

**The Old Axolotl
(hardware dreams)
by Jacek Dukaj**

translated by Stanley S. Bill
(excerpt)

These were times of such a decline in philosophical culture that it was considered a serious argument against the existence of the soul that it was nowhere to be found during an autopsy. It would be more correct to say that if the soul were found, then this would be an argument in favor of materialism.

Nikolai Berdyaev

On the day of the apocalypse, before the sky collapsed, the whole gang was set for lunch at the shopping mall, and Bartek only survived – if he survived – because his upstairs neighbor's jolting washing machine had smashed a hole in the wall of her bathroom, flooding the gutted wiring and blowing the fuses throughout the building.

Bartek had passed as the resident handyman ever since his days at technical college, so he ended up getting stuck there until four o'clock. By then, he figured he might as well just head in to work, though it was his day off, to catch up on a few things from the day before.

In the IT department, down in the basement, it was always cooler. The Chief liked to go down there on especially stressful days and drink iced coffee with his forehead pressed against the cold housing of a server rack.

Bartek walked in and slid his dark glasses down over his eyes. The Chief heaved up his left eyelid.

"Don't think I can't see you."

"I can't see you, boss."

He stumbled over a coil of cables.

“Fuck.”

“You can’t see shit. Did you get jumped by a gang of chimney sweeps?”

“Hardy ha ha.”

“Go and get yourself cleaned up.”

Bartek was completely covered in grease and plumbing lubricants. When he got back from the bathroom, an entirely different atmosphere had permeated the server room. The boss was hollering in English into his mobile phone, with his shirtsleeves rolled up. Rytka was banging away on a side terminal keyboard at the speed of a mad jazz musician. Big Bird, Joey, and Tatar stood with gobs wide open, gaping at the monitors streaming news channels from Poland and abroad.

“What’s up?”

“It’s motherfucking Armageddon,” gasped Rytka without lifting her head.

Nobody wanted to explain anything; they were all stunned. Bartek logged onto gazeta.pl and read the bold red headline: “EXTERMINATION?! NEUTRON WAVE TO HIT WARSAW AT 19:54.” Then gazeta.pl crashed and was replaced by Error 404.

“What the hell is a ‘neutron wave’?”

“Google it, moron.”

The whole world was googling. Wikipedia had crashed. He found some explanations for laymen on international websites. A neutron bomb kills with so-called fast neutrons, and not with the shock wave alone. Buildings and equipment remain unscathed, but all organic matter perishes. For the moment, this seemed to be the most accurate diagnosis of the catastrophe.

But in the case of a neutron bomb, there was still a limited range and a time lag of a few dozen hours between exposure to radiation and death. Here people were being fried almost instantaneously. Street cameras from the Asian metropolises captured thousands of pedestrians being mowed down on the spot, their corpses paving avenues over which the wind blew plastic bags and trash.

Tatar had studied nuclear physics, so he had to know something.

“How is it possible?”

“It’s *impossible!*” wailed the pale little Tatar. “The atmosphere soaks them up.”

“Well, apparently it’s not soaking jack.”

“But it should be! Even from fusion, neutrons at fourteen meg – hardly any of them would reach the surface of the Earth.”

“Meg?”

“Megaelectronvolts. Then you’re talking relativistic speeds – I don’t fucking know, a cannon from a neutron star or some shit.”

“So it’s coming from above?”

“But not from the sun, see.”

If the sun had suddenly scorched them, then everybody in Poland would already be dead. After all, Poland was in the hemisphere of day. It was four forty-one and seventeen seconds pm. Bartek rotated the planet on a BBC flash simulation. The wave had hit from 123°W to 57°E, more or less along the ecliptic, and it was heading west with the Earth’s rotation. They had three hours and thirteen minutes until annihilation.

Unless the wave died out first, just as unexpectedly and inexplicably as it had appeared.

Bartek began to google “miners” and “submarine crews”. Wouldn’t the mass of earth and water shield their organic matter? Or maybe he was confusing neutrons with neutrinos?

“But they’re not dying of radiation exposure. It’s more like the protein inside them curdling.”

“A microwave from the sky.”

