



FOREVER PEACE  
BY JOE HALDEMAN

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1998 Hugo Award Winner

1999 Nebula Award Winner

This novel is for two editors: John W. Campbell, who rejected a story because he thought it was absurd to write about American women who fight and die in combat, and Ben Bova, who didn't.

Caveat lector: This book is not a continuation of my 1975 novel *The Forever War*. From the author's point of view it is a kind of sequel, though, examining some of that novel's problems from an angle that didn't exist twenty years ago.

IT WAS NOT QUITE completely dark, thin blue moonlight threading down through the canopy of leaves. And it was never completely quiet.

A thick twig popped, the noise muffled under a heavy mass. A male howler monkey came out of his drowse and looked down. Something moved down there, black on black. He filled his lungs to challenge it.

There was a sound like a piece of newspaper being torn. The monkey's midsection disappeared in a dark spray of blood and shredded organs. The body fell heavily through the branches in two halves. Would you lay off the goddamn monkeys? Shut up! This place is an ecological preserve. My watch,

shut up. Target practice.

~~Black on black it paused, then slipped through the jungle like a heavy silent reptile. A man could be standing two yards away and not see it. In infrared it wasn't there. Radar would slither off its skin.~~

It smelled human flesh and stopped. The prey maybe thirty meters upwind, a male, rank with old sweat, garlic on his breath. Smell of gun oil and smokeless powder residue. It tested the direction of the wind and backtracked, circled around. The man would be watching the path. So come in from the woods.

It grabbed the man's neck from behind and pulled his head off like an old blossom. The body shuddered and gurgled and crapped. It eased the body down to the ground and set the head between its legs.

Nice touch. Thanks.

It picked up the man's rifle and bent the barrel into a right angle. It lay the weapon down quietly and stood silent for several minutes.

Then three other shadows came from the woods, and they all converged on a small wooden hut. The walls were beaten-down aluminum cans nailed to planks; the roof was cheap glued plastic.

It pulled the door off and an irrelevant alarm sounded as it switched on a headlight brighter than the sun. Six people on cots, recoiling.

—Do not resist, it boomed in Spanish. —You are prisoners of war and will be treated according to the terms of the Geneva Convention.

“Mierda.” A man scooped up a shaped charge and threw it at the light. The tearing-paper sound was softer than the sound of the man's body bursting. A split second later, it swatted the bomb like an insect and the explosion blew down the front wall of the building and flattened all the occupants with concussion.

The black figure considered its left hand. Only the thumb and first finger worked, and the wrist made noise when it rotated.

Good reflexes. Oh, shut up.

The other three shapes turned on sunlights and pulled off the building's roof and knocked down the remaining walls.

The people inside looked dead, bloody and still. The machines began to check them, though, and a young woman suddenly rolled over and raised the laser rifle she'd been concealing. She aimed it at the one with the broken hand and did manage to raise a puff of smoke from its chest before she was shredded.

The one checking the bodies hadn't even looked up. No good, it said. All dead. No tunnels. No exotic weapons I can find.

Well, we got some stuff for Unit Eight. They turned off their lights and sped off simultaneously, in four different directions.

The one with the bad hand moved about a quarter-mile and stopped to inspect the damage with a dim infrared light. It beat the hand against its side a few times. Still, only the two digits worked.

Wonderful. We 'll have to bring it in.

So what would you have done?

Who's complaining? I'll spend part of my ten in base camp.

The four of them took four different routes to the top of a treeless hill. They stood in a row for a few

seconds, arms upraised, and a cargo helicopter came in at treetop level and snatched them away. Who got the second kill there? thought the one with the broken hand.

A voice appeared in all four heads. Berryman initiated the response. But Hogarth commenced firing before the victim was unambiguously dead. So by the rules, they share the kill.

The helicopter with the four soldierboys dangling slipped down the hill and screamed through the night at treetop level, in total darkness, east toward friendly Panama.

I DIDN'T LIKE SCOVILLE having the soldierboy before me. You have to monitor the previous mechanic for twenty-four hours before you take it over, to warm up and become sensitive to how the soldierboy might have changed since your last shift. Like losing the use of three fingers.

When you're in the warm-up seat you're just watching; you're not jacked into the rest of the platoon, which would be hopelessly confusing. We go in strict rotation, so the other nine soldierboys in the platoon also have replacements breathing over their mechanics' shoulders.

You hear about emergencies, where the replacement has to suddenly take over from the mechanic. It's easy to believe, The last day would be the worst even without the added stress of being watched. If you're going to crack or have a heart attack or stroke, it's usually on the tenth day.

Mechanics aren't in any physical danger, deep inside the Operations bunker in Portobello. But our death and disability rate is higher than the regular infantry. It's not bullets that get us, though; it's our own brains and veins.

It would be rough for me or any of my mechanics to replace people in Scoville's platoon, though. They're a hunter-killer group, and we're harassment and interdiction, H I; sometimes loaned to Psychops. We don't often kill. We aren't selected for that aptitude.

All ten of our soldierboys came into the garage within a couple of minutes. The mechanics jacked out and the exoskeleton shells eased open. Scoville's people climbed out like little old men and women, even though their bodies had been exercised constantly and adjusted for fatigue poisons. You still couldn't help feeling as if you'd been sitting in the same place for nine days.

I jacked out. My connection with Scoville was a light one, not at all like the near-telepathy that links the ten mechanics in the platoon. Still, it was disorienting to have my own brain to myself.

We were in a large white room with ten of the mechanic shells and ten warm-up seats, like fancy barber chairs. Behind them, the wall was a huge backlit map of Costa Rica, showing with lights of various colors where soldierboy and flyboy units were working. The other walls were covered with monitors and digital readouts with jargon labels. People in white fatigues walked around checking the numbers.

Scoville stretched and yawned and walked over to me.

Sorry you thought that last bit of violence was unnecessary. I felt the situation called for direct action. God, Scoville and his academic airs. Doctorate in Leisure Arts.

"You usually do. If you'd warned them from outside, they would've had time to assess the situation. Surrender.

Yes indeed. As they did in Ascension.

That was one time. We'd lost ten soldierboys and a flyboy to a nuclear booby trap.

Well, the second time won't be on my watch. Six fewer pedros in the world. He shrugged. I'll go light a candle.

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Ten minutes to calibration, a loudspeaker said. Hardly enough time for the shell to cool down. I followed Scoville into the locker room. He went to one end to get into his civvies; I went to the other end to join my platoon.

Sara was already mostly undressed. Julian. You want to do me?

Yes, like most of our males and one female, I did, as she well knew, but that's not what she meant. She took off her wig and handed me the razor. She had three weeks' worth of fine blond stubble. I gently shaved off the area surrounding the input at the base of her skull.

That last one was pretty brutal, she said. Scoville needed the body count, I guess. It occurred to him. He's eleven short of making E-8. Good thing they didn't come across an orphanage. He'd be bucking for captain, she said.

I finished her and she checked mine, rubbing her thumb around the jack. Smooth, she said. I keep my head shaved off duty, though it's unfashionable for black men on campus. I don't mind long bushy hair, but I don't like it well enough to run around all day wearing a hot wig.

Louis came over. Hi, Julian. Give me a buzz, Sara. She reached up—he was six feet four and Sara was small—and he winced when she turned on the razor.

Let me see that, I said. His skin was slightly inflamed on one side of the implant. Lou, that's going to be trouble. You should've shaved before the warm-up.

Maybe. You gotta choose. Once you were in the cage you were there for nine days. Mechanics with fast-growing hair and sensitive skin, like Sara and Lou, usually shaved once, between warm-up and the shift. It's not the first time, he said. I'll get some cream from the medics.

