SUPER-SCIENCE

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W. W. Scott - Editor

ONCE WITHIN A TIME

NOVELETTE

illustrated by EMSH

by RUSS WINTERBOTHAM

The time machine was a menace to civilization. It had to be destroyed! But how can the future destroy part of the past without altering the basis of the future?

IF PEM ROLLINS might seem to be an extraordinary young man, it must be remembered that the world is full of extraordinary people and he was no whit less of a normal person than anyone else.

Externally no one could see anything unusual about him. He was a nice looking fellow, 27 years old, full of healthy muscles and various organs that never gave him trouble. He was a busky chap too, having played football in college. But he was in love with electronics.

So, after five years of hard work for a manufacturer of electronic gadgets, he was probably considered ripe for the marriage market. And this was where he was extraordinary. He bought himself a small house and filled the rooms with electrical equipment, instead of a wife.

And so on Wednesday, April 26, 1960, he was puttering around, when there was a sparkle and a flash, and there at one side of his work bench he saw something appear out of nothing.

It looked like a sort of a cage, made of copper, and the inside was wired in the most intricate fashion that he had were seen. Far more unusual was the fact that right in the center of the cage, dressed in what might pass as a sun suit, was a very pretty young woman with golden hair, even rows of teeth and a healthy bloom on her cheek?



"Hel-lo," she said softly.
There was a curious accent

in her throaty voice. It was almost "Hel-lah" the way she said it.

Pem looked at the girl, blinked and scratched his head.

"I'll be doggoned," he said.
"What kind of a contraption is that?"

"You should know." said the young woman. "You invented it." She looked at him closely. "That is, if you are Pem Rollins—and you do resemble your pictures in the history books. And, of course if this is August 27, 1960."

"I am Pem Rollins, all right," he said. "What's your amer?" As he spoke he took mental note of the unusual electronics hook-up. The machine used transistors and there were a number of condensers that were exactly the type he used on his various machines. The wiring was strange, though.

"I'm Zilla TU-36-503-74."

"Your phone number?" He pretended to write it down, but actually he was sketching the wiring.

"No," she said, "my serial

number. Of course! I forgot. The use of surnames was abandoned in 2172. Just call me

"Oh," said Pem, still trying to follow the maze of wires with his eyes. He had good eyes. "Aren't you afraid of catching cold in that outfit?"

"It's August, isn't it?"
"Uh-uh," said Pem. "It's

"Uh-uh," said Pem. "It's April April 26, 1960." A look of befuddlement

crept into her eyes. She reached into her pocket, took out a book and studied it. "I must have forgotten the leap years."

"You forgot a lot of them then," said Pem. "It won't be August for four months."

She studied the book, and Pem kept on sketching the wires. "Let's see," she said. "The years 2100, 2200 and 2300 aren't leap years, because they're not divisible by 400, but 200 and 2400 are—"

"What are you talking about?"

"-that'll leave 123 leap years in 500 years."

"I said," Pem almost shouted, "what are you talking about?"

"That's 182,623 days alto-

gether. I'm just 123 days off no, let's see 1960's leap year date is past. No, we have to count the leap year in 2460—"

"All right, all right," said Pem. He had finished the sketch of the wiring. "Now what's all this about?"

"We'll call it 182,623 days," she said. Then she looked up. "I'm talking about time travel, you idiot. And I got here on the wrong date. Just 123 days before you discovered time travel."

"Oh," said Pem. He would have said more, but the young woman, who said she was Zilla TU-36-503-74 faded away, just as she had come a few minutes before.

"Darn the luck," said Pem.
"I wanted to check that wiring." He studied his diagram
for a moment. "Mmm. Time
travel. That's something worth
looking into." Which he did.

PEM'S diagram, of course, was sketchy and incomplete, but the operation of the machine was so simple that once he understood the mechanics of it, the only thing that slowed him down was the expense of building it. So it was necessary for him to continue on his job.

The power was the main question. Zilla's mach in eseemed to have a small box, about the size of a popular novel, that supplied the power. Pem decided it was a battery of a type that had not yet been invented. So he substituted a heavy duty storage battery.

Germanium transistors seemed to have been used instead of vacuum tubes, but there was no trouble here. Pem even used a few transistors, although most of the equipment was vacuum tubes. There were wires of various sizes, coils that he had to select by trial and error, and condensers which he made himself. One thing escaped notice during the interview with Zilla. This was a magnet, which also served for her seat

However, Pem deduced that a magnet was necessary, and he found one that suited his purpose.

The machine produced an intense electrical field which was transmitted by the copper bars, actually pipe which he obtained from a plumber, which served as antenna and ground. The field was modulated by a series of vacuum tubes which thrust it into the time dimension, distending it forward or backward, depending upon the controls. The magnet drew the cage and its occupant into the past or future. The intensity of the field determined the speed, while the distance traveled was governed by an automatic device resembling the controls on a radio clock.

The nachine was finished and ready for testing at 9 o'clock, Sunday morning. August 27, 1960. Pem was excited, but not apprehensive, for Zilla had told him that history had recorded his success many vears hence. However, this was no reason to abandon all caution, and so he set the machine to travel only a short distance into the past. He estimated it would be about a day, although the test itself would show him how to set the controls for future experiments.

Squeezing through the copprobars, Pem seated himself on the magnet in the cage and hesitated one moment as his finger touched the control button which would activate the machine. FOR AN instant he had a creepy feeling, as if someone were standing behind him, looking over his shoulder. Then he pressed the button and fela an odd, jarring sensation, and the sinking feel of an elevator ride. The workroom grew dark and then the movement ceased.

