

The Empty City

An Original Essay by Darragh McKeon

All we have left is the place the
attachment to the place
we still rule over the ruins of temples
spectres of gardens and houses
if we lose the ruins nothing will be left
—Zbigniew Herbert

1.

We drive in through the main street, a two-lane road, the margin engulfed by weeds, the flanking tower blocks shrouded by fir trees. Craning my neck and looking up, I can see balconies that are overrun with creepers, their adjacent windows matte black with shadow, vacuums of habitation. Brown stains of carbonation run down from one floor to the next. It brings to mind an old man trailing gravy or tobacco juice down his chin.

As we near the town centre, I feel a strong sense of dislocation, as if perhaps we shouldn't be here. I assume this is because of the potential dangers of the place, the speculative health implications of our visit, or maybe it could be to do with the gravitas of its history; that coming to this town is an act of desecration or disrespect, as though we're putting our dollar down for the freak show, about to enter the tent to gaze and point at the bearded lady or the three-legged man. But that's not it, ►

About the book

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I realise. We don't belong here because nobody belongs here. Drive through a city, any city, even in the middle of the night, and there's a bulb glowing over a lonely porch, a dog eyeing you suspiciously, or a closed-up petrol station, its owner sleeping upstairs. Here there is nobody. No admissions booth. No map demarcating the areas of interest. Not even a passing farmer taking a shortcut.

The city is utterly, utterly dead.

So you first encounter it not as a stranger, a foreigner who doesn't understand its ways, but instead as a pathologist, slicing through a cadaver stiffened by rigor mortis.

We stop at the main square and get out to walk. We find ourselves speaking in low murmurs, conscious of the silenced past. Pripyat is, above all else, a place of eloquent absence.

We walk with deliberation, intently aware of our movements. Perhaps this is because we're so alert to the air we're breathing, as though we're instructing our limbs to take note that we're in an alien atmosphere.

Kolya, our guide, warns us not to touch anything and to be careful not to step on any moss, which zigzags through the cracked concrete. "It's a sponge for radioactivity," he tells us. And so our motions become even more pronounced. We watch where we tread, then we stop and look around, then watch where we

tread once more, like a small child negotiating a flight of stairs.

The square fronts onto the city's Palace of Culture, an imposing building, its ranks of steps facing us. To the right sits the Communist Party Headquarters. To our left is the first in a regimented row of apartment blocks. On its roof stands a set of giant Cyrillic letters in opaque grey, outlined in communist scarlet. Russian is a language that resists a Latinate eye; swirled letters are sharpened with geometric edges, as though they can only be transcribed by chisel. I ask Kolya for a translation. "Let the atom be a worker not a soldier," he says, then hesitates with his explanation. "Basically they're saying they want to use it for electricity, not for . . . you know . . . bombs."

Kolya is twenty-two or twenty-three; wears green camouflage fatigues even though he's not in the military, and speaks in flowing bullet points, which gives him an air of deliberate insouciance. On our drive in, we passed the nuclear complex.

- That is reactor 1.
- That is reactor 2.
- Pripyat had a population of maybe forty thousand people.
- Chernobyl village had a population of twelve thousand people.
- Now there are maybe one thousand.
- A few scientists, guides, officials, safety workers. ►

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- It's boring but we play cards and keep ourselves busy.
- Of course, we get to go home regularly.
- We have two weeks on, then a month off.

“Let the atom be a worker not a soldier.” The phrase carries a particularly Soviet sense of absolutism and obligation. Even the simple atom is forced to take on a role, to sublimate itself to the orders of others.

Shapes are very consciously defined here. No building seems out of place in relation to another. This is a city that prizes regularity, precise planning, built in the 1970s on the Ukrainian side of the Polesia woodlands, an area popular with hunters. Next to it runs the Pripyat River, two hundred metres wide, which flows into the Dnieper and onwards towards Kiev. Pripyat was the city where the workers for the Chernobyl nuclear plant lived, grateful for their posting in a town that was once the jewel of Soviet modernity. This was a city of boundless promise. A population of high-level professionals who all served the same employer, so their professional unity no doubt extended to their private lives as well. You sense it was once a children's sanctuary, free of malign influences. Behind the Palace of Culture sits a playground with bumper cars and a Ferris wheel. We walk through crèches

that once were state of the art. Rooms with metal enamel cots and cushioned play areas, an abundance of dolls, even still; they lie scattered near windows, sprawled underneath miniature tables and chairs.