Bravo platoon got along pretty well. That was partly a matter of chance, since we were selected out of the pool of appropriate draftees by body size and shape, to fit the platoon's cages and the aptitude profile for H I. Five of us were survivors of the original draft pick: Candi and Mel as well as Lou, Sara, and me. We've been doing this for four years, working ten days on and twenty off. It seems like a lot longer.

Candi is a grief counselor in real life; the rest of us are academics of some stripe. Lou and I are science, Sara is American politics, and Mel is a cook. Food science, so called, but a hell of a cook. We get together a few times a year for a banquet at his place in St. Louis.

We went together back to the cage area. Okay, listen up, the loudspeaker said. We have damage on Units One and Seven, so we won't calibrate the left hand and right leg at this time. So we need the cocksuckers? Lou asked.

“No, the drains will not be installed. If you can hold it for forty-five minutes. I'll certainly try, sir.

We'll do the partial calibration and then you're free for ninety minutes, maybe two hours, while we set up the new hand and leg modules for Julian and Candi's machines. Then we'll finish the calibration

and hook up the orthotics, and you're off to the staging area.

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Be still my heart, Sara murmured.

We lay down in the cages, working arms and legs into stiff sleeves, and the techs jacked us in. For the calibration we were tuned down to about ten percent of a combat jack, so I didn't hear actual words from anybody but Lou - a hello there that was like a faint shout from a mile away. I focused my mind and shouted back.

The calibration was almost automatic for those of us who'd been doing it for years, but we did have to stop and back up twice for Ralph, a neo who'd joined us two cycles ago when Richard stroked out. It was just a matter of all ten of us squeezing one muscle group at a time, until the red thermometer matched the blue thermometer on the heads-up. But until you're used to it, you tend to squeeze too hard and overshoot.

After an hour they opened the cage and unjacked us. We could kill ninety minutes in the lounge. It was hardly worth wasting time getting dressed, but we did. It was a gesture. We were about to live in each other's bodies for nine days, and enough was enough.

Familiarity breeds, as they say. Some mechanics become lovers, and sometimes it works. I tried it with Carolyn, who died three years ago, but we could never bridge the gap between being combat-jacked and being civilians. We tried to work it out with a relator, but the relator had never been jacked, so we might as well have been talking Sanskrit.

I don't know that it would be love with Sara, but it's academic. She's not really attracted to me, and of course can't hide her feelings, or lack of same. In a physical way we're closer than any civilian pair could be, since in full combat jack we are this one creature with twenty arms and legs, with ten brains and five vaginas and five penises.

Some people call the feeling godlike, and I think there have been gods who were constructed along similar lines. The one I grew up with was an old white-bearded Caucasian gent without even one vagina.

We'd already studied the order of battle, of course, and our specific orders for the nine days. We were going to continue in Scoville's area, but doing H I, making things difficult in the cloud forest of Costa Rica. It was not a particularly dangerous assignment, but it was distasteful, like bullying, since the rebels didn't have anything remotely like soldierboys.

Ralph expressed his discomfort. We had sat down at the dining table with tea and coffee.

This overkill gets to me, he said. That pair in the tree last time.

Ugly, Sara said.

Ah, the bastards killed themselves, Mel said. He sipped the coffee and scowled at it. We probably wouldn't have noticed them if they hadn't opened up on us.

It bothers you that they were children? I asked Ralph.

Well, yeah. Doesn't it you? He rubbed the stubble on his chin. Little girls.

Little girls with machine guns, Karen said, and Claude nodded emphatically. They'd come in together about a year ago, and were lovers.

I've been thinking about that, too, I said. What if we'd known they were little girls? They'd been about

ten years old, hiding in a tree house.

Before or after they started shooting? Mel asked.

Even after, Candi said. How much damage can they do with a machine gun?

They damaged me pretty effectively! Mel said. He'd lost one eye and the olfactory receptors. They knew exactly what to aim for.

It wasn't a big deal, Candi said. You got field replacements.

Felt like a big deal to me. I know. I was there. You don't exactly feel pain when a sensor goes out. It's something as strong as pain, but there's no word for it.

I don't think we would've had to kill them if they were out in the open, Claude said. If we could see they were just kids and lightly armed. But hell, for all we knew they were FOs who could call in a tactical nuke.

In Costa Rica? Candi said.

It happens, Karen said. It had happened once in three years. Nobody knew where the rebels had gotten the nuke. It had cost them two towns, the one the soldierboys were in when they were vaporized, and the one we took apart in retaliation.

Yeah, yeah, Candi said, and I could hear in those two words all she wasn't saying: that a nuke on our position would just destroy ten machines. When Mel flamed the tree house he roasted two little girls, probably too young to know what they were doing.

There was always an undercurrent in Candi's mind, when we were jacked. She was a good mechanic, but you had to wonder why she hadn't been given some other assignment. She was too empathetic, sure to crack before her term was up.

But maybe she was in the platoon to act as our collective conscience. Nobody at our level knew why anybody was chosen to be a mechanic, and we only had a vague idea why we were assigned to the platoon we got. We seemed to cover a wide range of aggressiveness, from Candi to Mel. We didn't have anybody like Scoville, though. Nobody who got that dark pleasure out of killing. Scoville's platoon always saw more action than mine, too; no coincidence. Hunter-killers—they're definitely more congenial with mayhem. So when the Great Computer in the Sky decides who gets what mission, Scoville's platoon gets the kills and ours gets reconnaissance.

Mel and Claude, especially, grumbled about that. A confirmed kill was an automatic point toward promotion, in pay grade if not in rank, whereas you couldn't count on the PPR—Periodic Performance Review—for a dime. Scoville's people got the kills, so they averaged about twenty-five percent higher pay than my people. But what could you spend it on? Save it up and buy our way out of the army?

So we're gonna do trucks, Mel said. Cars and trucks.

That's the word, I said. Maybe a tank if you hold your mouth right. Satellites had picked up some IR traces that probably meant the rebels were being re-supplied by small stealthed trucks, probably robotic or remote. One of those outbursts of technology that kept the war from being a totally one-sided massacre.

I suppose if the war went on long enough, the enemy might have soldierboys, too. Then we could have the ultimate in something: ten-million-dollar machines reducing each other to junk while their

operators sat hundreds of miles away, concentrating in air-conditioned caves.

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People had written about that, warfare based on attrition of wealth rather than loss of life. But it's always been easier to make new lives than new wealth. And economic battles have long-established venues, some political and some not, as often among allies as not.

Well, what does a physicist know about it? My science has rules and laws that seem to correspond to reality. Economics describes reality after the fact, but isn't too good at predicting. Nobody predicted the nanoforges.

The loudspeaker told us to saddle up. Nine days of truck-stalking.

ALL TEN PEOPLE IN Julian Class's platoon had the same basic weapon—the soldierboy, or Remote Infantry Combat Unit: a huge suit of armor with a ghost in it. For all the weight of its armor, more than half of the RICU's mass was ammunition. It could fire accurate sniper rounds to the horizon, two ounces of depleted uranium, or at close range it could hose a stream of supersonic flechettes. It had high explosive and incendiary rockets with eyes, a fully automatic grenade launcher, and a high-powered laser. Special units could be fitted with chemical, biological, or nuclear weapons, but those were only used for reprisal in kind.

(Fewer than a dozen nuclear weapons, small ones, had been used in twelve years of war. A large one had destroyed Atlanta, and although the Ngumi denied responsibility, the Alliance responded by giving twenty-four hours notice, and then leveling Mandellaville and Sao Paulo. Ngumi contended that the Alliance had cynically sacrificed one nonstrategic city so it could have an excuse to destroy two important ones. Julian suspected they might be right.)