Pem shut off the battery, and squeezed out of the machine. It was night, but what night? All nights look the same without a calendar.

He found his desk, so he knew he had not traveled too far into the past. Reaching upward he found the light and turned it on. The clock on the bench said three minutes after two. Opening a drawer he found the bulky, black looseleaf notebook in which he had put his diagrams, his theories, the records of his work on the time machine. Flipping the pages, he found the last entry. It was dated Friday August 25.

Therefore it was three minutes after two c'lock Saturday morning. He had traveled a distance of thirty hours and 57 minutes into the past, thus becoming the first human being to sail the tides of time.

Out of his first elation came

a disturbing thought. Where was he at this hour? He knew where he should have been, but was he there?

He took his flashlight from a drawer of his work table and tiptoed through the house. He opened the door of his bedroom. The lamp's beam showed a figure sleeping soundly on the bed. It was Pem, in the flesh, fast asleep.

Pem was shocked, even though he saw what he expected. This meant that one of the axioms of crime detection had been shattered. It was actually possible for a man to be in two places at the same time!

A SUDDEN panic struck Pem as he first began to to realize that he had invented a monstrosity, a thing more hideous than that of Frankenstein. The time machine struck at the very essense of reality. It attacked truth, it shattered logic, it dispersed a coherence of the universe like mist before the wind. This world, mad as it was, would seem to be a sane paradise compared to what it would become in an age of time machinery.

Pem fled back to his utility

room. Quickly he boarded the machine and by the light of his workbench he set the controls for zero, the place where he had started. Once more, as he touched the control button, he felt that jarring and sinking sensation. Then light of day streamed through the windows at him. And in front of where he stood, he saw himself in the act of touching the button on the time machine. But it was not the machine he had returned in-or was it? For a brief instant he feared that he would be going and coming, never stopping between thirtyone hours ago and now. But then he saw the machine divide like an amoeba, fade and grow smaller in the perspective of time, speeding away toward a horizon of fleeting moments.

Pem squirmed through the the bars and went to his desk. He found his notebook. Beneath the notation for August 25, which he had glanced at only a moment before, it seemed, although in the time scale it was 30 hours and 57 minutes, he saw the records of his work on August 26.

Taking his pen, Pem wrote: "Aug. 27. Today I have test-

ed my machine and it is a scientific success but a moral failure. A hideous, monstrous thing, it strikes at the very roots of the universe. It could easily cause the end of the world!

"My machine can make a person suffer the consequences of an act before the act is comnitted.

"My first impulse is to destroy the product of my labor. But someone else might stumble onto the secret of time travel. In fact, I know it will be known centuries hence. My second desire, was to turn my diagrams and plans over to the highest officials of our nation to be held in secret for use only against enemies who might use the machine to destroy us.

"With time travel, all constitutional guarantees become meaningless. The machine strikes at logic, at goodness, at everything, even sin. For what can be an original sin, if you can always put another before it?

"I must think and I must decide. But whatever steps I take will be with greatest concern for the future of the uni-

The pen fell from his hand as he sank back, trying to decide what to do. But at that moment, another cage appeared beside the time machine in the corner

"HELLO, Pem!" It was the voice of Zilla TU-36-503-74. "I do hope this is the right date! It is! You have invented the time machine." She was dressed as she was the first time he saw her.

"I'm afraid I have," said Pem.

"This is August 27, 1960? A bright Sunday ...orning?" "It is. But a sad day."

"You've tested your machine?"

"I have." Pem looked up at her. Strange, he had not noticed that she was so attractive. Naturally he noticed previously that she was pretty, but prettiness and attractiveness are separate things. Or maybe it was the mood he was in.

"And you're still here?"
"Shouldn't I be? Didn't history say what happened?"

"History," said Zilla,
"doesn't know what happened

beyond that entry in your notebook." She rushed from her machine to Pem's desk and glanced down at what he had written. "There it is! You have written it and the ink is still wet! To think that I should be here on such an historic occasion."

"Such a sad occasion," Pem said solemnly. "The world will regret this day."

Slowly Zilla nodded her head, "I know. Scientists have developed ulcers for 500 years because of that thing you just wrote. And that is why I came to see you. Science has suffered long enough. Science must know what is in store for the world."

"Science must know? Surely it knows. Haven't you a time machine?"

"Believe me," said the young woman, "it's the first successful time machine since you built yours. And nobody but me knows that it exists."

Pem looked at his machine, then hers. "They're almost alike, except for a few items of equipment. I had to use what was available."

She smiled. "So did I. You see lots of things you used

don't exist in my day. My place in time is 500 years from now."

"But what happened to me. What will happen?" Pem

"I don't know," said she, with a shake of her head. "You were never seen after you visite i the corner groc ry so Saturday, August 26. Neither you nor your time machine. So you must have gone off in time. And you never came back."

PEM SHUDDERED. "Please tell me what happened."

Zilla moved over to his desk and seated herself on one corner of it.

"The fact that you had disappeared did not become apparent for several days. On Monday, August 28, 1960, the woman—a Mrs. Lizzie Green, I think her name was—"

"Yes," said Pem. "She comes three times a week to empty my ash trays, do the laundry and clean house."

"Yes, she is mentioned in history too. Anyhow she did not think when she came on Monday that anything was wrong. She thought you were at work. But when she came on Wednesday, she found nothing disturbed and it was plain to her that you had not been home since the last time she was here. She was concerned, and so she called your employers. They told her you had not been on the job Monday or Tuesday, and they had assumed you were ill.

