

Forward Momentum

Kelsey Baker had hoped the future would remember her for her scientific achievements and her drive to succeed. Time travel was, after all, an unprecedented feat. Her legacy was not what she had expected.

“We really shouldn’t be messing around with this,” Tom told her. “I mean, besides almost setting the lab on fire every time we fire up this piece of scrap? We’re years before testing this with mice and decades before human testing!”

“We sent a plant into the future!” Kelsey said. She fiddled with the ends of her black braid as she paced, her sneakers squeaking on the concrete floor of the lab. Pacing helped her burn off nervous energy rather than do busy work and calmly debate like Tom seemed to prefer.

“Yeah, we sent a fern ahead an hour in time,” Tom corrected her, pushing his glasses up his nose as he tended the plants they used as test subjects. “I’m not saying it’s unimpressive. We’re And we don’t know the long term effects of—“

“It’s fine!” Kelsey said, shaking the fern leaves. “Every comparative test we’ve run on it says that it’s the same plant and there’s nothing wrong with it.”

“You do realize a person is *so* genetically different from a fern, right?” Tom said.

“I have multiple science degrees” Kelsey said. “I may have a doctorate in physics, but I got my undergrad in biology. Look, the project is going so well! I don’t want to lose our forward momentum on this!”

“We’ve had some lucky runs,” Tom said. “But we’re decades ahead of doing any proper testing, alright?”

“That was my initial projection, but—!”

“This is about Dave Wallace, isn’t it?” Tom said, setting his spray bottle aside and folding his arms with a smirk.

“Dave?” Kelsey scoffed, folding her arms. “I’m not worried about him. I don’t see a reason to wait.”

“You’re worried he’s going to crack human time travel before you,” Tom said. “You kicked him off the project and now you’re worried that he’s building his own

machine now?”

“I’m not worried about anything!”

“Then wait until after tomorrow,” Tom begged. “Look, we have Mr. Harris coming over tomorrow with his friends—investor friends! If we can pull off a harmless display with one of the orchids...maybe do the apple trick where you send it forward with a bite taken out of it? They’ll be footing the bill for our project for the next thirty years and pay for every patent from now until we die.”

“I didn’t build this for parlor tricks! I built the machine so that we could make a mark on science! Why would they care about sending things through time rather than people? If time shifting a plant will get us funding? Imagine the money we’ll get when we can transport people?”

“And we will, but we need to go slow. Listen, there’s a difference between an open concept living room and collapsing the house. Slow and steady wins the race, yeah?”

“Right...” Kelsey grumbled, looking at the console of the machine they’d built.

“Right?” Tom urged, nudging Kelsey’s shoulder with a smile.

“You’re right.” Kelsey smiled back. “I won’t go looking for willing subjects for tomorrow’s test.”

“Good,” Tom said. “I’m gonna go get some dinner. Want to stop by the diner? My treat...”

“I’m gonna do a little fine-tuning,” Kelsey said. “Just a final systems check so there aren’t any surprises tomorrow. Today was a success, so I want to make sure we can do it again...without the fire this time.”

“Alright,” Tom said. “Make sure you get some sleep and please shower before the presentation tomorrow?”

“I will,” Kelsey assured him, annoyed. She at the terminal for their machine and typed a few commands into the keyboard. Kelsey started running a systems check and listened to Tom open and close the rusty metal door. When she heard the workshop door lock, she closed out her system check and initiated the machine.

“I won’t have to go looking for subjects,” Kelsey said, “because I’m willing to test it

myself.”

Kelsey set her trip parameters and decided to check about one hundred years in the future. She figured that in a hundred years, her technology would be more advanced and maybe she could gain some insight into the problem of going against the flow of time. Not an answer, but enough to tell her how to get to the next stage of the project. Sending something forward an hour was impressive, but sending something backwards an hour was the goal.