“Then plastic should melt as well, right?”

“Is somebody even measuring it?”

“Autos. We’d have to remotely access the laboratory equipment behind the death meridian, take control of the gauges, and pull down the data via satellite.”

They looked at Rytka.

“Fuck off, please, gentlemen,” she politely requested, hunched over her keyboard. “Or I’ll lose it.”

Bart experienced a textbook splitting of his self: in a few hours he was about to die, and yet at the same time he could view himself as a Lego man in toy town – little arm up, little arm down, little head to the right, stick him down on his feet, change the blocks around.

He walked out of IT.

On the upper floors, an entirely different atmosphere prevailed. Most of the employees who hadn’t already gone home were clustered around screens watching the news and commenting on the gory images while sipping coffee and beer. The strongest sign of tension was the nervous tittering of the oldest secretary. The chief accountant was selling off shares in Asian companies as fast as he could, while Legal was calculating the damages for contracts breached through the deaths of clients and sub-contractors. Of course, thought Bartek, it’s obvious: this kind of Hollywood Armageddon is impossible in the real.

On the order board, there were bets drawn up in marker pen to pick the meridian where the lethal radiation would stop.

Bart bought a Snickers and a can of Coke from the vending machine and went back down to the IT basement – where he instantly lost all hope.

The Chief was sitting cross-legged in a corner by the trash can, sobbing furiously into his smartphone. Big Bird had logged on to his MMO and was dashing through deserted dungeons: “At least I can reach the last level.” Tatar had locked himself in the bathroom, wailing like a chorus of zombies.

The clock over the door was counting down the seconds. It was five eighteen pm.

Bart drank the cola and ate the chocolate bar. The sugar in his blood glued his thoughts back together again. Bart came back to the real.

He called Danka: engaged. He called his brother: engaged. He called his father: the mobile network had crashed.

Józuś was rocking on his heels and slamming his head into the casing of the air conditioner.

“I don’t believe it I don’t believe it I don’t fucking believe it.”

Rytka had stopped banging away on the keyboard. Now she was sitting in silence with arms folded across her chest and the look of a disgusted witch on her face.

Bartek crouched down beside her.

“Well?”

“Let’s go get drunk.”

“What’ve you got there?”

“I’ve accessed the Chinese satellites. I’m getting the feed straight from Guó Jiā Háng Tiān Jú.”

“The whole of Asia’s fried – Asia and a slice of America too. You can see it live on the CNN and Al Jazeera cameras.”

“I wanted to pull down the raw data on the change in the wave’s intensity as the Earth rotates.”

“And? Is it decreasing?”

“It spiked for the first twenty seconds, then the chart went flat as a pancake.”

“What the hell is it? A supernova?”

“A supernova would have roasted us at all frequencies. Anyway... let’s go get drunk.”

She sat and chewed her lip even more gloomily.

Bartek gave her a nudge.

“It’ll be okay.”

“What the fuck are you talking about?!”

He whispered into her ear:

“We’ll all die in the same split second.”

She flinched as if he’d lashed her with a whip. Then immediately: a sigh, a wink, a wan smile – and calm.

They walked over to the kitchenette to make some tea.

“I knew something like this would happen,” she said, blowing into the mug and staring pensively into an upper corner of the room. “You can’t have as much luck as humanity’s had and not cop an anvil in the head eventually.”

The sugar had run out. Bart rummaged through the cupboard, behind the fridge, and under the sink. Finally, he peeked into the storeroom.

“Have you seen this?”

“What?”

“These boxes.”

He dragged the brand-name cartons out into the corridor. The boxes, with their styrofoam packaging still inside, were apparently ready to be sent back for refunds. At the bottom were stacks of old NVidias and Realteks.

“The boss crammed everything in here.”

InSoul3. Under the producer’s logo on the side of each box were the smiling faces of gamers with fountains of planets, moons, stars, and galaxies exploding from their crystal brains.

Bartek and Rytka exchanged wordless glances.