"Mrs. Greene notified the police, who investigated, suspecting foul play. Then they found your notebook and that last entry. They knew they were onto something big. The notebook was taken to Washington. It became a top-drawer secret, but by then it was too late. The police had already told reporters and radio men that you had invented a time machine.

"Drastic measures were taken to protect the secret and no noe but a privileged few were permitted to examine your diagrams and plans. That notebook of yours was subjected to a study for 100 years, before anyone knew exactly what had been done."

"What? I thought I wrote everything down."

"You did," said Zilla. "But nobody could read your writing."

"Well, that saved a few ulcers."

"Not as many as you think. Your last entry was legible and it was also clear that you had made a dangerous discovery and had gone somewhere in time. Nobody believed for an instant that you would really destroy your invention, or try to help the world by destroying it. It's contrary to human nature not to grasp an instrument of power when it's within reach. People believed that you planned to do something terrible."

"But I have no such plans," groaned Pem.

ZIILA studied him. "I believe you. You act like such a nice young man. But to continue my story. When your plans were finally deciphered, scientists, working under a security shield, realized that your machine could not travel in a linear dimension, but it would reappear eventually in the same spot where it took off."

"But your machine-"

"Five hundred years from now," Zilla explained, "there will be a tremendous building on this spot. It will house some of the top government secrets, including time travel. The time laboratory is located in the exact spot where your workshop is now. I was one of the workers who was assigned to the Pem Rollins project, as we called it. And I was able to but I'm getting ahead of my story."

"Yes," said Pem. "Tell it in order. Don't skip anything."

"At first the possibility that you went backward into time was considered. Had you wanted to destroy the machine, you might have flown it into prehistory. But there was always a chance that a fossil might turn up and reveal the secret. Besides, historians who worked on the case found nothing that had a bearing on the time machine. Nostradamus, of course, was considered, but he can be explained in other ways. So could other prophets."

"Yes. Nostradamus probably was a good guesser."

"So you must have gone into the future. But where again? The only thing left to do was to stand guard, day and night, waiting for you to return.

"Year followed year, decade followed decade and centuries piled up. You did not appear. Some people doubted if you really existed, inside or outside of time. Ulcers have been plentiful in the security center, I tell you. Where did you go? In what age did you finally appear?"

Pem shook his head. "You are speaking of my future, and for all I know, your past. I do not know."

"The main idea scientists had for almost 500 years was to keep your invention from being used again. That's why we have the government building where it is. Your time machine will not travel in a lineal direction, only through time. When you arrive at your destination, you will reappear in that building—providing there is such a thing as man in those days.

"Almost every possible contingency was considered in the plans to deal with you. But for a long time no one thought of trying to stop you before you started. Then about 250 years ago—beg pardon, from now—somebody came up with a suggestion of using your diagrams to make a machine that would visit 1960 in time to prevent you from going away. But you see the fallacy there. When you change the past, you must alter the present and the very thing that we wished to avoid would occur.

"Then someone said we ought to have a representative visit you on August 27 and find out where you were going. That was practical. The only trouble was that when we tried to build your machine, it wouldn't work!"

"Good heavens! It does. Your machine works too, unless this is a trick or something."

Zilla nodded. "Yes, but in your diagrams, you forgot to put the most important part of the machine—the magnet."

Pem's mouth gaped open a moment, then he smiled. "Yes," he said. "I almost missed it. It took me quite awhile to figure out what you were sitting on. But my electronics experience told me that a magnet was the answer."

"Strange that none of the scientists who tried to build a time machine from your diagrams thought of that," she said. "I suppose that's the difference between following someone else's idea and creating something of your own. The creator thinks, the copysist follows a pattern."

followed a pattern," said Pem. "I wouldn't have thought of a time machine if you hadn't appeared last April."

"I don't know what you would have done, and you don't either," said Zilla. "The fact remains that you created the magnet part anyhow." She paused, drew a breath, then continued. "One of the machines stood in the security building when I went to work there-about five years ago. Then Xack, the chief of the security bureau devoted to the Pem Rollins project, told me to get rid of it. But instead of junking it, I took it home and studied it in secret. I probably violated a dozen regulations, but nobody thought it would

work. Suddenly I thought of a magnet. I inserted one and the machine worked."

"Is that when you came here?"

"Oh no," said Zilla. "That was when I went into the future. But that was only a test flight. I was excited about it and probably I didn't consider the consequences. It wasn't discovered because I turned up in my own home, where no one was waiting for you to appear. Then I decided to stop you. single-handed. But the big job was arriving here-where you were. It meant carrying the machine back into the laboratory again without Xack discovering what I was up to."

Pem looked at the machine.
"I suppose you must have done
it, but I don't see how—"

"No," she said, "that's the funny part about it. I didn't take it back to the lab. Xack took it back himself."

"He what?"

"He took it: A time machine can't travel in a linear direction, but you can move it. When you're in a car, you don't move, but the car moves. So I simply placed the machine on a little rug I had, set it for the

proper time in the future and had Xack carry the rug to the security center.

"That was on April 26, 2460, the day when I made my first experiment. I had arranged to work late and sure enough, late at night the machine showed up, because I had an automatic mechanism on the controls. Then I took my trip to see you. When I got back, I set the machine for August 27, 2460, and it faded away again. Nobody saw it. On August 27, I again arranged to work late and it appeared."

"But what will you do with it when you return?" asked Pem. "As long as it exists it's as big a danger as my machine."

