered the Channel 8 parking lot at her usual 7:00 am and parked her minivan in the spot marked "HEATHER" by a red Plexiglas sign in the shape of the network logo. It was funny that the consultants had pointed to her as the archetype for the professional woman just as she had entered the soccer mom stage of her off-camera life. The minivan actually had a mesh bag behind the back seat that bulged with soccer balls and small orange pylons – leftovers from the family's weekend youth soccer schedule that had the Bednarks speeding between different town fields to cheer on their three children.

She went into the office area, turned on her computer, and checked the inbox on the desk in her little half-office area that was really just a big cubicle without doors, the way the last efficiency design architect had mandated. On top was a note from the news director. She started to read it as she walked to the kitchen island next to the glass window that let everyone look in on the production floor. There she looked up and saw Brandon Jordan spreading cream cheese on a bagel. He was pale and sallow and cleanly moist. She guessed correctly that he had been up most of the night doing what it was he did: hanging with state cops, staking

out unwilling sources, buying beers for State House interns. Then he had showered in the station lounge and here he was, fuelling up for another day.

"Good morning, Brandon," she said.

"Hi Heather." He mumbled, mouth stuffed with bagel. He saw the memo, sharp eyes catching the From: line. "What's news?"

She showed him the page. "Henry wants me to take a crew over to Allston University and do a live with President Lynch. Rumor has it he is going to try for the open Senate seat."

Jordan made windmilling motions with his arms, trying to help his sudden and enormous swallow of bread go down. "Lynch?" he said after a moment of hard throat work. "Stewart Horton Lynch run for Senate?"

"I guess. Why?"

"Jesus, Heather, the man's a powder keg. No, wait. Gun powder has to be stable. This guy's a power crazed unbalanced lunatic."

"Really? A university president?"

"Oh yeah. I did some background for a story last year. Lynch turns out to be the front man for a guy named Harold Dalrymple, who's worth several billion and lives on an estate out in Brookline that's fenced in like a maximum security prison. The cadaverous old geezer only comes out once a year that we know of – to the Allston University graduation. They give him an honorary degree every so often. He plows millions into the University. He and Lynch *are* the board of Trustees. They have a dozen or so neutered

flunkies on the board, too, to keep the Attorney General off their ass. Non-profit status, of course. Can't jeopardize that."

Heather considered the selection of bagels on the maroon plastic tray. "I don't remember any stories about Harold Dalrymple."

"I can't either. I've certainly never been tempted to do any. Investigations of eccentric recluses with rabid lawyers on permanent retainer are hard to get greenlit. As far as I know, he doesn't donate to political organizations or causes. His only outlet is propping up Lynch."

Heather lifted up the clear plastic cover and pulled out a bagel. Mottled tan and brown with streaks like tears of blood. She held it up to Jordan. "Sun-dried tomato," he said.

"Not jalapeno?"

"No." He watched her slice it and put it into the toaster. "You're having Lynch on New England, right?"

She nodded.

"Why not on the six o'clock? Senate announcements are big news. Aw – no offence."

"I know what you mean," she said, watching the glow from the toaster. "He wants a friendly. He's probably the kind of man who thinks that tits are God's judgment."

Jordan smiled. "Aren't they?"

"Christ, Jordan, I get tired of goddamn idiots who think they're GI Joe and I'm fucking Barbie."

Lucille was punctual, Jen had to give her that. The librarian unlocked the library door at exactly eight. She stepped inside, and Jen followed on her tail and shut the door behind them.

"Ms. Slowick," Jen said.

Lucille turned around, no expression on her round face.

"I went to your apartment yesterday. I looked in the window."

The woman's eyes went immediately, anxiously to Jen's hands. "You didn't bring them back?"

Jen shook her head. "I didn't break in, if that's what you mean. I just saw the journals. Are you ever going to take them to the binders?"

"I have to save them," Slowick whispered.

"What?"

The librarian glanced behind her. "They *kill* them. I have to keep them safe."

"What, the journals?"

"They *kill* them," Lucille repeated.

Jen looked at the display of recent journals. "You didn't take home any of the bound journals."

"They're gone," Lucille said slowly and sadly, as if she might start to cry thinking about it. "It's too late for them. But I can save the little ones."

We think she's odd, but she's not - she's completely fucking bonkers, Jen thought. How long had this been going on? Why hadn't anyone noticed there were issues going out and none coming back in hardcover?

"Here," Jen said, handing the woman a yellow sticky

note on which she had written: Azerb. Chem. Comm. 34(4) 344-356. “Bring me this journal. I’ll take good care of it and give it right back.”

Lucille accepted the paper but didn’t look at it. “I know you will,” she said. She turned away and went to her desk.

Well, that sounded like a yes, Jen thought. *I’ll be getting the references I need now. Until somebody with a net comes for her*. She wondered briefly if she should share this new procedure with the others in her lab. Briefly. They would blab. Slowick would get fired. The journals would come back into the library where they should be. All the graduate students would have equal and fair access to them again.

Eh. Fuck ‘em, she thought.

It was the first time Laura had ever seen Nozick at a loss for words. He was actually shocked and a little embarrassed, so much so that Laura shut the bag and slid it under her desk.

“Where…the hell did you get those?” Nozick managed to choke out after a long silence. She was in uncharted territory now – way out beyond where even Nozick dared to have ever gone, and she felt lightheaded, excited and afraid - blended on high with a cup of chili powder.

“Doesn’t matter where they’ve been,” she said. “It only matters where they’re going.”

The door opened, and it sounded like a house falling to the guilty pair. Nozick jumped around to see Harold

Tardiff's head protruding into the laboratory.

"Hi," Harold said.

"Jesus Christ," Laura breathed. "You scared the crap out of me."

Harold's tentative smile faded. "Sorry. I'm looking for Professor Shaftner. Is he here?"

Nozick leaned back on Laura's desk, crossing his legs to hide the bag, as though Harold might have super penetrating vision. "Why?"

"I have an appointment."

"Are you a new grad student?" Laura asked.

Harold eased the rest of his body into the room. "Yeah. Do you guys mind if I ask you a couple of -"

Nozick put up a hand, stopping the traffic. "Don't even think about it."

"But-"

"You bust in here and asking us questions? To you it's nothing. To somebody who's already here working, your questions are like a green kryptonite fucking jockstrap on Superman."

Harold looked confused.

"Look," continued Nozick, "you're eventually going to ask the million-dollar question, which is: 'How do you like working for Shafter?' or something along that line. Now how are we supposed to answer that? Think about it. Suppose that working for Shaftner sucks ass. If we're honest, and tell you that, then you probably don't come to work for him. That means we have to work for him longer, maybe years longer, because he can't replace us – with you.

Or we could lie to you, which is more probable, to make working for Shaftie seem like the most desirable thing ever. So you *will* come to work for him, so the lab will be crowded, so we can write our thesis and get out of the hellhole. Comprende?"

"I - I guess," Harold stammered.

"Or suppose that Shafter has a ton of money to pay us for doing research so we don't have to teach. Do we want you coming in and getting some of that? Hell no. So we tell you that working for Shafter is the worst fucking idea you've ever had."

"Hey," Laura said. "How come you never told me this when I asked you how you liked working for Forget?"

Harold looked back and forth between them. "So if they tell me not to work for somebody, that means I should work for them, and if they tell me to, I shouldn't?"

"Maybe." Nozick said, still facing Laura. "I didn't know anything about Forget when you asked. I had spent the whole year getting classes out of the way – that's what he told me to do. I didn't know he was broke, and I didn't know he was a retard. He had lots of big plans, and a lot of synthetic routes drawn up on the walls of his office. I thought they were reactions he *had* run, not reactions he *wanted* to run."

"Professor Forget?" Harold took the Allston University Graduate Bulletin from under his arm and turned pages. "I was going to see him today."

"What?" Laura grabbed the book away from him and looked at the page. "Why is he still in the book?"

“He’s not here?” Harold asked.

“Christ, he’s under organic, organometallic, and biochemistry. Who the hell wrote this thing?”

“What? He doesn’t do organometallic research?” Harold caught his book as Laura flipped it back at him.

Nozick snorted. “You want to do organometallics? With who?”

Harold opened his book and read. “Shaftner, Forget, Stringfellow, or Dubie.”

Laura and Nozick stared at him for an instant, then they began to laugh. Nozick bent over double, holding his stomach. Harold began to get angry. “What? What’s so funny?”

Nozick wiped his eyes. “If somebody took a vitamin with iron, they claim to be doing organometallic work. If they stepped in dogshit, they would claim to be veterinary proctologists.”

“You mean he really doesn’t do organometallic?” Harold was still mad, but now he wasn’t sure who to be mad at.

“Really.” Nozick said. “The only guy here who does is Stringfellow, sort of. Oh, and Burns, but she is not taking students, and – who else? I think Stringy is your only hope. Now Pchem, we got. You want to do Pchem?”

Harold shook his head. “No. I want organometallics.”

“Well, good luck with that.” Nozick said. He and Laura watched as Harold turned and walked out, shoulders slumped, head down. “That poor son of a bitch. He looks like he’s been hitting the smart juice.”

Geiger strides happily down the hall, his catch slung over his shoulder. A small victory has rendered him euphoric. *Way too happy*, his internal guidance system tries to tell him. Giddiness out of proportion to the cause. This is potentially mania – God knows you have the depressive swing of the seesaw covered. Geiger presses the mute button. *Shut up*. There shall be no scuffmarks on his triumph.

Then he rounds a corner and sees the black hole of happiness. He stops. Stumm is walking away from him, so slowly that Geiger on his ebullient pace will catch him up in ten strides. Or would have. Geiger takes a tiptoe step back towards the stairs. If Stumm turns and sees him –

It's not anything Stumm has actually and overtly done, and certainly it is nothing he has any control over. Maybe he's not even aware of it. But the other graduate students turn around in the hallway to avoid passing him by. If trapped, they press tight against the wall or dive into any nearby unlocked door. They are literally repelled by him.

He's not a particularly unpleasant person, although he tends to go about with shoulders slumped, projecting the air of one defeated, extinguished. That might be some of it, but the rest is the desire of those who have not been in the program for as many years as Stumm to avoid contracting whatever it is that he is carrying. They have a visceral fear that there may be some vector that will jump from him to them, some infectious agent sniffing for fresh blood. It's the kind of superstition that even the most rational people are

to be excused from entertaining when they find themselves ensnared in the kind of stochastic process that is the graduate school. Few of Stumm's peers have a clear idea of what tasks will free them or when the sentence is up, so they can't say with certainty that some portion of it is not determined by the whims of gods beyond their control. Gods that Stumm has clearly offended. Gods that you did not want looking down and seeing you standing next to the accursed.

Hell, there was even a rational component to the allergies to Stumm. One certainly did not want one's graduate advisor to have Stumm in mind as a yardstick of what was right and normal. *You've only been here six years, what's your beef? Old Geoffrey's been here a hell of a lot longer than that.*

McAllister was watching over Pat as the graduate student adjusted the set screws in the HPLC injector body. Pat worked the injector handle up and down, then tightened the three screws an infinitesimal amount more. McAllister glanced over at Xuang, who was setting up a reaction in his hood. A movement caught his eye, something in the window of the lab door. He saw Geiger out in the hall and nodded. Geiger made a furtive glance around the hall and waved at McAllister to come out.

"Hey Mac," Geiger whispered when McAllister had stepped out into the hall, "check this out." He was holding a large black garbage bag. He opened the gathered neck, and

McAllister saw inside a jumble of cloth - khaki and blue. “It’s a bunch of Howe Construction outfits.”

“Okay.” McAllister was thinking that even for a poor grad student, these free clothes were not much to crow about.

“Uniforms, Mac, uniforms! Undercover mufti!” Geiger closed the bag and slung it over his shoulder. “Don’t you want to get a gander at your new lab?”

Laura and Nozick found Forget in his soon-to-be abandoned laboratory. His back was to them, and he was making so much racket that he didn’t hear the lock in the door being turned. Laura took in the familiar walls, rendered less familiar now that the posters she had put up were gone, her desk was clear, and Nozick’s little shrine to the Venture Brothers that used to watch over the lab from the top shelf of her bench was missing. Forget was applying a great deal of force to a drill, trying to back out the screws attaching a rusty tank holder to the far wall. The screw heads were apparently stripped, as the drill spun on them with a loud rattle, never gripping. Nozick caught her eye and rolled his, waving his hands around to indicate that as Nozick had predicted, Forget would indeed, time permitting, steal the varnish from the cabinets.

Forget heard them at last and spun around, straightening up and glaring at them. It was clear that although he had not been able to change the lock, he considered their presence trespassing. He squinted at the flat cardboard box in Laura’s arms with suspicion.

“Hey, Professor,” Laura said cheerfully. “We brought you some condensers and distillation heads.”

“Yeah,” Nozick added, “and there’s a bunch of Variacs and clamps down in Colder’s lab we were going to heist. Shall we toss them in the truck for you?”

Forget’s jaw worked. Laura had posited to Nozick that as she had never seen Forget hold two even remotely opposed ideas in his head at once, that he was not capable of it. Perhaps he did not have the storage capacity to load conflicting paradigms simultaneously. Thus, Laura had predicted, bringing him a gift was the best thing they could do. Forget tended to fixate on things, but only one thing at a time. He was moving as much as he could into his truck, she had guessed, and that primeval urge would take precedence over all others. He would not recall that Laura had attacked him the day before.

Forget nodded. “Sure. Here.” He groped in his pocket and pulled out a single key attached by a thin ring to a plastic U-Haul logo.

He turned back to his endeavor, and Laura smiled at Nozick. “My pleasure,” she said.

A cathedral-like hush lay over the laboratory of Professor Shaftner and his graduate student group. This particular cathedral was strewn today with Claymores and snoozing crocodiles, the hush willed so only by the intense concentration of Bryan Heyman. He sat in front of his hood, perched on a rickety wooden bar stool he’d claimed from a

Brighton sidewalk one trash day. In his right hand he gripped a small glass syringe attached to a six-inch 22 gauge needle. He held the end of the needle gently between the thumb and forefinger of his gloved left hand and prepared to guide it towards its goal.

It was the low moment in Bryan's day. Hell, his whole week maybe. He had a reaction to run, one that had to take place by the removal of a hydrogen from a carbon particularly unwilling to give it up. In general, hydrogens liked to be bound to carbon. Sometimes functional groups nearby would make the hydrogen a little more amenable to being removed by a base. In those cases one might use n-butyl lithium, or potassium t-butoxide, or sodium hydride. All of these were not things you wanted to stick your tongue into, but they were conveniently manipulated with just a bit of care. Bryan's compound, however, was a reluctant bitch. The proton that needed to come off was not activated by any functional group. It was on an aromatic ring. Its tendency to be taken off was measured in pKa, a logarithmic expression of the equilibrium reaction: carbon bound to hydrogen on one side of the seesaw, carbon and hydrogen rendered apart on the other side. He guessed that his proton had a pKa of maybe 45 or so. That meant it really really *really* did not want to be removed. You had to get out the big hammer for this job. The amber bottle clamped in his hood held that implement. In it was a pentane solution of tertiary butyl lithium, the strongest base you could get on this planet. It had a pKa upwards of 53. In that region, measurements were a little iffy, but whatever the exact

value, it was good enough. The difference in pKa being logs, 53 minus 45 was 8. Ten to the eighth, that was. The tertiary butyl carbon wanted that hydrogen 100 million times more than the aromatic carbon did. Given enough time, it would get it, then Bryan's reaction could proceed.

The drawback was that the t-butyl lithium was so damn strong a base it reacted with the air. Bryan didn't know if it was the oxygen or the water vapor. Probably both. Whatever it was, as soon as you pulled the needle out from the bottle, as soon as it cleared the soft rubber of the septum that kept in the relatively pure and inert nitrogen that filled the nonliquid space in the bottle, the tip of the needle ignited. A tiny pumpkin-orange flame danced upon it like a hissing angel on the head of a pin. The flame stayed tiny as you calmly moved the needle to the next septum, the one sealing your reaction. Poking the needle into the rubber put out the flame, and you injected your base. Unless it was your first time using t-butyl lithium, in which case the sight of flame of any size might be enough to cause your heart to race, your hands to shake, the muscles controlling your thumb upon the plunger of the syringe to involuntarily contract. Spurting the solution of flammable base in flammable solvent directly through the pilot light. Most graduate students had immolated at least some fraction of the inside of their hood in this manner. It was another of those rites of passage you could be warned about and warned about, yet when it happened you were still not prepared. If you were lucky, the ball of flame would consist of just the contents of the syringe - and not the whole bottle

of reagent, your precious precursor, your glassware, and your magnetic stirrer.

In Bryan's case, his cherry had been lost to a ball of flame the size of a basketball that bloomed and died before he could finish the last of his string of terrified profanities. Now he had done this enough times that it was merely terrifying rather than stupefying.

The paper label on the liter bottle had a dozen small handwritten notations: *1.55 M December 12*, and *1.60 M December 24*, and *1.22 M January 15*, etc. The M, molarity, of the reagent had to be determined periodically, preferably right before you used it. It varied. If base reacted with incidental oxygen or moisture introduced by the necessary punctures of the septum, the concentration of the t-butyl lithium would decrease. If the septum was compromised in such a way that the pentane solvent, which after all had a boiling point of only 35 degrees Celcius – lower even than the 37 degree internal temperature of the chemist, escaped, then the concentration might go up, the t-butyl lithium itself not being volatile. Many of Bryan's reactions depended on adding just the right amount of base to the reaction. A bit too little or too much would cause the yield of product to go to hell in a quick hurry. Thus the frequent titrations.

Which were themselves not trivial to do. The flask you did the titration in had to be dry and purged with dry nitrogen. The stirbar that would keep the titration solution mixed had to be clean and dry. The syringe and needle had to be bone dry. The THF solvent used in the titration had to

be freshly distilled and absolutely dry. The diphenylacetic acid that reacted with the base had to be rigorously anhydrous and also weighed into the flask with three significant figure accuracy. The acid was not totally soluble in THF, so you ended up staring intently into a milky solution, watching the drops form and fall from the tip of the needle with your peripheral vision, and trying to judge just when the milky solution turned from creamy pale to eggnoggy yellow. Once that point was reached, the volume added was noted. Then the process was repeated twice more, outlying data points eliminated, and the average used to compute the base concentration. Sure, you could do the titration once. But if that were the fucked up titration, you would waste more time running the useless reaction than just doing the analysis three times to begin with. Another valuable lesson the beginner soon learned, again usually the hard way.

No matter how many times he did this process, it was like making diazomethane, or distilling HMPA, or cutting big chunks of potassium metal. It was something you needed to respect even if you had learned not to fear. He didn't hold his breath anymore, but he did bate it.

The big sheet of safety glass that was the face of his hood was raised up a foot and a half so he could get both arms into the hood. It rang suddenly with a violent squishy POP!.

Fuck me, Bryan thought. *I never should have let him see me take the bottle out of the fridge.*

Another: WHAP! and he quickly grabbed a ball of rolled-up Parafilm the size of a marble, stuck the needle tip

into it, sank to the floor, opened a cabinet drawer, and slid out a cut-down cardboard Aldrich box filled with an assortment of septa, stoppers, and corks.

It was Septum War. Declared at anytime, the more inconvenient the better. Across the lab, Bratton had his own box. He'd waited patiently until Bryan had a syringe full of t-butyl lithium solution in hand. Then he had reared back and unleashed a fastball. Fast septum, anyway. Not trying to hit his target, not at first. Septum War had rules and conventions. You had to fire a warning shot to alert the other side. You couldn't just conk them where they stood all unsuspecting.

Bryan selected a nice old 24/40, folded. He slid on his ass several feet, then jumped up and pegged it at Russell's head. Russell was looking at where Bryan had been. Mistake. The septum caught Russell full in the side of the head.

In the beginning, Septum War had been unlimited. A couple of months after Bryan and Russell had moved into the lab, there was one hot frustrating day when they, Geiger, and an undergraduate senior named Jimmy Something had all been working. It was actually Geiger who had started it. He'd been trying to insert a glass tube through a big black rubber stopper. A simple enough operation, but he could not find his glass cutting file. Borrowed. He dug up a spare, then he could not find the cork boring tool. Stolen. He left and begged one from down the hall, but it turned out to be too dull to cut the hard rubber. He could not find the borer sharpening tool. Lost.

At that point, the previously sangfroidian Geiger heaved the stopper as hard as he could. Not at anyone or anything, just away. It bounced off a wall and ricocheted off a gallon bottle of acetone and pinballed down a benchtop, scattering flasks and TLC tanks. It was a number eight stopper, almost an inch and a half in diameter and quite heavy, a thick little hockey puck possessing a lot of momentum which it did not fully shed until it banged into Russell's thigh. He picked it up from the floor and – without hesitation or apparent thought – fired it back. He missed Geiger, but the stopper shattered a full 500 milliliter bottle sitting on the topmost shelf near Geiger's head. Everyone stopped for a second, stunned by the potential hazard of the liquid splatter. Then Geiger started to guffaw.

"Deionized water!" he roared. He opened a drawer and pulled out a fist full of stoppers. Septum War had been born.

The War had been without bounds at first, but the combatants had realized that some disarmament was necessary. The classical black stoppers were just too damn heavy. They hurt like a bitch, left a bruise, and worst of all were easily able to topple or just plain destroy glass bottles. Tactics in the early Septum Wars often involved targeting the top row of bottles on the shelf above the bench where the opponents were seeking cover. The small 60, 120, 240, and 500 milliliter bottles were as nothing and were swept aside, smashing down on and around the enemy, filling the lab with the tangy stench of chloroform, ether, ethyl acetate, and hexanes.

Now the only acceptable munitions were the standard 14/20s and the larger 24/40s, cylindrical rubber creations in amber or red. Thick on the end meant to be inserted into the neck of a flask and thinner on the end made to be folded over the outside of the neck to create a strong airtight seal. Unfolded, they could be thrown like a dart with spin for added inflight stability but hit with more dispersed force. Folded, they traveled faster but knuckled en route. One of these, a folded 24/40, twanged off of the hood face and shot straight down onto Bryan's shoulder.

It was just the two of them in this battle. Geiger participated less and less often these days. He seemed to be more frequently in a big black stopper chucking mood than a friendly tossed septum mood. Bryan sent a folded 14/20 up high, hoping for a rebound off of the ceiling. A long shot, but indefensible. A cackle from the other end of the lab told him he had come close, but only close.

He ran into her at the copy machine. She picked out a dozen or so papers from the side, collated them quickly, and handed him a stack.

"Here are two more resumes for you," she said. "I'm going to schedule the other one you liked for next Monday, if that's okay. Let me know if you'd like to bring either of these in."

"Thanks," he said.

"Next Monday," she said. "How long do you think it will take?"

"Well, I'll show her the plant in the morning after you give her your HR introduction, then we'll have lunch with the group. In the afternoon I'll let people talk with her and let her see some of the lab in detail."

"So all day, then."

He nodded. "It's very important to let the group get a good look at her. Later we'll meet to discuss how we like her. If there's anybody with any doubts about her – about her skills, her personality, anything – we'll pass."

"Wow," she said. "That sounds… Do you think that's necessary? Can't *you* just decide? Why do so many people get a say?"

"It's the wisdom of crowds."

"Still, it sounds terrifying. I hope you don't tell the candidates how it works."

"Terrifying is us getting it wrong," he said. "Hiring the wrong person, somebody who looks good enough on paper that if I interviewed them by myself I might fool myself into thinking that their flaws were in my imagination. Wasting time and effort and pissing off long time loyal employees.

"When I was in graduate school, I was scared shitless by my research advisor's stories about job hunting. He had interviewed around after he got his doctorate but didn't get an offer, so had to do a postdoc. He was always going on and on about how hard it was to get a job in the real world. Scared the hell out of us, because he had worked for someone with a recognizable name, and we worked for an unknown. So if he couldn't get a job, what hope was there for us?"

“But you got a job,” she said.

“No thanks to him. We advertise all our openings, but a lot of places - the big pharmas, especially – fill their top jobs by calling around to the big research groups to see who’s available. They’d never think to call my old advisor except maybe to ask him if had Prince Albert in a can and hang up. But once I had been working in the real world for a while and seen the hiring process from the other side, I figured out why he hadn’t gotten any job offers. It was because after talking to him for five minutes, his potential coworkers would go to their supervisors and say, ‘Don’t you dare hire this turd. If he comes, I quit.’”

“I feel stupid in this,” McAllister said. He tugged at the Howe Construction shirt. It was three sizes too large for him. The blue pants were also too big, and hung low on his hips even after he had cinched a long piece of rubber tubing through the belt loops.

Geiger was carrying a clipboard and two scuffed orange hardhats. He passed one to McAllister. “Put this on and look like you belong,” he said. His purloined clothes fit him somewhat better, and with the battered hat on, he did look like just another employee monitoring the building process. They were standing on the corner, waiting for the light to change. A small crowd of students accreted around them.

“I was talking to Moran yesterday,” Geiger said.

McAllister nodded.

“He said you were going to review him every six

months."

"Yep."

"What the fuck? Where does that come from?"

"My dad," McAllister said. "He was a chemical engineer. Forty-three years at DuPont. They always had a list of goals. Personal goals, team goals, business unit goals, corporate goals. The guy who cleaned the toilets at the Teflon plant in West Virginia and the CEO each had a list. And those two lists were each designed to get the company to some specific point. DuPont didn't get to be DuPont by having ten thousand workers farting around in ten thousand different directions. I thought it would be a good idea to give my group some objectives and review their progress every once in a while."

Geiger shook his head. "What planet are you *from*?"

The light changed, and the mass moved across the street.

"One time," Geiger continued, "Shaftner came back from a Gordon Conference, and he was all like his usual, 'Doesn't seem like you got much done while I was gone'. Then he tried to motivate me with a funny story. One of the other assholes – sorry, Mac – distinguished professors, ended a talk with some slides of his group, pointing out the ones that were exceptionally productive and also the ones that weren't. That was Shaftner's attempt at a pep talk. He actually said that I had to work hard or some day my picture might projected on the wall and talked trash about. And all the time I was thinking, '*You fucking cunt. Why didn't you have the balls to stand up and ask him why he was keeping that guy in his group if all he was going to do was*

screw him. Why not tell him now and let him get on with his life?' What the fuck do people like that think?"

The students all turned left, leaving Geiger and McAllister alone.

"Exactly," McAllister agreed.

They kept going straight, towards the main entrance where the security guard was sitting. McAllister was careful not to look directly at the grim-faced guard, who looked to be 300 pounds of muscle. He was positive the guard would see through their ruse in an instant and call the police to have the two imposters bounced from the scene. Jesus, McAllister thought. This could be trespassing. He hadn't considered that. It could go on his tenure application. He was about to reach out to stop Geiger when the guard raised his head from the paperback he was absorbed in, nodded, and resumed reading.

They found themselves in a large space with glass walls - the beginning of a wide corridor congested with barrels, boards, stacks of insulation, and piles of black cast iron pipes.

"Very nice." McAllister said, "How will they ever be ready for the dedication by Sunday?"

"Who gives a rat's ass?" Geiger said. "Let's see the plans."

McAllister took a stack of papers from his back pocket. They were worn, folded in half sideways, and stapled – McAllister's copy of the official department blueprints that D'Arcy had distributed to the faculty for final review of their lab spaces. Geiger turned pages and rotated the picture until it satisfied him.

“Hmm. This is supposed to be an open room with computer workstations along the walls.” Geiger looked up, then back at the plans. “But I don’t see network ports there.”

“Maybe they changed it,” McAllister said.

“You’re probably right,” Geiger agreed. “Let’s go see the labs. You’re on the second floor.” He pointed to a door, and they went through and started up a staircase. Two authentic Howe Construction workers were carrying buckets down. The real employees said a casual hello to the faux employees without stopping. Geiger opened the second-floor door for McAllister.

“After you,” he said.

McAllister entered a hallway with gleaming green tiles on the floor – real ceramic, not the industrial strength brown tiles in Pebble Science. The walls were a light rose, and the doors and trim were solid oak. McAllister pointed to a door two down. “That should be it,” he said, excitedly. “Wait until you see it. California hoods at the end of every bench, real built-in lab desks –“

He burst through the door to his new laboratory. Geiger was hard on his heels and nearly ran McAllister over.

“Jesus, Mac. Look out where….” Geiger stopped.

McAllister was turning, heading back out the door. “This isn’t it,” he said. Geiger opened the floor plans as the door closed. He traced a finger over the route they had followed.

“Says here it is,” he called loudly. The door opened and McAllister came back in. Geiger showed him the page, his finger on the blue square indicating the room they were

standing in. It was labeled “McAllister”. He followed Geiger’s finger, then surveyed the room.

“Can’t be. Where are the desks? There aren’t any desks. It shows desks on the plan, Geiger.” Then he had an awful realization. “Shit! There….”

There were no California hoods to be seen. Yes, there were regular hoods, the same tiny eight-foot boxes that could be found back in Pebble Science, but not a one of the special tall enclosures designed for safe and efficient operation of large chromatography columns – the very type that McAllister’s research relied on. But D’Arcy had said that the labs were fitted out according to the plan. He had said –

“Sorry, Mac,” Geiger said. “Somebody lied to you.”

McAllister sank down and sat on the edge of an empty cable spool. “Fuck. No wonder they didn’t let us see the labs. They weren’t following our plans at all.” He looked up at Geiger. “It’s all wrong.”

Geiger nodded, a wry smile on his lips. Then the smile disappeared, and he began to flip the pages of the blueprint. He found what he was looking for, a small rectangle with NMR ROOM printed in the middle of it, burned the scheme in his mind, oriented himself north-south and elevation, and ran out the door.

At that moment, Harvey Nash is looking at the transcript that details Geoffrey Stumm’s career at Allston University. It is a concise document. Stumm had entered seven years

before. He had been a teaching fellow for CH101 and CH102 each of those seven years. End of record.

Now Stumm himself enters, looking even more haggard and worried. The last, the very last thing he needs on this earth is trouble with administration.

"Hello, Geoffrey," Nash smiles. "Sit down."

Stumm slumps into the chair indicated. His black hair a stringy mop, his T-shirt ripped and stained, his color like a bar of Ivory soap that had just been used by a diesel mechanic. Nash shakes his head.

"How is your thesis coming along, Geoffrey?"

Stumm looks up in despair. Was this the game? Had D'Arcy complained to the Dean about his lack of progress? "Okay, I guess," he mumbles.

"Is it written and ready to be defended?"

Stumm gapes. Nash seems to be genuinely concerned. This is a strange twist. "Parts are written."

"Let me guess," Nash says reassuringly. "Professor D'Arcy keeps moving the goalposts. Am I right? He sets you onto a project, then some months later, before the utility of the first path is proved or disproved, he has a new and better idea."

Stumm hesitates. This could still be some kind of twisted sting operation designed to root out the disloyal graduate student. What will they do to him if he agrees with Nash's criticism? They could bounce him. Out. Done. Then what? No degree, nothing to transfer, no job. He sighs and nods. He is playing a dangerous game.

"I thought as much," Nash says. "Look, Geoffrey, you

have provided a great service to Allston University. You've taught hundreds of students who have gone on to valuable careers. I want to help you get out of this… situation."

That makes two of them. Stumm sits up straight for the first time in recent memory and listens.

"Now I can, as the Dean of the School of Arts and Sciences, force Professor D'Arcy's hand. I can make him let you defend your work. It may be piecemeal, no matter. It is the overall quality that counts."

Stumm is suddenly Nash's biggest fan.

"There is only one problem", Nash says matter-of-factly. "Research courses." He lifts up the transcript and shows it to Stumm. "You don't have enough research course credits to qualify for the doctorate."

Stumm freezes. His heart stops. He has been here seven years and never once has he registered for a research course. "But… D'Arcy told me not to bother. I mean…" He starts to sweat, slumping again into the chair, helplessness dominant once more. Shown a light and then it is quenched. "He said not to. Told me not to. Said that they would just be added on when I was done. That he got charged, the department got charged if I registered and it was just a formality and not to do it…."