There were air and naval units, too, inevitably called flyboys and sailorboys, even though most flyboys were piloted by females.

All of Julian's platoon had the same armor and weapons, but some had specialized functions. Julian, being platoon leader, communicated directly and (in theory) constantly with the company coordinator and through her to the brigade command. In the field, he received constant input in the form of encrypted signals from fly-over satellites as well as the command station in geosynchronous orbit. Every order came from two sources simultaneously, with different encryption and a different transmission lag, so it would be almost impossible for the enemy to slip in a bogus command.

Ralph had a horizontal link similar to Julian's vertical one. As platoon liaison, he was in touch with his opposite number in each of the other nine platoons that made up Bravo. They were lightly jacked — the communication wasn't as intimate as he had with other members of the platoon, but it was more than just a radio link. He could advise Julian as to the other platoons,' actions and even feelings, morale, in a quick and direct way. It was rare for all the platoons to be engaged in a single action, but when they were, the situation was chaotic and confusing. The platoon liaisons then were as important as the vertical command links.

One soldierboy platoon could do as much damage as a brigade of regular infantry. They did it quicker and more dramatically, like huge invincible robots moving in silent concert.

They didn't use actual armed robots, for several reasons. One was that they could be captured and used

against you; if the enemy could capture a soldierboy they would just have an expensive piece of junk. None had ever been captured intact, though; they self-destruct impressively.

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Another problem with robots was autonomy: the machine has to be able to function on its own if communications are cut off. The image, as well as the reality, of a heavily armed machine making spot combat decisions was not something any army wanted to deal with. (Soldierboys had limited autonomy, in case their mechanics died or passed out. They stopped firing and went for shelter while a new mechanic was warmed up and jacked.)

The soldierboys were arguably more effective psychological weapons than robots would be. They were like all-powerful knights, heroes. And they represented a technology that was out of the enemy's grasp.

The enemy did use armed robots, like, as it turned out, the two tanks that were guarding the convoy of trucks that Julian's platoon was sent to destroy. Neither of the tanks caused any trouble. In both cases they were destroyed as soon as they revealed their position by firing. Twenty-four robot trucks were destroyed, too, after their cargos had been examined: ammunition and medical supplies.

After the last truck had been reduced to shiny slag, the platoon still had four days left on its shift, so they were flown back to the Portobello base camp, to do picket duty. That could be pretty dangerous, since the base camp was hit by rockets a couple of times a year, but most of the time it was no challenge. Not boring, though—the mechanics were protecting their own lives, for a change.

SOMETIMES IT TOOK ME a couple of days to wind down and be ready to be a civilian again. There were plenty of joints in Portobello willing to help ease the transition. I usually did my unwinding back in Houston, though. It was easy for rebels to slip across the border and pass as Panamanians, and if you got tagged as a mechanic you were a prime target. Of course there were plenty of other Americans and Europeans in Portobello, but it's possible that mechanics stood out: pale and twitchy, collars pulled up to hide the skull jacks, or wigs. We lost one that way last month. Arly went into town for a meal and a movie. Some thugs pulled off her wig, and she was hauled into an alley and beaten to a pulp and raped. She didn't die but she didn't recover, either. They had pounded the back of her head against a wall until the skull fractured and the jack came out. They shoved the jack into her vagina and left her for dead.

So the platoon was one short this month. (The neo Personnel delivered couldn't fit Arly's cage, which was not surprising.) We may be short two next month: Sa-mantha, who is Arly's best friend, and a little bit more, was hardly there this week. Brooding, distracted, slow. If we'd been in actual combat she might have snapped out of it; both of them were pretty good soldiers—better than me, in terms of actually liking the work—but picket duty gave her too much time to meditate, and the truck assignment before that was a silly exercise a flyboy could have done on her way back from something else.

We all tried to give Samantha support while we were jacked, but it was awkward. Of course she and Arly couldn't hide their physical attraction for one another, but they were both conventional enough to be embarrassed about it (they had boyfriends on the outside), and had encouraged kidding as a way of keeping the complex relationship manageable. There was no banter now, of course.

Samantha had spent the past three weeks visiting Arly every day at the convalescent center, where the



bones of her face were growing back, but that was a constant frustration, since the nature of her injuries meant they couldn't be jacked, couldn't be close. Never. And it was Samantha's nature to want revenge, but that was impossible now. The five rebels involved had been apprehended immediately, slid through the legal system, and were hanged a week later in the public square.

I'd seen it on the cube. They weren't hanged so much as slowly strangled. This in a country that hadn't used capital punishment in generations, before the war.

Maybe after the war we'll be civilized again. That's the way it has always happened in the past.

JULIAN USUALLY WENT STRAIGHT home to Houston, but not when his ten days were up on a Friday. That was the day of the week when he had to be the most social, and he needed at least a day preparation for that. Every day you spent jacked, you felt closer to the other nine mechanics. There was a terrible sense of separation when you unjacked, and hanging around with the others didn't help. What you needed was a day or so of isolation, in the woods or in a crowd.

Julian was not the outdoor type, and he usually just buried himself in the university library for a day. But not if it was Friday.

He could fly anywhere for free, so on impulse he went up to Cambridge, Massachusetts, where he'd done his undergraduate work. It was a bad choice, dirty slush everywhere and thin sleet falling in a constant sting, but he grimly persisted in his quest to visit every bar he could remember. They were full of inexplicably young and callow people.

Harvard was still Harvard; the dome still leaked. People made a point of not staring at a black man in uniform.

He walked a mile through the sleet to his favorite pub, the ancient Plough and Stars, but it was padlocked, with a card saying Bahama! taped inside the window. So he squished back to the Square on frozen feet, promising simultaneously to get drunk and not lose his temper.

There was a bar named after John Harvard, where they brewed nine kinds of beer on the premises. He had a pint of each one, methodically checking them off on the blotter, and flowed into a cab that decanted him at the airport. After six hours of off-and-on slumber, he flew his hangover back to Houston Sunday morning, following the sunrise across the country.

Back at his apartment he made a pot of coffee and attacked the accumulated mail and memos. Most of it was throwaway junk. Interesting letter from his father, vacationing in Montana with his new wife, not Julian's favorite person. His mother had called twice about a money problem, but then called again to say never mind. Both brothers called about the hanging; they followed Julian's career closely enough to realize that the woman who'd been attacked was in his platoon.

His actual career had generated the usual soft sifting pink snowfall of irrelevant interdepartmental memos, which he did have to at least scan. He studied the minutes of the monthly faculty meeting, just in case something real had been discussed. He always missed it, since he was on duty from the tenth to the nineteenth of every month. The only way that might have hurt his career would be jealousy from other faculty members.

And then there was a hand-delivered envelope, a small square under the memos, addressed J. He saw

corner of it and pulled it out, pink slips fluttering, and ripped open the flap, over which a red flame had been rubber-stamped: it was from Blaze, who Julian was allowed to call by her real name, Amelia. She was his coworker, ex-adviser, confidante, and sexual companion. He didn't say lover in his mind, yet, because that was awkward, Amelia being fifteen years older than him. Younger than his father's new wife.

The note had some chat about the Jupiter Project, the particle-physics experiment they were engaged in, including a bit of scandalous gossip about their boss, which did not alone explain the sealed envelope. Whatever time you get back, she wrote, come straight over. Wake me up or pull me out of the lab. I need my little boy in the worst way. You want to come over and find out what the worst way is?

Actually, what he'd had in mind was sleeping for a few hours. But he could do that afterward. He stacked the mail into three piles and dropped one pile into the recycler. He started to call her but then put the phone down unpunched. He dressed for the morning cool and went downstairs for his bicycle.