It was one of the new features for Xbox and PC. At first, the companies had marketed InSoul3 like crazy (they pumped hundreds of millions into the technology), but soon there were protests from various religious, political, and medical movements, as well as from consumer rights groups. The companies that were supposed to make money on the applications and games backed out, and the equipment was mostly left lying around unused. Then the source codes leaked out and the hobbyists began to tinker, adding all kinds of strange and unauthorized modifications, like the “mind copy and paste” functions, which were meant to generate the most faithful behavior possible in the avatar bots.

The company had bought the most expensive industrial version on sale, with applications for clinics and universities, and with the highest resolution scan then available. For a few months, after yet another scandal involving leaks to the competition, the Chief had had every intention of using the IS3 as an in-house universal lie detector. Then the lawyers intervened and he dropped the idea. The boxes with the company’s unused units remained, stacked in a neglected corner of the IT basement. They were gradually auctioning them off on Allegro, where self-taught neurosoft artists were snapping them up at half price.

Bartek tore open the wrapping and took out the units. You were meant to put something like a rubber skullcap over your head and stick a whole bunch of cards, thicker than the latest 3D graphics cards and with dedicated processors, into the computer. The cooling systems alone weighed a pound.

While Bartek struggled with the set-up, Rytka read the instructions.

“Heaps of work with the configuration.”

He glanced at the clock.

“Can you make it?”

She shrugged her shoulders.

“Fire it up and we’ll see.”

They chose Tatar’s machine, since by then he had quite likely drowned himself in the can. Bart crawled under the metalwork, re-plugging the ports and checking the cables. Rytka pulled down the amateur applications for InSoul3. There were whole forums, wikis, and torrent categories dedicated to the neurosoft. In the meantime, the transfer rate was dropping by the minute.

Two hours later, the configuration was complete. Diagnostics gave the green light for the RAM and the processors.

Leaning against the wall, Big Bird was watching them, already baked on reefer.

“I played that shit. Heavy stuff.”

Bartek crawled out from among the fans and cables, brushing off his pants.

“This is no game. We’ve got the cheats for the full scan.”

Big Bird approached and twirled a headset fragrant with factory newness around his finger. Talcum powder sprinkled out of the skullcap.

“But it’s just a toy. You know that. There’s no way to read the whole thing – I mean, every atom of the cerebral cortex.”

“But how do you know how much we need to read? Maybe this is enough? You might as well ask for a scan of the quarks and strings.”

Big Bird took a long drag on his joint.

“You want any?” He belched out smoke. “Kandahar Blood. Right on for the apocalypse.”

“I’m not going to burn neurons in my final hour.”

“But this shit is awesome! If it can make you feel positive about the end of the world, then it can make you feel positive about anything. Even about *him*.”

He meant the boss, who was stalking about the building with a look of such vicious despair in his eyes that even the most feverish hysterics froze like icicles at the very sight of

him. Now he was coming back to IT. He undid his tie and wound it around a clenched fist, to and fro, as tightly as if he'd been preparing for a bout with Mike Tyson.

Rytka and Bart flipped a coin.

"Tails."

"Sock it to me."

Rytka sat down at the keyboard; Bart selected an IS3 scanner.

Big Bird offered the Chief the joint, smoked down to a microscopic roach. The boss just spat. His teeth chattered and he cracked his knuckles.

Bartek put on the skullcap, while Rytka calibrated the scan. Then he took off the skullcap and they checked the configuration once again. Still green.

"Has it estimated how much time the full scan will take?"

"Damned if I know. The add-on takes over, and it'll just keep running scans until it's sucked everything it needs from your head."

"Can't you work out an average from the history of previous users? So that you'll still have time to copy yourself as well. Whose work is it?"

"Some students from Karabach – the Ural Team. Do you want to have a read?"

"Without Google Translate? No thanks."

On the television screens Athens was dying. Street cameras by cafés and monuments showed tourists sprawled out, as if felled by sunstroke, on the pavement and under the majestically impassive ruins of stone.

"Are you in, boss?"

"What the fuck do I care about your goddamn avatars when I'm a corpse anyway!"

"But your spirit – your spirit will survive."

"What fucking spirit?! Spirit, my ass. Now get outta here – these are *my* toys!"

The Chief lunged at them, but Bartek cracked him over the head with an old Lenovo Ultrabook, instantly knocking the boss's lights out.