Nash shakes his head. "Just a formality? Research course credits are an integral part of the requirements. No, I'm afraid they are not things we can just 'add on'."

Stumm is nearing the liquid portion of his despair, molded into the shape of the chair and about to run down onto the floor and out through the nearest drain.

Nash puts up a hand to stop the puddle that is Stumm. "However, since we can certify that you have been adhering to the spirit of the process, it isn't necessary that you take all the blame for one person's misunderstanding of the requirements. The University will allow me to retroactively enroll you in all the research courses you need."

Stumm doesn't know how to respond. He is in the solid phase again, coalesced by the hope that Nash keeps injecting into his system. So he doesn't respond. He sits, waiting. Nash is obviously not done yet.

"All you have to do," Nash smiles. *I am your only friend, you poor cornered bastard.* "Is pay the tuition for those courses."

"Oh.... How much?"

"According to the Bursar, forty six thousand two hundred and seventy five dollars."

Ah yes..., thinks Stumm. A strange calm has enveloped him. He knows at last the price of freedom. *Less than a Hummer.*

"Fortunately, you..." Nash goes on. Good fortune continues its rain upon Stumm's head. "...qualify for low-interest student loans. Prime plus one, guaranteed for the life of the note by the federal government. I had my secretary put your numbers into the system." He passes Stumm a sheet of legal-sized paper and a pen. "It's simple and quick. Sign there at the X and date it. I had her round it up to fifty thousand. After you sign, she'll give you a check for the difference. That's three thousand, seven hundred and twenty five dollars."

Pen in hand, Stumm looks at the paper. It is in ancient Greek. No - reformed Egyptian, prehistoric Sumerian, slash marks on dried clay. Cuneiform, a cipher unknown to him in this new land he has entered.

Nash, seeing hesitation, says, “You’ll need to buy a robe, Geoffrey.”

“But-“

“I’ll put your name on the graduation list. You’ll get an empty cover at the ceremony, of course– just turn in your thesis to my secretary when it’s done in exchange for the actual diploma.”

Stumm applies his quavering signature, a wandering tremble which more-or-less follows the thick black line.

Heather Bednark, in old jeans, New Balance cross trainers, and an Aids Action Committee T-shirt, sat in the open door of the blue Channel 8 remote truck. She was drawing up a thin burgundy cable from an unruly spaghetti pile on the parking lot asphalt and coiling it neatly. Behind her, two men were loading lights, camera stands, and battered boxes out of which stuck aluminum poles, more coils of wire, and numerous half-used rolls of duct tape.

Brandon Jordan came around the corner of the truck. “Got your union card?”

Heather smiled. “Idle hands. What’s this?” He had handed her a large interoffice envelope.

“Some background on the man. They’re trying to blindside you. Slip Lynch in a side door. His people are

counting on you to be all unprepared smiles and politeness."

"What makes you think I'm not prepared?" She stopped coiling and straightened up.

"That came out wrong. I guess what I mean is that you never grew claws. You're too damn nice for this business. You have to be a relentless bastard to get into it with people like Lynch. And you are quick as a whip, but no one ever mistook you for a bastard."

She started to open the envelope. "Thanks. That better be a compliment."

Geiger rests on the perfect concrete floor in the basement of the new building. Looking very much like a man-sized doll - clothes stuffed with rags, no bones to stiffen the innards - that has been fiercely propelled against the wall to collapse into a disordered heap. Beside him lie crumpled building blueprints, advantageously opened to this very room, showing the elaborate electrical wiring necessary to support the power requirements of the modern high-field nuclear magnetic resonance spectrophotometer, the stable current required of the sensitive electronics, the reliable amperage available to the magnet, the high voltage to the environmental equipment to maintain the room at the proper temperature and humidity.

Unfortunately for the unmoving Geiger, none of the systems so painstakingly depicted on the blueprint had been replicated in the physical room. Not the paneled

ceiling, not the raised antivibration floor, none of the electrical or network outlets. Not even so much as a stray 2x4 littered the smooth grey concrete floor; no wire bundle marred the new unpainted drywall. Certainly the space was not cluttered with the bulk of an NMR instrument. But he had known that already. The last miniscule cluster of cells in his brain that had retained foolish optimism, that had fired and fired to let him hope that there was at least a home for the missing Varian, screamed and died.

Geiger was no fan of recrystallization, that ancient, cranky, and often glacial art of persuading a substance to creep out of solution, growing upon its own lattice to give crystals, segregating away from contaminants that were not welcomed into the homogenous society of the monomolecular solids. Geiger liked chromatography, the rapidity of a column, the way the process could be prognosticated by separation of the components upon a TLC plate of the same sorbent. Recrystallization was laborious, a mystical art that guaranteed no results. Some rare compounds worked well. Dissolve in hot ethanol, cool on ice, collect the voluminous precipitate. But he had also read of solutions that had been allowed to stand for months before the mysterious solid deigned to appear. Even then, the experimenter did not often know how it had happened; indeed, an identical flask might sit forever clear.

Geiger, however, is himself crystallizing. Years of environmental stress, shocks of hot and cold, abrupt changes in his psychic molarity – all these he has absorbed without physical change. He is a thick-walled flash that has

defied their best efforts. Until today. They had finally got him. He can feel the solids building in his limbs, the curdling of his brain. The air can't get into his hardening lungs as the crystalline essence of Geiger races in its entropy-defying formation into every fiber.

At six-thirty, New England Journal was ready to go. The truck was out on Commonwealth Avenue, its microwave transmitter antenna fully extended on a long boom and pointed at the repeater high on the roof of the Hancock, which would redirect the signal via high-speed land line to the Channel 8 studio where the feed would be boosted and lead into the broadcast antenna and split off to the satellite dish that serviced the cable company.

Two hours before, the crew of three: cameraman, soundman, and site director, had piled out of the van and begun to lug their equipment into the building. Heather had been greeted by Perry, who pointed out the door propped open for them to enter. She had slung the suit bag containing her show outfit over her shoulder. Past her walked, unaware, AU students who were themselves studying drama or communications and whose fantasies included no future picture of themselves standing in old jeans carrying their own bags on a hot afternoon.

Now she was dressed and made up. Heather had changed into a dark blue jacket over a peach blouse, skirt to match the jacket, makeup impeccable. Perry had chosen to seat her and Lynch in Hennessee's outer office, deciding not

to follow his initial instinct that the opulent surroundings would be a subliminal strike against Lynch. For now, the atmosphere of a prosperous operation was appropriate. Later they would go the soup kitchen and street corner route. A successful manager, a hand on the tiller of growth and prosperity, was the subtext for today. It occurred to Alan that he might have chosen to set up here to impress the redheaded secretary with his prowess. He wondered if it was working.

Showtime. Lynch had come in on his best behavior, the genial host, proprietor of the establishment. He chatted with Heather, shook hands with all the crew. It was a side of the man Perry had not seen. *Maybe I've got him all wrong – well, mostly wrong. Lots of high-strung people are shits in private, and still they manage to charm strangers.* Perry wondered if this was a good trait or a bad one as Heather and the sound man did a final microphone check.

They waited briefly while the site director spoke quietly into his chin microphone; Heather and Lynch settled into their chairs. The two bright camera lights came up to full lumen output, the director put up five fingers, folding one into his fist with each second, and they were live.

Perry thought the interview began surprisingly well. He was leaning against the wall adding to the endless virtual to-do list in his mind. Lynch had opened the discussion with the simple announcement – it was evident to him - that he was going to be the next Senator from the Commonwealth. Lynch's follow-up rhetoric in support of his declaration for office was the usual fiery mix of thinly-

disguised self-congratulation which, boiled down to the nut, held that his superior intelligence should be recognized and obeyed, but his delivery into the face of the lovely and attentive Heather was pure honey. She even managed to gently wrest the tiller of verbiage away from him and guide him through his personal history: childhood (hard-scrabble and God-fearing), education (paid for by sweat), and how he came to be the President of Allston University (their boundless good fortune). It occurred to Perry that this woman was good at what she did. Unexpectedly competent. Fifteen minutes of the twenty minute segment had passed. In five, Heather would throw it back to the studio for the canned spots that made up the rest of the hour, they would go to an extended commercial break, and the lights would go out.

Then Heather flipped a page on her small blue clipboard.

"President Lynch," she said, smiling her hostess smile, "politics in Massachusetts is a contact sport, as you know. If you don't mind, I'd like to toss you a couple of questions that might be asked when the campaign heats up."

Uh-oh, Perry thought. He hadn't had enough access to Lynch to prepare him for curves. Did Lynch think there was some kind of remote control Perry had in his pocket with buttons labeled "Spin Right" and "Spin Left"? This was a team effort. All campaigns were. Even though a lot of candidates would like to appear the knight on a shining horse, without the groomers, the farriers, the trainers, and the guy who fed the oats and shoveled up the shit, it wasn't going to happen, no matter how many megawatts the

candidate radiated from his perfect teeth, no matter how coiffed his fair hair might be. If he hadn't made time to meet with and listen hard to the counsel of Perry and his fellow guildmembers, he was one day going to reach out to shake the hand of some reporter who was holding behind his back a rhetorical Skil saw running at maximum rpm.

Perry looked about. Maybe there was a literal plug to pull. *We are experiencing technical difficulties. Please stand by*. Too late, he heard Heather's next line. Caught off guard, what could Lynch do? Say "No, I can't handle questions"? Admit that he had any reason to fear this sweet wisp of a woman – who had spent a quarter of a broadcast hour giving him the kindest of treatments? Perry tried to send Lynch a mental email -

To: Stewart Horton Lynch

From: Alan Perry

Re: Emergency evasion techniques

Mr. President,

You don't strike me as the kind of guy who spends his leisure time doing much other than reading Thucydides in ancient Greek and maybe writing long letters to Esoteric Journals of Learning, so I'm betting you aren't conversant with the memes of the horror film. Too bad, that, because there are lots of elements there that are instructive analogies for a political campaign. In the beginning, there are the cluster of innocents, all but one of whom we know are doomed. Their futures are terminated one-by-one at the hands of an unstoppable, amoral force. And so on. Anyway, the scene I'm considering at this moment is the false

relaxation. It goes like this: woman creeps into a darkened room. There is a sound. A scream, a lunge at her in the dark. Ho ho! It's just the cat. Whew! Well, it is mandatory in the genre that as the relieved woman relaxes, the killer appears from the gloom and guts her with his machete/farm implement/power drill/bare hands. Hold onto that thought, because Heather Bednark just spent a long time putting you in that relaxed place the gutted woman was right before she got to examine her intestines.

Oh, and I'm pretty sure you haven't been out to a baseball game in maybe - forever. You're one of those intellectuals who eschews popular sports. Just in case you are a closet fan, you will recognize that Heather has been tossing you softballs. Bunnies. Batting practice straight-down-the-heart-of-the-plate 75 mile-per-hour no-spin pitches to let you knock them out of the park, or studio. Now she's reaching back for a fastball. Take it. Keep your bat on your shoulder. Give her a smile, no matter what she says. This is the part you'd better get used to: soft reporter, hard reporter. The same person. The best can change speeds like Pedro Martinez in his prime. They have location like Greg Maddux. Heather isn't one of those, but she might be a Tim Wakefield, who slips in a modest fastball that zips to the plate looking like a nitro-fueled dart after a steady, hypnotic stream of knucklers. You can't hit it fair. You can only foul it off, if you even get around on it. Don't bite. Smile at it. Tip your hat. Move on. Don't take the bait. Oh well, another sports analogy lost on you.

Best of luck, etcetera, etcetera.

Lynch didn't appear to be receiving the mental transmission. His smile had faded and was now just a place-holder to remind the audience of his facial capacity for generating something other than a glower.

Heather, having rhetorically asked Lynch's blessing, now reared back and fired. *Chin music!*, thought Perry. *Hit the dirt!*

"Allston University's tuition is the same as Harvard's, yet Allston University has never been rated more than a 'Tier 2' school in the annual U.S. News and World Report college rankings. In light of that, how can you justify charging such a high tuition, and what steps are you taking to ensure that an Allston University education remains within reach of a middle-class family?"

God bless him, Lynch tried to maintain his composure. He even started to smile a bit harder, though now with – Perry could see – clenched teeth.

"Well, Heather, there are more complex issues here. The higher cost of living in the Boston area, taxation issues, land values. It's a complicated picture we deal with, but you can rest assured that our students get their money's worth with an Allston University education."

Heather smiled her yearbook smile. "You mention value. The Kiplinger report listing the one hundred top values in private colleges, doesn't include Allston University. How do you respond to that?"

Lynch was being smacked down in his own backyard by the little girl next door. It was painful to watch. Perry thought about the hundreds of thousands of New

Englanders – and more importantly, Massachusetts voters – who just turned in their armchairs and hollered for the wife and kids to come and see this!

In a normal incarnation as a human being, Lynch would have leapt from his chair and screamed *Fuck Kiplinger and everyone who looks like Kiplinger*! But Lynch, not being, Perry was suddenly aware, either human or normal, did not scream obscenities. Lynch's eyes narrowed. *It's a mental duel*, Perry thought. Lynch was used to thinking himself the smartest guy in the room all the time. He won't tolerate this line of questioning very long. *But he must have heard it all before*. Surely Lynch, the great debater, had rebuttal points lined up.

Then Perry realized that Lynch has no scars. He ruled for years without contradiction. He didn't have to justify his actions every day, even every year. Hell, never. Nobody'd ever laid a glove on the guy because nobody was ever allowed into the ring.

Perry knew the Senate. He had five clients there. He could not see Lynch crossing ideological minefields to cosponsor legislation. People like Kennedy and McCain did it all the time. They argued and attacked, but they didn't take it personally. Lynch, Perry realized, would - given that he ever be allowed to swear the oath and take a seat - take everything personally. He had, in more baseball parlance, rabbit ears. But he hadn't answered Heather's last question yet. Perry was pretty sure that Lynch didn't really have an answer.

Heather, sensing this as well, kept on going. "President

Lynch, you say that the students are getting their money's worth. If they truly felt that way, don't you think that the percentage of Allston University alumni who donate money should be more than 11%? That is one of the lowest rates in the country. They don't seem like satisfied customers."

He'd slithered slowly to the edge of his seat, Lynch had, ready to either jump at Heather's throat or fall convulsing onto the floor. "Satisfied?" Lynch was croaking. He seemed to be losing control of his sympathetic nervous system. "This is a generation of ingrates. You should know this. Young people like you. Wanting for nothing, all the boons of civilization handed to them. They think it is their right to a university education! Everything is supposed to be granted them without exertion! They-"

"One last question." Heather sliced the crescendoing barrage calmly and politely, and Lynch astonishingly shut his mouth and let his thought be terminated. "When you consider your ballooning tuition and then look at the mediocre academic evaluations given to Allston University by the major ranking organizations, how can you justify your salary, which is one of the highest in the country - equal to the combined salaries of the Presidents of Harvard and MIT?"

Lynch elevated like a giant spring under his seat had been tripped. He was, as Perry had intuited, taking it personally. No more hesitation for him – he was towering over Heather (well, 'towering' being very relative in that context), throat opening like a prehistoric lizard about to use its hollow head bone to generate subharmonics of a

bellow that would travel for a hundred miles to outlying herds.

"HOW," he thundered, his verbal caps lock off, "CAN YOU MASQUERADE AS A JOURNALIST? THIS IS INEXCUSABLE! YOU COME HERE AS MY GUEST SPEWING HALF-TRUTHS AND CONJECTURE, DISPARAGING THIS FINE INSTITUTION." Lynch was hammering one fist into the other palm with each syllable. "WHO ARE YOU TO JUDGE US, YOU ILL-EDUCATED TALKING HEAD? WHERE DID YOU RECEIVE YOUR PATENTLY-INFERIOR EDUCATION THAT YOU ARE SO OBLIVIOUS?"

Perry was awestruck. It was like a force of nature, a videotape of a tornado approaching huddling Airstreams. It was the sweating nightmare of the professional political campaign manager, a full meltdown on live television, a Dead Zone use-the-child-as-a-shield-from-bullet kind of worst case scenario. Heather Bednark, New England's sweetheart, trusted and embraced, was cringing slightly under the attack, her face a bit pale but not, (Perry thanked God for small favors), looking like she was about to tear up. She was watching Lynch, his body English that of a bully, his face contorted with rage, his challenge of her bona fides tossed. "WHERE DID YOU RECEIVE YOUR PATENTLY-INFERIOR -"

Heather met him eye for eye, and spoke in a quiet voice that Perry could already hear in endless sound bites, first local, then national, then translated into all the tongues of the earth and viewed millions of times on YouTube.

"Why, here. I graduated from Allston University, President Lynch."

Back in Pebble Science, McAllister sat slumped in his lab chair, still wearing the ill-fitting Howe Construction disguise. He felt empty and profoundly tired. The unannounced alterations to his new laboratory had shaken him. So many times he had looked at the floor plan laboriously drawn up in the design process and visualized just how he would inhabit the space. It had attained an undeserved permanence in his mind. The new reality was tantalizingly and frustratingly close to his concept. A cursory examination of the new rooms wouldn't find much that differed from the plan he had taped to the wall in his old office. There were hoods, there were benches. Still, it was as if there were points during the construction that decisions had had to be made. Made by someone who didn't appreciate the difference between an eight-foot hood and a six-footer. McAllister had specified the wider, which could be shared, over the narrower, which could really not. Yet the hoods were six feet wide. He had requested power outlets along the wall behind the bench tops for all of the small necessary appliances: vortexer, shaker, UV lamp, cooling bath, heating bath, etc. The actual outlets were low on the wall, well away from the bench, and had only two plugs each. The bench tops were some cheap-looking plastic veneer instead of man-made stone and would be scratched to hell in a month of use. The drawers were plastic instead

of metal. There was no natural gas plumbed into the hoods. The vacuum pump bays for the rotovaps and vacuum lines were fifteen feet away from the hoods. He had asked that they be directly beneath. And there were the nonexistent California hoods.

To the working chemist, it was a looming clusterfuck necessitating endless kluges and workarounds. To the contractors it was minor substitutions. To McAllister it was an mortal insult.

At first he had been confused, but as the number of alterations added up, he became furious. It was a goddamn slap in the face, a concrete demonstration in actual concrete that he had been shown no respect at all. And his options for reprisal were limited. He looked up and saw the envelope.

The packet lay on his desk, innocuous, innocent. Yet he hadn't the nerve to move it. He hadn't touched it since plopping it down on Tuesday. It had his name on it: PROFESSOR MATTHEW MCALLISTER, CHEMISTRY, PEBBLE SCIENCE 214, printed crisply onto a red-bordered label. Maybe it was the red border that did it, made it look like a warning. *Contents May Be Toxic!*

It shouldn't be this hard, he told himself. Last term, his first, it had been a laborious chore. But he had not run into this wall, an invisible psychic force field that prevented him from even opening the envelope. He had the grades all tabulated in the gridded pages of the little green notebook, but those results were still ethereal. Once he transcribed them onto the official University form it was as if they

became invested with some great and terrible power and contained a judgment that ultimately sprang from him.

Maybe he should take Geiger's advice and just give them all an A. That would be a protest. But that would screw the Susan Baos, who had worked many long hours for a legitimate A. Fail them all? Again, the Baos had done nothing to deserve that.

He was declawed and deballed. If he were the Chair of the Department....

So. Why wasn't he? Why couldn't a campaign be mounted, a deliberate and relentless series of Machiavellian strokes whose outcome would be his ascension to the top office? He could see no reason why not, so he went ahead and decided. It would begin now.

He sat up straight in his chair as Geiger came in, pale and with the unfocussed stare of the freshly dead. He watched as Geiger backed up against a bench and slid slowly to the floor.

After a moment, McAllister turned away from the silent form and, pen in hand, opened his green notebook to the page of final grades. "You're teaching the 205 lab for me this summer, aren't you?" he asked. Beginning to write, he did not see the tremor that went through Geiger, nor did he see Geiger rise from the floor using only his legs like some mesmerized gymnast, nor did he see Geiger's deliberate, trance-like steps back towards the door.

What he did see as he finally looked up was the back of Geiger as he slipped out of the lab as silently as any ghost.

Visitors to D'Arcy's auxiliary lab in the subsubbasement often left feeling a sense of sadness that they usually attributed to the lack of natural light in the dungeon-like room. For the nontechnical observer this might well be true, but for those skilled in the art, the emotion could be traced to the contents of the lab and not their illumination by the flickering blue fluorescence of the inadequate ceiling fixtures. The lab was small, open in the middle, with wooden cabinets along three walls. The bench tops were old-fashioned slate, the water, steam, and gas piping black cast iron. Two Hewlett-Packard gas chromatographs, big 5000 series instruments, state of the art in the 1970s, stood as milestones on the benches amid a scattering of pipets, rubber tubing fragments and beakers whose bottoms were crusted with the sediment from long-evaporated solutions. It was a scientific tableau sans vivant. Here once was energy and excitement, but somehow sometime it had been abandoned.

D'Arcy, however, does not feel that sense of unfilled potential. This room to him is just a place where he keeps things. He does not care that no student has worked here in decades, for his attention has wandered in that time to other lines of research. Ill-funded and ill-conceived they may be, and detrimental to any potential career of unfortunates caught up in them - as is the miserable Stumm - but they keep him convinced that he is not mired in the stale backwaters of science.

Indeed, there was a time he was in the deep blue water.

Maybe not in a flagship, but in the fleet, anyway. In the late 40's, D'Arcy had worked for one of the big names in the Manhattan Project who had a huge lab at Oak Ridge, so that D'Arcy's appointment to the faculty of Allston University had been full of hope for both parties. He had arrived with some funding from the Department of the Navy based on his proposal for chemical and physical investigations into the radioactive isotopes sodium-22, sodium-24, and chlorine-36, elements of natural interest to the naval community. The momentum from his association with the military community lasted long enough for two serendipitous events to occur which reenergized his lab and replenished his bank account. The first was the laying of the keel of the USS Nautilus on 14 June 1952, the first ship designed to lug a nuclear reactor around with it for power. The biological effects of nuclear fuckups were suppressed during the war, but now that the Navy had plans for a nuclear fleet, ostensibly in peace time, they thought it politically unwise to have Naval Regulations which included dumping the glowing bodies of Congressmen's constituents overboard after a reactor malfunction. It turned out that exposure to energetic neutrons such as those emitted from a reactor breach caused some atoms of the common sodium-23 to convert to the radioactive sodium-24. The half-life of sodium-24 was determined by a Harvard team to be about 15 hours. The situation cried out for the creation of a biological model tracing the distribution of sodium-24 through the human body after external irradiation, and D'Arcy tapped into that demand. The next windfall came

again from the Navy, who measured increased amounts of chlorine-36 in samples of sea water taken near the Bikini and Enewetak atolls after nuclear warhead tests. D'Arcy was on this ball too, coming away with grants to investigate the properties and biological inorganic chemistry of the isotope.

But these Cold War windfalls did not last, and D'Arcy's calls to the Pentagon began to go unanswered by the late 1950s. Then one fine winter morning in 1960, he happened to wander from his lab on the third floor of Pebble Science in search of a rheostat he could borrow for an electrolysis experiment. Finding none suitable in the labs on floors three, two, or one, he ventured below ground, where he again found zip. He had just finished poking about in various heaps of junked equipment in the subsubbasement and was walking resignedly towards the stairwell when he heard the creaking of hinges off in the gloomy hallway behind him. He had thought he was down there alone, but on the off chance that it was another faculty member perhaps in possession of the elusive rheostat, he made his way back to the very dead end of the lowest point of the building. There, the last door in the subsubbasement was ajar. It was an ugly metal door, inches thick and fitted with three separate and intimidating locking mechanisms. He had noted it mentally once or twice before, assigning it then to the uninteresting domain of Buildings & Grounds. Some essential and boring mechanical services, no doubt. This impression was reinforced by the presence of a freight elevator six feet away, a conveyance that D'Arcy had never seen used.

He pushed the door in and called out a hello. There was no reply, and it was immediately obvious to him that the room was unoccupied. There was no place for anyone to hide, no desks or other furniture, certainly no heavy machinery, and no other doors leading out. In fact, the only thing in the room was a stack of metal boxes, an even dozen in a 4 x 3 pile. Each was about a foot wide, a foot tall, and maybe five feet long. The boxes had obviously been manufactured in the recent past and for content of great importance, as they were gleaming steel with steel reinforced corners. They opened at one end, the hinged side held in place by hasps into which a key could be fitted to unlock it. But the box nearest him was hanging open. It was as if he had interrupted some operation, and so he called out again to make sure he was really alone. There was no reply.

His curiosity and scavenging instincts drew him to the open box. There were symbols and words inside, on yet another metal surface, but the light down here was much too dim to make them out. The boxes had no handles and looked dense. A push against the pile immediately told him that he would not be able to carry even one away with his bare hands, so he ran up two flights of steps to the basement where the gas cylinders were stored and came back with a tank dolly, close kin to the rigs used to move kitchen refrigerators, and he heaved the open box onto it and took it via the passenger elevator up to his lab.

He locked the lab door behind him and pointed a flashlight into the opened end of the box. It was clear now:

on the inner container was the yellow and magenta trilobed flower, the international sign denoting that beyond here was radioactive material. D'Arcy stopped to ponder that for a moment. Whither this cache of hot stuff in a room unposted for storage of same, in a facility unlicensed to contain very much of it? D'Arcy had a Nuclear Regulatory Commission permit to possess and handle a total of a few milliCuries of several isotopes, but he was dead certain that this single box contained more than his allowance. Far more. The end of the inner container was held on by set screws. D'Arcy fetched his toolbox and spent the next hour stacking lead bricks around the package so he could reach it with his thickest lead-lined gloves.

Once he had it open, he scooted the probe of his radiation spectrum analyzer towards the mouth of the thing using a wooden yardstick, all the time glancing over his shoulder at the oscilloscope. Once he had a good signal, he withdrew his hands and turned to contemplate the spectra of the unknown.

By about six o'clock, he had the carton resealed and returned to its pile in the subsubbasement. He turned out the lights and shut the door, all three locks catching, and he looked at it, thinking that it was done now. There was no going back.

Three years later, he was appointed Chairman of the Department of Chemistry. In the following week he called in a locksmith on the Department's dime, not even bothering to notify Buildings & Grounds. He had a notion that they would never touch that door. After two hours of drilling and

chiseling, the door swung open. The room was empty, bare to the walls. D'Arcy looked down into the dust on the floor and thought he could make out distinct footprints on the top layer of dust and less distinct footprints in the next geologic layer, and so on down probably to prints laid in the dust present the day the concrete had hardened.

He had the locks changed, and put his name on the door, and no one had ever come by to dispute his claim to it. He had another independent tradesman, this time a concrete cutter, in to sink a deep hole through the slab and the gravel base underneath, and on into the packed earth far below Pebble Science. This was walled with fresh concrete and capped with a thick steel and lead manhole. Late one night he and a graduate student named Bettany wrestled a crushingly-dense cylinder of lead into the well by the use of a couple of pulleys rigged to a tripod build out of angle iron and pipe.

It is in this same room that Stumm stands uneasily, watching as D'Arcy rolls some squat machine over the well. Stumm has not worked down here, he has only heard the rumors and leafed through the theses of D'Arcy's former students. These chocolate-bound, typewritten texts - now to be referenced in the back of the stacks, down near the bottom of one of the back rows where old Department theses are filed alphabetically by advisor - all sound the same sad note. D'Arcy had a Source. A plug of radioactive material that emitted the most intense beam of high-energy particles one was likely to find this side of a nuclear power plant laboring under full load. A stew of alpha, beta, and

gamma particles spewing out God's invisible shotgun blast that several generations of graduate students had used like some nefarious Bunsen burner. There were at least three dozen theses whose content could be summed as follows: Put a flask of some simple organic compound in harm's way, down the maw of the dragon caged in the floor of the subsubbasement, and analyze what happened.

It was evident to Stumm what had happened every time and what would happen every time. A stew of degradation products was formed. The energy available in the radiation was so much more than the energy necessary to bust the chemical bonds in any compound you would like to name that the egg would always come up scrambled. It was like dynamiting a house. It was a sure bet that you would get singed boards, bent pipe, and pulverized glass. It didn't matter what kind of frog one put into a blender, the result was predictable. So the faceless graduate students who had gone before him, laboring down here in the lower bowels of the structure, spent years analyzing the tar in their once-pristine flasks.

But at least they had been published. There had evidently been a time when this was interesting to someone. In the literature of the 50's and 60's could be found communications to the scientific world concluding that putting one crapload of energy into benzene, say, gave you some carbon black, some carbon monoxide, some carbon dioxide, some acetylene, and some uncharacterized polymeric material. Stumm was glad that D'Arcy had - apparently - abandoned these lines of research. But now he

was not so sure. He had been called down to the site of the ancient alchemy, where to his horror, the dragon was about to be uncaged.

At least the days of homemade tripods were past. D'Arcy had planned for this day carefully and quietly. He had not drawn attention to his source during the whole of the planning of the construction and move to the new building. He knew that to have it unearthed would take specialist contractors - very expensive contractors. That was assuming that the proper state authorities would give him permission to move it. They might demand that he dispose of it, another hideously costly scenario. Besides, he had a plan for it, one involving NASA money to study the chemical changes in building materials. They were going back to the moon, and anything built on the moon would be bathed in high-energy from the solar flux. D'Arcy's plans were not fully fleshed out, but the source was essential to them in any case. The device he was positioning over the well had cost him - well, had cost the Department, to be precise about the pocket from which the dime was drawn - exactly $5,455.87. Built to a plan he had drawn out first on a napkin one night, it contained a space the shape of the source now below it, a rod about three inches thick. Between the source and the outer skin of D'Arcy's mechanism was depleted uranium in the form of its oxide, encapsulated in polyethylene, a foot thick to the sides and above and below, once the end caps were fixed in place. This would shield the unsuspecting world from exposure to radiation while the source was being trundled to its new

home. For now, the ends were open to allow a claw-shaped grasper access to the heavy core, to which it would clamp. The grasping end and the attached source would be drawn up into the cavity by a cable fed from a small electric winch bolted to the side of the apparatus. The reason that the winch was only bolted to the side was that the outer container was manufactured in the exact dimensions of a vanilla 55 gallon metal barrel complete with the typical two ribs jutting out all around. The barrel was black, its only marking a reasonably believable label: SILICA GEL / CHROMATOGRAPHY GRADE.

FRIDAY

Tens of thousands of drivers on the Mass Pike pass by Lloyd's every day, but few reflect long on the glimpses they get through the irregular line of overgrown, untrimmed hemlocks. Flashes of rust, mostly. Some splotches of color flit by here and there, garish artificial tones. Fewer have actually exited the Pike to drive around on the access road and see, unfettered by vegetation, the whole of the carnival that is called Lloyd's. The legal name of the establishment could barely be deciphered from the remaining paint on the plywood sign nailed to the ten foot by ten foot shack that was corporate headquarters for: LLOYD'S AUTO PARTS AND RECYCLE CENTER, FERROUS AND NONFERROUS METALS, TOP DOLLAR PAID FOR COPPER AND ALUMINUM.

Most of Lloyd's verdant two acres was covered by precarious stacks of junked cars interspersed with school buses, stepside vans, flatbed trailers, and mountains of radiators, alternators, engine blocks, and assorted grease-laquered components once integral to actual operational automobiles. At the end farthest from the Pike was a row of seven trailers. The one at the farthest end of that was a beaten 48-foot-long grey box balanced on one end on eight

tires and the other on two flat-footed stubby legs. The trailer was maybe nine feet wide and about as tall. Some corporate logo had once been painted on the side but was now only patches of faded olive and pink, shiny with the residue of the night's rainstorm. Its fate was undoubtedly to sit there unused and unwanted until such time as the proprietors of the yard wrote it off as potential parts and consigned it to the recycle portion of the business.

