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A Legacy

Leo Szilard was the Hungarian-born physicist who conceived the nuclear chain reaction. One of the primary scientists on the Manhattan Project, he became strongly opposed to the bomb's use against civilians and spent the last months of WWII in a bitter battle against the U.S. government, urging the new Truman administration to publicly demonstrate the bomb's power first before dropping it on a Japanese city.

In the bedroom mirror you tighten your tie, button your cufflinks, comb back your dark salt-and-pepper hair with a series of short swoops. You turned forty-seven two months ago and realized all at once that you look exactly like the half-dozen great-uncles who stared out at you from small oval frames in your parents' dim, wallpapered hallway back in Budapest decades ago. You used to stick your tongue out at them as you stomped to your childhood bedroom in shorts and suspenders. Now here you are with the same soft jowl, slumped little mouth, oversized, worried-looking eyes. Funny how time works, a person is so young and then suddenly old.

If one is given the opportunity to get old, Trude would probably say. She is a doctor, this is how she thinks. A woman of undiluted intelligence, she debates you even in your head, and she is always right. You are both lucky to be growing older, the two of you having escaped Nazi Berlin, separately, by the skin of your teeth, in '33, at the time close friends and sometime lovers. The physician and the physicist, you are perhaps an unlikely pair, but you are also (you like to think) ideally suited. You've always lived separately, with long regular visits, because you both need privacy for your work, and because you like the being-apart -- a gleeful freedom that turns to pining like teenagers -- and the coming-back-together. Her opinion of you matters very highly, sometimes to the point of your distraction. She has the brains and the beauty: tall and long-armed and strong, her silver-streaked hair in a high, fluffy bun, no makeup, you can picture her, her lovely neck, delicious elbows – and you with your old-man face now, it's enough to make you laugh; your puppy-dog eyes, your crooked nose--

But no matter; you were not hired on to the University of Chicago and now the Manhattan Project for your looks. You chuckle at this little joke and think you should write it to Trude in a letter: *I'm afraid they regret hiring me for my looks*. She would find that funny.

I am sure some of them do regret hiring you, she would say, with a twist of affection to her mouth but a voice turning serious. She means the five years you've spent on the project and your desperation, now, to keep the military from using it.

Trude knows the basics of what you are building – what, now, you have just finished. She is not the only one: Oppenheimer's wife knows, Wilson's wife knows. But she calls it "the project," has never said the word "bomb," and what the wives know of it is only a fraction of how devastating it will really be.

Which is why you became so upset, last night on the telephone, when she suggested in exhaustion that you stop fighting President Truman and that dybbuk of his, Leslie Groves, head of the Project, who's tried to get you interned as an enemy for the duration of the war. Truman and Groves want to drop the bomb on Japan in less than a month; you oppose this with every fiber of your being. In letter after letter to the brand-new President -- a country bumpkin with the scientific insights of a ten-year-old – you've written that the bomb's use would be immoral, that there is no excuse for a civilized and moral nation to annihilate eighty thousand civilians with one stroke. America has an "obligation of restraint," you wrote , "and if we were to violate this obligation, our moral position would be weakened in the eyes of the world and in our own eyes."

You know I agree with you, Trude said. But you are working yourself into constant agitation. You can't control the military or the President. Perhaps it's time to stop fighting them-

Stop fighting them? you'd cried. I've got sixty-eight other scientists who've put their names on paper saying there is no need to use it. There are other things we can do. We can test it publicly. We can offer Japan a detailed terms of surrender first, before we use this weapon on old people and babies. Sixty-nine scientists saying not to use it and they listen to the four patsies who agree with them--

Then, you stopped talking. Her end of the line was silent. She had heard all this before and besides, you were proving her point.

You said, I am sorry I raised my voice at you.

She had sighed, lightly. *Oytser* -- sweetheart -- there is only so much you can do. Maybe this is the price we pay for peace.

You hadn't argued any more. The call ended pleasantly a few minutes later. You wished she would appear beside you, tap your crooked nose and laugh at another of your silly jokes. But you couldn't think of another joke to make. And you knew that this was not about peace.

You do not want to toot your own horn, as the Americans like to say, but the germ of the project started at least in part with you, when the possibility of a nuclear chain reaction came into your mind on a Southampton street corner in 1933, right after you'd fled Berlin. For six years you'd kept your theory close to the bone. If Hitler got hold of the science, it would be the biggest disaster mankind had ever seen. It was you who wrote to FDR, told him the U.S. must do everything within its power to achieve a nuclear weapon before the Germans did. Einstein's name was on the letter, yes, but you wrote it.

One scientist after another fled Nazi Europe for America, and suddenly there you all were together, a meeting of great minds driven by an urgency none of you had ever known before: working day and night, sharing notes, solving problems that would ordinarily have taken four times as long. Feet to the fire: Heisenberg, after all, was still in Hitler's Germany, making his own calculations, and in the end he would not be off by much. The whole world at stake. A ghastly time for millions, but – you could not deny it, none of the scientists would have denied it -- the most exciting time of your life. Everyone swept up in it.

And you beat the Germans. You beat everybody. In 1944, when it became clear that the war would be won long before Hitler could ever acquire such a weapon, Joseph Rotblat, the brilliant Pole, pulled out of the project. We've defeated Hitler, we've met our goal, he said. Then he looked you in the eye: *Haven't we?*

But you stayed on and worked as feverishly as before.

I think it's more about the Soviets, Rotblat warned, a few days before he left, over coffee at your kitchen table. That's why they want to drop it. They want to show Stalin what they can do.

