

The Novelist

By Hannah Hoare

“That woman who sits in on your British Library lectures is outside again, Doctor Cass,” said Catherine Kelley, by way of greeting, as she entered the office. Uninvited, she took a seat across from Donavon and gazed out of the window. “Says you’re manipulating DNA to re-write reality according to your own design. She has a pamphlet and everything.”

Donavon gave his mentee a sly grin. “Must be true, then, if there’s a pamphlet.” He chuckled dryly. Synthetic biology carried a certain stigma: anything to do with DNA synthesis sparked conspiracy theories, no matter how careful the department was with its PR. He noticed Catherine’s gaze was still directed out the window. She seemed strangely wistful. “And since when was I ‘Doctor Cass’, Cathy?”

“Since you said you were worried about my academic performance and asked to see me in your office.” Now she turned, and looked him dead in the eye, but didn’t return his smile. “Donavon.”

It was a blank-screen look, especially eery coming from such a young face. She wasn’t buying his attempts at friendliness. Donavon took a moment to collect his thoughts. “Well, I suppose I should cut to the chase. Professor Francis has been complaining about your attitude under his supervision. Your grades have been slipping, too. We’d like to know what’s changed. I mean, two years ago, you were almost desperate to get onto the synthetic biology master’s programme. And, well – I pulled strings, helped you onto the course.” He paused, considered. “Maybe it’s something in your personal life...” He stopped himself. He knew about Catherine’s personal life. She’d confided in him about her past, and he had promised not to bring it up again.

But Catherine wasn't listening. She let her eyes drift to the shelves beside the window. The anonymous black spines of bound PHD theses. She waved a hand in their direction.

“Does anyone read these?”

“Of course. We treat all our students' work seriously.”

“I mean, beyond this university?”

“Sometimes. One or two in every class tend to stand out. But you can't hope for recognition right away, Cathy...”

Catherine stood and examined the books below the theses. Subject guides, most of them. She picked one up and ran her fingers over the cover.

“Ah. I'm glad you picked that one out, Cathy. That's an excellent example: the author studied here and has gone on to make fantastic contributions to the field.”

“But nobody's heard of him.”

“You should have! He was on your required reading list.” Donavon sighed, removed his glasses and pinched his brow. “Honestly, you should feel privileged to be in this field. DNA is becoming cheaper and faster to synthesise all the time – it will be improving lives everywhere soon. But it seems you're not too interested in CRISPR gene editing?”

“Inserting synthetic genes into crops? Like I told Professor Francis, I didn't sign up for food tech.”

“But it improves nutritional content and helps so many people. I thought someone like you would want to make others' lives better...”

“Why?”

Donavon paused. He'd thought shadowing the humanitarian-minded Professor Francis would have been healing to someone like Catherine, whose life had been marred early by tragedy. It came to him like a slap in the face: he'd been projecting himself onto his student, imagining how he would want to recover his life if his father had been like Catherine's. But he knew what really fascinated Catherine. Had known since the day they met.

“Come with me.”

*

Catherine Kelley's earliest memories were of her father's library.

Well, it couldn't really be called a *library*. In the basement of their Surrey mid-terrace: all the books her father had collected over his optimistic youth; the writings he had worked on as he declined into a chaotic, mortality-obsessed middle-age. When the outside world was too much, young Catherine would bury herself in the basement and read. It had felt like walking through the better part of her father's mind.

Here in Donavon's laboratory, Catherine was reminded of that library in some ways. True, this white space with its rows of ordered desks and multi-screened computers was a far cry from the creative, analogue chaos of the basement. But it was enclosed, private, humming with intellectual energy. As always, the laboratory was alive with people, but the chatter was muted. Researchers stared into screens, lost in their own realities.

A white-coated woman slipped out through the double-doors to the adjacent room. One of Donavon's other mentees from the master's program, Catherine recognised. The woman lowered her facemask and gave a wave as she passed, which Catherine ignored.

“You have a thing about books, don’t you, Cathy?” Donavon said behind her. “English literature undergraduate. You listed creative writing as a hobby in your personal statement. And when we met...”

“At the British Library. I remember.”