"After I find out where you're going, this machine will have served its purpose. I'll dismantle it and scatter the parts. Where are you going?"

For a long time the idea had been forming in Pem's brain. At last he made his decision. "Where you go," he said, simply. 'It want to live in the age you live in."

For a moment she regarded him thoughtfully. "I knew you would," she said. "You see, when I took my first trip in the time machine, I went 100 years into the future."

"And you know what happened to us?"

She shook her head. "I know that in that day, Pem Rollins and his time machine was a legend, a legend that was laughed off as a half-truth. People agreed that maybe a Pem Rollins did live in 1960 and that maybe he invented a strange machine. But nobody thought he could invent a real time machine."

"What does that mean?"

"It means that you had reappeared. That officials had hushed up everything and managed to convince people that the entire idea was a wild-eyed fancy." She paused. "But it may mean that you were hushed—permanently. I thought I ought to warn you."

Pem was thoughtful for a moment. "It's a strange thing," he said. "We speak of the future, and yet I know that it already has existed. "You know it, too. I wonder if it would be possible to refuse to do some of the things we were born to do." He paused. He got up. "I'll go," he said.

She slipped off the desk into his arms.

THE problem was two time machines. Between the method decided that only one must make the trip. The other would be dismantled and during the night they would drive to the nearest lake and drop the parts into the water.

Since Zilla's machine contained parts not manufactured in 1960, and which might arouse suspicion if found, it was decided to dismantle Pem's machine. This was done, and about midnight of August 27, Pem Rollins and Zilla TU-36-503-74 set off for the future.

Strangely enough, they arrived at 9 a.m., Saturday, August 27, 2460. Almost at the same second that Zilla had departed for Pem's age.

The room still resembled Pem's old workshop in shape. But there were new walls, new ceiling and new floor. The last item caused him to wonder what would have happened to hais machine had he tried to navigate 500 years in it. Would it attempt to hit all of the scattered molecules that once made up the floor of his workroom?

Or would it merely strike an average? It might well be one of the factors that would make time travel a hazard. Then he realized that Zilla had come to his workroom long before her rug was woven. Trips into the past, he decided, were governed by different rules than those in the future. It had been fortunate for Zilla that her house still stood after 100 years when she made her first trip.

Zilla gave the alarm the instant they arrived. Men wearing battle dress, not far removed from the uniforms of voops in the twentieth cenary, except that they were interwoven with some sort of material that possibly guard passibly action against atomic radiation, appeared at once and took Peminto custody.

No one attempted to question him. The machine standing in the room was enough for the soldiers who had been drilled for years on the procedure to take when Pem Rollins arrived.

Presently a heavy-set, blue jowled man with bushy eyebrows came striding through the doorway. "We've got him, Xack," said Zilla.

"Ah!" sighed the man called Xack. "A vigil of 500 years has ended."

THERE WAS an electric quality about Xack ZM-40-400-004. Outwardly he was cordial, even sympathetic, as he took Pem to a cell, closed the door and told him to sit down.

"You are being held imcommediacol for obvious reasons,"
he explained. "We must take no
chances that you will reveal
the secret of time travel until
we decide what steps to take in
disposing of your machine.
Late today you'll be questioned
more thoroughly, but right now
I want to know why you came
to this particular time?"

"That is my own business," said Pem. He didn't wish to involve Zilla, since she had obviously fractured security regulations.

"Come now," said Xack.
"We'll not be satisfied with
that answer."

"Five hundred years is a nice round figure," said Pem. "Why shouldn't I be more likely to go to a date 100 or 500 years ahead of my time, rather than an era of say 499 or 100?"

"It's a better answer," said Xack. "But it won't do. You see, Pem Rollins, I happen to know that the machine you came in was not your original time machine. If you did not come from 1960, where have you been?"

Pem was almost stunned by the words. He realized now that no matter how well Zilla had planned her part in this affair, she had vastly underestimated her chief. Xack.

"That was one you didn't expect, eh?" Xack laughed. "Well, think it over, Pem Rollins. This is one of the biggest problems mankind has ever had to grapple with, and we've got to solve it very soon. And to solve it, we must know everything. And we'll have the facts out of you one way or another."

There was a cruel gleam in his eyes as he turned, and strode toward the door. There was no knob on the door, simply a button, which Xack pressed. The door swung open and the door closed. There was a whining hum and a click as the door locked behind

him. Pem dully realized that lock was operated by some electronic device. His curiosity turned his eyes on the door. There was something strange about that lock. Something that did not make sense.

THE ROOM had no windows and its walls were of steel, but otherwise it was comfortably furnished with a single cot, toilet facilities, and even reading material.

It had been built, apparently, for one purpose. To house Pem Rollins so that he could not communicate with a n y o ne. Since he heard no sounds from was soundproof and he could not be heard no matter what he said, or what noise he might make.

"Best to take advantage of all the comforts," he said.

He washed himself, then selected a book and sat down on the bed to read. The book was uninteresting, principally because it continually referred to things that Pem knew nothing about. He imagined that John Cabot, the English navigator, would have had trouble understanding m od er n literature had he found it on his first voyage to America.

More than man hour later, Xack opened the door and brought Zilla into the room.

"She told us everything," he said. "She's probably violated every law we've got pertaining to the Rollins matter, but inasmuch as she almost had to do it to bring you here, I don't think she'll be punished."

Zilla stared at the floor.

"It was easy to see at first glance that that time machine of yours hadn't been made in 1960. The vandulan battery which powers it wasn't invented until 242. Do you think your time machine is safe from discovery?"

"It should be," said Pem.

