

Volume 2 - Chapter 63 - Tech Talk

“JOIN THE FRONTLINE BEHIND THE FRONTLINE”

Titan Forge Salvage & Recovery Needs YOU

Are you strong, steady on your feet, and ready to put your back into something that truly *matters*? Titan Forge Salvage & Recovery is expanding its workforce once again and is officially looking to hire more able-bodied workers—preferably with **exo-suit** or **exo-loader** experience, but not required!—to support ongoing reclamation efforts across the entire UHF space.

As every citizen knows, our brave UHF Marines, Navy, Armoured Division, and countless other branches fight day and night to protect our borders and push back the tyrannical Factions that threaten our way of life.

But their victories come with a steep, steep cost—spent munitions, lost weapons and armour, damaged vehicles and hulls, wrecked local infrastructure, and, most importantly of all, truly *valuable* materials scattered across the burnt out husks of the battlefields they leave behind.

That’s where YOU come in.

Titan Forge S&R works hand-in-hand with the UHF to *reclaim* these valuable battlefield resources the moment the fighting ends, ensuring our Forces can continue to fight *sustainably* and *strategically* for dozens of years to come.

Every crate recovered, every armor plate hauled, every ship part salvaged keeps our military heroes running at maximum efficiency. Without us, there would be no “Miracle of Onlan”, no “Hold at Sina Prime”, no “Conquest of Falsien”, for there would be no resources to sustain these major defensive and offensive operations!

Now, be aware: This is *not* easy work—**long shifts, harsh environments, and long months or even years away from home**—but the reward is nothing short of life-changing.

With hazard pay, supply-line bonuses, high-tier field stipends, and the super-rare chance of stumbling onto a **legendary-grade** find that could make you into planetary governor overnight wealth-wise, a single deployment has the potential to lift your entire family to **Core-World living standards** by the time you return.

What We’re Looking For:

- Strong physical condition (preferred, not required)
- Experience with exo-suits, exo-loaders, lift-frames, or heavy machinery (preferred, not required)
- Ability to work long, physical hours in high-stress or hazardous environments

- Willingness to relocate for upwards of six months, potentially for several years to forward headquarters to be closer to the action.
- A patriotic desire to support the men and women on the frontlines (preferred, not required—even non-patriotic salvage is good salvage!)

What You'll Get:

- Great pay with full hazard compensation
- Housing and meals provided for all deployments
- Top-tier medical coverage through Titan Forge's "Unified Wellness" Program, fully covering limb replacements, skin grafts and dental (*Terms & Conditions apply*)
- A sense of pride knowing *you* keep our Marines supplied, our fleets repaired, and our borders expanding

Stand with the UHF Military—by helping rebuild and reclaim what they have to burn down for all of our survival.

Apply today at your nearest Titan Forge Recruitment Office!

A message from: Titan Forge Salvage & Recovery — "One Faction's trash..."

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[UHF Galactic Bulletin – Sector-Wide Job Posting, Titan Forge Salvage & Recovery, PFC940]

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Thea hadn't been this blissfully content and excited in a long time—if ever.

She and Peria had spent the last two hours going over the design sheets—the *original* design sheets!—of the Gram, which the weapons clerk had somehow managed to secure just for this meeting.

'*Peria is the fucking best,*' Thea thought to herself once more as she marvelled at the lengthy and in-depth array of schematics in front of her.

Most of the first hour had gone into the Gram's design history, and it had revealed far more about the weapon—and weapon design in general—than she had ever expected.

One thing that had stood out especially, was just *how many* factors went into building a weapon intended for wide-spread distribution.

Even though the Gram was a designated marksman rifle and not exactly a mass-appeal product—unlike something like the AR303 or similar—it *was* still designed as an

“off-the-shelf” weapon, not a one-of-a-kind build made for a particular user or purpose in mind beyond “designated marksmen will use this weapon”.

Because of that, a lot of design choices had been made not to build the *perfect* weapon for someone like her, but instead to make something that could function adequately in as many situations people in her role could get into as possible, without sacrificing too much in either direction.

It was obvious when stated plainly like this of course, but seeing the actual process—the compromises, the narrowed options, the common-denominator decisions—that the original designers at Starfire Armaments had followed, struck her harder than she expected.