The memory was still vivid. The summer before the final year of Catherine’s undergraduate degree. A heat-addled stagger from King’s Cross with her notebook in her arms, up the steps, into the air-conditioned comfort of this home to knowledge everlasting. She had been drawn upstairs where she could lean against the rails and get a good view of the King’s Library: a ceiling-high, black tower in the centre of the building, which only a select few could enter. According to the signage, this held all the literary works King George III believed were worth preserving. All those ancient books, like mummified bodies fading in a lonely mausoleum.

Tears had sprung, and she had slipped into a public lecture. She had recognised Donavon from campus but had never seen him so animated. With a double-helix projected on the screen behind him, he was pacing excitedly, gesturing with his thin pale hands, preaching.

“The British Library is costing the Earth! Think about it – this place currently houses fourteen million books, and each year the new content we add equates to six miles of shelf space. As for the digital archives – well, constantly replicating and repairing data costs us a fortune, not just in operating costs, but in energy...”

“So, what are you saying?” a woman had shouted from the audience. “We should just set fire to the lot and move on? I suppose for people like you, the past is best got rid of!”

Donavon had scanned the crowd for the heckler – but instead had paused on Catherine. He couldn’t have known why she had reacted to that talk of fire, not back then. But perhaps he had noticed how she clutched her notebook tighter to her chest. Or, peeking out from

beneath her long sleeves, the puce-coloured burn scars up her arms. His compassionate blue eyes had lingered on her.

“Set fire to it? Of course not, you think I’d suggest that in a library?” Polite, uncertain laughter from the audience. “No. What if I told you the contents of this library could be stored in a container the size of this?” He plucked a thimble from his pocket and held it up to the audience. “Did you know, we can still read DNA from frozen mammoth carcasses thousands of years old? Now we can synthesise genes to code for better nutrition content in plants; so why not for the Complete Works of Shakespeare, or Plato’s Dialogues? Through DNA, we’re writing the next chapter of human development!”

In the laboratory, Catherine peered at a screen over the shoulder of a young researcher.

“Herodotus. Almost ready to be sent through for encoding.” Donovan gestured to the double doors. “I’ve got a great team, here. Every one of them committed to playing their part. We’re starting with the ancient classics, but eventually any literary work worth saving will be coded in DNA. And that’s just the start. Have you heard of Project Columbus? One day we will bring the world’s libraries to the stars! We could set up civilisations on other worlds.”

Catherine hesitated. “And what would my role be? A cog in a printing press? Copying down whatever I’m told to, anonymous, no credit?”

Donovan hesitated. He understood. As a student he had recoiled when told that, while Watson and Crick had published the structure of DNA and were henceforth remembered as its discoverers, it was actually Oswald Avery – a name he hadn’t known – who had first revealed DNA to be the material from which chromosomes are built. It was upsetting: the revelation that, for many, to be a scientist was to be an anonymous contributor.

But he’d accepted the role, nonetheless. On the Catholic side of his family were two cousins in the priesthood: this was his equivalent. “Something you’ll discover,” he hazarded,

“is that individual recognition doesn’t matter. Not when you’re contributing to a wider system of change. Thousands of minds across the world, all working towards one goal – that’s better than one person shooting in the dark, surely?” In his head, it had sounded inspirational - but Catherine still seemed listless. She watched the screen, expressionless. “Listen, you worked hard to get where you are. Had to retake your a-levels, get a foundation degree. Even then, people on the faculty had their doubts. I fought for you. So, I ask you: am I wasting my time? Or do you want to preserve the world’s knowledge, Cathy?”

He put a hand on her shoulder. Catherine shook it off fiercely but remained in the laboratory.

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On the inside cover of one of Catherine’s father’s nicotine-yellowed notebooks was a message, scrawled in biro:

If just one novel, poem or story of yours is published and read, your life will have meant something. Immortality is other people remembering your ideas.

The only advice Catherine ever received from her father was written in notebooks. She couldn’t remember any actual conversations.

Down in the basement-library, all her father’s knowledge was kept locked away in a wooden trunk beneath the shelves. Catherine had picked the lock. She remembered reading the notebooks crouched on the cold, tiled floor, her heart beating faster - bracing herself for his homecoming, the cigarette stench on his breath, the fury if he found her. Reading those notebooks had felt like reading her father’s soul. This was his true self: the part that should endure when the rank, horrible body was gone.