Many elderly parents accompanied their children and grandchildren here, eager to escape the grind of larger cities. Families squeezed together in their apartments to make room. Communal living was a situation they were used to. No doubt it was much easier to do so here, with a river nearby to fish in, forests that invited walkers.

We make our way through a loading door to the backstage area inside the Palace of Culture. Stage backdrops lean against the wall in preparation for the Mayday celebrations that were due to be held that year, in 1986, six days after the disaster, five days after the evacuation.

The backdrops are print portraits of prominent Communist Party leaders, their faces twenty feet high. I recognise Lenin and Brezhnev, the general secretary of the Communist Party for almost two decades from the mid-sixties. The others I can't place. I ask Kolya if he can name them, but he shakes his head. "It was all over by the time I was born."

The faces look out with neutral disinterest, resigned to their oblivion. ►

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. . .

The auditorium still impresses. Everything intact. Damp has yet to find its way in. The carpet looks spotless and full, as if recently vacuumed. The rows of seats await their patrons. A mezzanine level overlooks us.

The silence here is of a different quality to that outside. It feels familiar to me. I spent most of my twenties as a theatre director and even though my productions mostly took place in small black studios or cold improvised venues, I've stood many times on a silent stage. As with other spaces built for public events, a courtroom or a stadium, it's a place that naturally hums with expectation.

I think of Nikolai Ryzhkov, chairman of the Council of Ministers of the USSR at the time of the disaster. His face is perhaps included in the solemn portraits behind me. His visit to the site came on May 2. He arrived accompanied by Yegor Ligachev, secretary of the Central Committee of the Communist Party.

They sat for a few days with the scientific delegations, impressed them with their willingness to listen to the assembled expertise, to engage with the intricate complexities of the issue. A governmental commission was formed in situ, headed by Ryzhkov himself. On the fourteenth of July he surprised and invigorated the leaders of the cleanup with a speech in Moscow, declaring that the Chernobyl accident "did not occur

by chance,” stating instead, “It was inevitable.”* An extraordinary admission by an official of his status.

The resonances of the empty stage seem to counter its surroundings. Unlike its sister buildings, this auditorium doesn’t hark back to former glories; instead, it sits in stoic anticipation of its future, prepared for what is to come.

2.

I land at Minsk airport the previous evening. I’ve arrived to join a delegation from the Irish charity Chernobyl Children International, which has been working in Belarus for the past twenty years. Its founder, Adi Roche, has invited me along to see some of their projects firsthand.

As I step into the arrivals lounge, the light seems cigarette stained, a wash of ochres and beiges. The space is shallow, it’s no more than five metres to the doors. A queue trails in front of the currency exchange. Next to it is a café with dark plastic tables. By the cash register, Russian salads are displayed on white styrofoam dishes covered in cling wrap. The hanging smell of grease lines my throat.

I meet our group and we walk to the car park where Alexi, our driver, leans against a weary German-made minibus, his face bone pale. Nodding in greeting, he opens the back doors and we sling ▶

* R. F. Mould, *Chernobyl Record* (London: Taylor & Francis, 2000), 299.

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our bags inside, then settle into our seats for the six-hour drive to the Chernobyl exclusion zone.

Conversation is stuttered but friendly. Two of us have arrived from the USA, two from Ireland. We are mind-weary, the drag of skipped time zones slurring our thoughts. We wipe condensation from the windows; the glass, with the passing hours, gathers layers of handprints.

The countryside is too dark to be unfamiliar. Occasionally I can catch the gleam of silver birches. Ladas and UAZ vans speed by with regularity, classic snub-nosed Soviet vehicles at home in their natural habitat.

A bottle of whiskey is unscrewed. Tullamore Dew, chosen in my honour, distilled in the town of my childhood, back there in the boglands of Ireland. Two drinks in, I turn to the window once more and a line of Pasternak is dislodged in my memory.

“The running birches chasing leaden instants.”*

3.

In Pripyat we step into apartment blocks, names still on the grids of postboxes in the lobbies. In the stairwells, the handrails have been sheared away, sold for scrap. The same is true of each apartment. All possessions have

* Boris Pasternak, “Träumerei,” *Second Nature*, trans. Andrei Navrozov (London: Peter Owen, 1990), 5.

been looted, their radioactive contents sold off to unwitting buyers in the markets of who knows what towns or cities. Only some skeletal remains of furniture are left. Some chipboard shelving units. The base of a bed.