The campus was deserted and beautiful, redbuds and azaleas in bloom under the hard blue Texas sky. He pedaled slowly, relaxing back into real life, or comfortable illusion. The more time he spent jacked, the harder it was to accept this peaceful, monocular view of life as the real one. Rather than the beast with twenty arms; the god with ten hearts.

At least he wasn't menstruating anymore.

He let himself into her place with his thumbprint. Amelia was actually up at nine this Sunday morning, in the shower. He decided against surprising her there. Showers were dangerous places—he had slipped in one once, experimenting with a fellow clumsy teenager, and had wound up with a cut chin and bruises and a decidedly un-erotic attitude toward the location (and the girl, for that matter). So he just sat up in her bed, quietly reading the newspaper, and waited for the water to stop. She sang bits of tunes, happy, and switched the shower from fine spray to coarse pulse and back. Julian could visualize her there and almost changed his mind. But he stayed on the bed, fully clothed, pretending to read.

She came out toweling and started slightly when she saw Julian; then recovered: Help! There's a strange man in my bed!

I thought you liked strange men.

Only one. She laughed and eased alongside him, hot and damp.

ALL OF US MECHANICS talk about sex. Being jacked automatically accomplishes two things that normal people pursue through sex, and sometimes love: emotional union with another and the penetration, so to speak, of the physical mysteries of the opposite sex. These things are automatic and instantaneous, jacked, as soon as they turn on the power. When you unjack, it's a mystery you all have in common, and you talk about that as much as anything.

Amelia's the only civilian I've talked about it with at any length. She's intensely curious about it, and would take the chance if it were possible. But she would lose her position, and maybe a lot more.

Eight or nine percent of the people who go through the installation either die on the operating table or worse, come out of it with their brains not working at all. Even those of us who come out successfully,

jacked face an increase in the frequency of cerebrovascular incidents, including fatal stroke. For mechanics in soldier-boys, the increase is tenfold.

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So Amelia could get jacked—she has the money and could just slip down to Mexico City or Guadalajara and have it done at one of the clinics there—but she would automatically lose her position: tenure, retirement, everything. Most job contracts had a jack clause; all academic ones did. People like me were exempt because we didn't do it voluntarily, and it was against the law to discriminate against people in National Service. Amelia's too old to be drafted.

When we make love I sometimes have felt her stroking the cold metal disk at the base of my skull, as if she were trying to get in. I don't think she's aware of doing it.

Amelia and I had been close for many years; even when she was my Ph.D. adviser, we had a social life together. But it didn't become physical until after Carolyn died.

Carolyn and I were first jacked at the same time; joined the platoon on the same day. It was an instant emotional connection, even though we had almost nothing in common. We were both black Southerners (Amelia's pale Boston Irish) and in graduate school. But she was no intellectual; her MF was going to be in Creative Viewing. I never watched the cube and she wouldn't know a differential equation if it had reared up and bit her on the butt. So we had no rapport at that level, but that wasn't important.

We'd been physically attracted to each other during training, the shoe stuff you go through before they put you in a soldierboy, and had managed to sneak a few minutes of privacy, three times, for hasty sex, desperately passionate. Even for normal people, that would have been an intense beginning. But then when we were jacked it was something way beyond anything either of us had ever experienced. It was as if life were a big simple puzzle, and we suddenly had a piece dropped in that nobody else could see.

But we couldn't put it together when we weren't jacked. We had a lot of sex, a lot of talks, went to relators and counsellors — but it was like we were one thing in the cage and quite another, or two others, outside.

I talked to Amelia about it at the time, not only because we were friends, but because we were on the same project and she could see my work was starting to suffer. I couldn't get Carolyn off my mind, in a very literal way.

It was never resolved. Carolyn died in a sudden brain blowout when we weren't doing anything particularly stressful, just waiting for a pickup after an uneventful mission.

I had to be hospitalized for a week; in a way, it was even worse than just losing someone you loved. It was like that plus losing a limb, losing part of your brain.

Amelia held my hand that week, and we were holding each other soon enough.

I don't usually fall asleep right after making love, but this time I did, after the weekend of dissipation and the sleepless hours on the plane—you'd think a person who spent a third of his life as part of a machine would be comfortable traveling inside another one, but no. I have to stay awake to keep the damned thing in the air.

The smell of onions woke me up. Brunch, lunch, whatever. Amelia has a thing about potatoes; her

Irish blood, I suppose. She was frying up a pan with onions and garlic. Not my favorite wake-up call, but for her it was lunch. She told me she'd gotten up at three to log on and work out a decay sequence that turned out to be nothing. So her reward for working on Sunday was a shower, a somewhat awake lover, and fried potatoes.

I located my shirt but couldn't find my pants, and settled on one of her nightgowns, not too pretty. We were the same size.

I found my blue toothbrush in her bathroom and used her weird clove-flavored toothpaste. Decided against a shower because my stomach was growling. It wasn't grits and gravy, but it wasn't poison.

Good morning, bright eyes. No wonder I couldn't find my pants. She was wearing them.

Have you gone completely strange? I said.

Just an experiment. She stepped over and held me by both shoulders. You look stunning. Absolutely gorgeous.

What experiment? See what I would wear?

See whether. She stepped out of my jeans and handed them over, and walked back to her potatoes wearing only a T-shirt. I mean, really. Your generation is so prudish.

Oh, are we? I slipped off the gown and came up behind her. Come on. I'll show you prudish.

That doesn't count. She half-turned and kissed me. The experiment was about clothes, not sex. Sit down before one of us gets burned.

I sat down at the dinette and looked at her back. She stirred the food slowly. I'm not sure why I did that, really. Impulse. Couldn't sleep but didn't want to wake you up, going through the closet. I stepped on your jeans getting out of bed and I just put them on.

Don't explain. I want it to be a big perverse mystery.

If you want coffee you know where it is. She had a pot of tea brewed. I almost asked for a cup. But to keep the morning from being too full of mystery, I stuck with coffee.

So Macro's getting a divorce? Dr. Mac Roman was dean of research and titular head of our project, though he wasn't involved in the day-to-day work.

Deep dark secret. He hasn't told anybody. My friend Nel passed it on. Nel Nye was a schoolmate who worked for the city.

And they were such a lovely couple together. She laughed one ha, stabbing at the potatoes with the spatula. Was it another woman, man, robot?

They don't put that on the form. They're splitting this week, though, and I have to meet with him tomorrow before we go to Budget. He'll be even more distracted than usual. She divided the potatoes between two plates and brought them over. So you were out blowing up trucks?

Actually, I was lying in a cage, twitching. She dismissed that with a wave. There wasn't much to it. No drivers or passengers. Two saps.

Sapient?

'Sapient defense units,' yeah, but that puts a pretty low threshold on sapience. They're just guns on tracks with AI routines that give them a certain degree of autonomy. Pretty effective against ground troops and conventional artillery and air support. Don't know what they were doing in our AO.

Is that a blood type? she said over her teacup.

Sorry. 'Area of operations.' I mean, one flyboy could have taken them out in a single treetop pass. So why didn't they use a flyboy? Rather than risk damaging your expensive armored carcass.

Oh, they said they wanted the cargo analyzed, which was bullshit. The only stuff besides food and ammo were some solar cells and replacement boards for field mainframes. So we know they use Mitsubishi. But if they buy anything from a Rimcorp firm, we automatically get copies of the invoices. So I'm sure that was no big surprise.

So why'd they send you?

Nobody said officially, but I got a thread on my vertical jack that they were feeling out Sam, Samantha. She's the one who, her friend? Got beaten up and raped, yeah. She didn't do too well. Who would?

I don't know. Sam's pretty tough. But she wasn't even half there.

That would go rough on her? If she got a psychiatric discharge.