"Computers rule the world."

"True."

"Sock it to me, Rytka."

Bartek put on the skullcap. Rytka hit ENTER. And off it went.

Beneath a two-storey billboard plastered with a poster for Michael Bay's *Transformers 9*, in the middle of the deserted commercial district of Tokyo, two manga sexbots boxed at each other's pouting polymer faces.

Bartek had just lost his left leg, so he spat out the Wire at them like an old sniper, lying flat on the roof of a kiosk on the other side of the street. Bullseye. The Faraday unfurled like a dream and a second later the two sexbots were on the ground, as if cut down. Bartek leapt up with delight, but yet again he had forgotten where and who he was, and so he crashed down through the cardboard roof into the kiosk with his Spit Gun and earthing cable. For Bartek walked the streets of Ginza as a half-ton Star Trooper Miharayasuhiro.

No sooner had he pinged a confirmation for the alliance through the satellite and limped over to roll up the Wire, then he was trampled by a herd of teddy bears.

He knelt down and braced himself on armored fists, weathering the first and second waves of irigotchi. When he got up, he saw the scattered toys jiggling about on the asphalt and under heaps of old rubbish, like fish spat out onto the shore by a high wave. Not just teddy bears either, but dogs, cats, Pokémons, dragons, and various fantastical and mythological little monsters with absurdly large eyes.

As he hopped back from the disconnected sexbots – he had ripped out their processors and would take his haul of hardware home in the morning – one-legged Bartek once again lost his balance, collapsing with a crash against, and sliding down, a pole crowned with a sagging cluster of thick cables.

Now he could exchange glances with the irigotchi almost on the same level. A bedraggled Totoro blinked sleepily at the Star Trooper and then extended its paw. Bartek waved at the fluffy character. The toy trembled and began to crawl awkwardly towards him.

Before he knew it, the Totoro, a teddy bear, and a Hello Kitty had all nestled themselves into his titanium chest.

He stood up and limped off, propping himself on his Spit Gun. He looked back. The irigotchi were still trailing after him.

He was missing a leg. He couldn't run away.

"Just don't suffocate me."

The irigotchi knew neither Polish nor English. Only the fading lights of night-time Tokyo answered him in a blinking form of Morse code. It was day 847 PostApoc, and the next eternity was opening up before Bartek.

In the workshop of an underground garage, beneath the forty-storey Aiko apartment complex, he toiled away to make himself a replacement limb.

The parts for a boutique Miharayashiro were rare items. Even rarer were the skills required to make use of them. The Tokyo transformers of the Royal Alliance turned to Bartek when in need, and now he felt like the handyman to half the world. Surplus hardware was a kind of payment for the service. Hundreds of spare robot parts of varying sizes, acquired in this way, were now stacked against the workshop's walls and piled high on the racks above Bartek.

He had terabytes of construction plans and instruction manuals loaded onto his hard drives, and had amassed a comprehensive library of urban hardware catalogs, thick as bibles. These were divided into sections for the different lines of mechs: domestic, street, industrial, medical, municipal, military, recreational, air, and underwater. Slowly, from one page and catalog to the next, the mechs evolved into drones, which in turn evolved into stationary hardware and the Matternet itself: the Internet of Matter, a server-less network of ubiquitous microprocessors, operating on RFID, infrared, and NFC.

In the decade before the Extermination, billions of dollars had been pumped into the industry. Unemployment had risen, as one corporation after another switched from human workers to robots. Societies were aging, but instead of human children and grandchildren it was an army of patient and solicitous machines that was called upon to care for the elderly. And while the mech soldier may have cost a fortune to manufacture, its death on the battlefield cost nothing in public opinion polls.

Another ten or fifteen years and there would have been millions of these service robots tethered to radio leashes all over the world. But the Extermination struck at the very dawning of this new era.

If only Bartek could call a mech service center now! These catalogs were essentially compendiums of prototypes and demonstration models. He still couldn't read the Japanese handbooks, and they were the ones that interested him the most.

In a Faraday cage at the back of the workshop, Bartek kept three complete sexbots, a medico, and a Beetle.