The broken-down trailer was a ruse, a blind, a Bat Cave. Inside were Geiger and Nil, seated together at a console near the middle of the space. Geiger had just received a brief overview of the contents from A (anti-personnel ordnance) to Z (zirconium laser rangefinder). The inside was stuffed with a lethal cornucopia of chemical, biological, and electronic devices the like of which Geiger had not imagined to exist at all, let alone in one place. It was as if Tom Clancy channeling Ian Fleming had been in charge of purchasing. Now they were at the communications console, where Nil pointed out a row of two dozen stout red binders labeled neatly on their spines: ELECTRONIC SURVEILLENCE, COUNTER MEASURES, SATELLITE LINKS, VOICE AND APPEARANCE ALTERATIONS, SMALL-ARMS, CHARGES AND DETONATORS, LOCKS AND TIMERS, BACTERIA AND VIRUSES, CHEMICAL PROCEDURES, and the like.

Geiger had passed through the *Jesus Tapdancing Christ!* phase of his understanding and was now well into the acceptance portion.

"How can you be sure the assignments are legit?" he

asked.

Nil pointed to a binder: ORDER RECEPTION AND VERIFICATION. “Your command will use the prescribed codes. After you confirm that the order is properly formatted, you may begin the task.” He had been talking like that – as though it were Geiger who owned the job, the trailer and its contents - from the moment the night before that Geiger had spotted him sitting alone and quiet in the far corner of the Skull, waiting patiently as though he knew his offer was going to prove irresistible. “Everything is in a binder. All operating instructions and standard procedures. You will want to read through them. There is no need to memorize anything, you just need to know where to find the information.”

Okay, thought Geiger. *Obvious question*. “Why me?”

“There is nothing unique about you. Don’t take that the wrong way. You have many of the qualities necessary to fulfill these tasks, but so do many others. Believe it or not, I have made the offer and been turned down. Your fitness for the job will become apparent to you as you use and become proficient with the resources here, and the many others which will be revealed to you later.”

Crap. There’s more? “The job. What is it? Do you have one, or is this just training?”

Nil’s face moved glacially into what might have been a smile. “We are here to terminate Harold Dalrymple’s influence in his corporation.”

“Dalrymple? You’re going to kill that old fossil?”

“Our charge is to end his input into the Dalco

corporation. His death would serve that. Or he might slip into a coma. Or perhaps he could be declared incompetent. There are several means to our end."

"Why bother?" Geiger asked. "He's got to be pushing a hundred. He may be dead now, for all we know."

"He may be."

"Don't you ever wonder why? Why Dalrymple?"

Nil shrugged. "I wonder all the time. Perhaps there is some decision to be made at Dalco that Mr. Dalyrumple might influence contrary to our interests. Perhaps Mr. Dalyrumple is a potential embarrassment. Perhaps he is suspected to be due for a deathbed confession of sins that overlaps the operations of our control. It really doesn't matter. We are either in this vocation without question or we are not."

I'm not sure I like the implication of 'not', Geiger thought.

"So let us plan. How would you accomplish this task?" Nil asked.

"Hmm. As I recall, Dalyrumple lives on a big ass estate. I would assume that he's got it bolted to the gills with expensive security gear and has armed guards. Dobermans, moat, who knows? He's supposed to be well into Howard Hughes senile paranoia."

"That is as good an assessment as any. You are right about the tight security at his home."

"Could we get in as plumbers or something?"

Nil opened a manila folder. He had on a pair of gloves made out of some ultra thin flexible black material. *Cool.*

I'm getting me some of those, Geiger thought. "Unfortunately, there are no scheduled services to be done at his residence in the next week. No telephone, gas, water, or power maintenance."

"Then there's graduation tomorrow. He always shows up. Lynch gives him an honorary doctorate every other year. Lots of witnesses, though."

"Perhaps the vulnerable point is in his travel to the University."

"Yeah," Geiger said. "He could drive off the Tobin Bridge."

"It is more probable that his automobile would be involved in an unfortunate collision with a speeding truck carrying rather large logs."

"Explosive logs?"

"No." said Nil. "We do strive for plausibility."

The Chemistry Department office had the misfortune to be located on the fourth and top floor of Pebble Science. The builders of the building, being specialists in cathedral-type roofs with impressively steep pitches scaled with unwearing slate, had never needed to take into consideration the vagaries of drainage from a flat-topped building. The consequences of this were that the integrity of the roof was less than desirable in the New England climate. It leaked. It leaked badly when it had not been recently repaired, and it leaked moderately after it had been. In the office, in fact, in all the fourth floor offices and labs, the

ceiling tiles served as records of each and every drop that had seeped through in the period since the previous discolored, sagging tile had been taken down – or collapsed of its own soggy weight - and installation of a new white, level rectangle. But it would not be long before the ochre stains bloomed. Every once in a while, an annoying drip matured into a torrent. The secretaries, if they were present, ran for the supply closet and unfurled huge clear plastic trash bags stolen from the janitor over the copier, the printers, the computers, the fax, and the electric pencil sharpener against the water spilling in. If the flood came during the night or on a weekend, waterfalls spouted randomly from above and filled vernal pools to be appreciated on the morning.

Last night had been such a night. It had been clear and warm until midnight, when a low chock full of evaporated Caribbean accelerated up the Atlantic seaboard and clashed with a chilly high pressure air mass sliding innocently into the Boston area from Quebec. At the interface of the two different volumes of gas, thunderclouds formed, lightning shot between clouds and into the earth, and 3.5 inches of rain dropped onto Allston in half an hour.

The booming thunder had woken Laura up about two in the morning, but it was followed quickly by the white noise of a downpour that put her back to sleep before she had the impetus to get up from her futon and close the window. It didn't hurt that she had only been asleep for an hour. Later, after the rain had passed, she woke up and could not get back to sleep. There were too many images fighting for

screen space in her head, so she got dressed and went to school.

She walked up the stairs to the office and found Rhonda Vidrine there alone, on her knees, trying to soak up a large puddle of water on the carpet with fistfuls of rectangular paper towels. Laura didn't know Rhonda very well. She could not recall ever having spoken to her, in fact. Laura could easily have walked past her without comment. Rhonda didn't even look up. Laura sighed.

"Do you need any help?" she asked.

Rhonda looked up through her thick, red-rimmed glasses. She shook her head and went back to her futile sopping. "*Well, I tried*," Laura thought. She went to the table where the graduate student mail was sorted from the faculty mail before each got delivered – the faculty's into the nice Scandinavian Modern cubbies in the office, the graduate students' into the nasty crevices down in the hole of the Lounge – and separated out the pieces for her and for Nozick.

As she walked back down the stairs, she glanced at the top of the pile, knowing already what lay within: free trade publications like Today's Chemist, American Laboratory, and The Scientist; and entreaties for her to purchase chromatography systems and supplies, reagents, and assorted laboratory apparatus from companies apparently too desperate to care that these missives were totally wasted on graduate students.

She dumped the pile on her desk just as Nozick came in.

"Jesus, you're early," he said.

“Yeah? What’d you do? Sleep here?” She began tossing him pieces of mail. He deflected them one by one into the trash can, then opened his hand and snagged a plain white envelope.

“Hey,” he said. “This is for you.”

It was unsealed and had only her name on the front, printed on a label that was stuck on cockeyed, like someone had been in great haste to get it on its way. She took out a single sheet of paper, typed except for two spaces. In one space was written “Laura Mikkelson”. In the other was written “German”. The only other pen mark on the page was a circle around the word “Pass”.

“Holy Simoleans!” Nozick said when he looked over her shoulder at the document. He spread out the remaining mail and found a similar envelope with his name on the front. He opened it, scanned it briefly, wadded it up, and hurled it against the wall. “Fucking French!” he spat. “Next time it’s Italian.”

He was in blackness, aware of the internal architecture of this space by some kind of innate ability, third eye vision, sonar perhaps, and there were creatures here in the void, breathing and snorting, but he was not afraid, because just as fear entered the possible, he heard a sound, a melody, pure fluted reed notes, some kind of organ playing alto tones, mechanically perfect pitches, and there was a fat lady, up on a pedestal, or was it a stage, or was it another dimension, and she grew, or did she just

approach, and as she came, he could see in the blackness, and she was wearing some kind of helmet, no it was a headset like pilots wear in flight, and then there was pain, where was the pain coming from? it was surrounding him, encompassing the tune and the fat lady-

Alan Perry opened his eyes for a half of a split second. His head was beating dollops of hurt with every heartbeat. His eyes were aching – did eyes even have nerves? Apparently so. His cell phone was ringing: The Flight of the Valkyrie. He'd gotten tired of the standard beep and kept changing the ring tone. Beethovan's Fifth, Gilligan's Island, Foggy Mountain Breakdown, now Wagner. He felt for the phone and flipped it open. He held it to his ear, eyes still closed. Did ears have nerves? Apparently so, because they were fucking sore too.

"Alan? Joan Murray. Did I wake you?"

Joan Murray was the grande dame of Boston political reporting. Her column appeared on the first page of the Globe City/Region thrice weekly and had since Alan was cramming Hebrew for his bar mitzvah. She was to Boston pols what the late Wil McDonough had been to Boston jocks – she knew everybody and everybody knew her. When she wrote people paid attention, because her sources were the powers that made things happen.

"Hi, Joan. No, I'm wide – up."

"The hell you are," she laughed. "You're hung over."

Christ. How did she know? Did she have moles everywhere?

"Maybe."

“Well, who could blame you. Wow, that was an implosion that left a crater. I just wanted to see if you’d fallen in.”

He was lifted by a sudden horrible nauseous wave. The alcohol – which he rarely touched, let along suck imprudently down – and its quiver of aromatic impurities had just grabbed hold of the part of his medulla that held the vomit control, but it was the memory of the day before that was really kicking him to the edge. Oh crap. Lynch had come unraveled on camera. It all came back, vaulting over the vodka barricade he’d tried to put up against it.

After Lynch had gone Freddy Kreuger on Heather and stormed from the room, Perry should have swung into action and tried to mitigate the damage. He should have smoothed feathers, oiled the waters, greased the palms, whatever it took. That was his job. But it would have been sweeping the streets of Hiroshima. He wandered out of the building, mind blank, towards no particular destination. After he’d walked for a while, he found himself in front of the Scull. He remembered going there after Red Sox games when he was in college, and when he went in, he remembered Mort. Mort served him many Budweisers interspersed with small plastic tumblers of S. S. Pierce vodka, and then Perry dimly remembered boarding something green. It might have been the trolley, or it might have been a taxi, or it might have been Santa’s sleigh. Anyway, it took him home, though he did not remember that part.

“No,” he said. “I’m fine.”

“Sure you are. So what happens today?”

He opened his eyes. The sunlight was jimmying its way through the gap between the curtains, trying to get to his brain with a jackhammer in its hands. “I arranged the interview. Lynch didn’t want to do it.”

Joan hooted. “Stay in bed, boy.”

“No,” he said. “For what I’m charging him, he should get to fire me face-to-face.”

“Asbestos underwear, kid. I’ll call you later – or come to your wake.” And she hung up.

For four decades beginning in 1859, ambitious Bostonians dumped railcar after railcar of gravel and debris and the tops of nearby hills into what was once the stagnant mosquito-rich pool called the Back Bay where the Charles River suddenly lost the rushing energy it had acquired in its dash to the ocean and wandered in a wide shallow stinking circle, offending the progressive and land-coveting eyes of those on its banks. At about the same time, the tidal pool to the south of the city was also being filled to create what is now the South End. While these massive projects made usable dry land, they also begot underground water paths which were manifold and filled with hidden surges of pneumatic force after each rain.

Though Allston University was well upstream from this area, the human alteration of the Boston topology seemed to have tilted the aquifer as far away as the stern monolith of Pebble Science, for in the dead of night the waters

bunched and turned in a new direction. Surging through a strata of sand left in subterranean dunes by an ancient glacier, the torrent encountered a less permeable vertical barrier. The thick cement of the foundation walls of Pebble Science held against the pressure for a while, but the water had a tactic to overcome resistance. The stream fragmented, first in twos, then twos again, and again, until it was a fractal surface probing with microscopic hydrophilic fingers that found the inevitable cracks.

The water rose from the bottom, which in Pebble Science was that tomb the inhabitants called the subsubbasement. This unexpected space had been filled over the years with the detritus from activities above. Its several dungeonous rooms contained ancient scientific instruments and glassware, crates, cartons, barrels, and cases tumbled into stacks, cardboard boxes by the tens of dozens stuffed with papers and notebooks of long-deceased faculty. The doors leading to those rooms were rarely opened, but there was one large room by the stairwell where the lights were always on. In this cavern had been shelved all the unused and unneeded chemicals collected by the Department over the years. On its gray steel door, someone had written MORGUE with a thick black marker.

For scientists - on account of being continually strapped for cash - are packrats. They steal and horde and run about with covetous eyes just like the analogous rodent. The evidence was down here, far below the ground, in their communal burrow. No pH meter was too broken not to save for parts. No GC column was so encrusted with hardened

tar on the inside that in might not be cleanable – by someone else, some other day. No spinning band distillation column was too outmoded and superceded not to be stored away just in case fashion should swing it back into favor. And no bottle of a chemical was empty enough to discard. You never knew when you would need a gram of 1-(p-chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid carboxymethyl ester, so why toss it out? It would keep, on the benchtop, then after a year or so on a shelf in the lab, then after another five years among the compounds beginning with C in the Morgue.

It worked thusly to sustain the graduate students preparing organic compounds: After Laura had been in Forget's group for two days, he gave her a sheet busy with his hand-drawn structures connected every which way by arrows and a five-minute lecture on how accomplishments on this earth were the result of good old-fashioned hard work. She had ignored the latter while studying the former, then when Forget had left, she showed the schemes to Nozick.

"Samarium iodide initiates an aza-Cope rearrangement, giving functionalized heterocycles. Very useful." He handed her back the sheet.

"Is it good?" She had asked innocently, for in those days she was green and looked at Nozick as a grizzled veteran.

"Oh yeah," he had said. "Good for wiping your ass with."

"What do you mean?" she had cried.

"I mean that when you look in the literature to see what the state of the art is in the aza-Cope world, you'll see either

that what he wants you to try is so ridiculous and unsupported by chemical probability that you will get results just as good by closing your eyes and wishing real hard, or that what he wants you to try has already been done, more-or-less."

"More-or-less?"

That's when Nozick had enlightened her with the true knowledge of synthetic organic chemistry. He had told her that of all the organic chemists who called themselves such, there were perhaps five in a hundred who had the intellectual and financial wherewithal to strike out at the problems lurking at the boundaries of the art. These pioneers kept enormous groups humming with a constant flow of money. Money attracted postdocs who could paint in the outlines of the sketch drawn by the principal investigator and who also brought their own bright ideas to toss into the pot. Money bought materials and time. Then there were ten of the ninety-five remaining who had all the talent of the five but lacked the creative spark and the daring that fuels innovation. These ten had large groups that did well, and enough money to sustain a productive output. Then came the dreaded eighty-five, the gleaners. They seized upon the discoveries of the five and made the methods manifold, busily applying them to compounds and reactions, wide and deep. But they made nothing new. They broadened the path and paved the path, but never had they blazed it. If they were industrious, they might gather portions of what monetary fuel had not been consumed in the bonfires of the five and the ten. If they were fortunate,

they might attract modest numbers of modestly-talented graduate students and postdocs. But they had - like Alice - to run twice as fast to stay in the same place.

Forget, Nozick had discovered, was in the eighty-five. And not even near the top. He was somewhere around percentile twenty, just above positions at community colleges and two-year institutions.

"So," Nozick had concluded, "your assignment, if you should accept it, is to use your wits and gumption to turn this turkey shit into something approximating Thanksgiving dinner. Forget is a clueless loser, but he has energy to burn. Like a burlap bag full of coal - only with less personality. So whatever of these ill-informed reactions you can make to work, he will write up. I'd say that if you run ten good reactions, he'll turn it into a Tett Lett communication, then with a little bit more experimental into a JOC note. Twenty reactions and it becomes a full JOC article."

"No JACS?" She had asked.

But he had shaken his head sadly. The Journal of the American Chemical Society was to Forget and his ilk as the Eternal Joy of Heaven was to NAMBLA members. They could look upon it in wonder and longing, but they would never be admitted.

"If you are lucky, you'll get just enough results to write up into a thesis and get out. If you are unlucky, you will get results aplenty – so many that Forget will not be able to afford to lose you. He will cling to you like a radioactively-mutated barnacle." Nozick did his impression of this imaginary creature, to her amusement.

So that was the game – to be productive but not indispensable. And to tell whatever manner of lie was necessary to encourage newer graduate students to jump down into the sewer so that you might climb out on their heads.

So it was that two such graduate students, both new to the game, stood together in the third-floor laboratory of Professor William Stringfellow, nervously eyeing an innocuous silvery canister. Neil Coit, a pudgy, shaggy-haired young man, was sweating much more than the temperature of the room demanded. He looked beseechingly at Michelle Liang. She shrugged her shoulders. They had entered grad school together, last fall, and had independently cast their lot with Stringfellow. They had been assigned hoods in this lab, one of three small contiguous rooms in which the group worked, and they had each begun a small project related to Stringfellow's palladium research, in which divalent palladium complexes were used to prepare otherwise inaccessible crowded carbons by insertion of metal-bound ligands into unactivated carbon-hydrogen bonds.

They were hoping to use their preliminary results and their growing command of the chemistry to work on total syntheses of some of the natural products that their mentor had targeted, beautiful structures with exotic names like teleocidin B-4, neomangicol A and B, and combretastatin A-4. Instead, their boss had come into the lab bearing the

silver can now resting on Neil's benchtop and informed them that they were the vanguard of a glorious new chapter in the group's storied history, for they were the shocktroops, the pioneers of the shining future of the preparation and synthetic uses of molybdenum ligand $Mo(\eta^2\text{-}C_{70})(CO)_3(dppe)$ and its fellows. He had then plopped the canister down and departed, leaving the two to reset their calendars.

They had gone to the library and dutifully investigated the synthesis of molybdenum ligands. What they had found was that all sprang from the common precursor molybdenum hexacarbonyl, and molybdenum hexacarbonyl was profoundly toxic. Now, this should not have concerned either of them, for they had some experience with the safe manipulations of toxic chemicals. And they had hoods and gloves and goggles and aprons whenever they felt the need to don the same. Both had worked with cyanide and phosphine and hydrogen sulfide, all in their own right probably more deadly than molybdenum hexacarbonyl or any or its liganded relatives. Plus, many of the reactions which led from the hexacarbonyl to the various derivatives had to be done under argon, in air-tight glassware which itself furnished a primary safety barrier.

What had spooked them was an article in an old Chemical and Engineering News that Michelle had found while cleaning up a rotting pile of old magazines in the grad students lounge. When she read it, she got chills. When she gave it to Neil to read, he was pale for an hour.

Sometime in August 1996, Karen Wetterhahn, a

professor of chemistry at Dartmouth, was preparing a standard sample for an NMR. The standard was dimethylmercury. Already an international authority on the carcinogenicity of chromium, Professor Wetterhahn was undertaking the study of how organomercury compounds do their damage to cells and tissues. One warm New Hampshire day she put on latex gloves as usual – as everyone who worked with such compounds did – and in the protection of the hood prepared to transfer a minute amount of the liquid dimethylmercury into an NMR tube with a pipet. Jen and Neil had done this same operation a thousand times, minus the mercury. The NMR tube is as thin as a drinking straw. The pipet is fitted with a rubber bulb, and the airspace above the liquid is so large that liquids which are dense or have a low surface tension tend to run out the narrow tip of the pipet with little provocation. There should be a better way to do it, but the operator becomes comfortable with his tools, even flawed tools. Often drops of the liquid rush out, missing the NMR tube altogether. Unfortunately, the dimethylmercury was both dense and of low enough surface tension that a drop or two missed the tube and landed on Professor Wetterhahn's gloved hand. She saw this, but was not overly concerned. Latex gloves were the accepted protection. She removed the gloves and disposed of them properly. If she was like Jen or Neil, she probably went promptly to the sink and washed her hands with plenty of soap just to be safe.

Five months later, she began to slur her words. She stumbled on level ground and was having attacks of severe

abdominal pain. It was her field of expertise, so she must have suspected the horrible, inevitable truth. Hospital tests showed that she had 80 times the lethal dose of mercury in her body. The drop of organomercury had penetrated her gloves and skin like a shot. Latex had been no protection – it was a scientific urban legend that it was a barrier at all. Just 22 days after the first symptoms, her eyes gave out, her ears quit working, and she could not make a sound. She died four months later without waking from her coma. She left a husband and two small children. Karen Wetterhahn was only 48.

The moral of the story was too clear. Something you had dealt with safely for years could rise up and bite your ass off. Now the two had the silver canister in the lab, shining its evil and distorted vertical fisheye reflections of them like they were already trapped within its demonic grasp. It was a monolith, silent, dominant. Was this the one? Would they read the MSDS and follow all the rules, pull on nitrile gloves, slip goggles over their eyes, snap open the glass ampoule inside of a glovebag inside of a hood, never touching the stuff without layers of glass and plastic between them, only to find out in a month, a year, a decade that – oops, sorry: we were wrong. Our bad. Turns out that molybdenum hexacarbonyl seeps through those old things you were using. You should have been wearing Teflon gloves covered with stainless steel mittens. Hey, who knew? Too bad about the aggressively inoperable tumors, the paralysis, the dementia, the blindness. Told you to go to law school.

But the culture of chemistry, in which Michelle and Neil were being steeped, did not permit hesitation. Reasonable precaution, sure, but timidity was for the other eighty-five out of a hundred. Open the bottle! Run the reaction! Just do it! was the message, no matter how many safety seminars the University made them sit through. Results were the object, and results came from experimentation, and experimentation implied the running of reasonable risks. So Neil knew he would get out his can opener and cut open the cylinder, because he did not want to be seen by his peers – and especially Stringfellow – as less than gung-ho in all respects. And Michelle would snap the vial, inside a glove bag inside a hood, because she would feel the need to prove to the male-dominated faculty and the male-dominated graduate students that lack of balls did not mean she lacked balls.

They were in a fleeting moment of clarity, silently looking at each other and the innocuous cylinder that had so disrupted their immediate future. Shortly they would move to their tasks, and the moment of opportunity that might in hindsight someday be seen as one missed would be in the rearview mirror. It would probably be okay. It would definitely work out probably for the best.

“Hey, what the hell is that?” Michelle said. She had walked out of the bubble of introspection to the window and was looking down to the narrow street that bordered Pebble on the north. Neil came over and saw a crowd on the sidewalk. Parked in the street was a Channel 26 news van, its metal microwave proboscis waving up into the air.

“It’s Nash,” Neal said, pointing to a man talking to a tall nattily dressed brunette woman gripping a microphone. Behind her a cameraman and a sound technician were untangling wires. Jen and Neil turned to each other. Neil let out a Curly Howard *Woo-Woo-Woo*. Then they ran for the door.

In the bowels of Pebble Science, the water had risen to a level about eight feet above the very lowest slab floor. The subsubbasement was an indoor pond. Stored papers, equipment – ruined. Glassware was not damaged, but the moving waters had saturated and mechanically destroyed all cardboard boxes, so much of the glassware had filled and sunk to the bottom of the flood - where it would inevitably be crushed by the cleanup operation. It was a mess, but not on the same order as the disaster to be found in the chemical morgue. There, most of the jars and bottles remained sealed. Each according to its volume and weight of remaining content either bobbed on top of the water, lay sunken on the bottom, or rode in an eerie equilibrium somewhere in between. The rusting metal shelving had tumbled down like dominoes. The surface of the flood was dimpled with the rounded shapes of the containers, like apples in a tub, and was also slowly becoming slimed by labels. The paper identifiers glued to the collection of glass bottles and metal tins succumbed to the water after a time and separated from their containers so that after only a few hours most of the chemicals were anonymous. Solvents,

sorbents, acids, bases, esters, nitriles, phenols, halides, complex molecules, simple salts, reactive metals – members of almost every type of product commercially available from the chemical manufacturing industry for the last fifty years and more tumbled slowly together in the murky well that the morgue had become. They were apart for now, but time was against them. Some of the lids sealed against the glass rim of their bottles using a simple waxed cardboard insert. In a while, hours perhaps, the patient water would permeate this barrier. Oils would seep out. Salts would dissolve. Acids and bases would react. Solvents not miscible with the flood waters would either rise to the surface or sink to seek out the lowest hollows in the floor, depending on their specific gravities. The most well-sealed containers in the stew held the most dangerous cargo – the clumps of sodium and potassium metal, sodium borohydride, potassium hydride, lithium aluminum hydride. These were generally in jars whose lids were metal, sealed with a rubbery ring, and would withstand the water better. But it would only take one of those jars to break, to have a poorly-sealed lid haphazardly screwed down decades before, to have a pinhole where rust had been slowly working at the thin metal of the lid, before catastrophe visited the lonely morgue. Then hydrogen gas would be generated. It would mix with the fumes of benzene and toluene and hexane and pentane in this sealed space. Perhaps it would find a vent, waft out holes in the ceiling. Perhaps enough of it would accumulate, and it would ignite in such an accidentally favorable ratio of oxygen to fuel that detonation would

follow with force sufficient to crack the concrete above and destroy the iron backbone of Pebble Science.

By the time Michelle and Neil got to ground, a large tanker truck had pulled up to join the confusion of fire trucks, ambulances, and Allston Public Works vehicles that clogged the street. The tanker had large emerald letters on its sides: ENVIROTECH: A DIVISION OF DALCO. Rubber-booted firemen milled around, waiting, satisfied that there were as of yet no flames to hose, not yet unconvinced there was not a hazard to be foamed. A pair of paramedics stood by as well with their crimson tackle boxes of first aid supplies at their sides. There were no victims available for them just now. The television crew was finishing its technical preparations, somewhat disappointed that disaster was not evident. Three Allston Public Works employees were sitting on a low granite curb bordering the narrow lawn that skirted Pebble Science, drinking coffee and eating crullers and waiting for something to happen. Two pickup trucks from the Allston University Buildings and Grounds department were parked illegally on Comm Ave, on the wrong side of the traffic flow. Five bored men were unloading from their beds heavy pumps and rolls of hoses.

A small brilliant light attached to a hand-held camera came on. The reporter raised her microphone and addressed the lens.

“Last night’s fierce rainstorm flooded basements all over the greater Boston area,” she said,” but if you think you’ve got problems, you should see the whopper here at Allston

University. Water poured into the basement of the Pebble Science Building behind me, and now the school has one major headache. With me is Harvey Nash, Dean of the College of Arts and Sciences." She thrust the microphone at Nash, who was standing to her right. "Dean Nash, what's in the basement?"

Nash looked down at the glistening bulbous head of the microphone instead of into the camera. "There are some storage rooms in the affected area where we have surplus equipment and supplies."

"So the damage is not extensive?"

Nash looked up, into the lens. His eyes shifted to the side. Thinking, thinking. "Oh, I wouldn't say that. We have some valuable items there. Irreplaceable." Nobody noticed that he had just turned a nice profit for the University, which would come onto the books as soon as the claim lamenting the total and final destruction of several hundred thousands – hell, millions - of dollars worth of unique scientific materials could be drawn up. The paperwork would be a work of fiction rivaling any currently in print, but it would never receive its due in the "Publications by Alumni/ae" section of the *Allston University Review*.

"I see there is a hazardous waste firm here. Is there any danger to the public from chemicals in the basement?"

Michelle elbowed Neil. "The morgue?" she said quietly.

"Yes," Neil whispered. "Jesus, what a shitstew that must be."

But Nash was not concerned. "Oh, no," he assured the camera. "We have a disposal team here to help us, but there

is nothing in the basement but some salts and small amounts of reference standards."

Michelle and Neil looked at each other. "What the fuck?" Michelle hissed.

"So you are saying that there hasn't been a release of carcinogens or other biohazards?" The reporter was already thinking that there must be a crisis somewhere else she should be getting to.

"That's correct," Nash beamed.

Michelle pulled Neil away from the crush of onlookers. "Is he *crazy*?" she said. "Not *hazardous*? Does he know what's *down* there? Some of those fucking things could give tumors to a *stone*!"

They had both taken expeditions to the morgue for raw materials and had seen the frightening assembly of carcinogens, teratogens, mutagens, and just plain poisons.

"Think we should say something?" Michelle asked, looking back at the news crew.

"Fuck that." Neil said definitively. "That's just what we need. Let some other poor bastard do it."

And they went back upstairs to cut open the perhaps-deadly package and begin their perhaps-ill-fated reactions, not knowing that Nash's bald faced lies had concealed an unintended silver lining. If the Dean had been an honest man, he would have confessed that there was a toxic bouillabaisse brewing in the bowels of soggy Pebble Science. HazMat teams from the City of Boston, the County of Suffolk, the Commonwealth of Massachusetts, and probably the Federal Environmental Protection Agency would have

sprung into action. Samples taken, the area cordoned off, the matter thought through carefully. In the meantime, one jar of sodium metal whose lid was in very bad shape – rusty and out of round and dented – would have admitted such a minute volume of water that it would not have made a noticeable drop on a polished table. But within fifteen seconds of that, the whole side of Pebble Science would have sloughed off like a leperous face when the shock wave from the explosion exposed just how weak was the union between the steel framing and the masonry.

But no, Nash told the Allston University version of the truth, the water was pumped out onto the street and down the storm drains, and the jar in question ended up sitting almost upright in a jumble of bottles and cans on the damp morgue floor waiting for the ENVIROTECH folks to come in with steel drums and scoop all the now-unidentifiable containers up for sorting and disposal.

"Are you going to finish that kheer?" Rajiv asked, his hand already moving towards the bowl.

Priyatha shoved it across the table. "Here. I am not hungry."

"Wow. The day I can't enjoy kheer is the day they toss dirt on my lifeless face."

"Are you converting? Your eldest son will be shamed if he is not allowed to light your funeral pyre."

"Metaphor," Rajiv gulped, kheer bubbling out the corner of his mouth.

"Great. We need ideas, not metaphors."

He swallowed. "I was thinking. What if you were to go to Dubie and tell him that I was a Thuggee and that his actions had insulted me and now I must kill him?"

Priyatha grimaced. "*Good* ideas. No prison, no violence."

"Too bad. My other plan was hiring someone to shoot him."

"Rajiv."

"Just in the kneecap, maybe the foot. Really, what else can we do? Go complain to Dean Nash? President Lynch? Call the cops? Hello, 911? Somebody just stole three years of my life!"

Three blocks away and blissfully unaware of the commotion and near-detonation of Pebble Science, Nozick sat at a small square table in Starbucks. In front of him were two large paper cups, a napkin protecting two biscotti from the environment, and a MacBook flipped open and booted up. A chime tinkled – the wireless connection had been established. He began to type and did not sense Laura coming into the shop and peering over his shoulder.

"Where'd you steal that?" she said admiringly.

"Perk of the job," he said, continuing to navigate. "I told you, we've got openings. Say the word, I'll get you an interview."

"Yeah, I heard you." She sat down and moved a cup and a biscotti so they were close to her. "Thanks for the coffee. You know my computer literacy ended with BASIC."

He nodded. “Yup. But believe me, it’s easier for a chemist to learn to code than for a coder to learn chemistry.”

“Uh-huh.” Laura bit off a third of her biscotti and began crunching it furiously.

Nozick glanced at her, sideways. “Isn’t revenge a dish best served cold?”

“Can’t wait for it to cool. I’m starving,” she said through biscotti pulp. “Have you breached their defenses?”

“Yeesh,” he exclaimed. “We aren’t cracking the Pentagon. U-Haul lets the driver log on and do all this stuff. Like check the location of the truck.” He swiveled the MacBook around so Laura could see the map: a full color representation of the United States east of the Mississippi. “So if you are lost, you can pull up the map and get back on track. Forget won’t use it. He never registered.” But Nozick had, with a little help from a receipt that Forget had carelessly left in the cab of the truck.

“Okay,” she said. “Where is he?”

“Hold on. It’s seeking.”