The apartments are differentiated only by wallpaper. Painted walls are uniformly coloured in beige, magnolia, or sky blue.

I slide open a door to a balcony and stare down at the communal yard, which houses a small climbing frame and a slide. Next to them, a copse of thin trees still holds its landscaped shape. Scenes from the evacuation play themselves out below me. My mind skips forward and back, without guidance, time frames overlapping. What rises is a piece of testimony I've come across somewhere; families gathering on these balconies the night after the explosion to gaze at the magenta sky, an evening portrayed in wistful tones. A week later, back in my own apartment, I take a book from my shelf and listen to Nadezhda Vygovskaya recall the day her life changed irrevocably:

I can still see the bright-crimson glow, it was like the reactor was glowing. This wasn't any ordinary fire, it was some kind of emanation. It was pretty. I'd never seen anything like it in the movies. That evening everyone spilled out onto their balconies, and those who didn't have them ▶

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went to their friends' houses. We were on the ninth floor, we had a great view. People brought their kids out, picked them up, said, "Look! Remember!" And these were people who worked at the reactor—engineers, workers, physics instructors. They stood in the black dust, talking, breathing, wondering at it. People came from all around on their cars and their bikes to have a look. We didn't know that death could be so beautiful. Though I wouldn't say that it had no smell—it wasn't a spring or an autumn smell, but something else, and it wasn't the smell of the earth. My throat tickled, and my eyes watered.

. . . In the morning I woke up and looked around and I remember feeling—this isn't something I made up later, I thought it right then—something isn't right, something has changed forever. At eight that morning there were already military people on the streets in gas masks . . .

All day on the radio they were telling people to prepare for an evacuation: they'd take us away for three days, wash everything, check things out. The kids were told to take their school books. Still, my husband put our documents and our wedding photos in his briefcase. The only

thing I took was a gauze kerchief in case the weather turned bad.*

Later, Nadezhda tells us that their future wasted little time in making itself apparent. “In Kiev,” she says, “many had heart attacks and strokes, right there at the train station, on the buses.” †

4.

In the spring of 1914, on the eve of the First World War, H. G. Wells published *The World Set Free*. The novel imagined a bomb made from atomic energy, a device that was so potent it would produce a continual radioactive discharge into the atmosphere, long after the initial blast had stilled.

In the map of nearly every country of the world three or four more red circles, a score of miles in diameter, mark the position of the dying atomic bombs and the death areas that men have been forced to abandon around them. ‡

Wells’s paragraph now reads as a remarkable premonition. If you look at radionuclide dispersal rates in the weeks following the Chernobyl accident, the granular black dots denoting ►

* Svetlana Alexievich, *Voices from Chernobyl*, trans. Keith Gessen (New York: Picador, 2006), 151–152.

† Ibid., 153.

‡ H. G. Wells, *The World Set Free* (London: Collins, 1921), 3.

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radioactivity are spread out like a fistful of iron filings thrown across a map.

But there is a clear distinction between Wellsian fiction and current reality. The “death areas” have not been abandoned. Far from it.

More than 50 percent of the surface of thirteen European countries and 30 percent of eight other countries have been covered by Chernobyl fallout.* In 1986 the number of people living in areas with pronounced Chernobyl contamination was at least 150 million.†

I quote the following from a study published in 2009 by the New York Academy of Sciences, the most comprehensive report available regarding the consequences of Chernobyl:

For the past 23 years it has been clear that there is a danger greater than nuclear weapons concealed within nuclear power. Emissions from this one reactor exceeded a hundredfold the radioactive

* Ian Fairlie and David Sumner, *The Other Report on Chernobyl* (Berlin: Altner Combecher Foundation, 2006), 48; M. Goldman, “Chernobyl: A Radiological Perspective,” *Science* no. 238 (1987): 622–623.

† Alexey V. Nesterenko, Vassily B. Nesterenko, and Alexey V. Yablokov, *Chernobyl: Consequences of the Catastrophe for People and the Environment* (New York: The New York Academy of Sciences, 2009), 26.

contamination of the bombs dropped on Hiroshima and Nagasaki. No citizen of any country can be assured that he or she can be protected from radioactive contamination. One nuclear reactor can pollute half the globe. Chernobyl fallout covered the entire Northern Hemisphere.*

These numbers are overwhelming, but the evidence behind them is unambiguous. Given what we know about the laws of biology (and there are enormous gaps in scientific knowledge regarding the relationship between the body and the radionuclide), the aftereffects of this disaster haven't even reached full fruition.