You'd hemmed and hawed, said*, We don't know that.*

Japan will fall very soon and we don't need to kill hundreds of thousands of civilians to make her do it. It's a devil of a way to show off, Rotblat had said, *killing women and* *children. A devil of a pissing contest.* He rubbed his forehead, made a small disgusted sound, looked off to one side.

After he left, you poured yourself another cup of coffee, added a splash of cream. The white dollop hit the bottom of the small mug and bloomed upward into a flower, unfurling. You were angry at Rotblat for disturbing the air in your own, cozy apartment. You were angry because he was right. Your stomach clenched and you tossed the beige liquid down the sink. From that day on you took your coffee black.

Why did you stay on when others, like Rotblat, had left? What were you hoping to accomplish, to gain?

Trude has never asked you. You hope she never will.

The threat you'd joined up to fight was gone. Why did you stay on?

Why did you stay on?

The day the bomb is dropped, you sit at home. You are alone. It is a beautiful day in August, the 6th, the high point of an American summer. Children are free to romp at their town's pool, to cannonball into the water again and again, to fish by quiet ponds, to ride bikes on new pavement.

Now the bomb has hit, and on the other side of the world, eighty thousand Japanese are dead. Blasted into vapor, or peeled like peaches. Women, children, babies, pets. Elderly couples. Their jokes, stories, imaginations, vanished just like that. The way a certain man walked with a light shuffle, the way a woman tucked her hair behind an ear: gestures, the myriad types of laughter, the odd and particular games of individual children. The weight of what their minds and hearts held.

You know the death toll will more than double.

The phone rings and rings.

Truman announces the success from a ship at sea: "We've spent 2 billion dollars on the greatest scientific gamble in history—and won." You write to Trude – you cannot yet call-- "He offends my sense of proportion."

You live almost two decades after that; you and Trude finally marry.

For the rest of your life, you work for nuclear arms control. With Einstein, you form the Emergency Committee of Atomic Scientists. You move to D.C. to advise Kennedy; you publicly oppose the hydrogen bomb; you try to form a hot-line for Soviet and American officials, any last-ditch intervention that could prevent nuclear war. You leave physics and turn instead to biology, which suits you. In time you'll be known as the inventor of the chemostat, which allows bacterial cultures to be produced continually; you publish a theory of aging and a method for cloning mammalian cells. You become a fellow at the Salk Center and move to San Diego, a place so beautiful it seems no one can actually deserve to live there.

When, later in life, you are diagnosed with bladder cancer, you cure it with a radiation program you designed yourself, a technology that will continue to be used for others.

You have brought good to this world, Trude reminds you, from time to time, on evening walks when you grow moody. You don't entirely believe her but you don't feel like quarreling; the quiet slosh of your urine bag – you are still finishing the radiation treatments – is answer enough for the grimness you feel. (When one of those shirtless teenage beach bums strolls by, you raise your coat hem slightly and slosh the bag at him, feeling devilish, as if to say See what awaits you, young man. His eyes widen, his glorious pectorals contract as he sidesteps off the curb. Trude says, "Leo, stop, that's perverse.")

She knows you think about the bomb. It pains her, which both troubles you and, on your lesser days, brings you a small, strange satisfaction.

But she doesn't know how *often* it crosses your mind. Some days, forty times. Fifty times. Other days merely ten or twelve. It comes to you in flashes, images: the cloud, the spread, the falling buildings. The people lingering in hospitals for days or months, their eyes bandaged, skin flowered with sarcomas or badly burned, fetus-pink, stretched and seeping. Children with their wrists curled under. The garden of horrors you helped cultivate and bring to this earth. You do not want this to be your legacy, but what else can it be?

In La Jolla, the sun-warmed town where you will both eventually die, you'll catch a glimpse of Trude's bare arm, tan, muscles flexing, as she plants her succulents, and shudder to imagine its smoothness bubbled from below like lava on island rock. You'll think of a cancer blooming in her belly like some sea creature, fanning slowly, scalloped edges.

Some days, you are almost envious of victimhood, the purity of it. You are stupid enough to mention this to Trude, only once, and she slaps your arm so hard it surprises both of you. *Y*ou could have stayed in Berlin in 1933 if you wanted a taste of victimhood, she says, her voice nearly a snarl. You could have seen how great it is, how about that.

I'm sorry, Trude. I didn't mean it.

You'll think how angry you would feel if it were her killed in that blast. You'd be beside yourself, you'd feel furious and robbed. You know it would make you want to take things from other people, again and again, every day of your life. But also you know that would solve nothing. People can take and take, and they always do; but they can never take back.

Trude comes in from the garden, smelling like sage. There is a dry nub of lavender in her hair and dirt on her chin. You wish you'd known then that she would outlive you by seventeen years; every lover who'll die first should have that knowledge, you think, and keep the secret to themselves, a mercy. When your heart stops the following evening she will not be able to revive you and that will be that. She will devote herself to your papers and deliver them to the local University, where she will give a small lecture on your accomplishments, point to a photo of Lunar Crater Szilard that has been named for you (formerly Crater 116), of which she is proud, though it is heavily worn and cannot be seen from Earth.

She stoops to pick up a sprig she has dropped and stands with a tiny groan.

I think we are finally old, she laughs.

You want to smile at her, but you can't quite. You are not as old as some, but you are older than many.

ANDRIA WILLIAMS is the author of the novel *The Longest Night* (Random House, 2016) and editor of the *Military Spouse Book Review* (www.militaryspousebookreview.com). She is currently at work on a second novel.