They don't like to give them, unless there's actual brain damage. They'd either 'find' that or put her through an Article 12. I got up to find some catsup for my potatoes. That might not be as bad as rumo has it. Nobody in our company has gone through it. I thought there was a congressional investigation of that. Somebody with important parents died.

Yeah, there was talk. I don't know that it got any further than talk. Article 12 has to be a wall you can't climb. Otherwise half the mechanics in the army would try for a psych discharge.

They don't want to make it that easy. So I used to think. Now I think part of it is keeping a balanced force. If you made an Article 12 easy, you'd lose everyone bothered by killing. The soldierboys would wind up a berserker corps.

That's a pretty picture.

You should see what it looks like from inside. I told you about Scoville.

A few times.

Imagine him times twenty thousand. People like Scoville are completely disassociated from killing, especially with the soldierboys. You find them in regular armies, too, though—people for whom enemy soldiers aren't human, just counters in a game. They're ideal for some missions and disastrous for others.

I had to admit the potatoes were pretty good. I'd been living on bar food for a couple of days, cheese and fried meats, with corn chips for a vegetable.

Oh... you didn't get on the cube this time. She had her cube monitor the war channels and keep any sequences where my unit appeared. So I was pretty sure you were having a safe, boring time.

So shall we find something exciting to do?

You go find something. She picked up the plates and carried them to the sink. "I have to go back to the lab for half a day.

Something I could help you with?

Wouldn't speed it up. It's just some data formatting for a Jupiter Project update. She sorted the plates into the dishwasher. Why don't you catch up on your sleep and we'll do something tonight. That sounded good to me. I switched the phone over, in case somebody wanted to bother me on Sunday morning, and returned to her rumpled bed.

THE JUPITER PROJECT WAS the largest particle accelerator ever built, by several orders of magnitude.

Particle accelerators cost money—the faster the particle, the more it costs—and the history of particle physics is at least partly a history of how important really fast particles have been to various sponsoring governments.

Of course, the whole idea of money had changed with the nanoforges. And that changed the pursuit of Big Science.

The Jupiter Project was the result of several years' arguing and wheedling, which resulted in the Alliance sponsoring a flight to Jupiter. The Jupiter probe dropped a programmed nanoforge into its dense atmosphere, and deposited another one on the surface of Io. The two machines worked in concert, the Jupiter one sucking up deuterium for warm fusion and beaming the power to the one on Io, which manufactured elements for a particle accelerator that would ring the planet in Io's orbit and concentrate power from Jupiter's gargantuan magnetic field.

Prior to the Jupiter Project, the biggest supercollider had been the Johnson Ring that circled several hundred miles beneath Texas wasteland. This one would be ten thousand times as long and a hundred thousand times as powerful.

The nanoforge actually built other nanoforges, but ones that could only be used for the purpose of making the elements of the orbiting particle accelerator. So the thing did grow at an exponential rate, the busy machines chewing up the blasted surface of Io and spitting it out into space, forming a ring of uniform elements.

What used to cost money now cost time. The researchers on Earth waited while ten, a hundred, a thousand elements were chucked into orbit. After six years there were five thousand of them, enough to start firing up the huge machine.

Time was involved in another way, a theoretical measure. It had to do with the beginning of the universe—the beginning of time. One instant after the Diaspora (once called the Big Bang) the universe was a small cloud of highly energetic particles swarming outward at close to the speed of light. An instant later, they were a different swarm, and so on out to a whole second, ten seconds, and so on. The more energy you pumped into a particle accelerator, the closer you could come to duplicating the conditions that obtained soon after the Diaspora, the beginning of time.

For more than a century there had been a back-and-forth dialogue between the particle physicists and the cosmologists. The cosmologists would scribble their equations, trying to figure out which particles were flitting around at what time in the universe's development, and their results would suggest an experiment. So the physicists would fire up their accelerators and either verify the cosmologists' equations or send them back to the blackboard.

The reverse process also happens. One thing most of us agree on is that the universe exists (people who deny that usually follow some trade other than science), so if some theoretical particle interaction would lead ultimately to the nonexistence of the universe, then you can save a lot of electricity by not trying to demonstrate it.

Thus it went, back and forth, up to the time of the Jupiter Project. The Johnson Ring had been able to take us back to conditions that were obtained when the universe was one tenth of a second old. By that time, it was about four times the size the Earth is now, having expanded from a dimensionless point a

a great rate of speed.

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The Jupiter Project, if it worked, would take us back to a time when the universe was smaller than a pea, and filled with exotic particles that no longer exist. But it would be the biggest machine ever built, by several orders of magnitude, and it was being built by automatic robots with no direct supervision. When the Jupiter group sent an order out to Io, it would get there fifteen to twenty-four minutes later, and of course the response would be delayed by an equal length of time. A lot can happen in forty-eight minutes; twice, the Project had to be halted and reprogrammed—but you couldn't really halt it, not all at once, because the submachines that were making the parts that would go into orbit just kept on going for forty-eight minutes plus however long it took to figure out how to reprogram them.

Over the Jupiter Program director's desk, there was a picture from a movie over a century old: Mickey Mouse as the Sorcerer's Apprentice, staring dumbfounded at the endless line of brainless brooms marching through the door.

I SLEPT A COUPLE of hours and woke up suddenly, in a panic sweat. I couldn't remember what I'd been dreaming about, but it left me with a fading sense of vertigo, falling. It had happened a few times before, the first day or two off duty.

Some people wound up never getting any deep sleep unless they were jacked. Sleeping that way gave you total blackness, total lack of sensation or thought. Practicing up for death. But relaxing.

I lay there staring into the watery light for another half hour and decided to stop trying. Went into the kitchen and buzzed up some coffee. Really ought to work, but I wouldn't have any papers until Tuesday, and Research could wait until tomorrow morning's meeting.

Catch up on the world. I'd resolutely stayed away from it in Cambridge. I turned on Amelia's desk and decrypted a thread to my news module.

It humors me and puts the light stuff first. I read through twenty pages of comics and the three columns I knew to be safely immune from politics. One of them did a broad satire about Central America anyhow.

Central and South America took up most of the world news section, unsurprisingly. The African front was quiet, still stunned a year after our nuking of Mandelaville. Perhaps regrouping and calculating which of our cities would be next.

Our little sortie wasn't even mentioned. Two platoons of soldierboys took the towns of Piedra Sola and Igatimi, in Uruguay and Paraguay; supposedly rebel strongholds. We did it with their governments' foreknowledge and permission, of course—and there were no civilian casualties, equally of course. Once they're dead they're rebels. *La muerte es el gran convertidor*, they say—Death is the great converter. That must be literally true as well as a sarcasm about our body counts. We've killed a quarter-million in the Americas and God knows how many in Africa. If I lived in either place I'd be a rebel.

There was a business-as-usual running report about the Geneva talks. The enemy is so fragmented they will never come together on terms, and I'm sure at least some of the rebel leaders are plants, puppets ordered to keep the thing good and confused.

They did actually come to agreement over nuclear weapons: neither side would use them except in retaliation, starting now, though Ngumi still won't take responsibility for Atlanta. What we really need is an agreement on agreements: If we promise something, we won't break the promise for at least thirty days. Neither side would agree to that.

I turned off the machine and checked Amelia's refrigerator. No beer. Well, that was my responsibility. Some fresh air wouldn't hurt, anyhow, so I locked up and pedaled toward the campus gate.

The shoe sergeant in charge of security looked at my ID and made me wait while he phoned for verification. The two privates with him leaned on their weapons and smirked. Some shoes have a thing about mechanics, since we don't actually fight. Forget that we have to stay in longer and have a higher death rate. Forget that we keep them from having to do the really dangerous jobs.