Broadly speaking, radiation exposure can be categorised into two groups.

Acute radiation is a short-term severe exposure, usually external, and is responsible for the initial deaths of the type that Nadezhda Vygovskaya witnessed, those that occurred soon after the disaster in the countries most affected: Ukraine, Belarus, and Russia.

Chronic radiation is a much more stealthy phenomenon; it builds imperceptibly over the long term and affects the body internally, engendering an array of debilitating illnesses, most prominently cancer. We can say with ►

* Nesterenko, Nesterenko, and Yablokov, *Chernobyl*, 1.

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certainty that multiple future generations will be at least as vulnerable to it as we are today.

Put simply: acute radiation is the hare, chronic radiation is the tortoise.

John Gofman, former professor of molecular and cell biology at UC–Berkeley, wrote candidly that “low-dose ionizing radiation may well be the most important single cause of cancer, birth defects, and genetic disorders.”*

Whether in the guise of a worker or a soldier, the rush of energy from a split atom runs directly to the heart of a nation’s power. Its capabilities are placed squarely at the nexus of immense military and economic interests. As the novelist and essayist Marilynne Robinson puts it: “The industry worldwide is protected by secrecy and by its significance in maintaining the prestige of governments and by its military significance, whether as licit or illicit supplier of fissile materials or as potential target.”†

5.

Gomel, Belarus. Two hundred and fifteen kilometres from Chernobyl.

The morning after our visit to Pripjat we open the door to an apartment and see a man buckle in front of us.

* Alla Yaroshinskaya, *Chernobyl* (University of Nebraska Press, 1995), 4.

† Marilynne Robinson, *Mother Country* (New York: Farrar, Straus & Giroux, 1989), 8.

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He is tall and lean. The stripes on the side of his tracksuit bottoms take the line of his lank hair and elongated face. The hair drops away from behind his ears as he bends forward, a hand obscuring his features, tears gaining momentum. The only sound comes from his laboured breathing. It seems as though he remains standing only because of the arrangement of his skeleton. His muscles have gone slack, his head hangs on a wavering forearm. Roche steps forward to embrace him and he dissolves into her shoulder. His cries release in convulsions. We close the door gently behind us and stand in his orange vestibule, so narrow that we're almost touching him. We gaze into the other rooms in an attempt to salvage some privacy for him.

Roche's charity provides hospice care for Vasily's daughter, Sasha. They make sure a nurse calls on the apartment four times a week, bringing diapers, wipes, and baby food. Vasily also receives a small stipend, enough to feed himself and his daughter but not his gambling habit. This is his only income. They receive no state benefits.

Our call is a routine visit. Though Roche has been here several times before, we can see from her eyes that her reception has never been like this. Something has happened. ►

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A nurse is in the kitchen. Our translator moves to speak to her. As we wait, I notice the stench: wheaty and stale; the scent of sweat and faeces, magnified by the overpowering heat. The heat is so strong that I can feel vapour streams trickle out from under my coat. Later, I find out that the windows don't open, apparently a typical feature of Soviet tower blocks, and residents don't have any control over the temperature. In wintertime all the apartment blocks in Belarus are as stifling as a sauna.

Recently, Sasha's health has plummeted, turning to pneumonia in the past few days. An hour ago, a visiting doctor ordered that she be moved to a country hospital fifteen miles away. The ambulance is due this afternoon.

Vasily has no car and won't be allowed to stay in residence. In the city, only the children's hospital has space available. They refuse to take her. Their age limit is fourteen. Now seventeen, Sasha's death on their premises would mean multiple explanations and extra paperwork.

Seven years ago, Vasily's marriage ended. He gave up his job as a night watchman to be his daughter's sole carer, a position that is broken only for an hour or two each week when the nurse arrives to check on things or a relative comes by to let him go outside for an evening. Sasha hasn't touched fresh air for a decade.

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The room to my left is furnished only by a large armchair and a TV set that sits on a dilapidated stand next to the window. The chair has a stained hand towel draped around its armrest. Surrounding it is an archipelago of carer's paraphernalia: diapers and diaper cream, baby wipes and talc, bandages, gels, towels, a feeding bottle, moisturiser, cotton balls. The chair retains the indentations of many hours of use.