Kelsey walked away from the console, setting a timer to activate her machine in ten seconds. She walked over and allowed herself to marvel at the device for a brief moment. The actual “time booth”—as Tom called it—was a massive metal box with slight curves that came to a narrow point at the top. The pair had insulated the booth with lead and padding after they'd lost several plants in the early tests. Some died from radiation and others had been violently smashed against the walls. Kelsey stepped inside the time booth and closed the door behind her. With less than three seconds, Kelsey closed her eyes and prepared for the machine to go off.

The discharge felt like a bolt of lightning flashing through Kelsey's body and electrifying her bones. Every hair on her arms prickled and it felt like her muscles were spasming. If it weren't for the force of her heart pounding in her chest, Kelsey would have thought it stopped. All she could hear was the crackling of the machine and the high pitched whine of the generator working on powering up the device before a loud pop, followed by silence.

After the initial fear that she had died had subsided, Kelsey felt her body pulled forward through an electrical wave, as if she was thrown through the material of space-time. She couldn't breathe, it felt like her body was on fire, and she didn't hear herself screaming. There was a rush of sound passing by her ears like the deafening roar of being trapped in a hurricane. Her world was darkness and overwhelming noise in the chaos of being thrown towards the future. For a moment, Kelsey wished she was dead.

Then, everything stopped. Kelsey's body was numb for a moment and then ached

all over. She gasped and her eyes shot open as she struggled to catch her breath. Her vision was blurry but got better as her hearing started to clear up. Rolling onto her side, Kelsey realized she was laying face first in concrete. She groaned and pushed up, able to make out each of her fingers as her vision finally cleared.

Staggering to her feet, Kelsey took quick stock of herself: legs, arms, skin, eyes, nose...everything seemed to be in order. The space she looked like her workshop, but her equipment had removed. She guessed that she and Tom had relocated the original machine and most of her equipment to a more advanced lab, or a museum display. Slowly walking towards the door, Kelsey undid the latch and walked outside.

The first indication that Kelsey was in the future was the vehicles that were passing by the front of the workshop. What had once been a bus stop was replaced by an elevator that would deposit to the top of a moving platform that glided above the traffic. The buildings, once slate-grey concrete, glass, and steel, were now covered with greenery and flowers hanging from each window and moss coated the once plain concrete pillars. The gliding platform moved overhead and left the roads open for small, electric cars down below, interspersed with bikes and scooters. Most people seemed content walking to their destinations, armed with briefcases or backpacks. It wasn't the jumpsuit future that Kelsey's grandparents had predicted, but the clothing was still different from anything she was used to.

What was once an illustrious bank that scoffed at Kelsey and Tom when they applied for a loan for a time machine had been repurposed as a museum of science. Kelsey couldn't think of anything more apt for revenge against the smug-looking bankers. Walking across the street had been a bit hazardous, but Kelsey managed to make her way to the steps of the museum. A large banner was hanging from the top: *Celebrate 50 years of the Museum of Temporal Operations!* Kelsey couldn't think of a better place to get information on her project.

As it turned out, the museum was free. Kelsey tried finding somewhere to attempt paying, but she'd only been ushered into a group of people who were waiting for the next tour. The tour guide, a twenty-something woman with blonde

and blue hair, marched out in front of everyone with an award-winning smile.

“Hello everyone!” The tour guide grinned. “We’re very excited that you’re here to join us today at the Museum of Temporal Operations for our 50-Year-Anniversary! We have an exciting tour through the history of time travel for you today, so let’s get started! And remember: if you have any complaints about the tour? Be sure to submit them yesterday.”

There was a brief flurry of chuckles throughout the group and Kelsey walked alone with them as the tour guide led them into the museum. The tour guide pointed out early theories of Einstein, NASA’s theories about wormholes, and even a special exhibit about time travel in popular fiction. The tour guide went through these at a simplified level for the youngest in the group, though even the children seemed to understand. Kelsey was starting to get bored before they entered the next part of the museum.

“And this,” the tour guide smiled, “is the crown jewel of our collection! This is the very first, a functional time machine!”