‘But it also means that there’s quite a bit of leeway to really modify and customize the weapon to fit what I need better...’

This past hour of discussion had focused on the finalized aspects of the Gram and its more detailed parts—especially the Laser-variant.

Peria had insisted they start with that one, since it was the most complicated option but also the one Thea had the most experience with—and Thea hadn’t found a reason to disagree.

There wasn’t a single weapon she knew better than the Gram, except maybe the Caliburn itself—and not knowing every tiny detail of that one would have been beyond dangerous, given the Solarium core inside it, so she had spent countless hours reading through every page of the manual and studying the schematics to the best of her abilities.

Right now, they were studying the exact schematic of the lens setup and talking through how the weapon *actually* worked on a basic level.

Thea had insisted they start from the ground up, since she didn’t actually really understand how everything functioned under the hood yet.

The maintenance manuals and schematics that came with her license were helpful of course, but not nearly detailed enough for her to simply reverse-engineer how it all worked on a fundamental level—at least not yet.

‘Maybe once I get all the Skill Classes sorted out, I’ll be able to look at those full-license schematics and actually understand how things work just from that,’ she thought. *‘Right now however, I can only guess which part does what based on breaking everything down and putting it back together a hundred times... It’s mostly semi-educated guessing though, really.’*

That lack of knowledge was being fixed fast by Peria’s energetic breakdowns.

“At a basic level, laser-type weapons across the galaxy aren’t *actually* laser-based—not primarily,” Peria explained. “Anyone with half an eye for detail could figure that out sooner or later. If these were true lasers, a mirror-polish or reflective armor would shut them down instantly—or worse, bounce the beam back into your own lines.”

Thea nodded at that.

It really was obvious, and something she had figured out the first time she had tried laser weapons in Terra's games.

"Instead, these so-called lasers are more like high-speed mini plasma-particle weapons that fire two separate shots almost at once," Peria continued. "Here and here."

She pointed at two sections of the lens array, the schematic hovering in 3D above the bench. With a swipe she stripped away surrounding components, leaving the arrays hanging like exposed nerves.

"Every shot starts with what's called the priming-laser. It's the only part that's even somewhat close to a real laser. Its job is to ionize the air from barrel to target, creating a clean tunnel of a mostly homogenous medium for the second shot, also known as the payload. Then the second array sends a condensed beam of light carrying a tiny mass of particles through that tunnel and into the target."

On the hologram, a slowed-down firing sequence played out, breaking everything into clear pieces of motion.

Thea stared, utterly fascinated—she had never even realized the Gram fired in two stages.

"This payload is why the shots glow and leave streaks in the air—it's effectively a form of plasma that's being dragged through the ionized pathway. It's also why your typical laser-variants cap out at 0.88c for shot-speed. That's the fastest the bundle of particles can travel through the tunnel medium without destabilizing and simply ripping apart.

"*And* it's that mass behind the shot that lets these rifles punch clean through armor in the first place. A true laser would need constant burn-time on the same point to get through anything thicker than a single plate of durasteel, barring truly unfathomable levels of energy investment. Power means nothing without a mass to push."

A lot of what the clerk was explaining about the weapon's inner workings was already drifting past Thea's actual understanding of the material in question.

'I can kind of follow the general idea, but I don't really get the deeper parts... That's not great,' she thought, her brows pulling tight.

Peria noticed immediately. "Oh—sorry. Too much?"

Thea shook her head quickly. "No, not too much. Just... I'm missing the basics to understand what all those details actually *mean*. I get what you're saying on the surface, but I don't have real knowledge in... physics?"

Peria nodded along, then tilted her head. "Well—physics and photonics."

"Right. *Those*. I don't have a deep knowledge on either of those yet, so I can't extrapolate what that really means for the weapon as a whole and what aspects might be problematic or could become useful to me as a whole..." Thea admitted.

A sudden thought struck her and she grabbed her datapad, opening it while speaking out loud.

“Sovereign, could you let Peria see my Skill Classes on here? Just so she can help me figure out which Skills I should focus on, if I want to learn this stuff properly?”

Peria visibly flinched when Thea addressed the ship’s AI directly, though Thea couldn’t even wager a guess as to why.