When she was a little older, she'd started writing her own stories. A bit like her father's, but changed, twisted into something new. She had thought they would live side-by-side forever on a library shelf, eternal as Shakespeare. Everything bad would burn away: in the future, only the pure creations of their minds would be remembered.

Then one night, she'd heard him go down to the basement, cursing under his breath as if to a secret antagonist. The scent of his cigarette hung in the air outside her room. She had fallen asleep late and woken up to flames.

“Cathy?”

Catherine blinked the memories away. The laboratory was chilly and silent. Her colleagues bent over keyboards, tense, exhausted, yet uniformly determined as soldiers. Even after all these years, she would still disappear into her mind and come back aghast that this was her reality. Her soul sat at a desk like her father's, hunched over a yellowing notebook.

A phantom ache throbbed through her scarred arms. Catherine stared unblinking at her screen; let her vision blur.

“Cathy!” Donavon's voice was too cheery this morning. She listened to his approaching footsteps. “Sorry I'm late for our catch-up. That woman with the pamphlets was outside the lab again. She's being quite vocal about us ‘playing God’. Attracted a little crowd of fans.”

Catherine nodded. “I passed her. And I quote: ‘You'll be making children synthetically next. I know you're finding ways to alter children. Once you can create anything in a lab, regular people will be obsolete.’”

“Maybe I should get someone to have words with her...”

“Or just invite her down to the lab. She'd be bored out of her mind.”

Donavon paused. “Cathy?”

Catherine sighed and turned away from the screen. Her eyes focussed on the blurred shape before her until it sharpened into the face of her supervisor.

“Are you holding up okay, Cathy? Joel on security told me you’ve been coming in for three weekends straight, but you’re still behind with your work.”

“I’m okay.”

“What do we have here?” He gestured towards her computer, the lines of genetic code.

She looked at it, undisguisedly forlorn. “Hamlet. I hope.”

“What do you mean, you hope?”

“It might have started out as *The Tempest*. I’ve lost track of who’s supposed to be doing what.”

“I’ve made it clear who’s supposed to be doing what. What’s wrong, Cathy?”

Catherine groaned. Donavon considered himself her friend, her confidante. But he only read the surface. He couldn’t understand. “I guess I thought, at this point in my life... I’d be known for something.”

Donavon looked at her analytically. “Come on. I want to take you somewhere.”

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As a child, Catherine had imagined the future as a post-apocalyptic nightmare. When her reality burned, surely the rest of the world would follow? It was all over the news, too: climate change, famine, nuclear war.

Walking down Euston Road with Donavon, it occurred to her just how normal everything was outside her own mind. People walked by, talking on phones, with friends, children. Not even a preacher predicting damnation. Perhaps Donavon was right, and science would save

the planet? She breathed deep, and allowed herself the fantasy of frantic, wide-eyed running under an engorged sun. “How do you want to die, Donavon?”

“Painlessly. In my sleep. The way everyone wants to go.”

“I think I’d like to freeze,” said Catherine. “I wouldn’t mind the pain. Knowing someone could thaw me out in the future – that would make it worthwhile. I couldn’t stand being nothing but decaying flesh or black ash.”

She stole a look at Donavon. He was staring straight ahead, pretending not to have heard.

They entered the cool white lobby of the British Library and Donavon strode ahead through the giftshop to the lifts. It was clear where he was leading, but she let him take charge.

Upstairs, they regarded the King’s Library in silence.

After a moment, Donavon murmured, “I don’t know if you noticed, but I saw you before my lecture here. You were standing right where we are now. I recognised you from campus and I wanted to say hello – but then I saw you had tears in your eyes.”

Catherine didn’t respond.

“Anyway, I brought you here because I thought it might re-ignite something in you. Books seem to do that. What were you thinking back then, Cathy? Can you remember?”

Her father’s collection. How she missed the collection more than the man. Her own attempts at following his path, and the growing collection of rejection emails smothering her inbox. She was creeping closer to the age he had been when he had dropped that cigarette...

“When we chatted after the lecture,” Donavon murmured, “I asked why you’d reacted so strongly to it. You said it often worried you how the creations of a mind could just disappear,

no matter how hard we try to preserve them. All this knowledge being destroyed – that’s the same fear driving me! Because what is humanity without knowledge?”