Through the window of the living room in front of us, I can see a neighbouring block. Its lintels and windowsills are painted in confectionary pink, its doors and archways in baby blue. Veins of cracks run down the façade, leaking onto the pavement, running into potholes in the driveway, where an elderly woman beats the dust out of a suspended rug. Vasily, spent, beckons us forward. We step inside the living room and he motions to the sofa. Sasha is resting there.

The sofa is a two-seater, but there is still ample room for her to lie outstretched upon it. She faces the wall. The outline of her body can be clearly seen through the tightly wrapped blanket covering her. She has the body of a six-year-old. A short, frail frame; without contours. Her head generates a response of shock and pity. Sasha is hydrocephalic, a congenital condition that caused her head to swell to grotesque proportions. ►

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Weighing twenty pounds, it is almost the size of her upper body and shaped like a speech bubble; an enormous dome tapering off into a slender chin. She lies in a foetal position, each breath a struggle, her inhalations catching in her sinuses. She is almost hairless, a light down covers her skull, which is pockmarked with large, seeping calluses. Vasily has treated them carefully with white antiseptic powder to soak up and quell the irritation. A bandage is wrapped from her forehead around to the back of her crown to catch any discharge. She is blind and vulnerable as a newborn. The sofa is not a temporary resting place, it is her bed. On a normal day, Vasily cradles her in the armchair and at night lays her here, then unrolls a mattress onto the ground next to her, where he settles down for the night, reaching up to place a hand of reassurance on her body.

Sasha's and Vasily's lives have changed only minimally since her mother left. Vasily has the option of admitting Sasha to an orphanage, but he refuses to do so. Neglect there is assured. In these institutions even the official documentation refers to congenitally deformed children as imbeciles and retards. Despite their numbers, they are not considered part of the general population. Stories of sexual abuse in orphanages—even amongst the most stricken cases—are rife.

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Born ten years after the catastrophe, it cannot be irrefutably proven that Sasha's condition is linked to nuclear fallout.

Nor can it be proven that the congenital disorder affecting Denis and Georg—our next port of call—is anything other than a consequence of bad luck. They are afflicted with Cockayne syndrome, a condition rare in every country but Russia, Ukraine, and Belarus. The syndrome causes premature aging, so despite the fact that the brothers were born in 2010 and 2011, they have the faces of preteens, wrinkled to fit their small heads. The condition also impairs growth, so viewed from behind they would easily be mistaken for infants. Like Sasha, they have rarely, if ever, felt fresh air on their skin. Unlike Sasha, they have never seen sunlight: the acute sensitivity of their nervous systems means that they must be kept in this darkened room, in this broiling apartment. Their bed, an outstretched futon.

Their parents, Olga and Misha, weren't even born by April 1986. They cradle their boys, carry them over their shoulders, sing to them, pat their backs in consolation. A wedding photograph hangs on their wall, taken five years ago, when Misha was twenty-three and Olga twenty. She in a dress of sapphire blue. He in a black suit, black shirt, without a tie. Visitors are rare, so they are pleased to see us. As with Vasily, they receive no aid from the state. ►

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We sit and watch Georg take tentative steps, we listen as he forms some words. Denis could do the same a year ago until he developed encephalitis, a swelling of the brain, which has rendered him mute and almost immobile. Georg's young parents smile, clap their hands in encouragement.

These cases are far from being exceptions to the national situation. While the Belarusian president, Alexander Lukashenko (Europe's longest-reigning dictator), lays the foundations for a new nuclear plant, the proportion of children with chronic illness in his country is without doubt far greater than in the years immediately following the Chernobyl disaster. Experts estimate that only 10 percent of the overall expected damage regarding congenital deformation can be seen in the first generation born in the wake of the disaster.*

The Russian writer Andrei Platonov wrote of the Ukrainian famine in the 1930s. Those he observed he called *dushevny bednyak*, meaning literally "poor souls." Platonov used it as a descriptive, rather than sympathetic, term. He reasoned that when everything has been taken from the living, all that is

* Sebastian Pflugbeil, Henrik Paulitz, Angelika Claussen, and Inge Schmitz-Feuerhake, *Health Effects of Chernobyl* (Berlin: IPPNW, GFS Report, 2011), 6.

left is the soul; the ability to feel and to suffer. “Out of our ugliness,” he writes, “will grow the world’s heart.”*

Stand in a darkened corridor of no distinction. Open a door. Each apartment contains its own particular sorrow, washed over with undiluted love.