The Sovereign answered right away as usual, its voice carrying from the air around them, “I can. However, some Skill’s details may need to be redacted. Peria Akin is not fully Integrated into the Allbright System, therefore certain information is restricted. None of your current Skill Classes fall into that category, but the clarification was deemed necessary.”

Thea’s eyebrows rose.

She hadn’t even *thought* about that before but, *of course* Peria wasn’t Integrated.

She looked at the clerk properly and the difference was blindingly obvious.

Far smaller than even Thea herself, less lean and definitely lacking that strange *gravitas*, which was hard to really quantify—she could *feel* the difference instinctually however, being this close to the other woman.

“How does that work, exactly? The whole not-being-Integrated thing, but still being allowed to know about the Allbright System and most of what goes on behind the scenes?” Thea asked, watching Peria accept her datapad and begin scrolling through the Skill Classes—broken down into sub-Skills and topics.

“It’s quite simple, really,” the clerk replied while reading. “We’re offered a series of increasingly restrictive NDAs. First with the company that wants to hire us, then the Faction we’ll be working with—in this case the UHF—then the specific branches, so the UHF Marine Corps and UHF Navy for me. And finally, once all NDAs are accepted, we sign a direct contract with the Allbright System itself. That one enforces its rules a lot more strictly than anything else can really, so it makes sense.”

“Y-You directly talked to the System?!” Thea blurted out.

Peria nodded casually, like it was no big deal.

“What was it like?! What did it sound like? Was there anything weird? How does something like that even happen?!” The questions spilled out of her before she could stop them.

The clerk chuckled softly, lifting her gaze from the datapad to meet Thea’s eyes—briefly flinching, but pushing through the unease. “Sorry. I’m not laughing at the questions—just your reaction. It’s kind of a mirror, in a way... But anyway: It was... normal, I guess? Which sounds strange when talking about *the* System, I know. But I was basically just shown a System Interface with all the NDA information, got a verbal rundown—which sounded like any other AI, really. Nothing special or dramatic. Just... Exactly what I thought something like the System would sound like, in a way? And once I agreed and signed, I officially

became a System Liaison for the UHF MC and Navy, so I could work aboard ships like the Sovereign. And that's how I ultimately ended up here."

Peria's answer left Thea a little deflated.

Normal? A simple Interface, a read-through NDA, a voice no different from any other AI?

She wasn't sure what she had expected, really—something grand, ominous, reality-warping maybe.

But still, *nothing*?

Peria went on, almost casually, "And I haven't heard from the System ever since. Honestly? I'm kind of grateful for that. Knowing something like *that* is always watching over you is... uncomfortable. So the less contact I need to have with it, the better."

Thea could understand the feeling, although she didn't particularly share it beyond a very basic level of unease that came with the sheer scale of it all.

But where Peria evidently felt unease, Thea mainly felt fascination.

Whoever—or whatever—had built something like the Allbright System existed on a level she couldn't even begin to comprehend.

She *wanted* to learn how it worked, however, to understand it as deeply as she could.

And maybe one day, she would get to a point where she could.

Peria finished reading through the Skills. "Okay, for what you want to understand, you're going to want to focus here. Physics, Photonics, Weaponsmithing and Laser-Weaponry Design—obviously. But add Material Science and Engineering too, if you really want to know what's happening under the hood."

She tapped each one on the display as she listed them, then paused.

"But you don't need to master it all right away. I'm not an expert myself, really. I just have *enough* to work with—and so will you. Just... don't expect full understanding overnight. This could take years. Several thousand hours to get everything listed in those Skill Classes under your belt, I'd imagine. But Marines live for a long time though, right? You'll get there eventually."

Thea blinked at that. Years? All her Skill Classes only took a few weeks each in the DDS if she pushed—until the realization hit her.

'Right... Peria probably doesn't know about the Time Dilation part at all—'

She opened her mouth to explain, then shut it again just as quickly.

'—but if she doesn't know, there's definitely a reason for it.'

Better to double-check clearance before dropping something like that.

So she just smiled instead. “I’m a quick study. I’ll work hard.”

Peria returned the smile without hesitation. “I don’t doubt that for a second.”

She handed Thea’s datapad back and smoothly shifted gears. “Now... about the modifications you made to the laser-type Gram during the DM. Do you want to go over those too?”