When Laura had seen the translucent dome atop the truck that Forget had rented, the supersaturated plan solution was nucleated. When Nozick confirmed what it was, the crystals came out rather quickly, in that beautiful formation of order from disorder that one would describe in an experimental procedure as “the crystals crashed out of solution”. Of course what she had in mind was not a crash, per se.

“Here we go. Holy shit, he’s outside of Harrisburg. He must be driving like a lead-clawed bat out of no-speed-limit

hell."

"Good," Laura said. "If it were done when 'tis done, then 'twere well it were done quickly."

Nozick felt a sudden chill. He gripped his coffee and gulped, trying to warm himself, looking at Laura as if at a stranger.

Two blocks down Commonwealth Avenue in the other direction from the soggy morgue, energy had been conserved. The movement of men and machinery into and about the new building had ceased since early in the morning, but an equal amount of movement had been made in the large open space between the building and the street. This clearing was destined to be, judging from the artist's rendering of the finished site, a wonderful green space of generic trees and generic shrubbery concentric about a splashing fountain refreshing groups of faceless pastel humanoids. The big optimistic sign with this prediction was attached to the chain-link fence that surrounded the project trailers. Sign and trailers bore the name and device of the builders - Howe Construction Company. The Howe employees had cleared the space of rubble, lumber, brick, hods, mortar, wheelbarrows, Bobcats, air compressors, portable toilets, orange cones, towers built of pallets, and pick-up stick piles of rebar and had erected on the compacted earth a low stage in front of about a hundred folding chairs.

On the stage, techs were assembling a cluster of

microphones, a foam and metal bouquet. There were large black round ones, pencil-thin ebony ones, and flat shiny silver ones. Then there were the colorful blossoms, the substantial, fat ones thrust through little cubes which were red and green and blue with the various logos of Boston's more legitimate news outlets.

The audience was constructed in layers. In the front layer – the thinnest - were the reporters from the television outlets, dressed for display. In the next layer were the practically-attired radio and printed press reporters, the former holding recording devices and laptops, the latter laptops, with the occasional Luddite taking notes in a steno book. Next came an assortment of AU plants, shills, and stooges – University employees who had been rousted out of offices to fill the seats with shiny, attentive faces who would applaud as needed. There was an outer crust, too. The last few rows contained curious passers-by, the idle uninvited, and some tourists who had just seen an empty chair and had sat down to rest. These had co-opted places earmarked for the last few tardy AU folk, who were forced to mill about behind, not sure whether they were allowed to leave or not.

The back of the stage was draped with a thick cloth in deep cobalt blue - the University color. A placard printed with the Allston University shield had been hung over this to echo the smaller version on the front of the podium. Thus, television viewers would know whence the broadcast emanated even on mute.

Alan Perry was sitting in the shill and stooge layer. He

was fixed, stunned into contemplative inertness by the events of the past few hours. Lynch's detonation on live television had been disasterous, and Alan fully expected to have been dismissed the instant he had showed his face in Lynch's office suite that morning. To his astonishment, Lynch had greeted him with a upbeat enthusiasm so wildly at odds with the reality of the situation that Perry had done nothing but nod when Lynch recounted for him - as if Perry had not been there himself in the viewing flesh – how he, Lynch, had demolished the best traps sent against him by the media establishment.

Perry was in the process of realizing that Lynch inhabited a dimension whose laws of physics and psychology were unknown to normal man. Lynch, he thought, viewed the campaign as an extended brawl, a fistfight in the street. The loudest voice was the winner, the feelings of the crowd irrelevant.

Lynch was a bully. But you could not bully voters. You could do lots of things to the populace and be forgiven - in the right context. Any picture could be prettily framed. It was what Perry did, and he did it world-class. At that moment, he realized this was a picture without merit, and he did something he had never done before in his professional life – he gave up on a paying client.

The sky, which had been slightly overcast so that the day was lighted as if inside a domed stadium, now brightened. The low clouds parted just as the doors to the new building opened, and Lynch emerged, followed by Nash, Saltonstall, Hennessey, and various Trustees. They mounted the stage.

Nash and Saltonstall sat down on the front of the stage, the Trustees dutifully shuffled and eventually settled onto chairs in the rear. Lynch went directly to the podium.

"Ladies and Gentlemen," he began, "welcome to Allston University. It is an auspicious day for science. It is our good fortune to be able to announce that Dr. Carol Saltonstall has been appointed to the Faculty of Arts and Sciences. Dr. Saltonstall is one of the world's foremost researchers in subatomic physics. In theory and experiment, he has been on the cutting edge of his field for the last decade. Allston University's commitment to the pursuit of new discoveries in the physical sciences is abundantly enhanced this day."

He's boffo with a script, Perry thought. *If life were only scripted....* Then he glanced at Hennessee, who had bragged that morning about his bagging of Saltonstall. Hennessee had the satisfied smile of a lottery winner. *He thinks this is going to work, somehow. I thought he was more aware than this. Maybe he's too close to see that he's putting a sailor suit on a scorpion.*

Lynch continued. "Dr. Saltonstall will also serve as the Director of the Allston University Center for High-Energy Physics. He will be moving his research team into the new facility shortly as well as recruiting additional investigators and staff."

Wali Khan and Doug Dubie had been walking together down Commonwealth Avenue, arguing about whether or not three-photon ionization of atomic hydrogen in a finite-bandwidth laser field and a static electric field could be made resonant or not and whose turn it was to buy lunch.

When they saw the transformation that had been wrought in front of their new building, they stopped and pondered it.

"Did you get a memo?" Professor Khan asked.

Dubie shook his head. He didn't like the looks of this. He prided himself on having his well-groomed fingers on the gossip pulse of the University. At least once a week he found a reason to present himself at the office of Dean Nash in one of his various official capacities, which included chair of the Chemistry Department Budget Committee, faculty representative to the Allston University Diversity Committee, and de facto leader of the College of Arts and Sciences Integrated Curriculum Committee. He was convinced that Nash's secretary, a petite and very young brunette woman, held nothing back in the force of his charm. And yet he had heard nothing of this assembly. He motioned to Khan and the two of them forced their way up into the front rows and found two seats among the print media.

When the words "Allston University Center for High-Energy Physics" came trumpeting from Lynch's lips, Khan elbowed Dubie. "Another building? Where's it going?" he whispered.

"Can't be new," Dubie replied quietly. "He's moving in 'shortly'. They must be renovating...." A thought came to him, so perfidious and unimaginable that it should not be possible, so double-crossing, so vile and low that he could not choke out the words necessary to warn Khan. And yet, when he looked up at Lynch, into that smirking smug face, he knew it was not only possible, it was a goddamn runaway

train.

Farther back, in one of the very last rows, D'Arcy had taken a seat. Fifteen minutes before, he had been sitting in Nash's outer office, waiting to see Nash when two campus policemen came through asking everyone to walk down the street for the presentation. D'Arcy had been broomed up along with several secretaries, a couple of undergraduates on work-study, and a janitor who kept grumbling in Spanish while they were walked down Commonwealth Avenue. So D'Arcy sat, contemplating his new building with the pride and joy of ownership. He could not make out what Lynch was saying through the traffic noise behind him and the mutterings of the captives around him, but it didn't matter. Pretty soon, they would move into this beautiful brick and glass home.

Lynch was done. He waved Saltonstall forward to the microphone. As Lynch stepped back, the barely-restive first row of press leapt to their feet and began calling out questions: "President Lynch, what about Heather -" President Lynch, have you seen the –" Sir, would you respond to the –" "President Lynch, our viewers want to know –"

But Lynch was stone-faced and stone deaf. He stepped off the stage and went into the door of the new building behind a wall of campus police. The ladies and gentlemen of the press stopped calling, looked at each other, and slowly sat down. The cameramen lowered their lenses. Technicians looked around at their coiled cables, sound mixers, and assorted spotlights and began mentally packing.

Saltonstall, at the microphone, rocked on his heels. Nobody in the front rows had come with questions for him. Coughs and embarrassed murmurs filled the silence. Finally, a man in the fifth row stood up. 'Man' was being kind - he looked about fifteen, but his hair was cut short, he was holding up a miniature tape recorder, and he was wearing a blazer. So the press credited him as one of their own and reflexively made a quiet space for him to speak.

"Professor Saltonstall," he said. "Ira Aumiller, Boston Phoenix. Could you give us an update on the signals from the Frodo array?"

The psychic groan from the assembled media and their technicians was palpable. There was no story here without at least a brief rant from Lynch, which they had failed to provoke. The appointment of some obscure scientist who they had never heard of before and would - if they were lucky - never hear of again was not going to get their eager faces so much as a fifteen-second blip on the 3 am local cable news feed. Now this pup from the Phoenix – a *weekly*, for Christ's sake – one that was *given away*, for *free*, and came with an insert devoted to *adult services* – was asking the kind of question that might evoke an answer that had actual facts in it, the kind of content they were allegedly paid to gather. Hard glares converged upon him, but he did not look to them for the hint.

"Sure," said Saltonstall happily. The cameramen raised their lenses again, reluctantly. Sound techs kept recording, cursing silently the prolongation of the time until their next Dunkin Donuts hit. "The Frodo detector is actually a real-

time interferometer. Please stop me if I get too technical for you." It was too late. He'd already gone over the depth of the front row by saying interferometer. "Our team has one node in the Yellowjacket Mine, which is an abandoned silver mine in Nevada. Worldwide, the Frodo detector has sixteen nodes. The working mechanisms of the individual detectors are varied – some are iron-polystyrene, some are liquid hydrocarbon, some are hydrogen-bearing metal sponge – anyway, what we are looking for is an event that might signal a proton decay event. Because we are an array of detectors, the signal model we are able to look at will cover a manifold of Unification Theories and their associated predicted energy coupling thresholds –"

Salonstall was cutting a respectable figure today. He looked like he had been visited by the Queer Eye quintet: His hair had been cut in short stylish layers, he had shaved off the beard, and he was garbed in a 3-button single-breasted cashmere and wool Coragliotti suit in charcoal and beige glenplaid. He bore little resemblance to the scruffy academic Hennessee had first met. He looked now like a Wall Street lawyer, and what he was saying made as much sense to his audience as the most jargon-laden boilerplate legalese would have. Except for the damned Mr. Aumiller of the Phoenix, who not only was nodding his head but looked ready with yet another question.

"- and the higher energy models that necessitate the excess energy being lost as a clustered neutrino. That is the signal that we are looking at right now."

Aumiller was ready. "If the signal is valid, where are the

coupling constants unified? And what kind of cluster does that suggest?"

The front row was getting restless. Another minute without a recognizable word and they were going to begin to disperse, good manners notwithstanding. They were hearing "... blah blah blah blah signal blah blah cluster blah blah..."

"Oh, say, ten to the fifteeth TeV. Roughly. And the cluster you'd get classically from that is not at all stable, but I have a pretty solid hypothesis that one might expect hypernuclei to self-assemble. Similar to a Bose-Einstein condensate with the addition of strange quarks. If that's correct, then the cluster would behave as a rather large elementary particle with at least an island of stability. According to numbers I ran this morning, maybe ten to the fifteeth ZeVs."

Aumiller, who had been scribbling furiously in a notebook even though he had a tape recorder balanced in the crook of one arm, stopped and looked up, frowning. "Are you - Did you say *zeta* electron volts? To the *fifteenth*?"

"That's our hypothesis. Of course, we could never approach that in an linear accelerator. We're working on models which use a spherically-compressed shock wave."

"Shaped charges? Like in a nuclear device?"

The knights of the press jerked their collective heads up. What had he said?

"Similar," said Saltonstall. "We think it would take a shell of osmium-185 collapsing on a target of –"

"Excuse me, Professor!" The reporter from Channel

Seven was on his feet. “Are you saying that your work will involve construction of a nuclear device?”

Saltonstall reached back and scratched the very top of his head, then said exactly the wrong thing. “Well, in a way… yes, I guess so.”

The newspaper headlines and television teasers were composed in a dozen imaginations before his words bounced off the brick wall behind him. ALLSTON UNIVERSITY ANNOUNCES NUCLEAR PROGRAM; AU PROF IS DA BOMB; IN THE MIDDLE OF THE CITY?; MUSHROOM-SHAPED CLOD; “Tonight on the News at Ten: Is this man serious? He wants to build atomic bombs on campus. Also, weekend picnics washed out?”

Rolling, building frenzy as the realization washed over the front rows. The afternoon was not wasted! Flash and bang! Explosions! Death and dismemberment!

On his feet among the suddenly mobile crowd, Dubie tried to elbow his way out, to fight free so he could get to the new building – his new building, damn them all – so he could look up, under the heavy white plastic covering that had been lowered from the roof to cover the massive bronze lettering that until that very moment Dubie knew was supposed to read The Harold Dalrymple Chemistry Building.

Only the provocateur stood immobile. Ira Aumiller was not one to be easily impressed. He was only a casual journalist, old friends with the news editor at the Phoenix who called him to cover technical news beyond the ken of the staff writers. Ira’s real gig was as a postdoc over at MIT’s

Center for Theoretical Physics, so he had heard of and argued about and come up with on his own some outrageous hypotheticals. But on this clear warm day, he was starting to feel chill fingers on the back of his neck. Saltonstall, who had published ten dozen papers that Ira had read in detail and who had his name on the spines of several texts considered to be essential to all physicists of all levels and who was bound for Stockholm with the same degree of surety that Michael Jordan was bound for Springfield, had just let drop offhand that he was going to produce elemental particles – or reasonable imitations thereof – which had a mass of 10^2 grams or thereabout. Ira looked over the press in front of him. They were waving their hands in the air, trying to get Saltonstall's attention, shouting of metaphorical and actual detonations. He realized that none of them had grasped the transcendent implication in Saltonstall's casual words.

At five o'clock sharp, Nil closed a thick book. Across the table, Geiger was flipping through a binder containing electronics diagrams. "The day is over," Nil said.

Geiger turned his head and looked at the chronometer on the wall. It showed Greenwich Mean Time on a large round dial and local time on a smaller face below. Five it was – ten in Greenwich, wherever in the backwater of the rainy London suburbs that was. Geiger hadn't a sense of the time, hadn't looked at the clock in hours. Nil had kept him busy with a steady stream of demonstrations, lessons, and

readings. Most of the lesson plan dealt with ways to terminate, defraud, bamboozle, frame, trick, and downright do nasty things to one's fellow man, and it was all fascinating. Geiger had never felt eight hours go by like it was ten minutes. Except in ten minutes you probably couldn't learn how to implement a dozen different booby-traps in a simple brass three-screw pin insert door hinge.

Geiger wondered briefly what was next. Did they have some equally-cool crib to chill out in while waiting for the mark to move? There were no sleeping accommodations in the trailer. Nil had shown him every square inch, every ammo locker, every makeup drawer. There was no place to crash. He wondered if they went to the mattresses like mobsters. Maybe they checked into cheap motels like lowlife drug smugglers.

But Nil was just standing and motioning him to the door like they had spent an hour visiting. "Tomorrow," he said. "Be here at eight o'clock. We will have an exercise."

An exercise? Geiger knew several euphemisms for murder. This was new. He looked out at his car, the ghetto rambler, a diarrhea-brown 1992 Plymouth Acclaim he'd parked against the wall of a pitted corrugated iron building hoping it would look like not junk. It had no machine guns, ejection seats, or rocket launchers. On the other hand, when the engine was cold, it had a smoke screen. Why wasn't there an underground tunnel, with a door that looked like the side of a hill and swung up when you approached? Should he have splattered mud on the plates, at least?

Nil walked with him down the steel steps that connected

the trailer door to the soggy earth. He looked across at Geiger's ride and probably had the same thoughts. "Often one attracts attention," he said, "by trying too hard not to attract attention."

Pithy, thought Geiger. *And worthless*. He walked around the puddles and got into his car.

Geiger's shadow paused briefly behind a small rhododendron. It was almost 8 pm, and the sun had been fully down for only a few minutes. The light of the day was gone, but streetlights and human vision still were processing the change and neither were fully up to speed. Geiger had read this in one of the operational manuals in the trailer. He had been wearing sunglasses for an hour. Now that he had taken them off, he saw the parking lot in blazing detail. Anyone else looking would have seen only blurs of black on blacker as Geiger scampered across the pine mulched surface of the border and onto the asphalt. Stringfellow's Lexus was parked nose-in to the building at the end of a row of five cars. Geiger glanced around, then dropped to the ground next to the Lexus and lay motionless in its lightless lee.

He was breathing hard. Adrenaline, not exertion. As he rested there, his heart rate began to return to normal. No one shouted out at the sight of him, no alarms were raised. There were no cameras monitoring this lot, and the attendant had closed up the little plywood booth at five. Anyway, he hadn't done anything wrong, yet. Arrested and

searched, all the authorities would have found on him besides his wallet and keys would be a small tin of Altoids – wintergreen - and a Snickers bar. The mints could be eaten; they were real. The Snickers bar was edible also, but would pass through the GI tract intact and come out undigested, still bearing impressions of the diner's molars. The Snickers bar would not harm a person in the least unless the "A" and the "S" and the "T" on the mint container were pressed in order followed by two depressions of the Callard & Bowser logo. That would cause some intestinal distress, for the chocolate and the caramel in the bar were a high explosive polymer whose chemical composition was such that it left a residue indistinguishable from that of gasoline.

He had stolen these toys from the trailer, under Nil's sharp nose. Nil had thought him untrained in covert operations, but he was misinformed. Three years into graduate school, Geiger had one day taken a visual accounting of the contents of a drawer that contained some of his most precious tools – distillation heads, microsyringes, air-tight syringes, stirring bars, wrenches, screwdrivers, glass cutting file, and two- and three-necked round bottom flasks. None of these had been purchased for his use. He had acquired them from other labs. It had become clear to him early on that graduate school was not like the National Football League, a level field, where every franchise had a salary cap and therefore an equal chance to compete. It was more like the inequitable Major League Baseball, and he was stuck at AA in the Royals system. The really fucked up part was that he had realized at about the

same time that when and if he ever received his doctorate, he would be competing for jobs with people who had the equivalent of All-Star credentials with the Yankees. So he resolved that any advantage he could obtain was his by right. These advantages included the free "borrowing" of equipment and supplies necessary to his studies.

The collection in his drawer and scattered around the lab had not come easily. He'd amassed it over several months of concentrated patrol, often staying in Pebble Science for days on end waiting for a particular lab to become vacant. Then he would creep it. If the door was left unlocked, fine. If it were bolted, he took out his box of keys. The locks in Pebble were not state of the art. A couple of hours on the Web and a couple more at Home Depot had given him a starter selection of key picks. He had stalked the janitors until he found one who liked to nap in the subbasement after midnight. He had gently lifted the sleeping man's key ring – containing the seven Holy Master keys – one to each floor. He had copied them on the Xerox in the library – accessed again with a Home Depot special. Then he had carefully trimmed the pictures, glued them to blanks, and cut the teeth out with a set of sharp files under a magnifying glass. That gave him access to almost all of Pebble Science. There were a few stubborn cases, like the doors in Dubie's office and computer rooms. Dubie, rightly paranoid, had paid a locksmith to come in and install modern deadbolts whose sole key was always in Dubie's pocket. Geiger had noted the model, bought one himself from the same locksmith, and – with the help of a very interesting website

called the MIT Guide to Lock Picking – taught himself how to pick them.

And that was just the lock breaking part. Geiger had in the process gotten some practical experience in other areas along the way, such as covert surveillance and human engineering. But outright theft was necessarily his strong suit.

None of his resource optimization operations had involved injury to persons. Not that he was morally opposed to it, but as a practical matter it would not do to draw the attention of the authorities. Geiger always figured that Stringfellow deserved karmic retribution for what he was doing to Jason Haltum, but that Karma would have to bring its own bottle. And then he had found himself in Karma's Trailer Full of Infernal Goodies with a pack of Never Go To Jail cards. Now Stringy was going to be getting a supersized hotfoot. Geiger found that he didn't feel any regret. Any faint twinge of sadness was due entirely to the wasted time and effort that idiots like Stringfellow caused. Haltum and his lab mates would grieve for a time. They were, after all, human. Then they would find new labs, new advisers, perhaps at new institutions of higher learning. Freed from the indentured servitude they had pledged unwittingly to Stringfellow, they would come away sadder but wiser, never to fall into the trap again. It was a good thing in total. But not for Stringfellow. Not tonight, not ever again. Unless on the slim chance there was an afterlife and the slimmer chance that Stringy would not be spending eternity with his nostrils clotted full of seared sulfurous flesh.

Geiger unwrapped the Snickers bar, reached under the car and pressed it against the bottom of the gas tank. It stuck like a peckish leech. He wiggled it to make sure, but it was immobile, a structural part of the metal. He rolled over to his stomach, pushed up, and walked innocently to the back door of Pebble Science.

McAllister sees his lab in side-smeared colors, wavy and bobbing and skidding across his vision. He's spinning in his chair. It's a new chair, raised for working at the lab bench, padded ebony armrests to sustain the limbs against fatigue, chromed metal footrest so the knees can be brought up at a comfortable angle. And its pivot mechanism must be Teflon, or some expensive bearing well-lubricated. McAllister thrusts a hand against the bench top and delivers to himself another impetus of force, a shot of angular acceleration, and the pinks and reds and blues and greens of the 1 milliliter polypropylene centrifuge tubes streak together like rainbows somehow unsorted by diffraction and unbent into a linear presentation.

He jams his foot to the floor and brakes, hard. The room continues to move, but now the motion is periodic. Rising and falling – a cork on the mighty sea. He stands up carefully and walks to the door, staggering, right foot over left, center of gravity only an approximation. Out into the varnished light of the hallway with its perpetually-waxed floor, the gloss enamel pumpkin (the color of baby shit, McAllister thinks) walls, all the surfaces disguised mirrors

pinging the annoying blue tint of the fluorescent tube lights up and out into his eyes every which way he looks. Skating now, on the icy floor, crossover pushes to his office door where his hand homes in on the old wear-polished brass sphere, turns it, feels the grinding of the ancient mechanism like bone shards inside a shattered leg.

His vision is untrue, his brain squeezed by centripetal forces – or was it centrifugal force, he could never remember, but then again they weren't paying him to teach or understand physics – so he can't be faulted if he does not believe what he (thinks) he sees: a shade at his desk, the ghost seated in his chair, writing. Instead of running shrieking like a sane human, McAllister is drawn to the apparition. He stumbles still, taking duck steps, flatfooted against the suddenly unsure nature of this world that has shed all of its comforting friction. He arrives at the side of the desk. The ghost does not disappear into smoke and ectoplasm, but looks up and smiles at him, waves a translucent hand for him to stay. McAllister sits in the wooden captains chair he had found in the subsubbasement and appropriated for the use of corporeal guests.

The thing that strikes McAllister the most about the other - leaving aside totally the fact that it is a *fucking ghost* – is that it consists of what looks to be mathematically insanely complex three-dimensional curved surfaces of some kind of projected light that cannot conceivably be material, though McAllister is not about to test that by reaching out. He can barely get his diaphragm to work, let alone move any of his voluntary muscles. The thing he is

noticing now is the hair. It is robust and dark for the apparent age of the projection. McAllister guesses that the equivalent living being would be around sixty-five years old, from the way gravity has pulled down the translucent jowls and from the fullness of the opalescent earlobes and nose, the size of which serve as a meter to date some individuals like rings on a tree stump. The metaphor of dead tree is apropos, he thinks, as the object is likewise deceased. But the ghastly hair is jet-black, not a thread of grey to be seen. It is laid back upon the other's head with the aid of some kind of lacquer or wax in a fashion that McAllister associates more with a young John Travolta.

The ghost looks at him – well, not *right* at him, but sort of nearly at him. And the ghost begins to speak, but it isn't with a very clear voice. It is a voice recorded on old magnetic tape that has stretched out from overuse and oxidation, so it slows down and then speeds up almost imperceptibly, but enough to notice that it is always just out of synch with the lips it is supposedly emanating from, and the tone is all gurgles at the edges. Plus, McAllister hears the voice filtered through something, maybe a foot of insulation, or from underwater, muffled, syllables and gutturals smoothed together until it is barely processed in McAllister's brain, which is still spinning at a few rpms, an unboiled egg inside a shell suddenly stopped.

It's gazing again, eyes directed near his eyes but just below and to the left of McAllister, who is thinking it is to be expected, as the whole apparition is slightly off kilter, slanted, shifted. *That's the way of the spirits*, he surmises.

The shade has tilted its head almost imperceptibly. It is listening.

McAllister clears his throat with a heroic effort of will. The ghost seems to want him to talk. And it does strike him as rude, nightmarish as this is, for the haunted not to be at least pleasant to the hauntee.

Things to say come to him, all nonsequiters and inappropriate, but before he can squeeze one out, the ghost speaks.

"It was a great success," it says. Waver and dip, static crackles in the background. "The yield from the azide was modest, admittedly - acceptable for a first iteration. The product was gummy. Perhaps a different trituration solvent will address that. But the brisance was all that I had hoped. One-quarter gram in my crude little apparatus moved the lead ballast up seven feet and separated cows from their cuds for miles around. I got five telephone calls within the hour. Five! And you know how far that field is from the neighbors."

It is not talking to him, he realizes, but to someone else who once sat almost where he was sitting now. That someone was talking – had talked – because the ghost was listening, unsmiling. Then the spectre waves its hand as if deflecting unwarranted praise.

"I did not sleep at all well, regardless. Soon I must report on this, and all the others." The ghost suddenly pulls open a drawer and takes out a glob, a grayish quivering lump of clay, and slaps it down onto the desktop hard enough to deform the surface into planarity on the bottom, so that

what results is a shape resembling a child's portion scoop of some unsavory flavor of ice cream that has plopped off its cone and onto the pavement. McAllister intuits that this is the explosive in question, and he recoils, even though the danger is safely decades removed. He can sense somehow, that the unseen other, the visitor he is substituting for, draws back as well, being, after all, right there. The ghost opens another drawer and brings out a short stack of notebooks which he piles next to the dangerous blob. They are in spirit the same as the ones McAllister uses to document his experimentation, but in workmanship they are another beast altogether. They are bound in what can only be real leather. The edges of the pages are trimmed so smooth it seems of one piece, and the surface is further made to seem uniform by the khaki and azure paisley pattern that is printed there. McAllister could see gold letters imprinted on the cover and on the spine in some elaborate font: DGH.

"And then what?" The ghost asks towards McAllister. "This will not be the same as the elucidation of some reaction mechanism, nor a new preparative method. This is not a contribution to the sum of Mans' knowledge as are those we are accustomed to releasing to the wild, to be used there by those skilled in the art for what they will. Don't you feel that the usual result of those efforts is to the good, on the whole? No, there is something different in the feel of this –" A nod to the books. "-whole endeavor. Lately I have been waking in the night, unable to find my peace. To be consumed in this pursuit seems increasingly like madness.

Not a harmless kind, mind you. No eccentricity. No adorable quirks of personality. This madness is malevolent."

It pauses again, listens, digests.

"Yes, I wish I could ignore it for some other avenue, but...the pact was already made. They paid for it. Paid well for it. And I took it without coercion. At the time, I thought that we were dealing in hypotheticals, you see: The concentration of chemical energy, simply a spring to be released. I thought that they were going to waste that money on other frivolous purchases anyway – they might as well pay for the advancement of our science as of metallurgy, say, or advancements in uniform-sewing or whatever list they make to spend their custom upon. Enthalpy had boundaries, I thought. Limits that were in sight – and not too far distant, mind you. Nitroglycerine, nitrocellulose, all the other possible nitrated organics were already in their arsenal. Could I optimize those, increase the potential energy? Not by much...."

It pauses, nods.

"In the abstract, yes, patriotism. Goodness. God's work. Call it any name you will. You see Old Glory snapping against a blue sky. I see France again. I smell the corruption of swelling corpses, trenches backfilled with stilled young men, all of them citizens of the same country in the end...."

And McAllister sees it too, like projections shining out of the ghost's fiery eyes that converge on a plane in between them: a cast of grey and green - darkened as though stained by water – upon images that flashed so quickly he could not

tell if they were animated or still. Mud, shattered forms, shapes lying on treeless plains, lips slack, eyes without focus.

It stuns McAllister, these representations of past horrors so faded yet still able to evoke a visceral response. It is terrifying in a way that seeing a spirit cannot be – it is like seeing his own end in the blowfly-covered leavings of death. He gets his feet under him and stands – too fast, balance all askew, and he topples, the ghost's eyes not following the arc of McAllister's flailing body as it descends to the stone-hard tile and bounces off the floor, itself as cold as the tomb.

McAllister jumps up, adrenaline innerving him to coordination once more, but they are gone. The ghost and the ghost's guest with it. McAllister is alone at the desk.

William Alfred Stringfellow, Professor of Chemistry, accustomed to obedience and obeisance, normally the master of his tiny realm, was tonight's prey. He came barging out the back door of Pebble Science from the building's ass crack and suddenly stopped in the dim space. He swiveled his head ninety degrees to the left and then ninety degrees to the right.

Geiger, looking down from the roof, drew back almost in fear. It was as if Stringfellow sensed the danger. Geiger's theological beliefs became a wild fancy: he had thought of Stringy now for years as a demon, a hell-spawned evil, feal to Satan, and – though Geiger did not believe that the Biblical Satan was more than a construct – now had the

projection taken life? Brought incarnate by distillation of long-brewing and concentrated emotions which were the antithesis of desire?

Geiger peeked back over the edge. No, Stringfellow had not sprouted scaly bat wings. He was unlocking his car and getting behind the wheel. Geiger knelt down on the tarry roof and took the Altoids tin out of a breast pocket. He began to press the coded sequence, thinking that he should feel some remorse here in this moment, hear some Ghandi crying in his moral ear. Nope. Silence. He tapped the logo three times and hunched down in case the fireball should rise into the cool night air and spill over the lip of the roof.

There was no sound below. Had the blast been so loud that he was deafened? He looked up – no reflected fiery tongues. He looked about, the city sounds reaching his ears. A car started up far below. Geiger jumped to his feet and tapped the logo again. Again – no earth-shuddering detonation. He peeked over the edge. Stringfellow was not only still alive, he was driving out of the lot.

Geiger sprinted for the door, crashed it open with a shoulder, and flew down the stairs – three, four at a time, leaping to meet the landings. He had been out of range! That was it. Too much brick in the way, too much hot tar trapping the signal.

He burst through the front door just as Stringfellow made the right hand turn from the side road onto Comm Ave. Geiger knelt and aimed the camouflaged detonator at the car. Again, he pressed the sequence. Again – nothing. Stringfellow got the green and accelerated around the

corner.

"Fuckstick!" Geiger spat. He got to his feet and sprinted along the sidewalk, paralleling his target until it was brought up short by the red signal at the first crosswalk. Geiger shed all effort to remain the shadow assassin. He broke through a cluster of a dozen nattering undergraduates, spilling three onto their asses, and bellyflopped into the gutter. The penetrating unnatural blue light from the sign above Fenway Pizza across the street illuminated the greasy pavement and was reflected up onto the undercarriage of Stringfellow's vehicle. Geiger could see as clearly as by daylight – even as he continued to press the sequence that should have enveloped the oblivious professor in a relentless petrochemical-fueled oxidation – that the Snickers bar was no longer where he had attached it. Geiger rested his head on his forearm and watched in disbelief as the Lexus rolled smoothly away, unincinerated.

He sat up and slammed the Altoids tin to the ground. This was no accident – the goddamn Snickers/bomb hadn't just fallen off, otherwise there would have been a hellacious explosion *somewhere*. No, it had been stolen. Thieved right out from under him – and from under the too-fortunate Stringfellow. Filched by someone who somehow knew to slip the device into a container shielded from RF, like the original wrapper that he could feel crunching even now in his shirt pocket, the wrapper that looked like waxed paper but was run through with a fine network of a copper alloy, a Faraday cage to prevent stray radio noise from prematurely detonating the tasty snack. And here he was, butt to

concrete next to a hive of the most sociopathic thieves that ever were shaped by the wrecked and twisted perversities of science's asshole.