Of course, that's exactly it for some of them: we also stand in the way of their being heroes. "It takes all kinds of people to make a world, my mother always says. Fewer kinds to make an army. He finally admitted I was who I was. You carrying?" he asked as he filled out the pass. No, I said. Not in the daytime.

Your funeral. He folded the pass precisely in two and handed it over. Actually, I was armed, with a putty knife and a little Beretta belt-buckle laser. It might be his own funeral someday, if he couldn't tell whether or not a man was armed. I saluted the privates with one erect finger between the eyes, traditional draftee greeting, and went out into the zoo.

There were about a dozen whores lounging around the gate, one of them a jill, her head shaved. She was old enough to be an ex-mechanic. You always wondered.

Of course, she noticed me. Hey, Jack! She stepped onto the path and I stopped the bike. I got something you can ride.

Maybe later, I said. You're lookin' good. Actually, she wasn't. Her face and posture showed a lot of stress; the telltale pink in her eyes tagged her as a cherrybomb user.

Half price for you, honey. I shook my head. She grabbed on to my handlebars. Quarter price. Been so long since I done it jacked.

I couldn't do it jacked. Something made me honest, or partly so. Not with a stranger.

So how long would I be a stranger? She couldn't hide the note of pleading.

Sorry. I pushed off onto the grass. If I didn't get away fast, she'd be offering to pay me.

The other hookers had watched the exchange with various attitudes: curiosity, pity, contempt. As if they weren't all addicts of one kind or another, themselves. Nobody had to fuck for a living in the Universal Welfare State. Nobody had to do anything but stay out of trouble. It works so well.

They had legalized prostitution in Florida for a few years, when I was growing up. But it went the way of the big casinos before I was old enough to be interested.

Hooking's a crime in Texas, but I think you have to be a real nuisance before they lock you up. The two cops who watched the jill proposition me didn't put the cuffs on her. Maybe later, if they had the money.

Jills usually get plenty of work. They know what it feels like to be male.

I pedaled past the college-town stores, with their academic prices, into town. South Houston was not exactly savory, but I was armed. Besides, I figured that bad guys kept late hours, and would still be in



bed. One wasn't.

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I leaned the bike up against the rack outside of the liquor store and was fiddling with the cranky lock which was supposed to take my card.

Hey boy, a deep bass voice said behind me. You got ten dollars for me? Maybe twenny?

I turned around slowly. He was a head taller than me, maybe forty, lean, muscle suit. Shiny boots up his knees and the tightly braided ponytail of an Ender: God would use that to haul him up to heaven. Soon, he hoped.

I thought you guys didn't need money.

I need some. I need it now.

So what's your habit? I put my right hand on my hip. Not natural or comfortable, but close to the putty-knife. Maybe I got some.

You don't got what I need. Got to buy what I need. He drew a long knife with a slender wavy blade from his boot.

Put it away. I got ten. The silly dagger was no match for a puttyknife, but I didn't want to perform a dissection out here on the sidewalk.

Oh, you got ten. Maybe you got fifty. He took a step toward me.

I pulled out the puttyknife and turned it on. It hummed and glowed. You just lost ten. How much more you want to lose?

He stared at the vibrating blade. The shimmering mist on the top third was as hot as the surface of the sun. You in the army. You a mechanic.

I'm either a mechanic or I killed one and took his knife. Either way, you want to fuck with me?

Mechanics ain't so tough. I was in the army.

You know all about it, then. He took a half-step to the right, I think a feint. I didn't move. You don't want to wait for your Rapture? You want to die right now?

He looked at me for a long second. There was nothing in his eyes. Oh, fuck you anyhow. He put the knife back in his boot, turned, and walked away without looking back.

I turned off the puttyknife and blew on it. When it was cool enough, I put it back and went into the liquor store.

The clerk had a chrome Remington airspray. Fuckin' Endie. I would've got him.

Thanks, I said. He would've gotten me too, with an airspray. You got six Dixies?

Sure. He opened the case behind him. Ration card?

Army, I said. I didn't bother with the ID.

Figured. He rummaged. You know they got a law I got to let the fuckin' Endies in the store? They never buy anything.

Why should they? I said. World's going up in smoke tomorrow, maybe the next day.

Right. Meanwhile they steal y' blind. All I got's cans.

Whatever. I was starting to shake a little. Between the Ender and this trigger-happy clerk I'd probably come closer to dying than I ever would in Portobello.

He put the six-pack in front of me. You don't want to sell that knife?

No, I need it all the time. Open fan mail with it.

That was the wrong thing to say. Got to say I don't recognize you. I follow the Fourth and Sixteenth, mainly.

I'm Ninth. Not nearly as exciting.

~~Interdiction, he said, nodding. The Fourth and Sixteenth are hunter-killer platoons, so they have a considerable following. Warboys, we call their fans.~~

He was a little excited, even though I was just Interdiction. And Psychops. You didn't catch the Fourth last Wednesday, did you?

Hey, I don't even follow my own outfit. I was in the cage then, anyhow.

He stopped for a moment with my card in his hand, struck dumb by the concept that a person could live nine days in a row inside a soldierboy and then not jump straight to the cube and follow the war.

Some do, of course. I met Scoville when he was out of the cage once, here in Houston for a warboy assembly. There's one every week somewhere in Texas—they haul in enough booze and bum and squeak to keep them cross-eyed for a long weekend, and pay a couple of mechanics to come in and tell them what it's really really like. To be locked inside a cage and watch yourself murder people by remote control. They replay tapes of great battles and argue over fine points of strategy.

The only one I've ever gone to had a warrior day, where all of the attendees—all except us outsiders—dressed up as warriors from the past. That was kind of scary. I assumed the tommy guns and flintlocks didn't function; even criminals were reluctant to risk that. But the swords and spears and bows looked real enough, and they were in the hands of people who had amply demonstrated, to me at least, that they shouldn't be trusted with a sharp stick.

You were going to kill that guy? the clerk said conversationally.

No reason to. They always back off. As if I knew.

But suppose he didn't.

It wouldn't be a problem, I heard myself saying. Take his knife hand off at the wrist. Call 9-1-1.

Maybe they'd glue it back on upside down. Actually, they'd probably take their time responding. Give him a chance to beat the Rapture by bleeding to death.

He nodded. We had two guys last month outside the store, they did the handkerchief thing, some girl. That was where two men bite down on opposite corners of a handkerchief, and have at each other with knives or razors. The one who lets go of the handkerchief loses. One guy was dead before they got here. The other lost an ear; they didn't bother to look for it. He gestured. I kept it in the freezer for awhile.

You're the one who called the cops?

Oh yeah, he said. Soon as it was over. Good citizen.

I strapped the beer onto the rear carrier and pedaled back toward the gate. Things are getting worse. I hate to sound like my old man. But things really were better when I was a boy. There weren't Enders on every corner. People didn't duel. People didn't stand around and watch other people duel. And then the police picked up the ears afterward.

NOT ALL ENDERS HAD ponytails and obvious attitudes. There were two in Julian's physics department, a secretary and Mac Roman himself.

People wondered how such a mediocre scientist had come out of nowhere and brown-nosed his way into a position of academic power. What they didn't appreciate was the intellectual effort it took to

successfully pretend to believe in the ordered, agnostic view of the universe that physics mandated. I was all part of God's plan, though. Like the carefully falsified documents that had put him in the position of being minimally qualified for the chairmanship. Two other Enders were on the Board of Regents, able to push his case.

Macro (like one of those Regents) was a member of a militant and supersecret sect within a sect: the Hammer of God. Like all Enders, they believed God was about to bring about the destruction of humankind.

Unlike most of them, the Hammer of God felt called upon to help.