In one: Igor, twelve, lies contorted on a sofa. In his mouth, his gums overwhelm his tiny teeth. As he’s unable to produce tears, his pupils—despite his mother’s attentiveness with an eyedropper—have the texture of sandpaper.

In another: Kyrill, nine, is missing a chromosome and a father. His right shoulder is implanted under his neck. His condition doesn’t have a name. His father, like many Belarusian men, took his child’s frailty to be a slight on his masculinity. Olga hasn’t seen him in almost a decade.

From 1986 to 1988 in the heavily contaminated Luninets District, 167 children per 1,000 had diagnosed illnesses. From 1992 to 1994 that number had risen to 611 per 1,000.† ►

* John Berger, *Hold Everything Dear* (New York: Pantheon, 2007), 95.

† B. K. Voronetsky, N. E. Porada, N. E. Gutkovsky, and T. V. Blet’ko, “Morbidity of Children Inhabiting Territories with Radionuclide Contamination,” *Materials, Gomel Medical Institute* (November 1995): 9–10.

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. . .

Another: Ludmilla regularly breaks her conversation with us to vacuum out Nastya's saliva through the hole left in her neck from a tracheostomy. On the floor beside Nastya's chair is a large pickle jar two-thirds full with murky green phlegm. In the next room, her elderly parents are bedridden.

In 1998, 68 percent of Belarusian children living in heavily contaminated areas had vascular dystonia and heart syndrome (characterised by dizziness, breathing difficulties, and fatigue). Three years later it was 74 percent. In less contaminated areas that number rose from 40 percent to 53 percent.*

Despite everything, Ludmilla's apartment is neat and clean, scattered with homey touches. A small sprig of white wildflowers in a medicine bottle. Trinkets on a shelf. A decorative dishcloth pinned to the wall. A small holy water font nailed to the doorframe with a fragment of a sponge inside. I compliment her attentiveness. She shrugs. The whisper of a smile. "If you live in a cage, you should make it a nice one."

6.

Gomel, for a brief few years, was at the forefront of medical research

* Nesterenko, Nesterenko, and Yablokov, *Chernobyl*, 38.

regarding nuclear contamination. In 1990, Dr. Yury Bandazhevsky, a pathologist, moved there with his wife, Galina, a paediatrician. The couple's relocation to the city was not based on career advancement; rather, they believed it their duty to offer their expertise to those who have no choice but to live with chronic exposure. Upon taking the position of rector at the Gomel Medical Institute, Bandazhevsky observed an alarming pattern of heart problems, strokes, and rare birth defects amongst local children. In light of this, he initiated a series of long-term biological studies on a sample group of victims.

After nine years of systematic data collection and evaluation—which involved the design and manufacture of advanced dosimetric instrumentation—Bandazhevsky presented a lecture on his findings to the Belarusian Parliament and the president, Alexander Lukashenko. After Bandazhevsky's presentation, Lukashenko had him arrested. Bandazhevsky, while awaiting trial, summarised his research in the study "Radioactive Caesium and the Heart." He was sentenced to eight years of hard labour and, in his initial months of servitude, was repeatedly tortured. The Belarusian secret police also promptly raided his offices at the Gomel Medical Institute and destroyed his archived slides and samples. Most of Bandazhevsky's colleagues at the Institute were fired, and many were also ►

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prosecuted. A new rector was appointed who denounced Bandazhevsky's work and closed his research clinics. A few years later, this nefarious activity was extended by the deletion of all medical files holding information on Belarusian Chernobyl victims. By the time of Bandazhevsky's release, three years later, many of those who had been evacuated after the meltdown were resettled back into highly contaminated lands. Currently Bandazhevsky is in exile.

His key finding was that the regular intake of radioactively contaminated food directly results in abnormal heart rhythms and irreversible damage to heart tissue and other vital organs. These findings alone are important, but more significant is the fact that Bandazhevsky discovered that the body concentrates Caesium-137—one of the most abundant of the radionuclides that were spread into the atmosphere from Chernobyl—in the organs, rather than uniformly distributing it throughout the body. This renders the idea of “acceptable dosages” to be a fallacy.

Just as radioactive matter is randomly distributed throughout a landmass, creating radioactive hotspots, so too the body absorbs radioactivity in uneven ways, processing it through the pancreas, the brain, the thyroid, the adrenal glands, the heart, and the intestinal walls, and no doubt in many other ways which we have yet to identify.