"YOU CAN'T STEAL FROM *ME*, YOU MOTHERFUCKING BASTARDS!" he shrieked up at the dark outline of Pebble Science. "WHAT THE FUCK IS *WRONG* WITH YOU?"

Laura is standing in the middle of what used to be her lab. She did think of it as her lab, although the University might prefer to consider it Forget's, given that technically, his name *was* on the pitiful few monies he had managed to pull in. She didn't know what percentage Lynch's machine carved off the top of every grant under the benign façade of 'overhead' – but she had heard Forget rant often about the injustice. *Eighty per cent? Those fucking bastards. That money is for research, not for goddamn new carpets!*

She couldn't blame Forget for that. Overhead was taken out of research grants to pay for maintenance, water, sewer, electricity, et cetera – things that would have been just pure time-wasting distractions to the researchers if they had to deal with their own bills. But it was not a transparent process. And there was no competition. Forget's miniscule grants were paid directly to the University, not to him, and he had no say or choice in whatever sum the University wanted to bill him for his square footage.

She looked about at that footage, the benches mostly cleared of hardware, strewn with unwanted remains of

oxygen-brittled pipet bulbs, short lengths of latex tubing once a beautiful amber now stained dark by some halogen or metal, glittering shards of Pyrex chipped off unknown glassware, and the ever-present overwhelming furry coating of dust deposited from the constant flow of makeup air sucked from the great filthy outside and channeled into the lab. The hoods were cavernous, uncomfortably empty, their monkey bars unbolted and carried off by the voracious Forget. In the corner she could make out the footprints of the small wooden black-blotched table that had held their ancient gas chromatograph, a Hewlett-Packard of such a vintage that all of its paint had long been abraded away and all its model information rendered illegible. It was so awesomely old that its oven was not programmable, its flow rate was only adjustable by a thumbscrew, and it fed its signal not into any computing device but a simple strip-chart recorder almost as old as itself. Yet it worked great, when it worked. It had a simple flame-ionization detector. A little chamber connected to the end of the analytical column held a miniscule, constantly-lit flame fed from a tank of hydrogen gas. Any molecules in the gas flow coming off the column were burnt, producing a burst of ions which were collected and detected on a charged plate. It was a robust process, provided you had found all the leaks in the often-abused and cantankerous metal fittings, replaced the fragile rubberized seal that kept the injected sample from being spat back at the analyst from the pressure in the system, cleaned out the pinpoint hole from where the flame issued, scraped accumulated black crust from the charged plate,

reamed out the plugs of organic tar at the head of the column, and sanded the electrical connectors that fed the signal to the recorder. Once those essentials were in order, then one could deal with the mundane: making sure there was hydrogen gas in the tank (and lugging the old one down to the subbasement with the two-wheeler - if it could be found - and bringing up a fresh cylinder - if there was one), making sure the column had not been borrowed by some other group, making sure there was sufficient paper in the recorder, and making sure that the injection syringe had been put back by the last user into its little box and had not been left to roll off the table and smash into useless chunks on the floor. Often one could accomplish all these things by noon. One also learned after a couple of times not to then go eat lunch, otherwise the ready-to-go GC would be sniffed out by another graduate student who had saved some sample whose analysis was not critical enough to drive him or her to take all the above actions but who was only too happy to jump on the instrument if it was ready and unguarded.

One day, shortly after she had joined the group, Forget had been trying to run an analysis of his own. He had a low tolerance for frustration. Laura had thought he would be more resilient, seeing as how the GC had been free, rooted out by Cynthia from a corner of the subsubbasement. He was being abused by the flow rate. It was too high. Then it was too low. He could not calibrate how hard he squeezed the rubber bulb that generated the soap bubble in the calibrated glass tube they used for estimating the flow of

carrier gas through the column. Too many bubbles formed. Too few bubbles formed. The flame would not stay lit. Laura found out later that Forget had made the mistake of pricing a new GC, so as well as his naturally premenstrual personality, today he was still seething from the profound sticker shock. You could not buy a simple GC anymore. Laura knew now that you couldn't buy a simple instrument of any kind anymore. The GC they had - spray painted and put in a box by a laboratory surplus supply company - would have cost them a grand or so. But you couldn't buy a new one like it. It didn't pay enough for any company to bother with. One could buy a two-decade-old GC without computer, but it would still come equipped with push-button LED flashing controls and microprocessor-ramped oven temperature for high four figures. The simplest new GC made would run ten or fifteen grand. It was comparatively reasonable if you were in manufacturing, or even if you were in academia and had a comfortable grant pipeline, but it was outrageous to Forget, whose standard had been set at zero dollars when he had been gifted one.

Forget had frothed, waved his flimsy arms about, and screeched at the uncaring world. "I'm doing *research*!" he had cried. "They should just *give* this stuff to people doing *research*!"

Yeah, she thought. Like he was curing disease. Increasing crop yields. It didn't matter to her. At the time she hadn't yet realized the depths of his intellectual poverty. He had raged against a system that would not drop everything and see to his self-apparent needs. But if the

system had been perceptive enough to hear his appeal, it would be discriminating: it would not only *not* give him a new GC, it would take away the miserable one he had. He would be lucky if this omnipotent system to which he appealed didn't realize that it had slipped up by letting him exist in the first place and squash him like an annoying bug.

The lab seemed larger now, with so much taken out. She felt all alone – it was a complete reversal from her happy feelings when she had first joined the group. It was a small group – Nozick and a couple of undergraduate premeds looking for any small edge in the medical school death march. Nozick was agreeable and funny; the undergrads, Zach and Kora, were amusingly earnest and inept. The only downside to the group was its nominal head, Forget. Laura had forgiven him her first impressions, which was that he was 1) short and (even worse) self-conscious about it, 2) poorly groomed, 3) unbathed, and 4) beset by some flavor of obsessive-compulsive illness. Her instinct to flee had not been obeyed because she 1) thought that academics were prone to eccentricities anyway and 2) assumed that appointment onto the faculty of a large university meant that he had been vetted and approved by responsible authorities.

Bah. She had been wrong in every respect. Forget had turned out to be a despicable human being and a remarkably mediocre scientist. He had diddley for funding and squat for ideas about how to get any. He was a jerk, a cad, a boor – he was cruel to everyone he had power over and quailed in fear at the appearance of the shadow of those

who had power over him. But his biggest failure as far as Laura was concerned was to retreat too far when circumstances turned against him. Instead of seeing his research group – each of them consenting adults who had chosen to throw their lot in with him – as allies, he would treat them as outsiders, adversaries, running dogs of those who were against him, who were all out to get him.

He behaved a lot like someone who had never emotionally evolved past the toddler stage of self-awareness, she thought. It wasn't a good personality for a supervisor to have, especially one in this terrible system which could allow six or seven years of slavery in the lab to come to nothing. Wasted time, lost investment, at the whim of one man whose decisions were arbitrary and unappealable.

Suddenly she didn't want to be in this lab anymore. Maybe not any lab. As much as she loved chemistry, the doing of it and the thinking about the doing of it, right now she had no desire for any more.

She looked at the clock. Forget had not ripped it out of the wall, but he had tried. The metal ring that held it into its fixture had been unscrewed and lay on the floor underneath. It had defeated him, probably with advanced technologies that his brain could not wrap around, like an Allen screw or some other magical piece. He would be approaching the Mason-Dixon line soon. She smiled.

Wake up, it had said into his ear. *It is outside*.

Budnick opened his eyes. He had heard it over the chorale of pumps, even though the nearest rust-tinged blue box was barely a yard from his head, pulsating and cawing like a giant gargling crow now that it was sucking on more air than water. The other ten or so pumps were staggered down the hallway and in various rooms here in the subsubbasement, voicing their metallic disappointment that the floodwaters were mostly removed to the tune of ninety or so cumulative decibels as might be measured at Budnick's ear. He sat up – he had dozed off in the uncomfortable wooden chair that kept him above the slimy floor.

He was wearing a dark green ENVIROTECH T-shirt found in one of the company's vans left unlocked in the earlier crush. Once he had put it on along with a pair of knee-high rubber boots from the same source, no one had questioned his presence in the building.

Budnick slipped off his boots and climbed the stairs in his socks. As he approached the top, where the steel door opened out onto the parking lot, he heard someone running up the steps above him, rubber soles but not so quiet, squeaking as the person's instep pivoted to make the turns, slapping the stone. He opened the door and saw a dozen or so cars remaining, but he only looked at a blue Lexus. He took a thick rectangle of aluminum foil from a back pocket and began to unwrap it – much like a road map – as he approached the car.

Now the ghost is out the door - maybe through the door – it cares not for the materials doors are made of. But McAllister must, and he pushes it open without thinking what he is doing, knowing only that he is compelled to follow. The phantom is moving how McAllister imagines ball lightning would move. Bouncing, floating. But the ghost has ghost legs. They move, just not in synchronization with its forward progress. Toward another door, this one open. The hallway and door are familiar yet not recognized. McAllister is trying to place this – not in space, because it is obviously Pebble Science, but in time, because it feels all wrong, somehow primitive.

He fights to catch up with the ghost. Some force impedes him. Like running in a pool, trying to breathe with your head out the window on the highway. *Because I don't belong. I'm the one out of place.*

The room is a laboratory, but like the rest of the scene, it is all wrong. There are no hoods. Distillation rigs are out on the bench tops, Bunsen burners hissing below the retorts, corks instead of glass stoppers or adapters. The solvent and reagent bottles have hand-written labels. There is even a small wooden cask sitting upright on a high shelf, for Christ's sake.

There is one figure in the room. He has on a long tan coat but no safety glasses. In profile, he stands in front of a tall glass tube sprouting from a squat flask that might hold about two liters. McAllister can see in the flask chunks of red like crayon wax, beginning to shine and lose their shape as the flame below the glass transfers energy into the solid.

The ghost leaps, shrieks. *Damn you Harold! I have told you before! That is too much-* And elbows the man aside. The tan-coated figure hesitates for an instant, then bolts for the door. Past and partially through McAllister, who does not feel any intersection. The ghost is grabbing at the burner, but it is fixed in place somehow. It pulls desperately at the tubing feeding gas to the flame, but McAllister can see the interior of the vessel fill suddenly with a deep blood-crimson plume. It shoots up, jetting out of the top of the glass tube, then there is a clap. Just a clap, almost quiet. Maybe, McAllister thinks in that instant, it was louder then, and it is just the fact that he is out of phase with the *then* that mutes what certainly must have been a mighty roar.

Because the quiet clap consumed the ghost. Just atomized it. One blink and it was tugging on rubber, the next blink it was a grey and amber mist, a cloud driven on the shockwave front of the quiet clap. The gaseous mass of supersonic gore that was once living and was now not even ghost spewed toward McAllister, coating the walls, slickening the floors and benches, and eventually reaching him. This time he was not beyond its touch. He was blown off his feet, tossed like a scrap straight back, and as the room rushed and twisted about him, he finally recognized the contours. He was back in his lab. Somehow this was his lab again. Then he slammed into the wall.

He hit and rolled, came up to his knees yelling something incomprehensible, not even language, just primal phonics, adrenaline and fear erupting from his diaphragm. The shout bounced around the room and

damped itself to nothingness. His lab again, hoods and CD player and Aldrich bottles. He pushed himself to his feet and stood, unable to move, quivering and panting like he had just run ten miles.

There's not much foot traffic in the halls of Pebble Science late on a Friday night. The undergraduates, even the serious science majors and premeds, are out doing normal Friday night college things. That leaves the building to the graduate students, who are holed up in their labs like bears in caves, not milling in the halls. So there was no obstacle to Professor Maxwell Giard as he barreled towards Dubie's office. If there had been a crowd in the way, as before or after a lecture, he would have scattered them like candlepins. Which was fitting, as he was often likened to a bowling ball, in appearance and physique. Giard was balding on top but had tufts of black hair sprouting everywhere else – chest, nose, eyebrows, ears. He had a big nose and sagging jowls and looked a lot like a Muppet. An exceedingly ill-tempered Muppet. This evening was no exception; he burst into Dubie's office muttering darkly.

Dubie, who had been watching on a large and expensive flat-screen computer monitor the graphic progress of a program he was testing, did not look up but reached for a mouse.

"What the hell was that all about today?" Giard demanded. "I heard the news on the radio. I'm supposed to be on vacation. I had to leave the family up in Maine, I was

so mad. Don't you answer your phone?"

"What's the problem?"

"What do you mean, 'what's the problem'? It's all over the news. That fucking physics guy talking about blowing up shit. Do you have any idea what that means?"

"Don't worry," Dubie said, still staring at moving lines on his screen. "He's not blowing up anything. It's all a thought experiment."

"You and I fucking know that, but the Boston Fire Department doesn't know it. You don't give a shit. You model everything. You don't have gallons of acetone and ether in your lab. Those sonsabitches are going to come in here now and inspect us. They'll enforce the flammable organic limits. Do you have any idea how low the limits are? You can't work when you can only have a couple of liters of solvents in the lab, for chrissake."

Dubie finally looked up. "Physics department, Max. It's their problem."

"That's not how it looks on the news. I saw the shots when I got home. It was the new building, and the reporter was going on and on about explosions and crap. Don't physics department me. The city is going to jump up *our* ass."

"Did they show the name?" Dubie asked.

"What?"

"The name of the building. Under the tarp. It was supposed to be uncovered as part of the coverage, photo op, you know. I didn't see it come down, though."

"No," Giard said. "Why do you care?"

"I tried to get a look at it, at the end of the press conference today, but Lynch's Gestapo cleared the area."

"For what? You think they're naming the building after you? You know it's going to be the Harold Dalrymple Chemistry Building, or the Harold Dalrymple Center for Chemistry or some such sycophantic bullshit."

"No," Dubie said. "But I think that Lynch is trying to buy a Nobel. He needs to look competent for his campaign. Desperately. Didn't you catch his interview?"

Giard made an energetic *poo* sound. "What's that got to do with us?"

"He wanted Saltonstall badly. Badly enough to promise him a physics building."

"So what?"

"A functioning building, big and empty."

Giard shrugged, not following.

"A building ready to go. Right now. Ready in time to get lots of press before November."

"No fucking way," Gaird breathed, wide-eyed and suddenly tamed.

"I have a very bad feeling," Dubie said.

"No fucking way," Gaird reiterated. "He wouldn't screw us like that. Would he?

There was no reply. They both knew it was a wholly rhetorical question.

Nozick drives a little Hyundai Tiburon, a two-door sedan with just enough room in front for him and Laura and a

laptop. The cramped backseat space is taken up mostly with books, cardboard boxes, CD cases, various T-shirts, and glass Nantucket Nectar bottles (Mango Orange, Apple Juice, and Half-and-Half) waiting for their recycling fate. The car used to be an unremarkable azure but has over the years weathered to an iridescent mottled steel blue. Parked now behind a rusty green dumpster down a cramped alley off of Beacon Street, it attracts the attention of no one.

Maybe Nozick and Laura are being unnecessarily paranoid, but they have decided that the game must have rules, and one of these is impeccable discretion. Nozick lifts one of the smaller cardboard boxes out of the back and removes a can of Dole Pineapple Juice. This is not just an ordinary tin can, though, as he has explained to Laura already, but a simple and effective wifi antenna. He has taken the empty can and wired it up to capture and feed the 2.4 odd gigahertz signal from any open wireless router into his laptop. Laura had been fascinated that Nozick knew how to do this. As he had explained, it was cheaper to tap into some schmucks unlocked wireless for high-speed internet access than to pay the cable company. And here in this alley, in a canyon formed by the backs of buildings of apartments mostly filled with AU undergraduates, the probability approached one that they would find an open door through which they could tap into the Internet and never be traced.

Nozick stopped fiddling with the wires trailing from his can and nodded to what Laura was holding. "Last chance," he said. "Making false emergency calls is a crime."

"Only if they catch you," she said. She turned the shiny plastic phone over and fingered the little LED screen. "And they aren't going to catch us, are they?"

Nozick grunted an offended-sounding grunt and continued making the connections, can to computer. Finished, he rested the can up on the dash, opened end pointing toward the nearest building, and slid the cursor on his laptop screen up into the top menu. He clicked the pad with a thumb and a long list popped two-thirds of the way down the page.

"Christ," he said, in disgust and delight, "how long does it take to secure your WAP?"

Laura leaned over. "Those all open?"

Nozick nodded. "The can is worth its weight in wireless. You ready?"

"Plug me in."

He clicked on one of the items in the list, a chime sounded, and they heard the familiar 350 and 440 Hertz harmony of the dial tone from the white phone.

Laura dialed and held it up to her ear. The connection was robust, and Nozick could clearly hear the one ring and the picking up at the far distant other end.

"Banaville Police," a man with a clipped Southern drawl said. "Your call is being recorded. How can I help you?"

"Oh, Officer," Laura said. This time it was Nozick who was fascinated. She was producing a perfect voice of the middle South, mid-thirties maybe, not too bright yet no fool. "I was working my shift at the truck stop, you know, Petrie's Truck Plaza on 81? Today, right after noon it was,

and there was this very strange fellow eating at one of my booths. All alone, you know-"

The man cut in, "Ma'am, is a crime in progress?"

"Well, no, not yet that is. I think there might be, though. This man, you see, he was a little odd, I thought, but then again you get all kinds in there, you know-"

"Ma'am, do you need assistance?"

"Well," she paused as if in thought, "No. I don't. But somebody might, you know? I'm not a nosy person usually, but this fellow was talking to himself mighty loud, and I thought I heard him say something like he was going to show them all when he blew them to hell. Excuse me, officer, I did think he was saying that, but he would clam up whenever I got close. Well, I wouldn't bother you if he was just crazy talking, heck, I get those kind all the time. What made me call was when he left, I kind of followed him out. He didn't see me, though, he was so involved in his talking to himself, you know?"

"Yes, ma'am." Nozick could feel the man glancing at his watch.

"He was driving a rental truck, on of those little fourteen foot ones. He opened the back for something, and that's when I saw it."

"Yes, ma'am?

Holy Hell, thought Nozick. *She's got some acting chops.*

"The back was just filled with boxes and barrels. Most of them had signs on them, you know? The kind trucks have to have on them when they're carrying explosives?"

The distant officer was sitting up straight now, grabbing

for a pen maybe, frantically signaling for everyone in sight to listen into the call. "Explosives?"

"That's right. Those orange signs."

A moment of silence from the constable.

"I wrote down some of the labels I could see, even though they didn't make any sense to me. Do you want to hear them?"

"Yes, ma'am."

"R-D-X?" Laura said slowly. "And P-E-T-N? Do those mean anything?

"Holy-" The man took a long breath, in and out. "Ma'am, did you get the plate number?"

Laura smiled at Nozick and gave the number. Then she said, "Wait a minute, officer, I have to-" and clicked the phone off.

A good long stretch of Interstate 81 runs pretty straight through southern Virginia's rolling grassy hills. It yaws and pitches a bit, but mostly stays determinedly on course, west by southwest, on its way towards Tennessee. This early evening, the traffic on the American autobahn was sparse, well-spaced, and law-abiding. The last was mostly due to the conspicuous presence of a black and white Ford Crown Victoria parked among the wildflowers in the wide median. The sole occupant, Officer Kevin O'Hern, was idly musing to himself as to the futility of advertising his presence. It was not his idea to be out here in the open, an optical speed bump. The Virginia State Police had determined that this

summer they were going to operate on the principle of high visibility. It might mean fewer citations, they had said, but studies showed that motorists who saw law enforcement tended to drive more slowly for a while after the sighting. O'Hern had sat attentively through the briefing but had soon forgotten the exact figures - how much slower? how long a while? He knew the town of Banaville and his Chief would rather he parked in a hollow, his expensive state of the art LIDAR gun trained on the Interstate, his citation book open and ready on the seat beside him. He would also like that, but he would also like to transfer out of the small Banaville law enforcement pond some day soon and become himself one of the stern-faced Staties who traveled around the state intimidating the local cops. So here he sat, cooperatively visible. He hoped that one of the trooper brass would come by and witness just how goddamn visible he could be.

"Forty two? Forty two?" It was the dispatcher. O'Hern was Unit 42, or rather, the car he was displaying to the traveling public was 42. Even though the department had but five patrol cars, none of them were 1, 2, 3, 4 or 5. He picked up the microphone.

"Forty two here."

"Forty two, we have an eleven fifty four on eighty one."

O'Hern sighed. The dispatcher was an older guy who had never been a patrolman, never served in the military, but he loved his codes. O'Hern indulged him.

"Dispatch, details on the eleven fifty four?"

"Forty two, we have a report of a suspicious vehicle in

your vicinity."

11-54, O'Hern thought. *The mystery is solved. Suspicious vehicle on the loose. Shoot on sight. Dead or alive.*

"Be on the lookout for a U-Haul truck, New York plate Able One Eight Nine Able Charlie. Be advised that it may be a 52e situation."

O'Hern waited a moment before giving in. "Dispatch, details on the 52e?"

"Negative."

Negative? O'Hern tried to remember the codes. 52 was way down there, unused and unmemorized. He sat in silence for a long minute, waiting for mercy. The dispatcher usually let the officers hang for a time, to reinforce his superior mastery of the code. But no mercy came.

"Okay." O'Hern sighed. "Details on the 52e. Please."

"Negative."

O'Hern frowned. This was new. Maybe there had been an announcement that officers had to memorize all codes, no helping allowed from now on. Or they had been issued a list of codes that was to be taped to the dash. Whatever it was, he had missed it. He was just about to ask for details on the negative when the dispatcher came back.

"Negative," he repeated. "Not in the clear. We have the VSP ABU on the way."

O'Hern tossed the mike aside. *Sweet Zombie Jesus,* he thought. *ABU is the Arson/Bomb Unit. No wonder he didn't want to elaborate. Rental truck and bomb unit.* He started up the engine, yanked the transmission lever to

Drive and stomped the gas pedal.

It is 11:55 on a Friday night. Stumm does not have any awareness of the time and only a dim, almost intuitive, knowledge of the day of the week, so long has he been in that twilight state graduate students slip into, where external markings of a clock are irrelevant to their task, and Christmas Eve and any random Tuesday, 4 in the morning and 12 noon, become interchangeable. He is sneaking the illegal source into the new building, and he feels like he is shitting on a just-installed carpet. The barrel of faux silica gel is lashed to a sturdy hand truck with big rubbery knobby wheels that make balancing and maneuvering the thing almost reasonable. Right now he is halfway down a hallway in the basement, reached through a passenger elevator that still had the protective tarps draped on the walls (soon to be a dark imitation mahogany patterned plastic - Stumm pulled the tarp aside to investigate) and layers of cardboard taped to the floor (destined to be an industrial grey tile that in Stumm's opinion - he pushed up a corner of the cover to check it - clashes with the wood motif). The room D'Arcy designated for the stashing of the disguised rod of pulsing radioisotopic energy is down at the end. D'Arcy had melted away, moving low in his strange interpretation of stealth when they'd reached the corner in front of the new structure, looking for the nightwatchmen in case he had to distract them from the operation. Stumm had plodded ahead. If questioned, he would have simply said that

someone told him to bring this barrel over. Worst case, they send him packing. He doubted that night security cops toted Geiger counters.

But he was not challenged. There was not a soul around, apparently, not outside the building, not in the construction trailer, not inside the glassed foyer, not down here in the basement. *Odd,* thinks Stumm, *to have only one basement*. He stops in front of a door, solid wood it looks, or maybe a clever imitation, no window. Screwed to the door is the number: B17. This is D'Arcy's new cellar. Stumm rests the hand truck upright and tries the door. It opens without trouble; a good thing, as he has no key. Nobody has any keys to this whole damn place. Nobody in the Chemistry Department, anyway. That might seem damned odd to Stumm, but he is busy wheeling in the barrel. He turns on the lights as the door shuts automatically behind him, one of those hydraulic closers high up does the deed, and he takes his first look around.

His first impression is that D'Arcy must have a lot of other secrets, for the room is already crowded - barrels much like the one he is toting, in black, blue, white. Plastic barrels, too, blue ones marked with the name of a chemical house he is not familiar with. Stacked on top of the barrels are dozens and dozens of cardboard boxes of various sizes.

D'Arcy had told him to put the barrel near the center of the room, near where he would have a well drilled and filled for it, but the middle of the room is blocked, thick with boxes and barrels. Stumm sets to work clearing the center of the room, moving the boxes onto the floor, rolling the

much lighter real barrels aside, and restacking the boxes back onto the barrels to make space. The boxes make that tinkling sound of full glass bottles as they are moved. Stumm figures that D'Arcy has scooped up some spare flammable solvents and is hiding his stockpile from the fire inspector. One of the barrels has a loose top that slides off when he tilts it, so that he can see it is chock full of gravelly-grey granules. Another of D'Arcy's impetuous purchases in bulk, probably, or something he has been sequestering for decades. Who can know?

When Stumm is done, the source sits in the center of the room. Arranged close around it in a circle are the other barrels, which Stumm now knows to number exactly thirty five, and the boxes. Stumm lost count of those at fifty or so, but their cumulative weight must be several hundreds. Holding the door open to leave, he takes one last look at his arrangement and turns off the light.

SATURDAY

TYPE OF INCIDENT:

O'Hern clicked on the arrowhead next to the field and a list popped open. He considered it for a minute, then scrolled down it to the end. There was, as he had suspected, no item called Truck Full Of Explosives, so he selected Traffic Stop.

TIME OF INCIDENT (START):

O'Hern looked at his watch: 13:06. Just past one in the morning. He had spotted the truck about 8:30 last night. Opening his call log files, he found the time he had submitted the plate number to the state database: 8:46. This number went into the field.

TIME OF INCIDENT (END):

The city's AIR software package - Automated Incident Report - had been in use only six months, new enough that almost every time O'Hern used it, some veteran cop would stop to look over his shoulder and launch into a tale of how it was done in the good old days: coffee-stained piles of paper forms, clacking IBM Selectrics, thick manila folders crammed into cardboard boxes and piled in dark basement rooms. But there were no nostalgic peers here right now. The station was quiet, except for two DUIs conversing in

low mournful tones down the hall in the holding cell.

He finished inputting all the data and opened a large blank field in a window labeled NARRATIVE. He sat quietly for a couple of minutes thinking over the event, then he began to type:

About 1915 hours Dispatch alerted Unit 42, Officer Kevin O'Hern in solo traffic patrol on Interstate 81 at about mile marker 57, to be on the lookout for a U-Haul truck, New York plate Able One Eight Nine Able Charlie, suspected to be carrying illegal explosive devices. About 2030 hours Unit 42 sighted the truck heading southwest on Interstate 81 at about mile marker 39. Unit 42 stopped the truck. Officer did not approach the vehicle, but waited for VSP ABU unit as outlined in Bomb Response Training.

In O'Hern's opinion, this was the most fucked up way ever devised to run a traffic stop. According to the VSP mandate, you pulled the car, or in this case truck, over, then backed way up so as not to get blown up if the motherfucker detonated it on the side of the road just to try and take one lousy cop with him to jihadland. Of course, the driver was going to get antsy after a while. Guilty or innocent. Guilty ones might gun it back onto the road and try to outrun the Vic's 454 horses with their poorly-maintained six banger. Innocent ones might get out of their vehicle and come back to see what the matter was - did you really mean to pull them over? What was the problem? What was the delay? Or not. Maybe the guilty would come out smiling, grenade tucked in their back pocket. Or the innocent might drive off, thinking the flashing lights must not have been meant for

them after all. Of course this one had not sat in the truck quietly waiting. This one had never been to Bomb Response Training.

The driver exited the vehicle and approached Unit 42.

Now the situation was teetering on its short end. You couldn't let the driver go back and maybe push the big red button. You couldn't put him in the cruiser unless you cuffed him. You had to get slowly out of the cruiser and explain the situation to him, keep him calm, keep his hands in plain sight.

The driver was directed to put his hands on the cruiser hood until VSP ABU arrived.

Some people would shrug and cooperate. It would make for an interesting conversation piece. These people dealt calmly with life's vagaries. They were the rational ones, the even-keeled. O'Hern prized the few of these he had encountered. This guy was not one of them.

The driver became belligerent and refused to comply. He indicated that he was in a hurry to be on his way. He stated that he was a Professor of Chemistry with very important work to do. The driver tried to return to his vehicle, stating loudly and with obscenities that he had not been speeding.

Letting the suspect get back into the truck was not one of the options, but people who had been pulled over often went into berserker mode. Preachers cussed, grandmothers tried to swing on linebacker-sized cops. You had to respond to these with the minimal amount of force necessary to keep anyone from getting hurt or sued.

Officer intercepted the driver and restrained him from proceeding. Driver began to strike the officer with his fists.

In the old days before databases and such electronic gadgets, this would have called for the application of the nightstick or even the .45. Luckily for the populace, these days there were options.

Officer applied his Taser in stun setting. The driver collapsed to the pavement momentarily, then rose and attacked the officer again. The office advised the driver that he was under arrest and applied the Taser again. This application had less of an effect on the driver (hereafter referred to as the suspect) leading the officer to suspect the presence of stimulants in the suspect's system.

O'Hern had given the guy two stout three-second doses of fifty thousand volts. One trigger pull should have been enough to drop any normal man. That the flailing driver was still upright after two probably meant that he was high on something. PCP maybe, or meth, or blow. O'Hern didn't have time to hypothesize. He had dropped the Taser and pulled the baton from its clip on his belt. A flick of his wrist popped it out to its full 26 inches, and he wound up and slammed it against the back of the guy's nearest knee.

Application of a baton to the suspect's leg was required to obtain compliance with the officer's request, and the suspect cease to resist.

The guy had all his weight on that leg and his momentum moving onto it as well, so the baton tap was enough to cut all the support out from under him. He'd gone face first to the shoulder of the highway, and O'Hern

took the opportunity to kneel on his back and apply handcuffs. He'd looked up to see three sets of lightbars strobing red, blue and white as they approached.

Suspect was Mirandized. VSP arrived at about 2050 hours and took control of the scene.

Two VSP patrol cars and one long stopsign red truck lined up to block off all traffic. Six grim-countenanced staties had unwound their massive frames onto the road. One, a major, came over to where O'Hern was still panting and wiping the sweat out of his eyes. He'd just looked coolly through his dark glasses at the suspect, who was lying quiet, stunned by the fall, wind all knocked to hell and gone. The trooper prodded the suspect with the toe of a boot, about pants pocket level, where keys might have been. One side, then the other. No jingle. He turned around, still ignoring O'Hern, and pointed to the truck.

VSP inspected the vehicle and found suspicious materials in the back.

O'Hern was getting really tired, too tired to go into detail about how the staties had rolled out a remote-controlled robot, a little tank-treaded monster, that had plucked the keys from the ignition with its long hydraulic arm and hummed slowly around to unlock the back doors. O'Hern was staring into the darkness, not seeing details in the failing light and from forty yards away, when he'd noticed that the staties weren't looking at the truck at all but were gathered around the hood of one of their cars, looking at a laptop. The robot flicked on a bright beam and directed it onto the truck cargo and he realized they were inspecting

the contents the safe way, via a camera on the robot. O'Hern waited for about fifteen minutes, listening to the horns honking at the far end of the four growing lines of traffic, then he'd gone over to them and stood with his hands on his hips until they noticed him. The major glanced up and nodded.

"Not as bad as we thought," he'd said. "Take a peek." He pointed to the screen. "These barrels here and here. They're labeled RDX and Nitroglycerine, but somebody just printed those up and taped them on. Probably a practical joke."

O'Hern had frowned. "So. He walks?"

"Hell no. They might not be class A explosives, but it looks like he's hauling dangerous chemicals."

"He claimed to be a Professor of Chemistry," O'Hern offered.

The major sighed. "He probably is. That doesn't give him immunity from DOT regulations. Book him on illegal transportation of hazardous waste. We'll take the truck out to the range and blow it as a training exercise."

The suspect was arrested on suspicion of transporting hazardous waste without a permit. The truck was towed to the BPD holding lot.