“Yes!” Thea answered immediately...

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PoV: Peria Akin

“—so if you’d kept the weapon running like that for maybe another twenty or thirty minutes, it probably would’ve blown up in your hands, Thea,” Peria finished.

The Marine’s eyes widened at that, clearly not expecting the weapon to be in such bad shape. But based on everything Peria had been able to simulate, her assumptions were about as accurate as they could get.

They had spent the last hour talking about the in-battle modifications Thea had made to her Gram, which were, honestly, surprisingly smart and effective given the situation.

Still, modifications could only get someone so far.

“What you really need to watch out for in the future, if you ever end up in something like that again, is that it’s not just about cooling but also about material stresses involved—this is something the Material Science Skill Classes will go over, from what I saw on your list. That’s why I recommended it,” Peria explained.

“When you rapidly heat and cool materials like that, they naturally get more and more brittle. It’s still better than an immediate meltdown of course, but weapons like the Gram aren’t meant to be used in the way you did. They’re rated to *handle* those conditions, sure, but only for a short time—not extended periods of punishment like that.”

She pulled up the Gram’s schematics again, and this time opened a second set—one she had prepared ahead of time for this exact discussion. Jonas had recommended it, and Peria was *very* glad she’d spent several hours picking his brain last night.

Thea herself looked beyond pleased and intrigued with how things were going, which was a *massive* relief for her.

‘Making sure to earn my keep here. Keep it up, Peri. You’re doing great,’ she internally cheered herself on, as she deftly brought up both schematics in a reductive comparison.

She zoomed in on the internal reactor, then the wires, then the barrel, overlaying the two schematics so she could flip between them with a tap and show the changes directly.

“So, as you can see here,” Peria continued, highlighting the internal reactor, which looked clean and intact in the base model but showed thin web-like cracks across the surface in the simulated version of Thea’s weapon, “the casing is already starting to fracture. The coolant you pushed through worked, but it cooled too fast and too often, which stresses the housing as it’s not designed for that kind of rapid heating and cooling cycle.”

She switched to the wiring schematic. “And here, some of the power lines have already been damaged by the excessive temperature changes as well. The remaining ones had to handle the full load alone, which sped up the spread of the damage even more.”

Finally, she flicked back and forth between both barrel images—one straight and polished, the other visibly warped and half-melted. “This part concerns me the most. The barrel would have been the first thing to go, I think. If the structure drooped just a little more, a shot could have clipped the edge mid-fire. In the best case, the barrel would have blown back at you. Worst case... a plasma-particle destabilizes at 0.88c. That kind of detonation would send shrapnel around that would probably kill you and anyone standing within a couple meters.”

Peria kept a careful eye on the VIPs’ facial expressions, which were thankfully very expressive, most of the time. It made it easy to guess how Thea felt about a particular topic, whether it was something she wanted Peria to dive into deeper or whether it was something she didn’t quite understand.

Thea was a downright perfect customer in her opinion.

Easy to deal with in more ways than one, friendly and willing to let credits do the talking where the corporation might otherwise throw wrenches into the path of enjoyment.

The girl took a moment to process everything, then let out a slow breath.

“Okay... so what *could* I have done differently, then?” she asked, clearly hoping there was some smarter path she missed.

Peria opened her mouth, paused, then gave a small shrug. “Honestly? Not much. Given what you were trying to do in that situation, you made about the best choices you could have.”

She tapped the hologram gently with her pen.

“It really just comes down to the Gram not being designed to act like a machine gun. It *can* shoot a dozen times a second, yes... but it’s not meant to *keep* doing that. Quick bursts or occasional rapid shots? Sure. But the kind of continuous punishment you put it through was just beyond what it was built for.”

Thea listened closely, brow furrowed but clearly focused on every word she said.

“And capacitor-based laser rifles in general are weak to that kind of stress,” Peria continued. “They’re built around a fixed cooling capacity. Enough to handle the normal charge from the reactor and the heat from the capacitor mags—but only within those design limits. It makes them lighter, as capacitor-mags are lighter than coolant ones, and able to punch a bit higher above the coolant-based rifles in raw power output, but it also limits them in a way.”