"It may interest you to know," said Xack, "that security officers of your day left no stone unturned. They thought you might have been drowned, so they dragged the lake. They uncovered almost every particle of your time machine. That was one fact that has been kept secret for 500 years. There are other facts, too."

"I'll tell you everything," said Pem. He didn't know if police of 2460 used rubber hose, but they probably had something just as effective. Besides, now that Zilla had told her story, there was nothing to hide.

Xack listened quietly, nodding his head from time to time, and asking one or two questions. It was easy to see that much more was known of the time machine than even Zilla knew

"The magnet stumped us," said Xack. "Possibly it got buried to deep in the mud in the lake bottom, but we never togund it. We never suspected its existence because there was no mention of it in your notes." He turned and looked sharply at Zilla. "Now about your trip into the future. You say that by that time, Pem Rollins will be rezarded as a levend?"

"You understand what that means," said Xack to Pem. "No one must know that you ever reached 2460."

Zilla nodded

"I'll give whatever guarantees you need," said Pem.

Xack shook his head. "Guarantees are not enough. There is too much at stake. I'm sorry, Pem. But you'll have to die." AFTER Zilla was taken from the cell sobbing, Xack returned and sat in a chair facing Pem, who sat on the edge of the cot. "You understand that this is entirely impersonal, don't you?"

Pem laughed bitterly. "It's hard to think of my death be

ing impersonal."

"We can't take risks," said Xack. Furthermore, lifelong imprisonment in a sound-proof room would be inhumane, and you'd long for death. And there's still another reason: you'd die anyhow, whether we gave you radiation exposure, or let you stay here in your cell. Even if you were granted freedom you'd die."

"What do you mean?"

"I mean," said Xack, "that a living creature, perhaps even some things that don't live, like stars and galaxies, cannot exist outside their own little spot in space-time."

spot in space-time."

"That's preposterous," said
Pem.

"It's a fact," said Xack.
"Look at the dinosaur. Look at
the millions of prehistoric
animals that died at the end of
their space-time place."

"They all lived millions of

years," said Pcm. "Five hundred years is almost contemporary in geological time."

"It's not so contemporary as you think," said Xack. "If you don't believe it, look at the gulf between one generation and the next. Youth never understands its parents, parents never understand youth. We say that youth doesn't change, that this generation is iust as rambunctious, or just as wild as the last and the next, but it isn't true. Every generation is its own self. There may be similar traits, similar actions, but time is a spatial dimension, and you and the generation before you are lightvears apart."

"But that doesn't mean I should die!"

should diel"
"Columbus lived only 468
years before your time," said
Xack. "That's less than 500
years. How long could he have
survived in your age? He'd
have believed he was in an
age of witchcraft. He would
have been bewildered, confused
and very soon mad."

"I don't believe in witchcraft," said Pem.

"There are inventions today that will make you believe in it," said Xack. "And besides, how long would Columbus have held out against new germs and viruses that appeared since his day? A new disease appears almost every 50 years and takes a toll of lives. Only those who can establish immunity live. Columbus would have been subiect to polio and influenza: and at least one venereal disease dates from the discovery of America, Besides, there are allergies Columbus would have had to make his body tolerant of smoke, various kinds of dust, nylon, coal tar products and thousands of things you accept as commonplace. And if, by some slim chance. Columbus could have survived all these things, how long do you think he'd have lasted in city traffic?"

"But surely I'm more civilized than Columbus. I'm better fitted to get accustomed to new things—"

"No more than Columbus. Remember he was ahead of his time. The fact that he believed the world was round put him among the most advanced thinkers of the Fifteenth century. Perhaps you're on a par with Columbus, but no better

than he intellectually in reference to his own day."

Pem sighed and shook his head. "I'll admit you have a case, but it doesn't seem to justify my execution like a criminal. I've done nothing to deserve such a fate."

"There's a lot of injustice in the world," said Xack. "And you should be dead now anyhow."

With these cold words, he rose and strode to the door.

"You'll have a week here first. We many want to question you some more."

Once more the electronic lock clicked shut. But Pem was too dazed to wonder about it now.

TWO OTHER men, who were introduced as scientists, questioned Pern that day. Xack came with them both times. Outwardly Xack was sympathetic, but Pem sensed a hidden resentment he could not understand. It was almost is Xack bated Pem, but Pem could find no motive for this hatred.

There was a small electric clock in the wall of his cell. It was divided into 24 hours, fnstead of 12, and when a tray of food appeared in an elevator that came up in the wall, Pem noticed it was 18 o'clock. He was not hungry and he sent the tray back with the food barely touched.

Pem suddenly felt an urge to do something. He didn't want to sit here until the men came to take him away—to the radiation chamber, Xack had said. Now they killed men with atoms. instead of electricity.

Foot by foot, he examined the walls. They were solid, no doubt steel that could never be pierced with any tools Pem could lay hands on. The food elevator was too small to offer a chance for escape. The only exit would have to be through the door.

Pem went to the door. He peered down at the lock. It was an electronic unit all right, but there was something about it something that made him think it was not as it was supposed to be.

Pem reached out his hand to touch it. There was no lock there. His hand sank right through the lock as if it were simply a shadow. On the other side of the door, his fingers touched some sort of a latch. The door swung open.

He could have walked out of the building then, but Pem sensed this would be foolish. He had nowhere to go. He would be like Columbus trying to find his way around the streets of New York. He had to have help from someone outside and there was only one person he could turn to. Zilla.