As it turned out, the VSP ABU did not get the pleasure of detonating a perfectly good truck. Some absentminded person or devious terrorist had left a briefcase sitting beside the door of a committee room in Richmond. Two minutes after this information came over the VSP radio, O'Hern had found himself standing alone by the side of the road, watching several thousand very aggravated citizens

speeding past with pent-up velocity.

He hit F1 to save the report.

At 6:16 in the morning, the WFNX disk jockey looked up at her producer and mouthed: “News?” The producer on this morning was an intern from Emerson College who had been with the station three months, which made him junior to the DJ, who had five months service and thus automatically assumed the microphone - on-air presence being of course the highest aspiration of interns.

The DJ, herself a Boston College undergraduate, was sixteen minutes into her first shift ever in the main chair. It had looked so easy from the corner of the room. The regular DJs flicked CDs and sound cards about like casino dealers. They snapped the toggle switches and tapped the buttons and nudged the sliders on their consoles with aplomb and a nonchalance that she was just beginning to fully appreciate. They manipulated data and music and chatted with the producer and took calls on and off the air - all at the same time. She had already dropped her log sheet, introduced David Gray as David Bowie, and left dead air for thirty plus seconds. Now she knew it was time for the news, time for the news guy to rescue her, give her time to collect herself. But the producer just shrugged. Where was the news guy? Who was the morning’s news guy? She would have to read the stories herself. The traditional saying after an on-air flub was: “It’s OK - nobody’s listening”. But she knew it wasn’t true. Even on this ungodly hour on a Saturday, when

most of their audience was still asleep after partying at the Middle East, or the Paradise, or any number of loud dark bars or pubs in the greater Boston area. Hell, all of the regular DJs were asleep as well, which is why the signal had been entrusted to two interns.

Then the studio door opened and in came the actual NewsGuy. Not another intern to read inexpertly from the wire service feeds – the actual Guy himself, the old-timer, the one who had an employee badge number in the single digits, the grizzled veteran who knew every rocker, every politician of note in the several New England states, and every chef in the Greater Boston area. As was the right of a legend, he worked only the prime shift, weekday drive time. The two interns stared. They had expected him to appear this morning as much as they had anticipated Sasquatch stumbling in gripping a cup of Dunkin Donuts coffee - a scenario which the NewsGuy with his morning drink did somewhat recreate.

"H'lo," he mumbled, waving the coffee cup in some manner of greeting to the two astonished youths. He plopped himself down in the chair on the other side of the big console, picked up the neat stack of printouts, and read the first while draining his cup. "Bah." He crumpled the page and tossed it over his shoulder where it rebounded off the glass. The producer ducked instinctively. The NewsGuy looked up at the DJ. "Play something long," he said and began to read the next page.

"I got it," the producer said over the intercom, and the jingle of a commercial began tinkling in their ears. The

News Guy fumbled around the desk and found a yellow highlighter. He began to mark up the sheet, reading under his breath. Then he looked up at the clock and caught the DJ still staring.

"What?"

She reddened. "Nothing.... I just didn't think....

"Neither did I," he said. "But the guy who was supposed to be here – Mike? - Mark? – whatever. His family has season tickets beside the Red Sox dugout. We made a trade." He finished the page and picked up the stack. "What the fuck? In the whole miserable unstable world, nothing happened in the last 24 hours?" He swiveled towards his computer and began typing. "Do you know how to get into the Phoenix layout program?"

She shook her head.

"Good," he said. "Nobody's supposed to know. Here we go." He began scanning raw text files, the stories being collected for next week's edition, hmming to himself as he clicked through them. On one he paused, read for a minute, then hunched forward. "Hey – got the papers?"

"Newspapers?"

"Uh, yes. Those. Anybody pick them up this morning?"

The producer tapped on the glass. "I'll go across the street in a minute."

"Fine," the NewsGuy said. "You catch the news last night?" The interns looked at each other – obviously not. "There was a clip of some whackjob professor at Allston University who wants to blow the city up. I was thinking of something funny to say about it –"

After a long pause, the DJ finally could not resist "But?"

The NewsGuy looked up from his thought. "There's a guy who reports science for the Phoenix, Ira Aumiller. I think he's a sharp guy – I've talked to him a couple of times. He has a story here –" he pointed at his monitor "- that the AU guy is onto something big." He bit his lip and tapped out a short drum rhythm on the desktop, then smiled at the DJ. "Time flies when you can make fun," he said.

At 7:05, the DJ read the credits for the last five songs and tossed the floor to the NewsGuy:

"Good morning everybody. It's early… and I mean it's really early, and it's Saturday. Which means that even if you are one of the few moving around town this morning, your brain is probably still asleep. Well, you get no sympathy from us, because we are going to start you right out with a hard one. Here's the deal. We have a little tale involving high-energy subatomic physics. Now, if this were any other market, the program director would be on the phone right now, firing us all for even bringing the subject up on air –"

The two interns looked at each other, worried, not familiar enough with the NewsGuy to know if there were any truth at all in his jest.

"- but the boss is asleep, and this is Boston, where many of our listeners *are* particle physicists. So if you happen to be one of them, or if your wife or husband or mother or father or roommate is one, listen up.

"You may have caught the story yesterday out of Allston

University. At a press conference to announce that he had been appointed to the faculty, Dr. Carol Saltonstall let slip that he intended to run an experiment involving a pretty big explosion, an explosion about the size they use to kick off atomic bombs. Maybe he shouldn't have let slip the A word. Well, the Mayor was not too happy to hear that and sent both the fire and police department to investigate. Of course the FBI got involved, as well as the ATF, and you probably saw all the flashing red lights on the eleven o'clock news. Needless to say, Professor Saltonstall and Allston University are both in a big Jacuzzi full of very hot water right about now.

"But there's more to the story, and you won't hear it on any of the television stations or any of the other radio stations, because our own Ira Aumiller was there, and he heard things the others just couldn't. You see, Ira is a postdoctoral fellow at MIT. It's safe to say that he was the only reporter covering the story who has a Ph.D. in subatomic physics. And Dr. Aumiller's take on the big picture might be of interest to you.

"According to Ira, the explosion that has everybody in a tizzy is just a source of energy for a radical experiment. A lot of energy concentrated into a tiny bit of space just might lead to the formation of a new kind of matter called hypernuclei. Quote: Doctor Saltonstall's hypothetical island of stability is reached somewhere north of ten to the fifteenth zeta electron volts. Leaving aside the political and experimental hurdles to ramming such a crapload of energy into a puny volume, what his conjecture boils down to is

this. He might be able to produce a structure about the size and weight of a baseball which consists of a condensate of elemental particles. How large those particles will be and the macroscopic properties of the aggregate cannot be said without taking a wild fling. The whole idea sounds like a mad hare up someone's butt. The problem is, I can't find a flaw in it. Unquote.

"So that's the assignment, all you MENSA card holders and closet Jeopardy champions. Is Saltonstall blowing smoke up Allston University's ass? Help us out." He rattled off the number a couple of times and passed it back to the DJ, who segued into 'She Blinded Me With Science'. The NewsGuy rolled his eyes and mimed sticking his finger down his throat.

At eight o'clock sharp, Nil pulled his rented ice-blue Taurus into a parking space on Forsyth Way next to the Museum of Fine Arts. Geiger was standing on the sidewalk, a cup of Green Dragon coffee in each hand. He walked up to the car and put one of the cups on the roof, then opened the door, grabbed the cup again, and tried to maneuver himself into the front seat. Nil watched this with impatience. He didn't look like he wanted coffee. He certainly hadn't asked for it. His expression: stoically neutral, now hinting of disapproval. Whatever deviation from baseline passed for a mood with him did not improve upon Geiger's entrance into the car, which was ungraceful. He apologized as he swung the cups in ahead of him, was saying he was sorry even as

he lost the fight for balance, overcompensated, and dumped the coffee in his left hand all over Nil's right thigh. Nil grunted and tried too late to move his leg up and away from the muddy splash, but the coffee was not scalding, not even very hot, just warm.

"Oh crap," Geiger cried. "I'm sorry. Got any paper towels or anything in here? I forgot to get napkins. I just have to have my coffee, don't you? Man, I'm sorry about that. Let me go and get you a fresh cup. Oh wait – here, have mine." He thrust his free hand under the seat, searching. "No tissues, anything?"

"Nevermind," Nil said. "It will dry. Let's focus on the training." He worked his mouth.

"You dry?" Geiger said, concerned. "How about some orange juice? There's a Store 24 up Huntington –"

Nil shook his head. He rubbed his thigh where the coffee had soaked his pants. The skin was tingling slightly – the liquid must have been hotter than it seemed. Perhaps a first degree burn. It hadn't even been good coffee – it smelled stale and sulfurous in the car.

"You okay? I should get you some ice for that." Geiger put the surviving cup into a holder.

Nil tried to respond, but all of a sudden his vocal cords would not vibrate. He tried to move his arm towards his breast pocket but could generate no more than a twitch. His eyes turned toward Geiger.

"You ever been to the zoo and wonder how they do stuff like pull an elephant's tooth?" Geiger said, as calmly and cheerfully as if they were old friends discussing replacement

windows. “I mean, you could get the living shit stomped out of you. Turns out vets have some really powerful sedatives for that. There’s one called carfentanil. Ten milligrams – *ten fucking milligrams* - puts a full-grown African bull elephant on the ground. In a hurry. It’s a very simple compound, too. Easy to make. Oh, there’s other ones you could use: etorphine, xylazine, tiletamine, zolazepam. You’d be surprised how many potential drugs of abuse you can scare up in the average university chemistry department. You just have to know where to look. People never throw anything out. The DEA would pass a brick.”

Anyone on the sidewalk would have seen two men sitting peacefully, talking. Nothing unusual at all on a Saturday. Perhaps they were waiting to go into the MFA. Maybe there was a Red Sox game this afternoon and they had come early to find a free parking spot and hit a bar.

“Breathing okay?” Geiger asked. He saw Nil’s eyes move slightly. They were still on him, still mostly in focus. He saw the man’s chest rise perceptibly. “You have to be careful about depressing respiration with these things. Getting the right dosage is tricky. It would have been better to use a dart, maybe. You can cook up a nice dart out of a disposable plastic syringe, blow it out of a piece of pipe, but I thought that transdermal administration would be less… traumatic for everyone. Don’t you agree?”

Nil made no motion, no sound.

“Good. So I used DMSO. Good stuff. Water soluble. Dissolves drugs up real good. Takes them right through the skin in a jiffy. You see, I couldn’t sleep last night. Ended up

Googling idly, just following whims, looking up people I know, old girl friends. You know. Oh wait – you don't know, do you? Ironic. You've got a buttload of high tech toys and yet you're still a Luddite when it comes to the web. I ran across an odd story in the archives of the Miami Herald about a woman being held for manslaughter of a Cuban immigrant. She claimed that she'd been framed, of course. Set up by some mysterious government official who recruited her into his equally-mysterious organization, then tried to kill her in a fire in an abandoned warehouse. But she got out, thanks to an airport fire engine that happened to be a block away when the old structure went up like the Hindenburg. They put their foam cannon on the fire and managed to drag her out. Nobody believed her story. Her police sketch of the G-man was too bland, too average. Medium height, medium build, white male of indeterminate age. How many more incidents like that would I find if I knew where to look? Death of someone important in some way, political, financial, influential, on the front page. Then, a couple of days later, somebody no one cared much about dead on page fifty next to the used car ads.

"So what was it to be for me, huh? I'm thinking that when I'm holding the smoking pistol, you are long gone and the trailer will be empty – just a beat up old trailer, a psychotic murderer's fantasy. Maybe it's already loaded up with ether or something, and my charred remains will be scraped out from the smoking debris of the meth lab I was running on the sly. Well, it doesn't really matter. FYI, later on today you will walk into a bank and demand all their

cash. That reminds me."

Geiger took a small flat digital camera out of an inside pocket and took a dozen shots of Nil's head from several angles.

"You're going to go into the bank without a mask. Wow. You suck at bank robbery. You might look a little rubbery, latexy even, but nobody's going to recall that because you're going to be waving your weapon around, looking straight into the security cameras. They won't remember that you seemed taller than you really are. Leaving fingerprints all over the place, too. I finally realized why you were always wearing those gloves. Nice touch - none of your prints in the trailer, tons of mine."

Nil's eyes were unfocussed now. He seemed totally relaxed. Geiger took out a small whitish plastic vial and unscrewed its red plastic top. He held it below Nil's mouth and depressed the bottom lip with the tip of one finger. A shiny dollop of spittle slid over and into the vial.

"Plus, you're going to spit a big fat goober on the floor. Chock full of DNA. I'd say you are going to be one of the easiest cases the DA will see all year."

Geiger screwed the top back on the vial, then glanced at his watch. He got out of the car and walked around to the driver's side, opened the door and flipped up the handle that controlled the seatback angle. The dead weight of Nil's torso drove the back down until it was horizontal. Geiger stood up and looked around. Not much traffic, no pedestrians. He climbed into the back seat and dragged Nil over and arranged him as if napping and covered him with

his jacket. Nil was still breathing, but his eyes were no longer able to follow Geiger. Geiger got into the front, adjusted the seat, and drove away.

"Don't go squirreling these away," Angress said. "I want them to get used." She put the box down on the benchtop. "Where's Geiger?"

Russell Bratton shrugged. Bryan Heyman looked up from his notebook. "Beats me," he said.

Muhammad Attaturk came over and looked down into the box. He picked up a bottle and smiled. "Palladium on charcoal. Very timely."

Russell stepped past him and picked up another. "Tetrakis triphenylphosphine palladium zero. Hundred grams." He whistled. "I bought one gram for fifty bucks last year. What's the deal? Gordo win the lottery?"

"Nope. You did," Angress said. "Surplus from the stockroom. Use it or I've got to toss it. You want it?" In truth, she had been going to give this little collection of useful odds and ends to Forget just to get rid of it without having to pay the disposal fees. Then he had pissed her off, so she put it behind a locked door until he had hit the pavement.

"You bet," Mo said, already retreating to his hood with the catalyst.

"No yanning, either," Angress said. "Play nice."

"What's a yanning?" Bryan asked.

"I guess the legend has finally died," Angress said. "Wei

Xin Lan was a Chinese kid. Red Chinese, from the old country. Left here maybe five years ago. He worked for Giard, who had a big group. Seven or eight, the majority of them real winners. They couldn't get along. Stole each other's shit. Yan was the worst. Maybe he was the original bastard, and he tainted the whole lot. He was so notorious his name became a verb. If you distilled a solvent one day and the bottle was empty the next day before you even got a chance to use it, you'd gotten yanned. They ended up carrying distillation heads and condensers around in their backpacks to keep an eye on them. Then Yan started to code his reagents so nobody could use them but him. He'd get a bottle of something from Aldrich, and he'd scrape off the label and replace it with one of his own, in code. Like he'd take that bottle of palladium on charcoal and relabel it 12A or something. Pretty soon the lab was full of bottles and jars with Yan labels. Never wrote down the key to the code, just kept it in his head. One morning he shows up and realizes he's forgotten how to break his own cipher. It never came back to him, either. They had to throw out four barrels full of chemicals. Unknown chemicals, mind you, the most expensive kind. When Giard got the bill he started screaming like he'd dropped a gallon jug of chloroform on his toe...." She smiled. "Good times."

"So what happened to Yan?" Russell asked.

"Graduated and went back to the big China. Took over his daddy's fertilizer plants. Last anyone heard, he was just a regular comrade - with a couple hundred million in Swiss banks."

Geiger leaned, arms crossed, against the front left fender of his car and contemplated the trailer. He was parked on the dirt road that ran past Lloyds on the side away from the Pike where no one could see him through the ragged assortment of pines and young oaks. It was *a* trailer, but was it *the* trailer? It was in the same spot as it had been, last in the row of similarly decrepit old boxes. It appeared to be the same length, width, height, and it had the same faded illegible design on the side. But if he were Nil, how long would he let the evidence sit there? Just in case the mark led authorities out here trying to provide evidence to back his outrageous tale. If it were he, no. He would have covered the tracks, doubled-back in the creek bed.

Dried leaves and dead branches crunched loudly under his shoes as he pushed through the brush, but there was no movement from the trailer, or from the world headquarters of Lloyds. It had occurred to him that Lloyd and his junk-loving henchmen were part of the team, and that secluded cameras would pick him up here. Somewhere behind the oriented strand board sides of the office could be a row of monitors watched by thugs caressing automatic weapons. If they rushed out, what to say? That he was merely looking for Nil? That he was to meet his mentor here? But there was no challenge as he went right up to the side of the trailer and touched it. It seemed the same one.

Maybe it was the same one, still here, impervious to investigation because it was loaded, rigged, booby-trapped.

It was set to explode in an all-consuming inferno if the password was not spoken or the sequence not entered in some hidden keypad. Geiger took his hand quickly off of the trailer. Motion sensors?

Then he looked down at his shoes, frostinged around the sides by slimy mud. It must have rained like hell out here, too, he thought, walking back to the rear tires. And there it was. There were a set of tracks pushed down into the sodden ground a couple of inches, but the tires did not fit them exactly. The tracks were about a quarter an inch to the right of the rubber sides, and they extended just perceptibly beyond the curve. One trailer had been moved and another put back in its place, and almost perfectly.

In front of the trailer he could just make out several parallel sets of damp deposits of clay faint on the gravel. He followed them to the west, toward where the sun was passing in and out of some long narrow clouds. The gravel road dipped into a shallow gully, a remnant of an ancient glacier, whose sides were opaque with firs and pines. After he had walked in this wide gutter for what he thought about a mile, he saw it, pulled way off into the woods.

Nil had pulled the trailer - the real trailer with all the goodies inside - down here behind a plain white Kenworth T300 tractor. Presumably there was a way back to a paved side road up ahead. Nil would have only had to back the thing out and be off to his next assignment. Geiger stopped. It was too easy. Perhaps he had buffaloed the plan in midair, but on the other hand.... The other, false, trailer had probably not been booby-trapped. It was intended to be

entered, to be damning in its unremarkablity. But this one?

He considered this as he reached into his pocket and pulled out Nil's key chain. It was minimalistic, just the key to the rental car and a fob, a black cube that was heavier than its plastic skin suggested. There were no markings on the thing, and only one feature other than the hoop that joined it to the split metal ring: a round button slightly depressed. It was the same matte black as the cube. Geiger rubbed the end of his thumb lightly against the convex area. A coded series of pushes maybe. Biometric matching of Nil's DNA, skin moisture, electrogalvanic conductivity? He closed his eyes and pressed.

A soft hiss and click, like oiled metal surfaces contacting and parting, and the right door popped open an inch. Geiger hopped onto the foothold, pulled the door open, and vaulted up into the trailer. As the door swung closed behind him, the lights came up, showing him the unchanged interior, all the wonderful toys nasty neat in their places. *Well, there's a project for the new management*, he thought. *Fingerprint scanner, retinal camera, facial recognition video, maybe all of them, hooked up to thermite charges. Not one stupid button on one stupid keychain.*

McAllister got Colder's address from Rhonda Vidrine, telling her that some of the old man's personal items had been left in McAllister's lab accidentally. He would of course return them himself. Why he didn't just tell her that

he wanted to see Colder, he did not know. So he lied.

The address turned out to be on a dead-end street in Hull, shaded by stately birches and oaks and within a tee shot of the Atlantic. McAllister stopped in front of Colder's house, a squat blue Craftsman with no front grass. Colder had turned the yard into gardens. He was there now, facing away from the street, bent down low over the soil. As McAllister came up the front walk Colder got to his feet and worked his hands out of a pair of muddy leather gloves.

"Hello," he said cheerfully. "You found me."

McAllister realized at that instant he had no opening. He hadn't figured out a conversation that would let him work it around to *Why am I seeing ghosts?*

"Come on in," Colder said. "It's in the house."

There was no obvious response to that, so he followed Colder into the house. The interior was decrepit bachelor uncle: mismatched lamps, armchair and television, art works hung all the way down the walls. He remembered learning that Colder's wife had died four or five years ago and wondered if the front gardens were that old.

Colder took an envelope off a coffee table and handed it to McAllister. "The key to the box."

Oh shit, of course. The wooden box Colder had given him was still sitting where McAllister had first put it down – in the lab near the sink. He hadn't even looked at it closely enough to notice that it was locked.

"What's in it?"

Colder shook his head. "You'll see. Somebody gave it to me, and I'm giving it to you. It comes in handy...

sometimes. It belonged to a guy named Horvath. He was a big name back between the wars."

McAllister stared dumbly at the envelope in his hand, but he was seeing a translucent shimmering image – a notebook, dropped by the ghost as he lunged for the apparatus. A thick volume upon which appeared in archaic script: *D.G. Horvath*.

"He was killed," he said almost inaudibly.

"Yes, he was," Colder agreed. "He died in an explosion. But then again, his field was high-energy compounds. Perchlorates, nitrates, fulminates. He developed some of the first plastic explosives. Not much room for error when you're working with those beauties."

"Yeah…an accident."

"Just as well. Would you like a cold beer?"

McAllister shook his head. "What do you mean?"

"I mean that I'm having a cold beer, and there's five others available."

"No," McAllister said. "What do you mean 'just as well'?"

Colder had disappeared. He came back into the room gripping a Budweiser. "Horvath was a conflicted soul. He'd done some brilliant work early in his career, before the Great War, and had made a considerable fortune by selling his inventions to the Army. Afterwards, however, the knowledge that he had been party to a great killing ate at him. He actually broke down in the late twenties and spent a year in a private asylum on the Cape. His work after that still focused on unstable compounds, but his publications make it clear that they were being developed for peaceful

uses. By the late thirties, his health began to fail. Maybe related to the stress of his guilt. I think he learned to live with it, but he never put it away. You might say he went out in a blaze of glory. With his boots on. Doing what he loved, all those niceties that gloss over the macabre truth." He stopped and took a long pull on his bottle.

McAllister closed his eyes. *A crimson fog, black at the edges.*

"It must have been intensely energetic, whatever it was. They didn't find much of him. They say the coffin contained a small box. His mortal remains: bits of tooth and bone."

McAllister looked up sharply, but Colder shook his head. *That's not what's in our box.*

"Who's they?" McAllister asked. "Witnesses?"

"None in the records. The explosion shook the building but didn't produce much smoke apparently, because on the upper floors they thought it was an earthquake. It wasn't for a day or so that someone found the lab and the… rest."

"Seems like he should be more well-known than he is," McAlliser said.

"I had never heard the name either," Colder said. "But you have to remember that his most productive times were before 1920 or so. How often do we open the Journal to those years? Plus, he was modest. He didn't name reactions or reagents after himself, even though he made some profound contributions to several fields. Aromatic substitutions, for example. He extended the simple Friedel-Crafts reaction into complex substrates and unlikely substituents, yet he kept calling the reactions variants of the

original rather than appending Horvath to them. You won't see that kind of humility in academic chemistry again. And he had tenure in the days long gone where the number of publications was less important than the quality of the research. Add to all that the disappearance of his records –"

McAllister twitched a 110 volt twitch. "What records?"

"Everything," Colder said. "Notebooks, files, random jots on scraps of paper. His laboratory and office contained no scientific data whatsoever. I think that he had destroyed it all sometime before, maybe knowing that he was nearing the end and not wanting to leave any knowledge that could be put to use in the next War to End All et cetera. It must have been obvious to him in the '30s that more killing was on the way, and that this time it would be on an even grander scale. So he wiped the slate."

No, McAllister thought. *He never got the chance.* The ghost had hugged a leather volume under its arm, dropped it running to the bench. He could see now what had been overlooked, peripheral vision within the vision, the student stopping to scoop up the notebook before bolting out the door.

"Didn't work as well as he would have liked," Colder continued. "His influence was still felt. One of his students became quite wealthy during World War Two from the manufacture of new high explosives. So Horvath ended up being partly responsible after all for some portion of the tens of millions killed."

Damn you Harold! I have told you before! That is too much-

McAllister swallowed. His throat dry as soil, he craved that beer now. “Who?”

“Harold Dalyrumple,” Colder said. “He started the Dalyrumple Munitions Corporation – Dalco, it’s called now – in 1940, in a garage. As I recall, it stood on the lot where the new Chemistry building is going up.”

The metal mesh covering the tiny speaker seemed to vibrate when the signal began. Hissing and popping for several seconds, then trilling electronica, something like a modem handshaking with a fax machine. It was analogous, as far as Geiger understood it, but in this case his request for a connection was being routed through several anonymous servers, each of which deciphered it and reencrypted it before passing it along.

At last there were three chimes and a man's voice.

"Twelve," it said.

Geiger waited. He could feel the ethereal presence of the other in front of him, in the simple metallic cabinet that contained this particular piece of communications magic.

After about a ten-count, the other said, "Who's home?"

Geiger pressed F1 on the keyboard. This sent the trailer's private key along for confirmation.

After another pause, the voice repeated, "Who's home?"

It had to be Geiger's fancy, because the voice was also being scrambled and reassembled and could not possibly still contain much of the original nuance, but it seemed like this time the voice really wanted to know who was home.

"Call me the Dread Pirate Roberts," Geiger said.

"Oh," the other said immediately.

Whatever they are, Geiger thought, *they aren't slow on the uptake*. "Sunday I'm all booked up," he said. "Monday I'm free."

"Very well," the voice replied. Geiger thought he heard the rustle of papers, maybe a pencil being tapped. "Craigslist Manhattan. Personals, missed connections. Message from ... D. P. Roberts."

The carrier dropped, the connection severed.

Geiger switched off the set. *So far, so good,* he thought. *Now to make the right impression*.

"About ten o'clock," Nozick said.

Laura was staring intently at the monitor, biting her lower lip. Nozick waited for a response.

"Right before I called," he said at last. "I thought you'd want to do it...."

Laura looked up. "No. I want him to be in Alabama."

"Why Alabama?"

Laura looked at Nozick, who could not keep her gaze. He turned away. "What's the matter?" she asked.

He shook his head. "How do you know it's still in the truck?"

"Because if it wasn't – if they had found it – he wouldn't be back on the road."

Geoffrey Stumm had not always been such a pitiful shell. He had not always been studiously avoided in the hallways by his alleged peers. Conversations had not always tailed off to coughs and nervous laughter when he appeared. In fact - and this fact would have astounded and disheartened any of the graduate students who now thought Geoffrey Stumm the sacrificial magnet of all misfortune that none remain to cling to them - Stumm had entered the Allston University Department of Chemistry graduate program virtually indistinguishable from those enthusiastic, clever, dedicated, tireless laborers presently immersed in their various research pursuits. He had arrived in Allston with a degree from Pomona College and a refreshingly naive attitude, as he had naturally thought that a huge University would be a scaled-up version of the intimate, caring, attentive campus he had loved for four too-short years, that the faculty would be more plentiful and better funded, that Boston was the center of the academic world, and that Allston University - though no Harvard or MIT - must have been the source of at least some of that reputation. One sweltering August afternoon he had walked into the first floor of Pebble Science to take the Graduate Entrance Examinations with his new fellows, the other sixteen first-year graduate students. Male by a slim majority; ethnically Caucasian by a hair with Asian and Indian/Pakistani tied for second, they sat quietly through D'Arcy's introduction and set to the four-hour examination with a practiced test-taking air.

Stumm's first clue should have come the following week, when on a Tuesday morning he found his way to a small

classroom on the third floor. Here was the first meeting of his first class: Statistical Mechanics II. He had a solid background in the subject, had gotten a high score on the portion of the exam the week before, high enough to place out of Statistical Mechanics I. After the exam, a fair portion of the new graduate students had hung around in the air-conditioning, introducing themselves and commiserating on how quickly most of what they had learned as undergraduates seemed to have leaked from their brains. So Stumm was surprised to see present in his class the same faces that had claimed to have not answered a single statistics question correctly, even some who admitted they had skipped the section altogether. It was the day he found out that the Graduate School Bulletin was a piece of propaganda, an advertising vehicle, the menu for a restaurant that claimed to serve breakfast all day long but which was continually out of eggs, syrup, and pancake batter. Of the two dozen graduate-level courses listed, only three were actually being offered that term. Now, to be fair, he could not take more than three even if they were available, but it meant that everyone had to partake of the same three: Statistical Mechanics II, Detection of Chemical Pollutants, and Biophysical Chemistry, without regard to whether or not they would be a single whit of use in the specialized field of one's graduate research.

The second clue was revealed to Stumm over the next month or so, as he scheduled appointments to speak with individual faculty members about joining their research groups. His first meeting was with Professor Whisenhunt,

whose profile in that same Graduate School Bulletin, which had already been partially tarnished in Stumm's esteem, listed Whisenhunt's research intentions: synthesis and characterization of new classes of transition metal complexes, metalloprotein synthesis and function, mass spectroscopy of heterometallic carbonyl clusters, and green catalysis using transition metal complexes. These were all areas of science that Stumm felt would not only hold his interest but to which he might make some contribution for the greater good.

Whisenhunt was waiting for him in his office. Stumm was mightily impressed by this office. The stacks of journals everywhere, the pages upon pages of data printed out from various instruments, these gave the air of vitality, of being elbow-to-elbow with the Warriors of Science as they advanced frontally upon the positions of Ignorance. Whisenhunt stood up and pointed to some metal-chelate structures he had drawn freehand upon a square chalkboard as he outlined his research interests.

In some future time, a slightly older and much wiser Stumm would have paused to consider carefully the adjectives that modified the descriptions of Professor Whisenhunt's science: "intentions" and "interests". Because that past, credulous Stumm believed that this beautiful, intricate molecule, rendered in bisque chalk upon the aquamarine board, represented an actual entity, a solid that had been prepared and characterized and grams of which now reposed in some freezer in Whisenhunt's lab. He was mistaken. It was a compound that the Professor had every

intention of attempting - as soon as funds became available, or at least as soon as a fresh, willing graduate student could be found to plant his feet in front of a bench and give it a go.

As Whisenhunt spoke, however, Stumm did not pause. But he did absentmindedly note the date handwritten on the top UV spectra on a pile to his left: August 5. The year that followed was fifteen before. Some part of his mind detached from following the narrative to wonder how this UV, ancient and certainly by now unremarkable, had survived the relentless march of scientific progress and its attendant deluge of fresh data.

The clues flew by Stumm on that day, mostly unnoticed, certainly unheeded. But he could not ignore the big one, the one with flashing dollar signs stuck all over it. Whisenhunt said with notable satisfaction that he had two teaching assistantships available in Chemistry 101 and that Stumm might have one if he chose to join the Whisenhunt team.

Stumm stiffened. One piece of advice from the professor for whom he had done some undergraduate research had been to avoid teaching fellowships but seek out an advisor who had grant monies to pay for research fellowships. Teaching, he had said, will sponge up your time like nothing else. They will tell you that you have to teach only a lab and a couple of discussion sections, but when you add in the office hours, grading, preparation, answering random questions in the hallway and on the street, you can be looking at a forty hour commitment. And after that has exhausted you, then you have to go and do your own work, your research project, which is all that matters and all that

gets you done. No one ever got their Ph.D. for being a conscientious teaching fellow.

So if Whisenhunt, who was one of the stars of the department, didn't have funding, who did?

As it turned out, D'Arcy did. Even though D'Arcy's lines of investigation did not excite, D'Arcy had money and offered some of it to Stumm. So Stumm drew a key to D'Arcy's lab and moved in. D'Arcy's lab upstairs had room enough for four to work. It had six lines of benches: two against opposite walls and four back-to-back on long islands. Four ancient but sturdy maple desks had obviously been occupied before. They were covered with the debris of lab work: old notebooks, half-used pads of lined paper, rulers, pencils, pens, paperclips, coffee mugs. Stumm wondered when he first entered if he had lab mates, but the dates visible on various documents on the desks and the state of the lab itself told him no. There was a rotovap on one bench so long disused that the cooling coils were dry, their interior walls a strange mottled taupe from fossilized algae. He sat down at the most central desk and opened the top drawer. It held two slide rules, and the sight of these fusty implements would have made a more perceptive mind begin to question the whole enterprise, but Stumm did not question. He set to work cleaning up the desks and the lab and preparing for the beginning of his work.