The time machine on the floor didn’t look the way that Kelsey had designed it. This model was spherical and lined with lights and panels rather than the separated terminal and pyramid setup that she had constructed in her lab. The sphere was white and plastic with lots of unnecessary lights. It looked more like a prop from a science fiction movie than the piece of technical wizardry that Kelsey had assembled in her lab.

“—created by David Wallace in 2045,” the tour guide explained as Kelsey tuned back into her speech. “And it’s the first instance of a stable organism going through accelerated time. In 2046—“

“Wait, sorry,” Kelsey piped up. “Did you say David Wallace built the first successful time machine?”

“Yes,” the tour guide said. “There were several attempts before that, but Dr. Wallace was the only one who could manage to create a stable temporal field.”

“Except he wasn’t the first,” Kelsey said, starting to get more and more upset. “He

was a second rate hack who wouldn't know a black hole from his pie hole!"

"I see," the tour guide smiled, trying to keep her composure. "And who do you think was the first person responsible for time travel?"

"Kelsey Baker!"

"Ah," the tour guide said, almost laughing. "My apologies. I didn't realize you were a Bakerist."

"I'd say I'm kind of the expert on Bakerism," Kelsey scowled. "And Kelsey Baker was doing stable organism time travel in 2040!"

"Supposedly..." the tour guide said.

"Supposedly?"

"Dr. Baker's fate is somewhat debated," the tour guide said to the group, though directed at Kelsey. "Her research was predominantly theoretical according to her partner, Tom Hooper. However, you are correct that they were close to a working device before Dr. Baker's disappearance."

"Disappearance?" Kelsey scoffed.

"Of course," the tour guide said. "Dr. Baker went missing in 2040 during her research. And I don't need to tell you theories behind her disappearance. Suggestions range from assassination, alien abduction, men in black, even the Illuminati. There are a thousand ideas about why she disappeared before completing her research, but we don't know what happened. She's in our hall of scientists, closer to the end of the tour. Her research helped Wallace and Hooper develop the first functional time machine."

Kelsey broke off from the tour, rushing towards the direction that the woman had pointed to. The corridor was a narrow hallway of digital screens, displaying people who'd gone missing or died attempting time travel. There were rows and rows of black and white pictures with their contributions to the field listed underneath them.

Scientists, astronauts, and even retired professors all looked hopeful from the memorial. She struggled through the rows of names until she found her picture on

the wall. It was a black and white version of her doctoral graduation portrait that transitioned to candid pictures of her working on a whiteboard in the lab. She tapped her picture and it expanded to cover a bigger portion of the wall. There was a biography of her work, more pictures, and video clips related to her life. She tapped on one labeled as an interview with Tom Hooper.

"I don't know what happened," Tom said. He was much older in the video, white-haired with creases around his eyes that didn't go away when he took off his glasses. He rubbed his left eye, something he did after struggling: either with Kelsey or some kind of equation.

"She was one of those types that always focused on going forward," Tom said, slipping his glasses back on and pointing ahead of himself. "Part of me wondered if she got her wish. She always talked about 'forward momentum' and running with her successes. Always forward, but never looking back. She never stopped to consider that maybe there's merit in waiting. The terminal said a hundred years, but we'd never sent anything ahead more than a few hours at the time. We never realized that time travel was a one-way flow. We can send supplies to the future. We can send information to the future. We can even send people to the future and we've gotten pretty good at it. But only forward, never back. That requires faster than light travel and that's decades ahead of our technology."

"What would you tell her, if she's still alive?" The interviewer asked off-camera. Tom sighed and rubbed his chin. Kelsey watched her old coworker frown, hoping that he had encouraging words. Maybe someone was still working on going back in time. Maybe it was something she could get to if she jumped another hundred years in the future. Maybe Tom had some message about who she could talk to for help getting home.

"If she is alive?" He finally answered with a shrug. "She's in for a hell of a surprise in 2140..."