ON THE WAY BACK to campus I took a wrong turn and, circling back, passed a downscale jack joint I'd never seen. They had feelies of group sex, downhill skiing, a car crash. Done there; been that. Not to mention all the combat ones.

Actually, I'd never done the car crash. I wonder if the actor died. Sometimes Enders did that, even though jacking's supposed to be a sin. Sometimes people do it to be famous for a few minutes. I've never jacked into one of those, but Ralph has his favorites, so when I'm jacked with Ralph I get it secondhand. Guess I'll never understand fame.

There was a new sergeant at the gate to the university, so we went through the delaying song and dance again.

I pedaled aimlessly through the campus for an hour. It was pretty deserted, Sunday afternoon of a long week-end. I went into the physics building to see whether any students had slipped papers under my door, and one had—an early problem set, wonder of wonders. And a note saying he'd have to miss class because his sister had a coming-out party in Monaco. Poor kid.

Amelia's office was one floor above mine, but I didn't bother her. I really ought to work out the answers to the problem set, get ahead of the game. No, I ought to go back to Amelia's and waste the rest of the day.

I did go back to Amelia's, but in a spirit of scientific inquiry. She had a new appliance they called the anti-microwave; you put something in it and set the temperature you want, and it cools it down. Of course the appliance has nothing to do with microwaves.

It worked well on a can of beer. When I opened the door, wisps of vapor came out. The beer was forty degrees, but the ambient temperature inside the machine must have been a lot lower. Just to see what would happen, I put a slice of cheese in it and set it to the lowest temperature, minus forty. When it came out I dropped it on the floor, and it shattered. I think I found all the pieces.

Amelia had a little alcove behind the fireplace that she called the library. There was just room for an antique futon and a small table. The three walls that defined the space were glassed-in shelves, full of hundreds of old books. I'd been in there with her, but not to read.

I set the beer down and looked at the titles. Mostly novels and poetry. Unlike a lot of jacks and jills, I still read for pleasure, but I like to read things that are supposed to be true.

My first couple of years of college, I majored in history with a minor in physics, but then switched

around. I used to think it was the degrees in physics that got me drafted. But most mechanics have the usual compulsory-ed degrees—gym, current events, communication skills.

You don't have to be that smart to lie in the cage and twitch.

Anyhow, I like to read history, and Amelia's library was lean in that subject. A few popular illustrated texts. Mostly twenty-first century, which I planned to read about when it was over.

I remembered she wanted me to read the Civil War novel *The Red Badge of Courage*, so I took it down and settled in. Two hours and two beers.

The differences between their fighting and ours were as profound as the difference between a bad accident and a bad dream.

Their armies were equally matched in weaponry; they both had a diffuse, confused command structure that essentially resulted in one huge mob being thrown against another, to flail away with primitive guns and knives and clubs until one mob ran away.

The confused protagonist, Henry, was too deeply involved to see this simple truth, but he reported it accurately.

I wonder what poor Henry would think about our kind of war. I wonder whether his era even knew the most accurate metaphor: exterminator. And I wondered what simple truth my involvement kept me from seeing. JULIAN DIDN'T KNOW THAT the author of *The Red Badge of Courage* had had the advantage of not having been a part of the war he wrote about. It's harder to see a pattern when you're part of it.

That war had been relatively straightforward in terms of economic and ideological issues; Julian's was not. The enemy Ngumi comprised a loose alliance of dozens of rebel forces, fifty-four this year. In all enemy countries there was a legitimate government that cooperated with the Alliance, but it was no secret that few of those governments were supported by a majority of their constituents.

It was partly an economic war, the haves with their automation-driven economies versus the have-nots, who were not born into automatic prosperity. It was partly a race war, the blacks and browns and some yellows versus the whites and some other yellows. Julian was uncomfortable on some level about that, but he didn't feel much of a bond with Africa. Too long ago, too far away, and they were too crazy.

And of course it was an ideological war for some—the defenders of democracy versus the rebel strong-arm charismatic leaders. Or the capitalist land-grabbers versus the protectors of the people, take your pick.

But it was not a war that was going to have a conclusive endgame, like Appomattox or Hiroshima. Either the slow erosion of the Alliance would make it collapse into chaos, or the Ngumi would be swatted down hard enough in all locations that they would become a collection of local crime problems rather than a somewhat unified military one.

The roots of it went back to the twentieth century and even beyond; many of the Ngumi traced their political parentage back to when white men first brought sailing ships and gunpowder to their lands. The Alliance dismissed that as so much jingoistic rhetoric, but there was logic to it.

The situation was complicated by the fact that in some countries the rebels were strongly linked to

organized crime, as had happened in the Drug Wars that simmered early in the century. In some, there was nothing left but crime, organized or disorganized, but universal, from border to border. In some of those places, Alliance forces were the only vestige of law—often underappreciated, when there was no legal commerce and the population's choice was between a well-stocked black market and essentials—only charity from the Alliance.

Julian's Costa Rica was anomalous. The country had managed to stay out of the war early on, maintaining the neutrality that had kept it out of the twentieth century's cataclysms. But its geographical location between Panama, the only Alliance stronghold in Central America, and Nicaragua, the hemisphere's most powerful Ngumi nation, finally dragged it into the war. At first, most of the patriotic rebels spoke with a suspicious Ni-caraguan accent. But then there was a charismatic leader and an assassination—both engineered by Ngumi, the Alliance claimed—and before long the forests and fields were filled with young men, and some women, ready to risk their lives to protect their land against the cynical capitalists and their puppets. Against the huge bulletproof giants who stalked the jungle quiet as cats; who could level a town in minutes.

Julian considered himself a political realist. He didn't swallow the facile propaganda of his own side, but the other side was just plain doomed; their leaders should be making deals with the Alliance rather than annoying it. When they nuked Atlanta they hammered the last nail into their coffin.

If indeed Ngumi had done it. No rebel group claimed responsibility, and Nairobi said it was close to being able to prove that the bomb had come from the Alliance nuclear archives: they had sacrificed five million American lives to pave the way for total war, total annihilation.

But Julian wondered about the nature of the proof, that they could be close to it and not be able to say anything specific. He didn't rule out the possibility that there were people on his own side insane enough to blow up one of their own cities. But he did wonder how such a thing could be kept secret for so long. A lot of people would have to be involved.

Of course that could be dealt with. People who would murder five million strangers could sacrifice a few dozen friends, a few hundred coconspirators.

And so it went around and around, as it had in everybody's thoughts in the months since Atlanta, Sao Paulo, and Mandelaville. Would some actual proof emerge? Would another city be snuffed out tomorrow; and then another one, in retaliation?

It was a good time for those who owned rural real estate. People who could move were finding country life appealing.

THE FIRST FEW DAYS I'm back are usually nice and intense. The homecoming mood energizes our love life, and all the time I'm not with her I'm deeply immersed in the Jupiter Project, catching up. But a lot depends on the day of the week I come back, because Friday is always a singularity. Friday is the night of the Saturday Night Special.

That's the name of a restaurant up in the Hidalgo part of town, more expensive than I would normally patronize, and more pretentious: the theme of the place is the romanticized California Gang Era—grease, graffiti, and grime, safely distant from the table linen. As far as I'm concerned, those people were no different from today's whackers and slicers — if anything, worse, since they didn't have to

worry about the federal death penalty for using guns. The waiters come around in leather jackets and meticulously grease-stained T-shirts, black jeans, and high boots. They say the wine list is the best in Houston.

I'm the youngest of the Saturday Night Special crowd by at least ten years; the only one who's not a full-time intellectual. I'm Blaze's boy ; I don't know which of them knew or suspected I literally was her boy. I came as her friend and coworker, and everybody seemed to accept that.