She rotated the schematic to highlight the coolant lines. “When you force the caps to dump charge faster than the weapon can cool, and then *a/so* pump in external coolant the rifle isn’t designed to properly circulate like it is for its own internal cooling solutions... Well, things start fracturing. *Everywhere.*”

She leaned back, gesturing with both hands.

“A coolant-based laser rifle would’ve handled this kind of usage better. They’re built to move external coolant efficiently, so even with capacitor-mags modded in, they wouldn’t tear themselves apart so easily. Not because they’re better, but because they’re designed for that kind of rapid heating and cooling cycle in mind.”

Thea nodded slowly—understanding dawning clear across her face.

‘Good,’ she thought. ‘*Breaking it down simple was the right call.*’

Peria had been worried she might be losing her with all the tech talk, but the Marine kept up well—shockingly well, considering her age.

She guessed the girl was maybe eighteen or nineteen years old. And with how stupidly monstrous she already was in combat, a plurality of those years were almost certainly spent in training camps, not classrooms.

Plus, she was supposedly from a mid-world *undercity* of all places.

Which, in Peria’s experience, usually meant she shouldn’t understand *any* of this.

So the fact Thea was following along at all felt downright incredible.

It made her chest warm with a strange mix of pride and disbelief.

“So considering everything you just said,” the Marine said. “I should just try my best to not get into a position like that with the Gram, and if I do get into a position like that again, keep a close eye on the barrel at the very least, so I don’t end up killing everyone in my pillbox from it blowing up.”

Peria blinked a few times at how casually the girl talked about dying from a catastrophic weapon failure, but she quickly nodded, “Pretty much, yeah. If you ever find yourself in that situation again, that’s probably the safest approach. Technically, the reactor’s another risk, but you can’t exactly check that in the middle of a fight, so think of it as the part that’ll fail second. And based on the simulations I ran for this, the barrel always gives out before the casing does, so keeping track of its condition should give you a decent idea of how long you can push things.”

She paused, raised a finger to put emphasis on her next words, before continuing. “Just remember—I’m *not* telling you to run your gun like this. This is emergency-only advice. Ideally, avoid that scenario *entirely*. Or bring a different weapon—or even another Gram variant—if you expect mass engagements like that.”

Peria shifted the holographic schematics, clearing space for the next display. “Which brings us to the next part, actually. You wanted to talk about the Ballistic and Gauss variants too, right?”

Thea nodded vigorously without hesitation, her self-illuminating eyes sparkling.

Peria couldn't stop the small grin tugging at her mouth.

‘Yeah,’ she thought as she leaned forward to queue the next schematic, ‘*she really is the perfect customer...*’

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They spent another four hours talking through each variant, tossing around possible modifications to help Thea get exactly what she wanted out of them—like adding a grav-lockable bipod to the ballistic version to cancel recoil during stationary fire—alongside Peria answering what felt like a thousand different questions about how each model worked and why.

Some were simple, like “How does it function at a base level?”, which forced Peria to break the concepts down into bite-sized explanations the young Marine could actually follow.

Others were far more fun—her favourites by far—like “How would you build it differently if you were on the design team?”, which let her stretch out creatively and talk about the things she *wished* she could try.

Then there were the heavier questions, like “What if I want traits from two variants at once—how do I choose, and what do I change?”, which took them nearly thirty minutes to work through.

And honestly... Peria had loved every damn second of it.

Her boosters had worn off two and a half hours ago, but she hadn't even really noticed—not with the excitement of getting to talk design at this depth with someone who actually, *genuinely* cared and understood how awesome these things really were.

The jitters were definitely creeping in by now however, but she pushed through them easily enough, especially as she and Thea were already making their way toward the back exit to part ways.

“Thank you so much for your time, Peria,” Thea said, dipping her head.

The gesture, paired with the gratitude itself, sent a fresh rush of nerves and leftover booster-aftershocks straight through the clerk.

Peria let out a controlled, *definitely-not-unhinged-please-don't-think-I'm-unhinged* laugh, steadying herself as best she could. “Nothing to thank me for, Thea. You paid for my prep time, and I'm glad the work helped. I *really* hope the consultation was worth it—but judging by your reaction, I'll take that as a yes.”

“Absolutely! This was fucking *awesome!*” Thea said without hesitation.