Catherine gestured to the tower. “Is this our future, though? Preserving what other people have created, never writing anything new?”

“We *are* writing new stories, Cathy! In life if not in literature. Science fiction has become science fact, the reality outpacing the literary dream. One day, the DNA we create will be taken into off-planet. They’re saying Project Columbus could launch within the next ten years. Our BioArchive will be aboard. Whole libraries travelling through space – imagine!”

“Why?”

“Why? Like I’ve said, it could help us set up societies on new planets. Mankind and knowledge have a better chance of surviving if we multiply and spread out. What we’re creating is lightweight, compact, long-lasting: ideal for transportation. Maybe, one day – who knows, we could even share this knowledge with an alien species! The data we choose to preserve could live on forever.”

“You keep saying ‘we’.”

“I want you with me, Cathy. I’ll put in a good word for you. I want you on Project Columbus.”

“I’m writing a novel.”

Donavon paused. “A novel?”

Catherine nodded. “And I’m going to keep writing it. I think I – I need to. That’s what’s been distracting me.”

Donavon looked at her. “Oh.”

*

Catherine remembered her first rejection letter.

Not even a real letter that she could hold in her hands and leave to yellow under the sun on her desk: a romantic physical reminder of her despair. It was an email, anonymous, invisible. It had burned like fire, the realisation that a part of her soul was deemed unworthy of preservation - if only by a small literary magazine.

By her early twenties, Catherine had received so many rejections that she was outwardly unaffected when another arrived in her inbox. Internally, though, each rejection sliced away at her heart and her brain like an icepick against a frozen sculpture, until all that remained was colourless and jagged.

She couldn't remember which rejection had driven her to the British Library the day she met Donavon. But she could remember the message in her father's notebook. Turning it over and over in her mind as she stared at the King's Library. *Immortality is other people reading your ideas*. The phantom ache throbbing through her scars...

“Cathy?”

Catherine flinched. Donavon's voice, calling her. Reluctant, she swam back to reality.

“Cathy! I don't believe it – what are you doing here?”

She had been expecting him. Only Donavon came into the lab this early on a Sunday morning.

She heard the double-doors swish closed. Careful not to spill any liquid, she moved the microcentrifuge tube a little further down the desk to her left, she listened to his approach from the right. His footsteps sounded cautious, like those of a wary animal. A dog could tell a

zombie of its master sooner than a human could. She couldn't recall where she'd read that. Perhaps it was something she'd written? Perhaps it was from a movie. Her mind was a blur.

“Hey.” Donavon was behind her. His heavy hand fell on her shoulder; she shrugged it off fiercely but remained where she was. In the year since they'd parted, he'd stopped dying his hair. The grey didn't suit him.

“I didn't mean to startle you, sorry. But why are you here? I'm – I'm glad to see you, of course, but...”

“You never asked me to return my pass.”

“I wanted to give you the opportunity to come back whenever you wanted. But you seemed pretty determined to focus on your own project. Did you get my voicemails?”

“I have been coming back. One AM to five AM, every night for the last two months. Joel on security says he admires my work ethic but thinks I should cut down on the energy drinks.”

“Oh?” Donavon perched on the edge of the desk behind Catherine's.

“Willow says hi, by the way.”

“Who's Willow?”

“The woman with the pamphlets. She hangs around the library café where I write. Likes to chat. Apparently, you're engineering viruses now. Not the kind of man-made viruses that destroy tumours, like Professor Francis was so fond of: you're working for the other side now.”

Donavon sighed. “She shouldn't be worried about the academics. If anything, it's the idiots playing about in basements, with grudges...”

“You’re doing it to shut down the government and incite the New World Order.”

“I sometimes think that woman might be a plant, you know. Discredit the genuine critics. Maybe one of the higher-ups is paying her off...”

“She must have published thousands of those pamphlets. Some nights I lie awake and think of all those people reading her work.” Suddenly spiteful, and needing a reaction, she turned to him. “I’d say her version of reality could come close to replacing yours.”

Donavon tilted his head as he regarded her. “Your novel – is it along those lines, dystopian, conspiracy?”

“Perhaps.”

“Well. I suppose it’s a popular genre. When a publisher picks it up...”

“Oh, don’t *condescend*, Donavon!”