My primary value to the group was the novelty of being a mechanic. That was doubly interesting to them, because a senior member of the group, Marty Larrin, was one of the designers of the cyberlink that made jacking, and thus soldierboys, possible.

Marty had been responsible for designing the system's security. Once a jack was installed, it was failsafed at a molecular level, literally impossible to modify, even for the original manufacturers; even for researchers like Marty. The nanocircuitry inside would scramble itself within a fraction of a second if any part of the complex device was tampered with. Then it would take another round of invasive surgery, with a one-in-ten chance of death or uselessness, to take the scrambled jack out and install a new one.

Marty was about sixty, the front half of his head shaved bald in a generation-old style, the rest of his white hair long except for the shaved circle around his jack. He was conventionally handsome, still; regular leading-man features, and it was obvious from the way he treated Amelia that they had a past. I once asked her how long ago that had been, the only such question I've ever asked her. She thought for a moment and said, I guess you were out of grade school.

The population of the Saturday Night Special crowd varies from week to week. Marty is almost always there, along with his traditional antagonist, Franklin Asher, a mathematician with a chair in the philosophy department. Their jocular sniping goes back to when they were graduate students together. Amelia's known him nearly as long as Marty.

Belda Magyar is usually there, an odd duck but obviously one of the inner circle. She sits and listens with a stern, disapproving look, nursing a single glass of wine. Once or twice a night she makes a hilarious remark, without changing expression. She's the oldest, over ninety, a professor emeritus in the art department. She claims to remember having met Richard Nixon, when she was very small. He was big and scary, and gave her a book of matches, no doubt a White House souvenir, which her mother took away.

I liked Reza Pak, a shy chemist in his early forties, the only one besides Amelia with whom I socialized outside the club. We met occasionally to shoot pool or play tennis. He never mentioned Amelia and I never mentioned the boyfriend who always drove up to fetch him, exactly on time.

Reza, who also lived on campus, usually gave me and Amelia a ride to the club, but this Friday he was already uptown, so we called a cab. (Like most people, Amelia doesn't own a car and I've never even driven, except in Basic Training, and then only jacked with someone who knew how.) We could bike to Hidalgo in daylight, but coming back after dark would be suicide.

It started raining at sundown anyhow, and by the time we got to the club it was a full-fledged thunderstorm, with tornado watch. The club had an awning, but the rain was almost horizontal; we got drenched between the cab and the door.

Reza and Belda were already there, at our usual table in the grease section. We talked them into moving to the Club Room, where a phony-but-warm fireplace crackled. Another semi-regular, Ray Booker, came in while we were relocating, also drenched. Ray was an engineer who worked with Marty Larrin on soldierboy technology, and a serious 'grass musician who played banjo all over the state, summers.

Julian, you should of seen the Tenth today. Ray had a little warboy streak in him. Delayed replay of a amphibious assault on Punta Patuca. We came, we saw, we kicked butt. He handed his wet overcoat and hat to the wheelie that had followed him in. Almost no casualties.

What's 'almost'? Amelia said.

Well, they ran into a shatterfield. He sat down heavily. Three units lost both legs. But we got them evac'ed before the scavengers could get to them. One psych, a girl on her second or third mission. Wait, I said. They used a shatterfield inside a city?

They sure as hell did. Brought down a whole block of slums, urban renewal. Of course they said we did it.

How many dead?

Must be hundreds. Ray shook his head. That's what got the girl, maybe. She was in the middle of it, immobilized with both her legs off. Fought the rescue crew; wanted them to evac the civilians. They had to turn her off to get her out of there.

He asked the table for a scotch and soda and the rest of us put our orders in. No greasy waiters in this section. Maybe she'll be okay. One of those things you have to learn to live with.

We didn't do it, Reza said.

Why would we? No military advantage, bad press. Shatterfield's a terror weapon, in a city. I'm surprised anyone survived, I said.

Nobody on the ground; they were all instant chorizo. But those were four- and five-story buildings. People in the upper stories just had to survive the collapse.

The Tenth set up a knockout perimeter with UN markers and called it a no-fire zone, collateral casualty, once we had all our soldierboys out. Dropped in a Red Cross med crawler and moved on.

The shatterfield was their only real 'tech touch. The rest of it was old-fashioned, cut-off-and-concentrate tactics, which doesn't work on a group as well integrated as the Tenth. Good platoon coordination. Julian, you would have appreciated it. From the air it was like choreography.

Maybe I'll check it out. I wouldn't; never did, unless I knew somebody in the fight.

Any time, Ray said. I've got two crystals of it, one jacked through Emily Vail, the company coordinator. The other's the commercial feed. They didn't show battles while they were happening, of course, since the enemy could jack in. The commercial feed was edited both for maximum drama and minimum disclosure. Normal people couldn't get individual mechanics' unedited feeds; lots of warboys would cheerfully kill for one. Ray had top-secret clearance and an unaltered jack. If a civilian or a spy got ahold of Emily Vail's crystal, they would see and feel a lot that wasn't on the commercial version, but selected perceptions and thoughts would be filtered out unless you had a jack like Ray's.

A live waiter in a clean tuxedo brought our drinks. I was splitting a jug of house red with Reza.

Ray raised a glass. To peace, he said, actually without irony. Welcome back, Julian. Amelia touched my knee with hers under the table.

The wine was pretty good, just astringent enough to make you consider a slightly more expensive one. 'Easy week this time, I said, and Ray nodded. He always checked on me.

A couple of others showed up, and we broke down into the usual interlocking small conversational groups. Amelia moved over to sit with Belda and another man from fine arts, to talk about books. We usually did separate when it seemed natural.

I stayed with Reza and Ray; when Marty came in he gave Amelia a peck and joined the three of us. There was no love lost between him and Belda.

Marty was really soaked, his long white hair in lanky strings. Had to park down the block, he said, dropping his sodden coat on the wheelie.

Thought you were working late, Ray said. This isn't late? He ordered coffee and a sandwich. I'm going back later, and so are you. Have a couple more scotches.

What is it? He pushed his scotch away a symbolic inch. Let's not talk shop. We have all night. But it's that girl you said you saw on the Vail crystal.

The one who cracked? I asked.

Mm-hm. Why don't you crack, Julian? Get a discharge. We enjoy your company.

Your platoon, too, Ray joked. Nice bunch.

How could she fit into your cross-linking studies? I asked. She must hardly have been linking at all.

New deal we started while you were gone, Ray said. We got a contract to study empathy failures.

People who crack out of sympathy for the enemy.

You may get Julian, Reza said. He just loves them pedros.

It doesn't correlate much with politics, Marty said. And it's usually people in their first year or two. More often female than male. He's not a good candidate. The coffee came and he picked up the cup and blew on it. So how about this weather? Clear and cool, they said.

Love them Knicks, I said.

Reza nodded. The square root of minus one. There was going to be no more talk of empathy failures that night.

JULIAN DIDN'T KNOW HOW selective the draft really was, finding people for specific mechanics' slots. There were a few hunter-killer platoons, but they tended to be hard to control, on a couple of levels. As platoons, they followed orders poorly, and they didn't integrate well horizontally, with other platoons in the company. The individual mechanics in a hunter-killer platoon tended not to link strongly with one another.

None of this was surprising. They were made up of the same kind of people earlier armies chose for wet work. You expected them to be independent and somewhat wild.

As Julian had observed, most platoons had at least one person who seemed like a really unlikely choice. In his outfit it was Candi, horrified by the war and unwilling to harm the enemy. They were called stabilizers.

Julian suspected she acted as a kind of conscience for the platoon, but it would be more accurate to call her a governor, like the governor on an engine. Platoons that didn't have one member like Candi had a tendency to run out of control, go berserker. It happened sometimes with the hunter-killer ones



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