She paused for half a heartbeat, then added—almost shyly—“Um... would you be open to more sessions like this? Maybe something regular? After I figure out my Skill Class schedule and when our mandatory courses start. I can pay for any time you need off, of course!”

Peria blinked once, then twice, trying to catch up with the sudden shift in Thea’s tone.

A second ago, the girl had been gleaming with downright bloodthirsty interest over weapon variants, and now she stood there fidgeting like a brand-new intern, nervous but hopeful, like asking for another meeting might’ve been too bold.

The contrast would have given anyone whiplash.

‘How does one person swing between a war monster during a DM, hyperfocused tech-nerd and tiny overwhelmed kitten so fast?’ Peria wondered, feeling a laugh bubble in her chest. *‘She really is so young... That’ll get hammered out of her before Private, I’m sure.’*

She matched Thea’s enthusiasm with a warm smile.

“I’d be happy to,” she answered simply. “Once you know your schedule—Skill sessions, classes, whatever else gets thrown your way—tell me and we’ll set up more.”

Thea’s eyes lit up like bright-blue stars.

Peria continued, offering what felt like a surprisingly overdue option. “And we don’t *have* to do everything on store time, necessarily. If it fits for you, we can meet after my store hours. You wouldn’t need to pay for those meetings then, obviously.”

The look Thea gave her in response was almost comical—like someone had just revealed air was *free* on most planets.

Clearly, the idea hadn’t even existed in her brain until that moment.

“Oh! Right—yeah. That’d be... that’d be amazing, actually,” she said, smiling awkwardly.

“Thank you, Peria.”

“Of course.” Peria nodded, genuinely pleased. “Just let me know.”

With one last grin from Thea, and a small wave from Peria, the two parted ways—agreement loose but clear. She waited until Thea fully disappeared down the corridor before she let herself feel the weight of the day.

Her breath left her in a single, long exhale. “Fuuuck—”

Her spine unstrung itself all at once, her limbs shaking with booster come-down and emotional exhaustion.

She loved spending time with Thea—*truly*—but maintaining perfect professionalism for hours around *the* VIP of the Sovereign?

That was its own damn battlefield. And she didn't even get any armour to go with it.

She walked quickly to the backrooms and towards the door connecting the clerk apartments with the back of the store, before she teleported straight to her apartment's hallway, feet dragging, hands shaky enough she had to double up her grip on the bag she carried.

She only made it two steps down her hall before she froze.

A package sat neatly in front of her door.

Addressed to her.

"Huh...?" she whispered, scooping it up with hands that trembled harder the closer she held it. The booster crash was hitting hard now—jittery fingers, fraying focus, thoughts skittering sideways.

Inside, she found a small note.

[In recognition of your exemplary work. - L]

"L...? Do I even *know* an L?" Peria muttered, brow furrowing. "L for Logistics? Lieutenant? Lindon? Lila? L—no, this is stupid."

She carried it inside, closed the door behind her and opened the box carefully.

Inside was a single injector.

Not a cheap one. This thing was *art*.

The metal casing gleamed with a smooth, dark finish and intricate, shimmering engravings that curled around the cylinder like vines in all colours of the rainbow. Even the cap looked handcrafted—expensive enough that she felt unworthy even holding it.

Her brain stopped working entirely for a moment.

Only when she lifted the small accompanying card did everything crack open.

[Memento Vitae — 5 Years]

Peria's heart skipped, then stuttered, then raced so fast it hurt.

"No. No, no, no—this can't—this isn't—" she whispered, voice thinning to nothing.

These injectors were legendary. Spoken of like myth in the midworlds.

Nobody could possibly get their hands on these.

Nobody even knew if they truly existed or not.

A simple clerk like her would *never* receive them.

Her knees buckled.

'This is impossible. Why me? Who would—How?!'

Her vision blurred as she toppled sideways, the exhaustion, booster withdrawal and disbelief all crashing down on her and forcing her consciousness to fade, the package almost tumbling from her hand.

She barely registered the soft landing under her cheek, only dimly aware of pillows cushioning her fall.

'...When did I put those there?' she thought groggily, one last flicker of confusion passing through her disintegrating consciousness.

She was grateful for them, as they had stopped her from cracking her head open on the stone floor of her apartment.

And then she slipped under—no resistance left—carried away into a deep, dreamless dark...