PEM ASKED Xack to let him see her next day. Xack frowned and suddenly Pem realized why Xack hated him. Xack was jealous. Xack did not really want to save Pem from death as long as Pem stood between Xack and Zilla.

"It was customary in my day," said Pem, "to let a man condemned to death have a few privileges. Don't tell me you're less civilized."

Xack snarled. "Okay. If it makes you feel any better, she's already asked to see you alone. She'll be here in an hour."

Pem watched Xack when he left. His hand did not sink through the electronic lock. Instead, the fingers seized the control knob firmly. It was solid to Xack.

Could this be a dream? Pem felt the solid walls, and the door around the lock. If it was a dream, it was made of dream stuff only in one spot.

Xack brought in Zilla an hour later. "You'll only have fifteen minutes with him," he told her as he closed the door.

Zilla fell sobbing in Pem's arms. Quickly Pem wiped away her tears. "Don't cry," he whispered, "there isn't time for that. Listen. I can escape if you'll help me get away in the time machine."

Zilla lifted her head and looked around the cell. "From here?"

"Yes," said Pem. "Don't ask me how. All I know is that I can. But we've got to get away from this age. They'll kill me if I stav."

"You can't go back to your own age," she said. "You can't do that to the world."

"No," said Pem, "and Xack has an interesting theory, too convincing to be disregarded. He believes that people can't live too far out of their own age. That means you couldn't live long in mine, and I can't grow old in yours. And I won't go without you." "You must, Pem, if you can!"

"No. I'd rather die then never see you again. But I know that you did come to my age twice, without ill effects. I'm in your age now, and I'm not going to die, naturally anyhow, very soon. So it must be that we're pretty good risks to live at some intermediate age. Say in 2210, halfway between your day and mine."

"But there are men waiting for Pem Rollins in that age." "Only in the security office."

"How could I get the time machine out?"

"The same way you brought it in," said Pen. "But we've got to act fast. The machine will be missed almost immediately. So I must escape. During the confusion of my escape, you set the machine in motion, so that it will reappear in a very short time, an hour at most. Carry it home. Then we'll meet climb into the machine and sail back to 2210, landing at some spot where no one will be watching."
"What then. Pem?"

"We'll destroy the machine. Xack will never know where to find us." Zilla thought it over for a moment. "My apartment is safe. But you can't find it."

"Isn't there some kind of

"Of course!" She brightened at once. "A helitaxi. You can find one near here at a hotel. But you'll have to travel on the low-speed ramp and someone might see you."

Hastily she explained. Pedestrian traffic was handled by conveyor belts. These traveled at different speeds with the lowest speeds next to the buildings. Zilla gave Pem instructions, then pressed some bills into his hand. "Helitaxi fare," she explained. "My address is Level 5, Crossing 9XB, Ninetyeighth Street, Number 134s.

Pem repeated the address and fixed it in his memory. "I'll break out of here in ten minutes," he said. "You've got to start your end of the plan when the alarm is given."

He took Zilla in his arms again. When Xack opened the door, Pem was still holding her. Xack scowled. "Time's up," he said.

As he took Zilla out, he turned and looked at Pem with bloodshot eyes. Pem watched the clock. At 11.15 he went to the door, thrust his hand through the electronic lock, and opened it. He remembered the corridor that had brought him to the cell and it was empty. But he took the one leading away, the one that Pem had cold him led to the street.

Just as he neared the exit, a man dressed in the uniform of a security officer came in. He saw Pem and reached for a tube-like weapon at his side. He never touched it, for Pem leaped and swung with one motion. The blow caught the man and spun him backward and the weapon clattered to the floor.

Without stopping, Pem ran through the door. He was almost upset as his feet hit the conveyor-belt sidewalk, but he maintained his balance.

Following Zilla's directions he remained on the belt as it rose gently toward an elevated roadway. He looked back, saw no one pursuing, but he knew that the alarm must already be sounding in the immense federal building behind him.

The belt reached the elevated traffic level and then Pem realized that five centuries of study had left the traffic problem unsolved.

In the street were small cars, large cars, vans and caterpillar wehicles by thousands, crowding tooting and crashing. The cars were low, stream-lined and with transparent bodies, but they were still recognizable as cars. There were not many different kinds, and Pem realizerable that the race for body differentiation had probably been called off many years ago. The difference lay in uses for which a car was built.

But there was no time to study Twenty-fifth century traffic. Pem saw the hotel towering ahead of him. In a vacant area to one side, several small helicopters, not much different from those of Pem's day in appearance, were waiting.

Pem ran to the first one and got in. The driver looked at him.

"Goin' to a masquerade, buddy?" he asked.

"Probably," said Pem. He thrust the bill into the driver's hand. The driver himself wore a loose-fitting coverall, which in no way resembled Twentieth century clothing. All the men he saw seemed dressed in this garb, except those in uniform, such as the security officers. The officers also seemed all to be dressed the same. Pem assumed there were only two kinds of clothes, those for public officials, and those for private citizens.

Pem gave the address and the helicopter rose. The acceleration upward and

forward almost crushed Pem, and he realized the machine was jet powered. For only a few seconds the acceleration continued, then there was deeleration and the helicopter settled down on the roof of a building.

"Thanks," said Pem, starting to get out.

"Just a minute, buddy. Your change!" The driver held out some coins toward Pem. "Keep it." said Pem.

"Oh no, you don't. Wanna get me thrown out of the union?"

Sheepishly Pem took the change.

Beyond was a door. He went in. An escalator with a big 56 over it was beyond the door. Again, following Zilla's instructions, he rode down. At last the fifth level was reached and Pem got off. A directory hung on the wall and he saw Zilla's TU-36-503-74's name beside 53-B. That was the apartment right across from the escalator.