Some people can absorb significant dosages to little apparent effect, while others can absorb a miniscule amount internally and develop cancer or severe organ defects. The most vulnerable to long-term damage are children, born and unborn, whose immune systems haven't reached maturity and whose cells are developing at a much faster rate, so that any changes induced within the structure of a cell (from radiation exposure) are magnified and replicated to much greater degrees than in adults.

Even leaving aside Bandazhevsky's findings, the pattern of evidence in the regions most affected by Chernobyl has made clear that chronic low-dose exposure leads to diseases of the circulatory systems, the endocrine system, the immune system, the respiratory system; to reproductive disorders; to changes in the composition of bones; to brain damage; to blindness; to congenital malformations and abnormalities; to thyroid cancer; to leukaemia; to intensified infections; to organ failures (especially to foetuses irradiated in utero); to premature aging; to gene mutations; to "Chernobyl AIDS, Chernobyl Heart, Chernobyl Limbs" and "Vegetovascular dystonia." These latter names are a catchall for a variety of new syndromes that medical specialists have only come across in the post-Chernobyl years. The symptoms are so varied and diverse that doctors ►

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are obliged to group them under relatively generic names.*

Bandazhevsky's findings are highly threatening to the nuclear establishment because every nuclear reactor routinely vents radioactive gases into the atmosphere. This "venting" is not an aberration of procedure; instead it is planned, sanctioned, and systematic.

In most cases, about one hundred cubic feet of radioactive gases are released hourly from the condensers at any given reactor. If a reactor is temporarily shut down because of a mechanical malfunction, the ventings increase in frequency and scale.†

Though radiation is also a naturally occurring phenomenon, the type of long-lived radionuclides emitted from nuclear reactors—such as Caesium-137—are new to us as a species. They didn't exist on Earth in any appreciable quantities during the entire evolution of complex life and are millions of times more poisonous than naturally occurring radionuclides.

Again, Professor John Gofman can be relied upon to shine clarity on the overall situation:

Licensing a nuclear power plant is
in my view, licensing random

* Nesterenko, Nesterenko, and Yablokov, *Chernobyl*, 320–322.

† Helen Caldicott, *Nuclear Power Is Not the Answer* (New York: The New Press, 2006), 54–55.

premeditated murder. . . . It is not a question any more: radiation produces cancer, and the evidence is good all the way down to the lowest doses.*

7.

In 2006, the deputy head of the Ukrainian National Commission for Radiation Protection, Dr. Nikolai Omelyanets, stated:

We have found that infant mortality increased 20% to 30% because of chronic exposure to radiation after the accident. All this information has been ignored by the IAEA [International Atomic Energy Agency] and the WHO [World Health Organisation].†

In 1989 it was typical for Ukrainian children in heavily contaminated areas to have major organ difficulties associated with hormonal or immune imbalance. By 1996, these had turned chronic and untreatable.‡

By 2004, morbidity rates among Ukrainian adults and teenagers in ►

* Leslie Freeman, *Nuclear Witness* (London: W. H. Norton and Co., 1982).

† John Vidal, "UN Accused of Ignoring 500,000 Chernobyl Deaths," *The Guardian*, March 24, 2006.

‡ E. Stepanova, V. Kondrashova, T. Galitchanskaya, and V. Vdovenko, "Immune Deficiency Status in Prenatally Irradiated Children," *Haemat* 10 (1998): 25.

The Empty City (*continued*)

heavily contaminated areas was 573 per 1,000.* By 2011, only 5 to 10 percent of children in these regions were considered to be healthy.†

By 2004, in the Ukrainian capital, Kiev, 99.9 percent of Chernobyl cleanup workers were officially ill. In Sumy province it was 96.5 percent; in Donetsk province it was 96 percent.‡

Even in the distant future, the situation is likely to get worse as the genetic effects from the disaster take hold. Research on animals has indicated that after twenty generations of reproduction the resistance to radioactivity amongst those exposed will drop significantly, likely creating even more varied and virulent illnesses in four hundred years' time.§

All of which doesn't even take into account the problems associated with nuclear waste storage. Problems of such scale and intricacy that it is irrefutable, even by the nuclear bodies, that for several hundred thousand years each

* Nesterenko, Nesterenko, and Yablokov, *Chernobyl*, 38.