The irigotchi would not go near the cage. They bunched together in a herd and watched Bartek like fearful puppies.

"I'm not going to repair you," he repeated to them, knowing full well that they couldn't understand him. "I'm not a programmer. All I can do is bash together some arms and legs."

Years before the Extermination, the programmers had reached such a level of harmony with the digital world that they had completely lost touch with hardware. This led to the

emergence of a separate clan of IT whizzes, whose main task was to crawl underneath desks and grates, and in whose heads the priceless knowledge of which cable went into which port and which cards cooled the best under which radiators was preserved.

Bartek was the IT basement for those who worked in the IT basement.

Through a double-filtered USB, he plugged himself into a laptop hooked up to a satellite antenna perched on the roof of the Aiko building. The Royalists had just updated the zones of influence in Greater Tokyo on their side, as well as the colors of the alerts on the power lines from the plants in Tokyo and Hamaoka. The JPX server room at Nihonbashi Kabutocho, where the majority of Royalist transformers in Tokyo were processed, was glowing green. In the Chūō Akachōchin bar in Kyōbashi, the attendance meter registered seven transformers.

Bartek put his new leg through the whole testing process, performed a few squats, sighed, and motioned for the soft toys to approach.

“Okay, come to daddy. I’ll put you guys back together again somehow.”

They squeaked timidly and opened their comic-book eyes even wider.

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It had all begun with Bartek putting himself back together.

He had clambered out into the real in Vladivostok. The Russian public, private, military, government, and commercial networks were all so impossibly tangled that it came down to a pure twist of fate whether one ended up stuck for centuries in the purgatorial appendix of a dedicated server or got shot straight onto a virtual highway to the FSB or the Pentagon.

Bartek was buried alive. He woke up in Vladivostok without any senses, without a body, and with only his instincts and the threshold of pain intact. He thrashed about in that confinement cell for a true eternity – or, more precisely, for four and a half minutes – until he found a crack no wider than a bit in the local Matternet and, slipping through it, entered the municipal CCTV network. Surveying the desolate streets, strewn with corpses, he fell into depression and slowed down to a hundred ticks per second.

Only when four of his partitions had already crashed, and the processors had overheated at the Vladivostok Gazprom LNG center, did Bartek’s survival instinct turn back on again. He pulled himself together and dragged himself out of apathy.

He switched over to the machines of the Pacific State Medical University, where he seized exclusive control of the reserve power supply (the hospital had a petrol generator that

could be started from the level of the network administrator). At two gigahertz, Bartek's curiosity came back.

Who had survived? What had happened to his family and friends? What had happened to the whole world?

He was sitting on the Vladivostok servers because that's how he had distributed himself on the day of the Apocalypse. Bartek's copy number one was supposed to be crunched on the company machines in Warsaw, just like the first backup; then there was the Google backup, then the backup in the cloud, and only after that the fourth one, in Vladivostok. He had no way out onto the satellites and the open net, and that was in fact what had saved him.

Through the hundred eyes of the CCTV he spotted some Segways in a repair workshop on the shore of Amur Bay. Some of them had been adapted to perform unmanned patrols for local security companies and so they must have had some kind of radio input. After all, they were part of the Matternet – the Internet of Things scattered over a hodgepodge of a dozen competing protocols. Theoretically, they should have remained in constant communication with their surroundings. But the Internet of Matter looked completely different to a practical expert. Bartek constantly had had to explain to customers why their SmartHouse wasn't so smart after all, why the fridge was unable to communicate with the oven, and why one set of keys after another went missing despite the three RFID tags embedded in each.

After half an hour of ineptly attempting to hack one of the two-wheelers, he finally succeeded. He rolled around aimlessly for a while, gazing at the lifelessness of the frigid city from street level, staring from the boulevards at the rolling mass of water... and once again, a cold and heavy sadness washed over Bartek.

He returned to the workshop, broke into a couple of repair machines, and fused a manipulator claw onto the Segway, together with a more powerful transmitter. After putting himself together like this, he set out to look for a functioning Internet terminal. That the Internet *itself* might not be working was a thought that Bartek wouldn't even allow his mind to consider.