Funny thing, that. It turned out that D'Arcy's funds were coming from one of the big downtown legal firms who were involved as defense counsel for some multinational corporation, that Stumm had heard of but had no

familiarity with, which was being sued by a group of families. These families had homes which abutted one of the company's sites down on the South Shore, homes which they claimed were unlivable and unsalable due to contamination from toxins from the plant. Part of the defense was scientific data, analyses of soil from the allegedly corrupted back yards. Somehow, the lawyers had sought out D'Arcy to provide some of this, and D'Arcy had corralled Stumm to do the actual work, which consisted of running samples on the atomic absorption spectrophotometer. It sounded simple to Stumm, and it was simple - the spectrophotometer's guts were essentially a thick elongated flame. If one wanted to analyze a solution for chromium or some other element, one sucked some of the solution up into the flame. A beam of light shone through the flame to a detector on the other side, the beam being narrowly chromatic so that any chromium atoms in the flame would absorb some of the light. Run distilled water into the flame for a zero reading and some standard dilution of known concentration for a non-zero number and the unknown for quantitation by comparison to the previous two. But the legal minds sent over thousands and thousands of samples, packed in flat boxes of 24 bottles, each bottle containing about half a cup of topsoil or gravel or mud or packed sticks and leaf mold. And Stumm, being fresh and still dedicated to abstract goodness, obtained a copy of the American Society for Testing and Materials manual that outlined how such samples might be validly analyzed, which involved careful weighing, acid digestion,

filtration, and volumetric rigor. In short, it took very little time to actually run the solutions, but a lot of time to prepare them. Stumm found that he was working on the project twelve hours a day, six days a week, and when one day in idle curiosity he divided his pay dollars by his hours, the result was so far below minimum wage that he thought he must have dropped a decimal somewhere.

Besides that, although he was no great environmentalist nor populist, he could not help feeling that there were some honest people being screwed by faceless greedy bastards here, and he was serving the screwers. The worst thing was that he did not see how this mindless data generation, work that could have been automated with not much trouble, was going to help him obtain his degree. One day he had put this to D'Arcy.

"This isn't Ph.D. level work," D'Arcy had commiserated. "But keep at it. We'll see if we can get a paper or two out of it, then you can move on."

But of course no paper ever came out of it. In the spring of his first year, after he had been staring into the flame for seven months, the two sides settled and all the data was destroyed. Two suits even came up to the lab and took all of his notebooks and all the samples that remained, both processed and undone, and never a word was again breathed about the whole affair. D'Arcy had no more money and no other sources of money, so Stumm was thrown at last into the faceless cauldron that was Chemistry 101: Molecular Structure and Properties, herding his portion of the several hundred freshmen who had no more pressing

concern than to learn. To learn what would be on the next exam, that is, and not a nanotad beyond, as if cranial storage space were at a premium.

There he remained, settling too comfortably into a groove which became a rut which became an open grave. He taught D'Arcy's section of freshman chemistry and tried to squeeze from D'Arcy's idea of the month something publishable. It was like riding in a car facing backwards, always seeing where one might have turned off of the present road into a more fortunate lane. One path he could have taken passed early - getting out of the program after the first year. But he did not have any idea the little black doll was covered with tar. Another side road that looked good as it passed was declaring for the master's degree, taking some exams and escaping with the shameful M.S. But he was not a quitter, and he soldiered on. A less obvious route came about the fourth year, the idea that he should cut his losses and just walk away, enroll somewhere else. But here he came up against the ugly truth that no one had taken the time to tell him: there were no transfer credits in graduate school. The bar one had to clear to attain the Ph.D. was not taking classes or teaching classes, though these undervalued skills were important, but that one had worked for a specific researcher, a wizard who ostensibly over four years or so mystically endowed the apprentice with the tools and skills needed for that worthy to take their place among the ranks of the skilled practitioners. The apprentice could not carry this undefined and unquantifiable entity off of the premises. If the supplicant dared to move campuses, they

would have to start fresh, essentially flushing years down the crapper. There was a tipping point, which came for Stumm about the fourth year, where it became inconceivable that he might not continue on at all costs. It was after this checkpoint that Stumm and everyone everywhere who looked like Stumm became most vulnerable to abuse. It might take the form of intentional torture or it might manifest as pure incompetent neglect. The effect on the victim was the same, a ravaging, grinding, ripping away of the joy of discovery and learning until the days became one long death march to be stolidly endured just on the chance that survival was still possible. Stumm lurched through the building in his private hell, avoided like a virulently contagious leper, pitied and unsolaced. The escape routes had faded one by one away behind him as he clung onto his vehicle.

Until now. Now the car had skidded to a stop and was poised to turn, at long last, in a new direction. Not only does Stumm have a check for close to four grand carefully folded in his wallet, he has that blessed promise of a degree and an end to this zombie existence. The absence of any employment after the graduation and the fresh forty six large debt incurred to pay for the privilege of being released out of the prison's main gate did not yet cloud his complacency. He already had the robe, purchased three years ago in a fit of unsubstantiated optimism triggered by a misunderstanding of one of D'Arcy's offhand remarks. Stumm had dropped eighty-four pages of experimental results onto his advisor's desk one day, prompting a

muttered "That'll do it." Turned out 'that'll' was indeed the body of Stumm's recent work, but 'do' was getting slippery and vague and did not necessarily convey any promise that Stumm's requirements - those moving targets - were anywhere near complete, and indeed it was that 'it' was not the finish line of a Ph.D. thesis but merely another lap around D'Arcy's track.

Stumm lived in Brighton, in an ugly old monolith of an apartment building jammed right up to Washington Street. He had two flatmates at present, brothers who had come as a package five years ago when Stumm's previous cotenants had graduated from their respective colleges and moved into the real world, leaving this section of town, this notorious student slum. The older brother, Mark Flaherty, was a poorly-paid assistant district attorney in the County of Suffolk, which encloses Boston, Chelsea, Winthrop and Revere. Glen Flaherty was in his last year at Northeastern Law, his brother's alma mater. He also expected to do his time as an ADA before moving on to some more lucrative private practice, probably under a common shingle. They had grown up in Dorchester with many brothers and sisters, cousins, in-laws, aunts, uncles, all in not-to-distant triple-deckers. There were at least three others in the extended family with or in the process of obtaining their Juris Doctor, so the prospect of this band of Flahertys making their impression large on the Boston legal landscape was a certainty.

Stumm's personality had never bothered the brothers, even as it had congealed over the past few years into the

unattractive hole it was at present. Mark was deep into the criminal debris of humanity all day every day, with its brutish stupidity and sadness, so that Stumm probably seemed like a Coke commercial in comparison. And Glen, between his serial girlfriends and his studies, was not present for more than a daily ten-minute dose, not long enough to let Stumm's infectious depression have a hold. Indeed, when Glen walked out of his bedroom this Saturday night on his way to the door, he intended to pass Stumm in their kitchen with a wave and a nod and proceed on to his date. But something had changed, and he halted to ponder. It was like the barometric pressure had leapt up, such was the change in the room. He saw that Stumm was smiling.

"What's wrong?" he said.

"I'm graduating," Stumm said, elevating a bit the robe slung over his forearm.

Glen put out his hand and Stumm shook it. "Congrats," he said, then he yelled, "Marky! Jeffy's graduatin'!"

Mark appeared in the kitchen, naked but for a towel draped atop his wet head, and pumped Stumm's hand vigorously. "When's the big day?"

"Tomorrow," Stumm said.

"That's great," Mark said. "The last I knew you were thinking you'd never...."

Stumm nodded and then told them how the miracle had come about, how Nash had forced D'Arcy's hand, made an end run around that human roadblock, how the missing credits had been restored by the simple expediency of just paying for them.

The brothers looked at each other, not smiling now.

"Jeffy," Mark said. "Would you have been charged tuition for those research credits if you had been registering for them all along?

Stumm looked at him blankly. "Of course not. I was teaching. It's part of the teaching fellowship."

"Did this Nash guy tell you what would happen if you didn't take out the loan?

"Did-" Stumm is suddenly angry, animated like the brothers have never seen. "Did he *tell* me? No, he didn't have to *tell* me. We both knew what would happen if I didn't sign. I keep on being D'Arcy's buttboy forever and fucking ever!" He held out the black robe now like a shield, a matador's impregnable defense. "But I am out! I am fucking out!"

The brothers were looking at each other again, but this time with strange goofy grins that baffled the irritated Stumm. "What?" he snapped.

Mark bent and opened the fridge, his towel falling to the floor so that he was totally nude. He straightened up holding three bottles of beer and passed them out. "You know what I did today? I was in court for arraignments. A teenager who jacked a Cadillac Escalade to impress his twelve-year old girlfriend, one woman with a meth habit who was kiting checks, and a homeless guy who shoplifted some underwear. Underwear, I swear to God." He looked down at himself, at his own lack of undergarments, and shook his head. "For once I'd rather be busting somebody who really deserved it."

The orbits of panties. Flashes of cotton-candy pink and indigo and black through the overcast of whitish-grey foam. The periodicity of the squelchy thuds. The muted cacophony of the dryers whooshing in the background: Laura was mesmerized by her own laundry. It was like some occult New Age bullshit with wet underwear. She was sitting in an orange plastic chair, hunched forward, all her weight on the chrome front legs, narrowed eyes fixed on the washing machine. The whole of her conscious attention drained away from the drab humid environment of the little laundromat and refocused entirely upon the circling inside the convex glass, opened dark spaces, a vacuum lined with mirrors rereflecting into some distant pinpoint eternity what would be.

The laptop was in its bag by her feet along with the phone and the little black box that would make the real magic possible, that she should be able to sit in this funky steamy Allston laundry and communicate with law enforcement in southern Alabama. She would do it solo this time. She had seen Nozick's enthusiasm for this endeavor flag. It was the pictures, of course. Nozick was a good person, and he just could not bring himself to be part of it. She understood – she had taken the equipment and kissed him on the cheek. It was the first time she had ever made such a demonstration to Nozick, and it caused him to blush as red as Santa's nose.

When they had first found out about Forget's

appointment to the faculty of Bumfuck College, it was Nozick who had suggested that they chloroform Forget in order to tattoo his forehead: BLONDES LOVE BLACKS, or was it BLACKS LOVE BLONDES? Also under consideration was KLAN SUCKS. In southern Bumfuck, these messages would call for the assiduous application of thick makeup to prevent intermittent back alley beatings. But Nozick was no kidnapper. And tattoos could be removed. Nozick would have been content with leaving Forget's punishment to Karma. Laura was willing to give Karma a kick in the ass and point it in the right direction.

Allston Super Loads was butt up against two five story apartment buildings and was no doubt awash in an invisible bath of several flavors of 802.11, any one of which would serve as the tunnel for her little signal. She had picked out a likely location to spoof – one of the endangered species, a pay phone outside a Chuck E. Cheese in Montgomery, Alabama. And she had practiced her routine, which starred a scared little boy, eight years old or thereabouts, who was brave enough to pick up the phone and call the cops to report on a creepy man who had tried to lure him out into his big truck to show him some pictures he had hidden "in his seat". And what did that mean, in his seat, Mr. Policeman? When the sympathetic dispatcher went digging for details beyond that, the plucky lad would tell about sneaking to a window and writing down the license number. Here it was and now he whispered that he had to go, his mother was coming. Click.

Depending on the volume of other felonies, Montgomery

County Sheriff's deputies would be alerted. It would be hard for them to miss Forget's truck. They would spot it on Interstate 85 or 65. Maybe he would have pulled over for the night – now that would be action-packed. Cruisers pull up to the parking lot, Stetsoned rednecks twirling shotguns kick in the door. The search of the truck. Chemicals and equipment. They take a knife to the seat of the truck, the suspect being sniveling and uncooperative. The packet appears, is opened. The look on the livid faces of the supposedly-jaded lawmen, Forget's deathly pallor.

The only good thing for Forget would be that he would not appear in any of the pictures.

There were some talents in his clients that Al Perry admired, mostly because he himself did not possess them. One of these was the ability to think on their feet, to provide a cogent response to a question or an attack. Perry had never owned this quickness of cerebral organization. He could never have been a politician himself, or a trial lawyer, or a game show host. When challenged, he had learned to deliberate on his own time and come back with what he determined was a proper reply.

That didn't mean his brain did not churn. For instance, in the time it took him to flip open his phone and raise it to his ear, he had thought the following:

The Globe and Herald will ride this Saltonstall fiasco front page for two days. Today it was top of the fold. Well, in the Globe anyway. Herald had the whole cover, big

photo of Saltonstall, mouth open, the best idiot/menace frame they could cull from the video. Tomorrow it's bottom of the fold in the Globe, maybe a line of 50-point type on the Herald depending on tonight's fires or car crashes. TV will give it 24 hours and lose interest. Nobody will follow up because it is incomprehensible. Science and technology and nobody actually in peril. Lynch will try to fire Saltonstall today, tomorrow at the latest, instead of waiting until no one could possibly care. He'll reinvigorate the story. Atomic physics whooshes overhead, but treachery, revenge, and backstabbing are like mother's milk. This time it will tie Lynch's name to Saltonstall, a connection that was lost in the exploding professor angle everybody led with. Now it will be 'look who actually brought this terrorist to our doorstep'. He pisses off the educated electorate. He already pissed off the soccer moms by screaming at Heather. You can't go flushing demographic slices like that. Not that it matters. He wouldn't listen to anyone who told him that. Lynch's problem is that he assumes he is the smartest person in any room. In any subject he is the authority, in any gathering he is the lecturer. He feels no shame telling you that he is smarter than you. That bullshit won't fly in D.C. You get your way there by holding the door open, complimenting your opponent, letting others speak and listen to what they are saying. I never had the felling that Lynch was ever really listening to anyone but himself. He would be a disaster, and worse than that, I would feel like a steaming turd for his six year term. I don't need that.

Better to cut and run now. Hell, the odds are that he would look at the first polls and fire my ass. And run his campaign himself. Because he is, after all, the best campaign manager in the world.

Which would have made a long and fulfilling message, but the one he left was six words.

The phone rang and rang. Hennessee waited. It did not go to voice mail. It kept ringing. Hennessee kept the phone to his ear. Finally, an answer.

"Damian Sorrento."

"He-" Hennessee started to speak, cut the word off with a choking sound. He had dialed Saltonstall's number, he was sure of it. "Ah, hello. Mr. Sorrento. Jack Hennessee here. I was calling for Professor Saltonstall...."

"The Professor is on his way to Canada. One of his detectors is in a mine in Quebec somewhere. I can pass along a message, though."

"Well, I- I had hoped that I could ...."

Sorrento cut him off. "The Professor asked me to apologize for any trouble the... misinterpretation of his off-the-cuff remarks might have caused you. He feels especially bad about it, seeing how accommodating you and everyone at Allston University have been."

Hennessee paused. His eyebrows hunched toward each other. Where had he heard that phrasing before? Oh yes – it was practically the same thing Sorrento had said to Lynch after Lynch and Saltonstall had signed the contract. The

contract. He felt a flush, adrenaline rising to signal that something that should have been done had gone forgotten. Lynch had not sent it to Legal. Sorrento had come into the meeting with three copies of the thing in a black portfolio. Hennessee had noticed how thick each one was. The normal Allston University employment contract for faculty members was four pages long. This one was at least fifty, easy. He had thought that it would take the partners heading the University's account over at Carroll and Petersen at least a week to vet this mass of wherefores, but Lynch flipped through one and signed them all before Hennessee could think of a polite way to cry halt. Sorrento stuffed two back in the portfolio, and Lynch called his secretary in post the other to C&P. The redhead, the one who walked into a room and back out and every male left behind forgot what the previous item on the agenda had been.

Jesus Christ, thought Hennessee, *he's telling me that the contract is bulletproof.*

The receiver began to hurt his ear. He'd had it pressed there too much in the last hour, first listening to Lynch screaming, then to a busy signal on Alan Perry's line, then to his voice mail and Perry's message. *Jack, I can't do this. Sorry.*

He'd called Perry because this was Perry's forte. Lynch wanted Saltonstall fired. Terminated with as much prejudice as was legal. His sword broken in front of him, his epaulets ripped from his shoulders, his horse shot. Doable but probably going to get unwanted attention in the press.

Reporters were already slobbering all over campus. Perry would know how to do it, how to screw Saltonstall and make it look like a goddamn ice cream social. That's what he did. Now he was out. He couldn't do *this*? He hadn't even known what *this* was.

"Thanks." Hennessee said distractedly and hung up.

SUNDAY

Geiger has found two empty five-gallon white plastic drums that have lately held Interior Latex Flat Enamel, Ivory in some off-brand he had never heard of. These are upended a yard apart - chair and table. On the table is an extra large Dunkin Donuts latte and a Boston Kreme out of which one bite has been taken. The wound oozes thick pus-colored filling; its glacial progress, the extrusion out of the interior of the donut, the swelling of the bolus and its ponderous obedience to the twin mandates of gravity and surface tension occupy Geiger's attention as he reaches for his coffee. But not just any coffee, he muses. Secret Agent Coffee. Maybe International Hitman Coffee. Ever since he woke up this morning he has been speculating about how to order this new-fangled existence, and now he continues the process, mainly to take his mind off of the incredible fuck up he has run smack against this fine Sabbath morn.

The first thing that had occurred to him as he had wrapped the sheet and blankets tight around him was that he really didn't have to get out of bed. For the first time in years, he felt no time pressure. No deadline was sitting off in the background taunting him. Then he realized that he was done with Shaftner and all of Shaftner's shit. He would

let Shaftner live, if only to avoid drawing any attention to his new powers. Stingfellow too, though it was tempting to finish the job. Stringy would never know how close he had come to the Big Oblivion. Geiger figured he could find a nonlethal way to help Haltum and his buds out. They would all get their degrees. The Great Escape. But then what for Agent Geiger? A faculty position at some small college? Somewhere picturesque, a cow town perhaps, where he could have a big rambling house. Somewhere he could lecture organic chemistry, teach a few labs. Somewhere without a graduate school. He could cover his work under the guise of traveling to meetings or gathering plant samples. That was the ticket. He had always had an interest in natural products, their extraction from medicinal plants, their characterization. There was nowhere in the world, land or sea, that did not have some interesting plant, fungus, or sea slug that did not need squeezing into a column of silica gel for fractionation.

As he had made his way to the new building he had alternated between fleshing out the details of his proposed new existence and pondering the methods available to him for completing the job at hand. Should he marry or rely on the steady supply of suddenly-unparented young women? Eventually the seemliness of such predation would become notable. Until then, though – and when would it become noticeably unseemly, anyway? Fifty, sixty? Until that dreaded day, there would be nubile coeds in abundance for Professor Geiger. Now how about this building looming up ahead? Heated by natural gas. New lines. A minor bit of

poor workmanship in one of the joints in the main gas feed wouldn't be earth shattering news. Well it would be earth shattering news, but gas leaks happened all the time. This time, it just so happened to go boom at the very moment the honored guests were standing over the vapor-filled basement. Pity. Where to put the trailer. Did it have to be a trailer, anyway? Few Professors owned tractor trailers. That might invite comment. A nice big RV, though, for a single oft-traveling academic? Sweet.

Dressed in one of the Howe Construction uniforms he'd stolen, he'd walked casually up to one of the side doors. All the entrances to the building were sealed, accessible only via an electronic keypad. He'd taken a small device out of his pocket. It looked like a disposable calculator, three bucks from any Walgreens. Pressed it against the keypad. The door clicked and had swung in. Then down into the fresh concrete bowels of the place, all pristine and uncontaminated and stinking of volatile organic solvents from the many coats of paint not yet done outgassing. There was only one floor below ground level, one basement. It seemed shallow after the labyrinth dungeons of Pebble's subterranean ant hill, but Geiger thought that it would make locating the essential services that much easier.

He'd picked the simple lock and gone into the space where he thought the main might enter, and there he'd found it. It wasn't the ring of barrels packed with nitrate salts that decked him, nor the carefully-placed boxes crammed with fragile bottles of heavy hydrocarbons of many kinds poised purposely atop them. It wasn't even the

barrel in the exact center of the ring, some kind of obvious ruse, a blind containing - well, he had no idea, but it looked sinister in its careful banality. Nope, the single thing that staggered him was the small delicious-looking rectangular shape attached with red duct tape to one of the boxes: the charge that had disappeared from under Stringfellow's car.

Now he sat with coffee and donut, contemplating a world that was accreting layers of inscrutability. Who had set up the disaster-in-waiting two floors below him? Who could have known of his explosive? Not only known about it, but had been able to snag it in the time it had taken him to run up to the roof that night. Then had known how to disable it in the short minute before he had tried to set it off. There were no answers up here, nor had there been any down below. Geiger had just walked carefully out of the basement room and left it as he had found it.

There was never any question about whether the Allston University graduation ceremonies should be held indoors or out. It was mandated by the numbers. The University, possessor of an endowment the size of which Harvard or MIT would have regarded as parking meter money, relied for its various outlays, legitimate and shady alike, on tuition money. So it was fiscally prudent to keep the paying customers, i.e. students, around in volume. This necessity knocked over several large dominoes.

First consequence: The recursive budget crunch. When Lynch was anointed as the new President of Allston

University, he had vowed, among other noble intents, to increase the size of the endowment. In financial retrospect, the Board of Trustees - meaning Dalrymple - had been acute in their foresight that the higher education industry was headed for a boom. When the average college tuition is graphed against the Consumer Price Index, the lines kiss about the time Lynch was putting his feet up on the desk in his new office, then diverge like they detest each other. Even 20 years plus into that trend, the rate of difference was accelerating. Years when inflation was nonexistent, college tuitions still were routinely raised by 5%, often less at lower-tier institutions and paradoxically very often more at the upper-tier, who should have been able, bolstered by their immense bank accounts, to forgo increases. But by then it had become a sport. If Harvard cost 50 grand and Stanford cost 48, wasn't Harvard a more elite place? So the rich kept an eye on each other's bills. Nobody decreased the price of admission. Allston University certainly did not, because one of the bullets on the Trustee's financial plan was: Real Property. The really big tits on a University? Tax-exempt status. If you anticipated a humming real estate market, the very best way to ride it to Nirvana was on the back of a REIT, a Real Estate Investment Trust, wholly owned by a tax-exempt institution and therefore just that much more profitable.

The Trustees had outdone themselves. When the market in the greater Boston area shot into the troposphere, the AU REIT grew to rival the GDP of small nations. Of course, the University might have tapped some of that windfall to lower

tuition. But Harvard didn't, why should Allston U? And even if AU wanted to try and play that prestige game by having an officially shocking tuition price while at the same time making sure that few actually paid full price by increasing the financial aid to undergraduate, well, in fact they were never tempted to such munificence. They were in an enviable geographic position. It seemed that every high school graduating senior in the world wanted to pack up and matriculate in eastern Massachusetts. The University's admissions minions beat that theme until the dents had dents. Allston University advertised heavily from Dubai to Venezuela and reaped a rich harvest of sons and daughters of doctors, engineers, diplomats, warlords, and drug cartel CEOs, all of whom gladly and painlessly anted up the full tuition for the privilege of "going to University in Boston".

The recursiveness of the situation was due to simple human nature, a property into which, unlike the flow of Mammon's blood, the Trustees had little insight. The infrastructure and support systems of the University were overwhelmed by the admitted. There were always lines and delays, and the frustration that grew out of these was branded on the hide of those who survived them for four years, and after that they had no empathy for the pleas of their alma mater for financial gifts. The fact remained that the alumni rate of donation was anchored in the single digits and showed no hint of any buoyancy. The Trustees did not look at themselves as any part of that problem, and certainly never seriously contemplated diverting the sluice of tuition cash away from their relentless acquisition of land

and buildings and into hiring more staff or providing more services to the students. Unlike most other institutions who looked upon their undergraduates as consumers who might spend their coin in other shops and so took some stabs at luxury, the Allston University student body was treated as a captive audience. Let them transfer to Columbus, Ohio. There were three other kids from South Africa, Chile, and the Ukraine waiting for that spot with their local currency in their hot little hands.

Second consequence: The undying emnity of the citizens of Allston, as the University's dormitory space had never managed to catch up to its enrollment. Unhoused students spilled out into nearby neighborhoods which had once been placid stretches of single-family, middle-class houses. This had been back when AU was much smaller, a commuter school with a manageable footprint. Now these houses were divided into apartments or let out whole to groups of students, transients all by their nature, who flitted through the town, caring about the place in four-year chunks and moving on. Their presence had also fertilized the flourishing of loud bars and storefronts which dealt in crappy food and crappy furniture. Allston had been transformed in just a few decades into a drive-through.

Third consequence: And this one was the double-edged sword. It seemed sweet when you were an undergraduate and exceedingly unfair and bitter when out in the job market. It was yet another ballast bag holding down alumni donations: grade inflation. To be fair, inflated grades were a problem at many colleges, especially in specialized and

advanced classes where everyone was and deserved to be a B or better. At most institutions it varied by department and year, but at AU the creep of the median letter grade was abetted by official mandate. The early years of Lynch's reign had not gone that way. In his inaugural year he had decreed that all grades would follow a hard curve where the median was a true C and As were precious hard to possess. To Lynch's mind, this was the way America had become great, by not coddling the weak. The slow must fall by the way and the swift be allowed to excel. Of course this policy quickly became known and could not be suppressed, though Lynch shut down the independent student newspaper for six months in the attempt, and applications plummeted. High school guidance counselors were steering their charges away from obtaining an AU resume bearing a GPA that would be a point or so lower than their peers at almost any other college. Finally Lynch had to bow to the hard truth. Lynch had responded with a perverse vengence, a screw 'em new policy that dictated a median of B. Even this perversely-inflated mark had crept up over the years, so that AU undergraduates very often went about giddy over their 3.8s only to find out that Human Resources professionals out in the real world, no dummies themselves, now routinely subtracted a full point or so from the GPAs of any Allston University applicant to their corporations. This also became widely known, but caused no unease among the undergraduates, who chose not to disbelieve in their academic prowess. Even though there were calls among the alumni for class action suits, regulatory investigations, and

legislative relief, nothing had ever come of it. It appeared that once the hats were tossed in the air, alumni were too dispersed to have a coherent influence on much of anything. So most of them settled for releasing their frustrations by screaming at the shocked freshmen who naively volunteered to work the phone banks cold calling recent graduates during the frequent AU donation drives.

Consequence which was the only one that Stumm gave a crap about: Huge graduating classes. How huge he had never appreciated, and his opportunity had arisen so rapidly that he had not stopped to do a mental calculation. The Allston University graduating class with its BAs, BSs, MAs, MSs, PhDs, etc., was way too numerous for the scenario that Stumm had roughly sketched out in his imagination, which was that his name would be called and he would cross the stage and receive his ribboned roll with a handshake from President Lynch. Pretty simple, he thought, and not too much to ask. But even at a minute a sheepskin, the ceremony would have taken the whole weekend to complete, leaving no time for the rest of the proceedings, which according to the small program someone had left on his folding chair, consisted of musical selections, invocations, proclamations, benedictions, and the awarding of several honorary degrees, followed by more music and the commencement address.

It was about the time that the honorary degrees were on deck that Stumm wished he had not come after all. Plus, it had sunk in that not only was he not shaking the hand of a Big Wig on this stage, he would shortly have to go to the

smaller ceremony held by the Graduate School of the College of Arts and Sciences, where the department heads presented their graduating doctoral students. He had no desire to hear D'Arcy call his name. The old man would have to - Stumm was on the list, fair and square. What would he do? Would the vindictive bastard refuse to recognize him? Ignore him? Maybe even try to embarrass him in front of the gathered crowd? Would he wrestle Stumm to the ground, the two of them grappling for the disputed diploma?

"One point five mill."

Stumm looked to his left, where his neighbor had leaned forward slightly to speak quietly out of the side of his mouth. Stumm pulled his wits back from their wandering and was trying to think what his response should be when his neighbor to his right replied softly past him.

"No way."

"Done deal."

"Sonofabitch."

Stumm made an ahh sound, and they both looked at him. The mortared head to his left inclined towards the stage, where some pudgy short man was speaking.

"Million and a half, right there."

Stumm shook his head.

"For the degree. That's Bernie Burris, the car guy."

Stumm looked again at the speaker. This time, with the hint, he recalled the face. *Eye'em and try'em! You're gonna buy'em!* "Yeah?"

The robe to his right shifted. "That's Doctor Bernard

Burris to you. He didn't go to all the trouble to get a Doctorate of Humane Letters so you could call him Bernie, bub."

Stumm didn't get the joke they were enjoying. "Is he a rich alumni? A big donor?"

"Not 'til the check clears," Left said.

"Monday morning. Bank opens at ten." Right said.

Stumm looked down at his program, but it gave him no insight. Bernard Goodman Burris was on the program, credited as Businessman, Entrepreneur, Philanthropist.

"I'm putting mine on fucking eBay. At least mine won't stink." Left spoke now without humor.

Stumm didn't know these two, didn't recognize them. Even if they were rabbits and had completed their doctoral work in - whatever department they were in, as they obviously were previously acquainted - four years, you'd think he would have bumped into them crossing the street or in line at the bank or something. Just went to demonstrate that AU was a huge pool. But he was simpatico. They were brothers in pain.

"Stupid honorary degrees," Stumm said agreeably.

Left looked at him appraisingly. "Nobody would give a shit how many rolls of dead sheep they wanted to hand him if he was such a great -" He looked down and read the program in Stumm's lap "- Philanthropist. Everybody gives out these meaningless pieces of crap. They're like some kind of gift bag."

"Certificate of participation." Right added. "That little trophy that you get in youth soccer even if your team sucks

balls."

"Yeah, if Lynch ran that league, parents could charge goals on their Visa." Left said. "Oh, Bernie is a big donor, all right. It's just that other Universities don't sell diplomas like they were Chevys."

Stumm's eyes went back to the stage, where Lynch was shaking Burris' - Dr. Burris' - hand. Seven years Stumm had spent. Literally spent. Drawing down his reserve of cash, credit, energy, and finally nerve. Investing his whole life down the sinkhole until his world had become one endless grey day after another. And now the crowd was clapping for this pretender, a Ph.D. by fraud? He spotted Nash among the seated behind the speaker, applauding. A new equality: fifty thousand dollars plus seven years equaled 1.5 million dollars. He had gotten, was just about to get, his degree. By the new equation, his time was worth... 1.45 million divided by seven... two hundred odd thousand per year. Still, they were not equivalent. Stumm would never get that time back. Burris could buy a scratch ticket at Tedeschi's and win 1.5 million and be even. There was no lottery which paid out in years you could take to the wasted time bank and pay off the loan.

"How do you know?" Stumm was suddenly suspicious. That kind of abuse would have to be kept secret, wouldn't it? No human with a single ethical impulse would make such a gross accommodation without taking great pains to keep it under tight wraps. There was no reply, but as he turned his head left, then right, he realized that everyone knew. Everyone had known, except for him.

Nalgene Bowl had gone unnoticed for a long time until that day McAllister had asked Cynthia to order some one liter plastic bottles for the lab he was teaching, as there were none to be had on the shelf. She had gone into the stockroom, thinking to herself she had just last week gotten a shipment from VWR which - she seemed to recall - had contained a dozen Nalgene narrow-mouth polypropylene one liter bottles, but the shelf labeled “One Liter Bottles, Plastic” was indeed empty. She had gone back to her office and pulled out an inventory sheet. Sure enough, the previous Friday one of her undergraduate work-study staff had counted eleven bottles. Well, it did happen that someone needed a bunch all at once, she’d said to herself. McAllister, for instance. Then, on a whim, she had pulled out the whole folder of inventory sheets and flipped through them.