† Dr. Evgenia Stepanova, interview in *Chernobyl Forever*, directed by Alain de Halleux (Paris, France: Crescendo Films, 2011), DVD.

‡ Nesterenko, Nesterenko, and Yablokov, *Chernobyl*, 38.

§ A. I. Il'enko and T. P. Krapivko, "Impact of Ionizing Radiation on Rodent Metabolism," *USSR Academy of Sciences, Biology 1* (1998): 98–106.

generation of our descendants will be obliged to manage our toxic legacy.

8.

In my hotel room in Minsk, I pack for my flight home. I've been told to throw away any clothes I wore in the exclusion zone, so I fold whatever remains into a sports bag. The wallpaper around me is of patterned bricks, with sections where the bricks have fallen away to repeatedly reveal a pastoral farmhouse. On the edge of the scene, a woman throws feed over a picket fence to her chickens. I can't escape the sense that the management is encouraging me to get away, to take a break from the grinding oppression.

On the TV in the corner a chef cooks a spaghetti carbonara with all the typical decorum of a cookery show, but then he breaks from routine and conscientiously cleans up after himself, using a spray bottle and a soft cloth. He smiles and presents the bottle of oven cleaner to the camera, extolling its virtues.

Alexi drives me back to the airport in his battered grey van. We are alone and silent. He steers with one hand; with the other he clenches a cigarette between his thumb and index finger. The landscape is covered in fog.

"My father was involved in the cleanup."

I turn to him.

"Chernobyl?" ▶

The Empty City (*continued*)

“Yes.”

“You should have mentioned it. I would have liked to speak to him.”

“He’s not well. He wouldn’t have been able to hold a conversation.”

“How long has he been ill?”

“Seven years. He’s had two heart attacks and a stroke. He’s fifty-six.”

“I’m sorry to hear it.”

“It’s normal. All his friends are sick. They can’t leave their homes. They never see each other.”

“Do you remember that time?”

He flicks the cigarette out the window.

“Not much. I remember being excited about the day he was coming back. I thought he’d bring me home a military belt buckle or something.”

“Have you talked to him about it?”

“Are you kidding me?”

His paleness extends to his demeanour, like all life has been washed out of him.

“What about your friends? When you’re drinking together, do they talk about what they know?”

He keeps his gaze on the road. His head shifts back in an ironic snicker.

“You don’t fucking get it. I’ve probably said the word ‘Chernobyl’ four times in my life.”

9.

H. G. Wells’s predictions are as relevant as ever. Reflecting on *The World Set Free* in 1921, three years after the end of

World War I, sixty-five years before the explosion in Chernobyl, Wells observed that:

Either the disaster has not been vast enough yet or it has not been swift enough to inflict the necessary moral shock and achieve the necessary moral revulsion. Just as the world of 1913 was used to an increasing prosperity and thought that increase would go on forever, so now it would seem the world is growing accustomed to a steady glide towards social disintegration, and thinks that that too can go on continually and never come to a final bump. So soon do use and wont establish themselves, and the most flaming and thunderous of lessons pale into disregard.*

Or more simply, Vladimir Gubaryev, the first journalist to reach the Chernobyl accident site, reflects:

This tragedy should be a lesson for all of us and a reproach to those for whom a quiet life with materialistic benefits matters above all else.†

It is only a few decades since the tobacco industry was publishing medical papers proclaiming the health benefits of cigarettes. So there's perhaps ►

* H. G. Wells, *The World Set Free*, preface.

† "Testament," *Pravda*, May 20, 1988.

The Empty City (*continued*)

something apt in the reports that Lord Walter Marshall won a round of applause at a meeting of the British Nuclear Forum in 1986 for stating that the effects of radiation exposure within the Chernobyl exclusion zone would be “no worse than smoking a couple of extra cigarettes a year.”*

These attitudes continue unabated. International Physicians for the Prevention of Nuclear War have predicted that the suffering brought about by the nuclear disaster in Fukushima is, and will continue to be, of a similar magnitude to Chernobyl.†

Radiation is the ultimate assassin. Silent, invisible, tasteless, formless, odourless. It eviscerates the human body, devising sadistically imaginative forms of suffering. And it will keep on doing so for as long as we inhabit the earth. And we create it to boil water. ☹

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* “The Chernobyl Syndrome: The Day the Impossible Happened,” *The Observer*, May 4, 1986.

† Pflugbeil, Paulitz, Claussen, and Schmitz-Feuerhake, *Chernobyl*, 8.