On Admiral Fokin Street he found himself slaloming between chaotically parked cars, concrete flower beds, and the desiccated bodies of people and birds. Suddenly, in his peripheral vision, he caught movement in the shop window to his right. Swiveling the camera he realized it was, of course, his own movement – which is to say, the Segway's movement.

Bartek stared at his reflection and thought: "WALL-E." He trundled on, while terabytes of Freudian associations came crashing down in the neuro-files of the InSoul3's Karabach mod.

He peered inside the shops as he passed them, and saw computers, monitors, and keyboards – life-giving oxygen. The only problem was that the primitive architecture of the city wasn't wheelchair-friendly – or Segway-friendly for that matter.

In the end, he simply snatched a tablet from the hand of a woman withering away into an anorexic mummy on a park bench beneath the expansive corpse of a tree.

The tablet was working, but Bartek was completely unable to operate the touchscreen with the hard, clumsy gripper of his only limb. In any case, the screen could only sense electrostatic changes.

He racked his brain (non-brain), wobbling on his two wheels and squinting the camera around the street-morgue. The owner of the tablet, an Asian woman in jeans and a T-shirt emblazoned with the image of a Bollywood star, stared with dark, unseeing eyes at an ugly sky devoid of birds or smoke or smog. A gust of wind blew a plastic bag onto her head, so that now it looked as if she were suffocating, gasping for her last breath under the plastic.

Bartek reached for her hand and snapped off the mummy's index finger. Now he could use the finger to operate the tablet.

The system showed seventeen networks, two of them open. Bartek connected to the one with the strongest signal.

The browser's home page was Google, of course. When the page loaded, Bartek almost felt tears welling up in his eyes. (There were no tears, there were no eyes, but the feeling remained.)

It was like a return to his homeland, like a view over the roofs of his native city, or the taste of the bread of his childhood. At that moment, Bartek could have dropped to his knees and kissed the Holy Land of Google.

The feeling lasted for a fraction of a second. Then he saw the rest. On the search engine's main page was a graphic showing tiny manga robots covering their square little heads with sheet metal and tinfoil. KEEP YOUR MINDS CLOSED! He pressed the graphic with the tip of the corpse's finger. APOCALYPSE FAQ appeared on the screen.

First point of the FAQ: Under no circumstances connect the machine on which you're processing to the Internet!

After that came lists of contact addresses, websites categorized by language, culture, and religion, links to HTL and MTL tables, and discussion forums and blogs on survival despair.

Naturally, Bartek and Rytka were not the only ones to have hit on the IS3 idea.

How could he have been so egocentrically blind! After all, it was hard to imagine that they alone among billions of people could have had the same fortuitous clash of neurons.

Who else? He frantically googled his family and friends. Danka – she'd survived, she must have survived, he could sense she'd survived. No. Danka was gone. His brother and his father – dead. Even Rytka was gone.

He managed to google their last recordings from the minutes, hours and days before the Extermination. In a masochistic impulse, he loaded them into the cache. Now he could watch Danka's final selfies in endless loops – sunny recordings of a smiling redhead with the Vistula River shimmering in the background. She was saying something as she laughed at the camera, but her words had not been recorded for eternity. Only her face, hair, eyes and freckles would remain.

He made it through two loops before he crumbled. He went back to the FAQ and the guides to scavenging hardware.

So Bartek read the handbook of life after life in the shadow of the leafless body of the tree, until night fell and the battery went dead on the tablet.

He tossed away the finger and the tablet, then rolled off in the dark through the empty streets of Vladivostok.

He searched for facades of pre-apocalyptic normality: fossilized parks, cemeteries in their natural state, parking lots filled with cars in eternal slumber, street lights still shining, fountains and neon signs, cakes and bread shriveled into hard clay on supermarket shelves, a mute bundle in a pram – a baby so heavily wrapped in rompers and blankets that the little rag doll might just as easily have been sleeping or dead... until finally the power ran out on the Segway.

Curled up into a shivering ball on the hospital servers, Bartek gazed through a hundred CCTV eyes at the starry sky. Sleep would not come, since he had no application for sleep. So melancholy came instead.