Pem went to the door and tried the lock. The door wouldn't open.

HE looked frantically up and down the hallway. No one was in sight. His clothing was a dead giveaway, if anyone saw him. Then suddenly be realized that his arrest had been kept secret. No one outside of security officials knew that Pem Rollins had landed after five centuries.

A man, dressed in overalls, came up the escalator. He stared at Pem. Pem nodded and grinned. "Masquerade party," he said, with a nervous laugh.

The man rode on, turning once to look again.

"Whatta costume," he said. Then another figure came down the escalator. It was Zilla, carrying her rug. She waved and then ran the remaining steps to her doorway, with the key in her hand. "They'll probably come here as soon as they miss me," she said. "But thank goodness, the hour's almost up."

She pushed open the door and spread the rug on the floor. Pem took furniture and piled

it in front of the door. When he finished, he found Zilla standing before a window looking out. She turned and looked at a fission clock on the wall. It was 12:05, and there would be ten more minutes of waiting.

"They're searching for us now," she said. "They may come here any time."

Pem nodded. "We'll escape," he said.

"How can you be sure?"

"The lock on the cell door."

Pem said enigmatically.
"The lock?"

Pem had forgotten he had not told her of his escape. Quickly he told how the lock seemed to have no substance. "Everything I've noticed in our travels in time, except seeing myself on two occasions and the lock, had a certain amount of acceptibility. I think I can understand how I could see myself, yet it is impossible to believe that I could exist in

two places at one time. Then I began to wonder. Perhaps the real me did exist, not in one place, but in an infinite number of places. If I can travel in time and see myself, the 'I' that I saw would be just like that lock—visible, but it would appear without substance if I touched it."

"But the lock is not part of you," Zilla reminded him.

"In a sense," said Pem, "it is. It was an electronic lock. I'm an electronics technician. Have you any idea when it was invented?"

She thought a moment, then her eyes widened. "I'm not sure of the exact date, but I know it has been in use about two hundred years."

"Then it was invented in the Twenty-third c e n t u r y—and that is where we are going." He smiled. "I invented that lock, Zilla. It is my creation, therefore in a sense, a part of me and a part of my future."

"Nonsense. The Twentythird Century is behind us this is the Twenty-fifth."

"For you, the Twenty-third Century is in the past, for me in the future, both in respect to 1960 and 2460," Pem explained. "Remember that Einstein said that measurements depend on the platform on which you stand to take the measurement. On the earth an inch, but to an observer of another world, speeding half the velocity of light, that same inch would not be an inch. Time may vary, too, if you are on a different platform."

Zilla nodded her head. "In other words, your time is not my time, in spite of the ancient song?"

66DIGHT. My time pertains only to me and I measure it in respect to my own existence. In my life, 1960 is followed by 2460. In your life, 2460 is followed by 1960, then by 2460. Every person has his own continuity. In most cases 1961 follows 1960 or 2461 follows 2460, just as a line proceeds point by point from zero to infinity. But we are the privileged ones who were able to jump away from that pointby-point journey, into another dimension. We might go ahead to a point far in advance of 1961, or behind 2460. We might zig-zag, squirm, look and vary the natural sequence infinitely. But in our own experrence with time, events follow in a logical order. When we meet something outside the natural sequence it refuses to have substance."

"But you saw the lock!"

"But it did not actually exist, because neither I nor any of my creations can have a meaning until they have reality."

"But you and I have both gone into the future and seen events before they occurred. Are you trying to say that I do not exist to you?"

"Far from it, Zilla. You are the most important of all realities. But you are not my creation and not a part of me. You are a point in my time line. Time itself does not move. Only energy moves. The energy of life progresses through time like a man walking through the hills. The man sees the landscape, but it was there before he arrived and will continue to be there after he passes. But if he should see himself, he would not be seeing something that has been there before or would be there again."

Zilla sighed. "I'm not so sure

you offer a hopeful picture of things. There is no incentive to do anything, no reason for success. This is consoling to a person who is a failure, for he can tell himself that everything was made that way, it could not be otherwise. But there's no reason for trying to better ourselves."

ourselves." "On the contrary, man is master of his own fate. Up to a point, and that point is where he tries to alter the past to change the future. It is in history that I invented the time machine, but I did not invent it. I copied it from the one you brought into my workshop in April, 1960. Who invented it? From my platform in spacetime, you did, because you made one before I did But from your platform, the time machine was invented 500 years ago. The answer is that the time machine was a part of different time lines. I saw one in April 1960, but had I tried to touch it, it would not have been there. In August, 1960, I saw it again. Then it was real. for meanwhile I had invented one. I saw the lock in my cell door in August 2460, but it did not exist Von tell me it was invented sometime after 2200.
You and I could invent it, and
I know you did not, because
the lock was real to you. My
ate cannot be altered by me,
but my individual life can be
changed if it does not alter
fate."

"There does not seem to be much sense in what you say," said Zilla, "but of course I am not a philosopher."

"Nor will anyone ever know for sure how many of his achievements were his own work, or how much was due to his position in time. There are injustices, of course. Think of the babies born blind, of the people maimed by war which they did not cause or want, of the other things that happen to men. These things are fate. But there are men who have achieved things as they moved through time that were their own doing. That is something you must always believe, even if you cannot prove that anything you do is your own volition."

"Your invention was no yours, Pem?" said Zilla.