She’d put the folder back, her lips pursed. The number of Nalgene narrow-mouth polypropylene one liter bottles mostly followed the normal trend of stockroom supplies: some would come in, they would be slowly depleted, more would be ordered, repeat. But there were regular irregularities. Some inventories showed a large loss, followed the next week by a large gain. The swings were at least ten, occasionally eleven or twelve. It was as if someone was swiping ten bottles – and then returning them to inventory. Theft she could understand. These were graduate students, after all, a sticky-fingered bunch of miscreants.

But Nalgene bottles weren't any great prize, maybe ten bucks each. And why return them? It was against the graduate student nature.

Now here she was, filling the doorway of Shaftner's lab, her cross-section increased by the five Nalgene narrow-mouth polypropylene one liter bottles tucked under each arm. Bryan and Russell jumped up from their desks and came running, simultaneously yelling:

"Nalgene Ball! Nalgene Ball! Nalgene Ball! Nalgene Ball!"

Or maybe it was Nalgene *Bowl*. It didn't matter. The fluctuations in bottle count had been due to the equipment requirements of this nascent sport. Ten bottles set up in the hallway in the classic pin triangle configuration. One old leather basketball. The bowler by tradition starting two doors thataway, the bottles/pins set up one door theotherway. Two throws per frame, wall bounces allowed, bottles/pins left in place during the attempt at spare if a strike was not obtained.

She had never asked how the bottles made it out and then back in. It was no doubt one or more of her undergraduate workers, collaborating with the enemies of well-run stockrooms. She had always given each new one a lecture about the importance of billing every withdrawal. But she had neglected to give direction about what to do when the supplies were merely to be borrowed. Now she kept an extra dozen Nalgene pins in her office and every so often gathered ten up and brought them down the hall.

After handing over the bottles, she sat down on the floor

to watch. Russell dribbled the ball while Bryan racked the bottles.

"Forget's gone?" Russell asked.

She nodded.

"Did you know," Russell said, "that when Forget comes into a room, people say, 'Who left?'"

"So what do they say when he leaves?"

"They say, 'Somebody open the fucking windows.'"

"Or," she said. "They say, 'Hey! Who stole all the windows?"

"Yeah, we heard he took a few souvenirs."

"You know, when he first got here I felt sorry for him. I used to try and give him free stuff I had lying around."

"Like gently used Nalgene bottles?"

"Yeah. Did you ever hear his grim determination story?"

He shook his head. Bryan, pins set, was listening, arms folded, waiting for the bowl.

"He was bitching about how little money he had, saying that he didn't care. It didn't matter anyway. All you really needed was grim determination. Then he told me a story about his brother, who had driven across whatever piss-ant town the Forget clan infested to pick up a refrigerator. When he got there, his car broke down. So no refrigerator, right? Nope. His brother put the thing on his back and walked it home. Because he had - wait for it – yes, grim determination."

"You're shitting me," Bryan said.

She shook her head. "He was serious."

"That's comedy gold," Russell said. "Didn't he realize

that story sums up the Forget mystique?"

Bryan held up his left hand and started counting fingers, touching them one by one with the index finger of his right. "To begin with, he proves that he doesn't have any friends to help him. B, he's too stupid to call a taxi. Third, he chooses to carry a refrigerator on his *fucking back*."

"Maybe it was one of those little dorm ones," Russell said helpfully.

"I doubt it," Cynthia said. "In that case it would have been mere determination. No, it would have had to be at least a fifteen cubic footer with top freezer to qualify as *grim* determination. Given what we know about our Forget, we can safely assume that if there is incompetence to be done, a Forget will have done it."

Nash's office was so quiet he could hear a clock ticking the seconds somewhere out in his secretary's area. On the street, three floors down, a parade of families passed, studded with new graduates still in their azure-and-ivory robes. He sensed that procession as low frequency background vibrations, actually hearing not their laughing talk nor the happy shouts. He was maybe the only person in the whole of the Yarraford Administration Building today. Any other year he would be on his way back to Lexington, but today he was obliged to stay for the dedication of the new building. Not enough time to drive home, too little time to mix with the intoxicated parental masses. Just enough time to sit behind his desk with a cup of coffee and get a

start on Monday's decisions.

He pulled the first folder from the top of the stack, opened it, and narrowed his eyes. The two students responsible for the vandalism of the Chemistry Department had been identified. He flipped through the sheets, hoping that the investigation mentioned Ms. Angress as a collaborator. But it did not. Not this time. This time she would get away with it. But these two, obvious members of her minions, they would pay. The first was a woman. A black woman, he had no doubt. Although there was no picture attached to her file, ‘Sh'Nika’ gave her away as a product of that lower class which invented names phonetically imperfect and thought they were cute instead of pathetic. Nash checked her background information just to be sure that the name wasn't an actual name, from some African dialect, from some nation rich in oil or diamonds, where her father might be a potentate. No. Her home address was in Mattapan, an area poor in actual potentates. Furthermore, she was on a full ride, one of those bones that the University liked to throw the city of Boston. The good will came inexpensively. The headline might say "Underprivileged Student Wins $45,000 Scholarship to Allston University" yet that figure was not the actual cost to the University. The actual number was known exactly only to the Trustees, but Nash estimated it to be about 10% of published, meaning that Ms. Denton here drug the budget down by a mere four and a half thousand or so per year. Still, she was an expense. He wrote neatly at the top of the page: EXPELLED and set it aside for his secretary to

process.

When he saw the next surname, Cruz, he thought for a moment that this was a coalition of ghetto fugitives. Then he read further. Not only was Ederildo Cruz paying full tuition, his father was President of the largest oil and gas company in Peru. The elder Cruz's personal wealth was estimated in his son's file at enough billions to make Nash smile as his imagination rolled the number around like a shiny ball. He wrote at the top of this page: NO ACTION and was putting it back into the file folder when someone knocked on the door. In the stillness the unknown knuckles set the big mahogany slab ringing like a bass drum.

"What the hell- Come in!" shouted Nash.

The door was pushed open by a robed figure, unidentifiable in the dim light of the outer office, poised like the Grim Reaper but for the squareish head gear.

"Stumm?" Nash was very annoyed now. "What do you want?"

Stumm stood outside the threshold, frozen. All of a sudden this seemed like a bad idea. All he had to do was make up some excuse to cover his retreat and go mug D'Arcy for the sacred diploma. Why would he want to jeopardize that? He took a deep breath and felt the pull on the side of his torso from the device taped to his side. Then, wondering if they could revoke a degree, he stepped into Nash's den.

There was a 14 foot delivery truck parked across the

street from the Yarraford front entrance. Nothing notable about that - there were several more like it parked within a half-mile, along with Ryder trucks, Penske trucks, U-Haul trucks, Budget trucks, private vans and pickup trucks. This particular one, however, was property of the Massachusetts State Police due to the inability of the previous owner – Benson and Sons, Electrical Contractors - to resist the temptation to use the company vehicle to dispense methamphetamines on their way to their worksites. It was on short-term loan to the Suffolk County District Attorney in the person of Mark Flaherty. Instead of spools of wire, conduit pipe, rubberized pliers, and the like, the interior of this van was occupied by a rather small box of electronic surveillance equipment, a card table, four folding - though padded - chairs, and four men. One of the men was of course Mark Flaherty. Seated by the electronics was a young man named Wolferam. He was wearing a pair of headphones, as were the other three men, but he was the only one intent on the pulsing LEDs on the gear. Mark was listening, but he was looking down at the pad of paper on his lap.

Looking over Mark's shoulder was a man about the same age, who was dressed in loud slacks and plaid sweater, as though he had just come from the back nine, which he had. Andy Gilchrist had been out for a round early in the morning with Mark and two other old friends, attorneys all. After the round, Mark had told Andy that he could not stay for their usual Bloody Marys and brunch, as he was on his way to listen in on a potential crime. When he shared the

brief details of the case, Gilcrist invited himself along. His rationale was much the same as his friends: as one of about 100 assistant US Attorneys, he was always looking for ways to get an edge on the other 99. After all, some day soon there would be an opening for the top job, one of the 93 US Attorneys, or a partnership at one of the big firms, and you had to keep that resume polished up.

The other man in the van was a thick stubble-haired State Trooper who appropriately enough looked as sober as Sunday morning. The shiny name tag said Boleslaw. He was there with a Sig Sauer 9mm automatic on his hip in case things went bad.

Of the four eavesdroppers, only Mark knew which voice was Stumm's. Wolferam was marking the two different speakers in his log as just ONE and TWO. They heard Stumm say something; Mark caught Wolferam's eye, held up one finger and then pointed towards himself. The tech nodded and wrote: ONE = INFORMANT, TWO = SUSPECT, so that his transcript would later read:

INFORMANT: WHAT IF PROFESSOR D'ARCY WON'T GIVE ME THE DIPLOMA? WHAT DO I TELL HIM?

SUSPECT: COLD FEET, GEOFFREY?

INFORMANT: HE THINKS I NEED ANOTHER YEAR. THAT'S WHAT HE SAID LAST WEEK.

SUSPECT: YOU SIGNED THE NOTE. THERE'S NOTHING HE CAN DO TO YOU.

INFORMANT: PLUS, (UNINTELLIGIBLE) CALLED ASKING ABOUT THE LOAN (UNINTELLIGIBLE).

SUSPECT: (EXPLETIVE) THAT. THEY DO THIS ALL THE TIME. DID YOU GET A NAME?

Mark looked up at Gilchrist, then wrote on the pad: "extortion". Gilcrist nodded.

INFORMANT: NO.

SUSPECT: JESUS CHRIST. THEY KNOW THE DEAL. IF THEY CALL AGAIN, GET A NAME. (UNINTELLIGIBLE) THEM HARRASSING ME. THEY WANT TO STAY OUR PREFERRED LENDER, THEY'LL PLAY BALL.

Mark wrote: "criminal conspiracy". Gilcrist nodded.

INFORMANT: (UNINTELLIGIBLE) MESSES UP MY TAXES, TOO.

SUSPECT: NO, NO. IT'S A STUDENT LOAN. YOU DON'T REPORT THOSE. IT ALL COMES OUT OF THE SAME PLACE ANYWAY. DEPARTMENT OF EDUCATION, IRS, WHAT'S THE DIFFERENCE?

Mark wrote: "federal income tax evasion, racketeering". Gilcrist nodded, and this time he smiled a satisfied smile.

There was a suffocating dark closet that served as the Chemistry Graduate Student Lounge, but there was no equivalent room for the Chemistry faculty, no modern

version of the archaic scuttlebutt around which they were to be found passing the latest gossip. Rumors spread via email now, sometimes by instant messages, only rarely by phone calls. Face to face was the rarest of time. Even at official departmental meetings, ostensibly mandatory for all faculty, the attendance never exceeded 20% of those expected. So now when Dubie is storming around Pebble trying to scare up professorial ears, it is like some scavenger hunt. Probably a few are at various graduation events cruising for free food and drink, some are in their offices with the doors locked taking advantage of the peace of a Sunday, some are out of town, some are home mowing their lawns and have shut off their phones. Dubie had spent all of a futile and frustrating Saturday barricaded in his office, calling everyone he could think of who might be able to tell him what letters are really bolted onto the side of the new building. Of course he had tried to go see for himself, thinking maybe he could climb up onto the roof and cast loose the big white polymeric-looking sail that was tormenting him, but the Campus Police had the whole building cordoned off. A dim-witted sergeant had listened to his demands patiently and had turned him away, saying that there was nothing to be done. There was no certificate of occupancy, so the City of Boston desired that no living soul not bonded by the major contractor cross the threshold.

Now it is Sunday, the day, and he has not slept or had any sustenance other than coffee from the Lil' Peach and two Hostess Twinkies, and he looks like he is one missed

shave away from shuffling down between rows of cars holding out an empty paper cups. But he draws no notice because there is not a goddamned soul in Pebble Science but him. He is rattling around, a dry pea in a shoebox, getting more and more agitated. Giard had returned to his Rangeley Lake cottage. Wali Khan would not return his five voice messages. He had knocked on doors and left yellow sticky notes, he had fired off six emails of increasing stridency, he had stood in the stairwell and howled like an angry primate. He had worn himself down to a weathered nub of his usual vivacity. At last he pads quietly down the hallway outside the library, out of options for the moment. He has tried every item on his list without any positive result. And what did he expect anyway, he asks himself angrily. None of them had anything on Lynch, no leverage, no ammunition. He thought about calling the media. But what would he tell them? That Lynch was a no-good lying bastard? That was not news. It was public knowledge.

Then he hears a noise on the other side of the wall, through one of the frosted window doors permanently bolted shut, in the stack area of the library, and his hopes flare. An ally? Strength in numbers, he says to himself and retraces his steps back to the working library entrance. All the way in the back of the deserted rooms, into the darkened stacks he ventures, until at the very last table he finds Linwood Colder, his head bent over a thick book opened to a page from the May 1968 issue of The Journal of the American Chemical Society. Dubie stops. Colder looks up and smiles.

This is the moment when opportunity passes Dubie by. It just flows around him, untouchable, unstoppable. Where a mortal man might have addressed Colder with compassion, perhaps even sat down to ask how he was, et cetera, Dubie freezes. He was not an accomplice before the fact in the cleansing of Colder from Pebble Science, but neither did he stand and make a demand for reversal when he heard the news. This omission came back now as guilt, and as guilt was manifested as some mild irritation, like it was Colder's fault anyway. And mild irritation to be avoided, Dubie just nodded and turned to go. He had just missed his chance, for Colder knew something about it. He had a fact or two, old knowledge that would have given Dubie that leg up, dirt that could have been tossed onto the carpet, a wrench that could have been jammed into the works. But Colder doesn't know that Dubie needs such, and Dubie doesn't know to ask. For Dubie is a scientist, with all the attendant implications of that occupation. That it tends to be one pursued by persons lacking in what are colloquially known as "people" skills is stereotypical, of course, but when the stereotype is true more often than not, well, it is an archetype. And that is Dubie. For all the other kinds of intelligences he is possessed of, compassionate empathy was passed out on the day he was absent.

So Dubie walks out of the library, his last and best chance to avert the train wreck flushed.

AUTV, Channel 75, does not hold much of a mindshare

in the greater Boston television market. One of the reasons for this is that it is not viewable by anyone who is not physically connected to the Allston University cable television network. Another reason is that most of the programming consists of static screens showing announcements of campus events, public service advisories, and advertising for pizza shops, all looping with the student-run radio station as audio. There are a few live shows, though. Two talk shows - one concentrating on the AU hockey team fortunes and the other on campus fashion - are the most popular. Only one gig at AUTV offers course credit - the nightly news program 75 News at 7. The hour-long program is overseen by faculty from the School of Communications, but is produced, directed, written, reported, and filmed by the undergraduates in COMM 455. This class is regularly oversubscribed, its thirty students being typically comprised of about twenty-eight scrubbed and acne-free anchor desk hopefuls and two aspiring small-screen Spielbergs. But in COMM 455, everyone did everything in turn. They all had to learn to write prose that would not cause the ancient teleprompter to stall from shame. They all had to edit video and cue it up in the proper order. They all had to figure out how to read into a camera, take directions in one ear, and make comfortable transitions amid distractions. And they all had to lug the heavy Sony video cameras around campus and wait endlessly in order to record a few minutes of the most trivial and boring happenings.

So it was just chance that caused Ewa Burnett to be out

on this lazy Sunday afternoon, trying to find a comfortable balance point on her shoulder for the ungainly camcorder when she would much rather have been napping off her hangover. She had very nearly been able to swap with the guy who sat next to her in the weekly assignment meeting, which would have been unfortunate, as the events of the next hour or so were going to make her name a household word on the same order as one Mr. Zapruder. In the next several months there would be few humans who had not seen The Burnett Film at least once. Several thousand scientific papers were to be written about it, and several hundred websites would appear on the net analyzing the mystery.

However, nothing even remotely suspicious appeared to Ewa as she peered into the view finder – certainly not Geiger, sitting five rows from the front, coolly taking in the whole setting through a pair of ordinary-looking shades. There were two remarkable things about those sunglasses. The first thing that made them rather less than ordinary was that built into the left side of the frame was a tiny infrared targeting laser and into the right side a tiny infrared camera. When Geiger pressed on the remote control in his pocket, a needle-thin beam was directed out, invisible to the unaugmented eye. The intersection of beam and target was detected by the camera and projected as an overlay onto the back of the right lens. He turned his head and steadied the flickering red spot on the podium for a second, then turned the light off. On the same remote was another button. This one would send out a signal to the

rooftop of Pebble Science, where Geiger had set up what looked like an air conditioning unit. Inside was a large-barreled gun, more like a bazooka, that he had trained to the general direction of the speakers' platform. The aim did not have to be very true, as the projectile the thing fired would home in on the spot illuminated by the laser. It was subsonic and fairly large - the size of a D cell - and when it was only a few yards from its target it would burst open with a small subdued splat, sort of like a sparrow being hit by the windshield of a speeding car, and generate an intense cone-shaped sound pulse which would liquefy the victim's internal organs. The second and most remarkable thing about Geiger's sunglasses was that they would not be necessary.

Oh, he did intend to use them. One of the specifications of this particular job was that it had to be done in public. The implication was that although the public and the authorities would assume an ancient human had keeled over, as ancient humans often do (and an autopsy, assuming one was even called for in such an open and obvious demise, would show nothing more than the failure of the aged internals), there would be a few who would know or perhaps be made to know that Dalyrumple had been paid. Geiger did not know who these few might be or how they would be affected by the knowledge. He really didn't care. The reasons were no doubt Byzantine and probably banal and evil and ultimately just plain stupid. He yawned.

While Geiger was pondering the matter, the seats around

him began to fill, and the VIPs populated the stage. He noted that it was the usual assemblage of minor administration flunkies and figureheads, but something struck him as off. He thought about it for a minute, then he realized that there were no representatives of the Chemistry faculty included there. He involuntarily looked up at the large white plastic sheet that covered a considerable area of the brick-fronted building. The sign itself had never been visible. It had gone up in the dead of night sometime in the past week and had been hidden by the tarp the whole time. Geiger had assumed that it read "The Dalyrumple Chemistry Building" or "The Harold Dalrymple Center for the Study of Chemistry" or equivalent cenotaphic words. So why wasn't D'Arcy up on the stage? Other than the fact that he was an interminable pain in the ass? He saw that Nash was there.

Geiger was wondering what the hell Lynch was going to pull as the man himself popped from a black Lincoln accompanied by three burly, serious-faced men in black suits and Ray-Bans who took up defensive positions facing the audience as their boss went up the steps towards the podium. Lynch nodded to the others and sat down.

Then all heads swiveled toward the street as a convoy pulled up: Three gleaming jet-black Hummers. Not the wimpy SUVized derivatives either, but the original ones - military ready and wider than the eye could handle. They stopped, and a small platoon of men swarmed out. Most were dressed in unornamented tan fatigues, a few in black suits.

A command structure, thought Geiger. *Impressive.* He watched the platoon form up around the middle vehicle and advance on the stage in a phalanx centered on a small emaciated man in a grey suit with matching fedora. *I bet they think they are badass. Not badass enough to secure nearby rooftops, though.*

Dalyrumple's men shouldered the outnumbered and outraged men of Lynch's party aside as their charge labored up the steps and mounted the stage. Lynch, on his feet already, greeted him warmly, but Dalyrumple just nodded, looking tired and uninterested. He shuffled to his chair and sat down heavily. His bodyguards took up positions flanking the stage, glaring suspiciously at the crowd - which had filled out nicely for the nonevent, Geiger thought. His sunglasses were not the ostentatious military-grade ballistic goggles of Dalyrumple's guard; his were just a pair of modest Foster Grants. He triggered the laser and settled it on the old man's chest. *What would be better?* thought Geiger. *Sitting or up speaking? A quite demise, slumping over? Or an arms-wide Old West boot-kicking death scene?*

Lynch went to the podium, looked at the microphone, and cleared his throat. This was amplified into a thunderous Godzilla rattle and caused a pale young man to leap from his seat in the front row of the audience and grapple with a soundboard tucked away just under the stage. Lynch reached out and tapped the microphone, first producing a couple of thunderous rimshots, then nothing, then mere loud thumps.

Geiger had turned the laser off and was idly wondering how long this show would last. He had a program in his pocket. Lynch greets the crowd, Lynch introduces Dalyrumple, Dalyrumple mumbles a few words, they go to the front entrance and cut a big ribbon, the voting public tours the building. Geiger did not like the idea of a crowd milling around over the stash of explosives in the basement, but he figured that he would drop Dalyrumple somewhere around Act Three of this farce: Fragile Old Man Standing In The Hot Sun. There would be cries, commotion, and general rushing about. The day would be disrupted. Likely no one would go into the building at all. Whoever had assembled the room bomb could set it off some other time. It was none of his business; wipe hands; exit stage left.

Lynch had taken some folded papers from his pocket, three or four full sheets. Geiger sighed. It was going to be tedious after all.

Then, even as Lynch was inhaling to speak his first word, the program changed. From up in the sky came a scream, not of fear but of rage. Geiger, shielding his eyes to look up towards the top of the building and almost directly into the sun, saw a figure leaning dangerously out into space. It was not holding a weapon but was waving empty fists. He recognized the form and the timbre of the voice. It was Dubie. He was screaming something about a deal being a deal, lousy fucking scum, and kill you, you son of a bitch.

Nah, Geiger thought. *Dubie didn't load up the basement. Why would he do that and then make a scene? Why would he do that at all*?

While Geiger was wondering where this piece fit, Dubie reached down and grabbed onto the big white tarpaulin, apparently desiring to see which name had been chosen and unwilling to wait the few minutes until the offical unveiling. He was yanking vigorously on the corner he had managed to grab, still screaming at a lower and even less coherent volume, when a particularly inspired series of tugs caused his center of gravity to just edge over the bricks. He stopped yelling for an instant as if gathering all of his energy to stay on the narrow lip of the roof, then his ass and legs slid over, and he fell. Not straight down, as he was clinging fast to the tarp. It was not strong enough to stop him, but it eased him down, tearing away from the three other anchoring corners, Pop! Ping! Zing! one after the other, so that his trajectory from the roof was that of a pendulum weight. But when he arrived, just on the upswing, some ten feet from the ground, there was left no point of attachment from his bunched tarp to the building. He dropped then vertically to the cement walk, landing on his back, the white tarp wafting down to cover him like a polymeric shroud.

Geiger looked up. The signage was in aluminum block letters: THE HAROLD A. DALYRUMPLE (BIG EMPTY SPACE) BUILDING. Of course it did not have letters that actually spelled out (BIG EMPTY SPACE), but that was what was there. Empty space, the old words erased, the holes in the brick that once held them still visible. Geiger started to laugh. Lynch had fucked them over after all. The crowd had leapt up. Campus cops were gathered around the crumpled white heap. Three of them were wrestling with

the unwieldy tarp, trying to expose the body beneath. Too late, Geiger looked back to the stage and saw Dalyrumple's grunts hustling their charge off.

I am such an amateur. Geiger cursed himself, trying to lock the laser point onto the slight frame of Dalyrumple. The bodyguards were ringing him, in the way, unwittingly in good positions to absorb the sonic blast. One dead was understandable. Two or more mysteriously dead would draw attention. Geiger lowered the beam. They were not taking Dalyrumple to his car but into the building. They busted right through the wide red ceremonial sash and through the double glass doors. Lynch was right behind them, trying to get his benefactor's attention. Lynch's security men were hard on his heels.

Geiger saw the pack of men all come together briefly in the vestibule. The heavy glass doors closed behind them, and something in the scene jolted him into recognition.

Crap! Geiger dove to the ground and crossed his arms over his head.

Geiger thus did not see with his own eyes the first microsecond of the explosion, but he subsequently, as most of the rest of the world's population, watched it over and over courtesy of the only visual record of the event: The Burnett Tape. Which it came to be called on the manifold websites that sprang up, each with its fierce allegiance to one of the several hypotheses that were put forward to explain the events of that day: military classified weapon, alien technology run amok, interdimensional incursion, Satan's own hand.

The explosive device probably consisted of several hundred pounds of ammonium nitrate soaked with a few per cent by weight of various liquid hydrocarbons. The nitrate had been ordered by Professor D'Arcy in 1977. Although he had only required about three kilograms for a project he had in mind which involved the generation of nitrous oxide by gamma radiation, he had purchased six barrels of the anhydrous salt because he needed to spend all of his grant or have it be reabsorbed into the University's money maelstrom. The hydrocarbons had come from leftover bottles of various organic solvents: alkylhexanes, heptanes, octanes, etc. These facts were in the classified government report. It was classified because - of course - there never was any explosion to investigate.

The film of the blast has to be slowed down considerably to see the details, such as they are. Splotches and grainy waves obscure many portions of the video, probably the result of electromagnetic pulses from the event wiping random noise onto the magnetic tape. An ANFO - Ammonium Nitrate/Fuel Oil - detonation is a high explosive blast with an efficiency more or less equivalent to TNT. The shock wave can travel upwards of 10,000 feet per second. The unnatural event therefore was confined to a time less than maybe 100 milliseconds, which was way too fast to be well resolved by the old analog camera in Ms. Burnett's hands. When the frames are stepped through, they show in a series of strobed stops: The floor of the building, visible mostly in the entranceway but also clearly a few yards into the building proper, bulging. The concrete of

the floor rendered into chunks each wildly cantilevered at random angles as they are propelled upwards. The wall of the ground floor unzipping, its layers - plaster, wood, rebar, brick - unleashed as shrapnel. The chaotic billow of dust and steam and smoke herded along in the bow wave of the shock catching up to the chunks and beginning to swallow them.

It was a hell of a blast. There were ten people in the building at the time who were most certainly dead, and thirty odd outside, all of them close enough so that their chances were slim.

Including Geiger, who did not at the time know that he was doomed. All he knew was that the detonation had sounded much more like a hiccup than a bomb, and when he looked up maybe two seconds after he had hit the ground, he had missed what some around him had seen.

There had been a ripple in the earth and in the atmosphere at the outer limit of the debris, a junction where the refractive index suddenly changed, perfectly transparent yet wholly obvious. It seemed to get thicker the farther from the building it was pushed, until at a certain point it ceased to move.

It was like looking at something happening underwater, some witnesses said. A giant snow globe with greyish crap and jagged junk suspended inside where the plastic snowflakes would be.

This containment held for a microsecond, then the whole process reversed itself. Exactly. Frames of the tape after the rebound could be laid directly upon earlier ones to show

that each piece of the building large enough to be resolved on the tape followed the same trajectory back as it had on its way out.

Space rushed in to fill the void in the basement. Matter rebuilt itself according to plans seemingly ingrained. And Geiger found himself back on his feet staring at the goddamnest thing he had ever seen. Through the glass doors he could see forms trapped inside some residual of the singularity, posed in a still photo, as if time was discontinuous along the light path from inside to out. Lynch's bodyguards stood, their backs to him, frozen. Beyond were the still forms of Dalyrumple's men, also rigid, caught in mid-confusion, arms raised, hands reaching inside jackets, mouths open. Between them stood the two principals, Lynch pointing toward Dalyrumple, Dalyrumple turned away, face in profile, lips set in a disapproving purse.

Under the two men the floor was open, nonexistent. In its place was what Geiger would call a hole - for lack of nouns to describe the utter void which was not quite black but glowed faintly with a fuzzy violet hue apparently of such short wavelength that the lens could not bend it onto the retina.

Geiger was hypnotized by the sight, paralyzed like the figures. Then the light flared out and back and snapped to a point like an old TV screen when the plug is pulled - and was gone.

The building was whole. All around him people were getting to their feet. He heard a man cursing in pain, another man shouting "Earthquake! That's right, a fucking

-" into a cell phone. The combined forces of the bodyguards stormed out of the doors and fanned out, calling frantically and mostly unintelligibly.

Geiger took another look at them. Lynch and Dalyrumple were missing.

He took a step back and turned, intending to slip away before the inevitable parade of fire trucks, ambulances, cruisers, and television vans converged. His foot landed atop something unstable that squirted our from under his sole like a slippery seed. It was about the size of a tennis ball, grey with a smooth nonreflective surface that seemed to boil. He bent to pick it up before some instinct stopped him. Instead, he kicked it. It rolled along the pavement for a couple of yards, then began to wobble. Tiny jets of fiery plasma spurted out all over its surface. These condensed and grew until the whole thing disappeared with a loud pop.

EPILOGUE

Far off on the sand, they could see the small group active among the inert bodies of the sunbathing tourists. A man and a woman stood at the center while five small children ran in orbits around them, heels kinking up tiny tails of the fine pearly beach.

"The kids seem to be getting along great," Laura said.

Nozick took off his straw hat and wiped his forehead. "It's what kids do best."

A large seabird flew parallel to the shoreline, coming close and eyeing them for possibilities.

"They like fried dough?

"That's rhetorical, right?" asked Nozick.

"Yep. There's a place up the road that makes poi doughnuts. Historical *and* delicious."

"I'm there," he said, extending his elbow. Laura took it, and they plodded over the deep soft sand toward their waving spouses.

"Professor?"

He turned from the blackboard. The girl – *young woman* – was leaning back against the big table on which

he had been demonstrating the Sn2 reaction with the aid of two oversize molecular models.

"You said you were looking for laboratory assistants?" she continued. "I'm interested."

Geiger looked her up and down, using his peripheral vision so as not to scare her. Thin, nice hips, long legs, blonde curly hair, ice-cream cone tits. She was bent backwards slightly at the waist, her pelvis thrust at him ever so subtly.

She knows what she's doing. Or maybe she doesn't know. Down either path lies a voyage of discovery.

"Sure thing. You free now?

She nodded, biting her lower lip in a way that made him have to turn away to hide a deep involuntary gasp for breath.

"Come to my office," he managed after a moment. "We'll have a cup of tea and talk about it."

He tossed the eraser into its tray and picked up a model. The blonde picked up the other model and waited expectantly, her big blue eyes wide.

Fuck, thought Professor Geiger, *I love college.*

He hadn't known quite what to expect, but he had not expected this.

No, that was not right. He had some sense of what might be inside such a box. It had been carefully constructed of hardwood and brass. It was dense, heavy with import. Some kind of analytical instrument – a microscope, maybe. Had

he come across it without provenance, he might have thought it a strongbox built to carry one or more bars of gold bullion.

He'd slid it way back under a low table where it was obscured by a case of methanol and some big Dewar flasks. It had taken his group three weeks or so to use up the methanol bottles in the solvent cabinet, and when he picked up the big cardboard cube to slice it open to replenish their supply, he'd again seen the box.

Why do I keep hiding that thing from myself?

He dug around in the top drawer of his desk and found the key Colder had given him. It slid into the lock and turned without effort, like it had not been ignored and neglected for who knows how many years.

The top swung up. Recessed about an inch below was a piece of wood that filled the opening. In the center of this was embedded a simple square gauge, a brass plate, and a tiny toggle switch. On either side of these were two silvery metal knobs. Inside the thin glass covering the gauge was a hair-thin black needle pointing up to an line arc annotated in a spidery hand, left to right: NONSENSE at what looked to be the zero point, where the needle rested; BOMBAST in the middle at the apex of the curve; BUNKUM at full-scale.

On the brass plate above the scale was engraved:

A DEVICE FOR
RHETORICAL CALIBRATION
Presented to "Sparky" Horvath
August 1900

McAllister turned the box over. There was no other lettering to be seen, no indication who had made this present for Horvath, nor where it had been fabricated. There were screws that probably allowed the panel to be removed. It looked like it took batteries. It must take batteries – there was no cord. He tried to remember if there would even have been outlets to plug into in 1900. He clicked the switch up and put a finger on each of the silver knobs and jerked like he had been shot through with a thousand volts when the fragile little needle moved from NONSENSE almost all the way up to BOMBAST.

Holy Crap! Colder must have been keeping the charge up!

He pressed down harder, and the needle climbed higher. He found that by gripping the whole knob and squeezing he could get the indicator to swing all the way over to BUNKUM.

He started to laugh, first at the silly absurdity of the thing, then at the bizarre fucking nature of - well, of *everything*. It gripped him like a seizure, the convulsions of hilarity making his eyes water and his ribs start to feel sore. And somewhere in the fit he realized that he would never see that ghost again.