He recoiled. It was the first time she had screamed at him.

Catherine swallowed and collected herself. “It will never be published. There are so many people creating new work, our systems will never catch up. And nobody will ever see something *I’ve* written as worthy of preservation.” She heard the venom in her voice. Her eyes went again to the plastic tube, and she laid her pipette beside it, falling silent and listless.

“Oh.” Donavon followed her gaze. “Is... is this your novel?”

“Remember when you said we choose what we preserve?”

“You want to add it to the BioArchive? Cathy...”

“I know, I know. The contents of the BioArchive have already been chosen.” All that undeserving Shakespeare... “But I could do something else. I want to smuggle the novel in with me. Inside my body.”

Donavon turned away. “Impossible.”

The script she had prepared in her mind dissolved. A sudden nausea hit, and Catherine’s voice swelled with desperation. “Professor Francis was inserting new genes into plant chromosomes! Would this be any different? Like unzipping a zipper and adding more teeth; that’s how he described it. You worked under Francis. You know...”

“That’s not something he would do with human beings, Cathy! We exist to help people, not alter them on a whim. This is the sort of thing that Willow woman is accusing us of!”

“Please, Donavon.” She touched his shoulder.

He froze. Then he turned. To her relief, his expression softened. She knew he was seeing her as she had appeared that day in the British Library: her despair, her need for guidance.

Donavon gave a grim smile. “Have you just decided to join Project Columbus after all, Cathy?”

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“One day,” Donavon had announced to his master’s degree class, voice rising to be heard at the back of the lecture theatre, “the DNA-encoded library we’re creating here will be taken into space. Imagine, the contents of the British Library, replicated thousands of times over! Instructions for how to create vaccines and medicines, important histories, millions of novels – condensed small enough to fit into a cigar box. A utopian world on every planet humanity touches!”

Catherine had found this inspiring at the time. Back in the early days, she had seen Donavon as a pioneer: rather than another in a long line of scientists, all working off the same blueprint.

Sitting in the back of the lecture theatre, she had imagined herself aboard a great space ark, watching the Earth retreating into the depths of space through a porthole. Then turning her back on it, to her work in the ship's lab. The changes she would make to her own cigar-box capsule. Recipes for a more interesting world from her imagination...

She thought about this as she endured the pain of Donavon's needle.

For weeks, they'd been working together at night. Joel on security clearly assumed an affair and turned a blind eye. She saw no reason to correct him.

In the dark of the lab, Catherine lay on a table, while Donavon sat beside her on a chair. Sweat clung to his forehead.

He had been surprisingly easy to convince. And she realised that, as much as he might claim to accept his life as an insignificant cog, he was as desperate as she was to be a pioneer. She was doing him a favour. She wondered if he would ever appreciate it.

"We could start doing this to order," murmured Donavon. "The customer sends in their preferred text. You synthesise the genetic sequence, then I call them into the lab for implantation. Do you think there's a market for it? I imagine people would find it comforting, knowing something they've written will be inside them forever. Or a religious passage; a letter from a loved one..."

"Focus on the task at hand first," said Catherine. She was breathing heavily.

"I'm just thinking, if this goes well..."

"If?"

"Imagine the funding it could bring in for the lab!"

The lab. As always, his focus was on the efforts of the hive: not the possibilities of the individual. She breathed herself calm. “Tell me more about Project Columbus.”

“Like what?”

“Do you really think we’ll meet intelligent life on other worlds?”

“Honestly, no. I think we’ll *create* other worlds. Societies built on the knowledge we’ve stored.”

“Yes, yes. Imagine if we could communicate with an extraterrestrial, though. It would be possible, wouldn’t it, through the DNA? Assuming they’re made from the same basic material as us, they could recognise it, decipher it. Whatever data you shared with the alien would be true - they’d have nothing to compare it to. Imagine influencing an alien race’s first perceptions of humanity!”

She realised he wasn’t looking at her. He was tuning her words out, picking the information he wanted to accept. “One more night, I reckon. Then we can celebrate. But that’s enough for tonight.”

Donavon turned away, and Catherine watched him cleaning his equipment in the half-light. It occurred to her that he hadn’t asked her, in all this time, what her novel was about. The story coded in DNA, stored safely within her. Her burning building of a body.

She scars on her arms started to ache.