"My time machine was the result of a peek into the future," Pem explained. "Maybe all creations are the same. The look ahead may not be something the inventors are concious of, but progress is building and creation and the product of time."

"But--"

Zilla did not speak what she had on her mind. It was lost in time. For at that moment there was a pounding on the door.

Pem glanced at the rug. It lay on the floor, undisturbed.

THE pounding came again.
"Open up!" shouted a voice.
It was Xack, the security chief.
"Open up Zilla, or I'll break
down this door."

Pem nodded to her. "Stall him," he whispered. He glanced at the clock.

"Just a minute, Xack!" she called. "I'll unlock it."

"Is Pem Rollins with you?"
"How could he be here? He's
in custody."

There was a moment's hesitation. "Open the door. Immediately!"

Pem saw a small dark spot hovering over the rug. Something was moving inward from the distant horizon of Now.

"Open up. I'll count to five, then I'll come shooting. One—" The spot was larger. It grew rapidly.

"Two-"

The time machine was in the

"Three-"

"Quickly!" said Pem. Get inside."

"Four-"

Zilla squeezed through the bars.

"Five!"

Pem was right behind her as a cherry spot glowed on the inner side of the door. He adjusted the controls and touched the button, just as the door melted away. Beyond he caught a brief glimpse of Xack with a tube-gun in his hand.

Like an echo came Xack's voice: "I'll get you yet!"

Pem felt the weeks and years hurt themselves past him as the machine rushed int he century gone by. Decades fell off to the left and to the right, and upward. There was a series of short, bumping turns, like hours going around a curve, and days that dipped into valley. ears like mountain roads. The last twenty years whipped out of space-time and then the machine stopped.

THE mist of time swirled away, and Pem stood beside Zilla, looking at the walls of a dingy room in the year 2210.

The building was still an apartment, but the occupants of the suite were not at home. This was fortunate, for much remained to be done. First, the machine must be disposed of

Pem's immediate problem was whether to dismantle it a...* try to lose it as he had done once before, or to send it deep into the prehistoric recesses of time. Even the latter it seemed dangerous. A fossil cast of the machine might be found in civilized times. But this was better than trying to hide the machine piece by piece. Once before he had tried to do this, and that attemp: had failed.

With hope that the metals would corrode and rust before man evolved on the earth, Pem set the controls as far back as he could. It would be at least two million years, perhaps more, for he had no idea what the machine could do at an extreme range.

Stepping back, he turned the

switch and watched the machine disappear. Only the rug remained and Zilla stood by with scissors, ready to cut it into small bits and put it in the waste disposal. A time machine would have a bard time landing on that, but the rug would not be needed if the machine came from the past.

Hunting through the suite they found clothes. Bell-bottom slacks for Zilla and lose-fitting, ugly pantaloons for Pem. He did not like them, but they were no doubt the style of the day.

"Where shall we go?" she asked after they had dressed.

"Security agents are waiting for me here," said Pem, "and they'll have my photo. We must go to another place."

"Then what?"

"We're alone, strangers to everyone, without a friend in the world. We'll have to fake amnesia, but that won't be all fake—for we know practically nothing, except what you've learned in history."

"It's a dull age. Nothing much happened," she said.

"All the better. We've nothing to disturb." HE TOOK Zilla's arm and started toward the door. Suddenly he stopped. Between himself and the door a small speck floated in the air.

He knew at once what it was. A time machine. But where had it come from? He thought he had destroyed it when he sent it far back into the prehistoric past.

The dot grew larger and he saw something in it. A man! It was growing fast. Pem picked up a chair, swung it with all his might at the small but growing object. The chair shattered, and there was a blazing of violet light. He had dented the bars enough to short the controlls!

Bits of metal grew red, and a tiny figure squirmed out of of the twisted cage. On the floor, the size of a doll, lay the image of a man called Xack, security officer of 2460.

Xack struggled to rise, then fell back to the floor, weak and exhausted, he coughed and tried to catch his breath.

The tiny eyes blazed hatred as he looked up at Pem. "You've killed me," he hissed. "I'm partly suspended in timeles- space, and partly in this room with you."

"You shouldn't have followed us," said Pem. "You should have taken my word that I knew the danger of the time machine. You '-rew I would destroy my machine, and it has been destroyed—except for this."

"This is your old machine." said Xack. "This one I rescued from the lake. All it needed was a magnet, so I set it up in Zilla's apartment after you disappeared, it took some time to find out where you went, but I was able to discover it by searching-police files. I learned that on August 29. 2210, the apartment on the site of where Zilla lived in 2460 had been burglarized and clothing was taken. Police also found pools of metal on the floor as if the burglar had been melting a kind of copper cage. and a few other odds and ends Too bad we hadn't connected this with a time machine before this. We could have stopped you long ago. But this time I thought it was your machine that had been destroyed "She doesn't want you," said Pem.

But Xack did not hear him. A great sob came from the tiny man. "Few men can live outside their own time," he managed to say. "You are the lucky ones, if you can."

Then he stopped breathing. Zilla looked at Pem. There was a body to dispose of.

But not for long. Slowly Xack's body grew smaller, then disappeared. The part of him in what remained in time.

"Let's go," whispered Zilla.
"Let's follow the rest of our time line."

Pem took her into his arms and kissed her. Then he opened the door. They went out into a strange world that neither of them knew. The world of 2210.

THE END

[&]quot;So you went to your doom," said Pem. "If it makes you feel any better. I don't believe you could have done anything about it."

[&]quot;It wasn't your machine I wanted," Xack went on. "I wanted Zilla."

⁻not mine."