



THE TWILIGHT ZINE

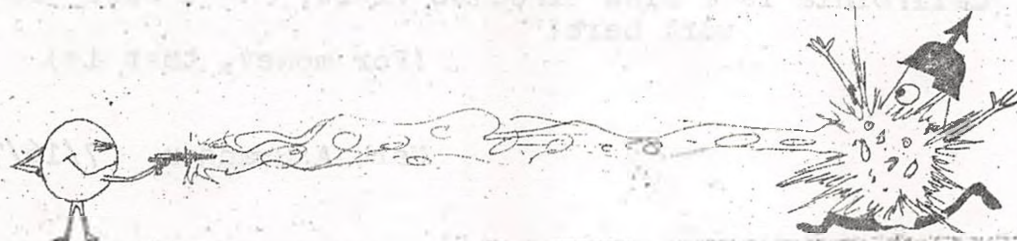
24

FROM NONEXISTENCE TO OBSCURITY
& JOEL DAVIS RUNS ANUCK ISSUE

CONTENTS

Editorial	Mark A. Swanson George Phillies Jonathan Fox	2
The ... of MITSFS	The Society	4
Tomm Swift and His Electric Chair	Duncan Allen & Mark Swanson	8
Science Fiction and the Atomic Bomb	Ruth Cole	16
Comments	Jonathan Fox	25
Flash Gordon	Jonathan Fox	27
Fanzine reviews	Jonathan Fox, Marc Alpert	40
ART		
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page 42	Jim Dorr	

The Twilight Zine is published at intervals by the MIT Science Fiction Society, JOURCOM. Copies are available for contributions (art or prose letters of comment, review, contributions, trade fanzines, 25¢ in US coin, (it's free to MITSFS members), and did we mention contributions? These all should be sent to JOURCOM c/o MITSFS room W20-421, M.I.T.: 84 Mass. Ave. Cambridge, Mass. 02139. This issue torn from the raw pulp in the files and elsewhere by Jonathan Fox, Marc Alpert, and those other unfortunates listed above. Legibility suppressed by the TCA AB. Dick disaster, inexperience, and the forces of Chaos.



Contributing Editor's Editorial

In return for having hurried up the Tom Swift tale elsewhere in this issue, I have demanded editorial space. I haven't seen the rest of this mag, but why should this stop me? Let me sum up what is in here. First there is the Tom Swift tale that Duncan Allen and I have edited. The difficulties here were immense. It was Appletree's habit to write in a mongrel blend of Old Etruscan, Sanscrit and Pig Latin, using Classical Chinese for technical terms. I was forced to retranslate a portion of my colleague's translation after my pet kzin ate it. (He also ate the only neo-fan on this coast who understood and liked Harlan Ellison's work, but that's another story.) This explains any discrepancies between his work and what appears here.



This week John Campbell died. If TZ 24 doesn't have a good obit. on him, Noreascon will probably witness the only full excommunication ceremony ever held in Boston, on the other editors. Let's hope Analog follows the same policies, since otherwise it will go broke and SF magazines will die with it.

The Flash Gordon story ought to be good. Theof MITSFS will be its usual self. I am told that Ruth Cole has a paper on something and unless someone finally did a mercy killing there's always the Alpert's blatherings. What more could you want? Good stories? Buy a pro mag. (Analog or F & SF only) Fan news? Try Locus. A story with a message? Try Western Union. This is Twilight Zine, and "We're not fans we just read the stuff!"

"California is a nice place to visit, and I sure wish I could work here!"

(For money, that is)

Mark A. Swanson 7/16/71

John Campbell

John Campbell created modern science fiction. Through his stories, his magazine, and most fundamentally through the advice and encouragement he gave to new writers, he led the field into its present.

The fiction of the early 1930's was dominated by the fantastic gadget and the incredible super-hero. To this John Campbell brought the notion that technology was not a sort of magic; rather, it had a consistent pattern and systematic consequences. This did not mean that Astounding's writers were restricted to more pedestrian inventions, but it did exclude some of the deus ex machina plotting of some other magazines' writers. With time, stories looked more at the social and cultural consequences of technology than at material events, but the principle remained the same.

Above all else, Analog stories had to be good stories. No technological trick or surprise ending, no use of contemporary themes, whether ecology or more explicit romantic interest, or even one of John Campbell's pet interests, could substitute for a good story. Many disagreed with the treatment Analog's writers gave particular topics; John believed, however, that the largest circulation in the field and nine Hugo awards justified his editorial judgement in Analog.

Editorial responsibilities kept John Campbell from writing, but his early stories are still memorable. Working out the consequences and implications of a situation can be a mechanical exercise or an excuse for a travelogue, but with Campbell's stories it never was. The entropy death of an expanding open universe might have mathematical inevitability, but "Night" showed it as the ultimate tragedy.

John Campbell's great permanent contribution was science fiction. His magazine and his writers survive him. The extension of his principles to politics, where his interest in consistency caused greater controversy, was unfortunately of lesser influence. John Campbell always liked and intelligent argument and a good story. May he hereafter always have a good supply of both.

George Phillies

A few comments on the issue: the prevalence of Joel Davis illos is not wholly a whim of the editor but is due to its availability; he sends these creations to the Albert, among others. The other illos are pulled from the Files and dusted off for publication.

The Ruth Cole paper is a study she did for a course at Radcliffe. It is reprinted (slightly 'edited') herein its original term paper form to show what Radcliffe lets by these days. Oh how the might have Fallen Flash started as an attempt by me to write a new star vehicle for Dustin Hoffman. I couldn't decide whether to cast him as Flash, Zarkov, Ming or Dale Arden, so it got changed to its present old-timey but updated form.

"We aren't a fanzine, we just print the Stuff" Jonathan Fox

THE OF MITSFS

*what does ... mean? see next issue for the surprising answer *

3/21/69 Rosfab- The Skinner has, for some evil reason, insisted that rectangular rather than round filing cabinets be used to store the fanzines.

Minicult- Irish power people occupied the Green building. Moved and seconded that MITSFS approve the plan to admit at least 100 Irish students. Amended to include admitting 500 new members to the Society. passed 17-0-0+Spehn

Minicult- Phillies-- 'g' = 7.3×10^{10} furlongs/fortnight²

3/28 Seitz moved that the Society nationalize Peru. Seconded and passed 7-3-3+Spehn. Peru sold to Mike Federow for 25%.

Cornelia Otis- There were $38.732 \times \sqrt{3}$ at last meeting

In reponse to a ROSSicult on eviction, Seitz suggested the simplified method: Walk around a house three times, saying "I divorce thee, I divorce thee, I divorce thee."

4/11 Slater'' alluded to mention of hieronymous device, which analyzes minerals through the use of eloptic radiation, in old TZ. It was moved and seconded that the hieronymous device be suspended permanently in an eloptic orbit with its inventor placed at one focus by means of a Dean Drive.

$c = 10^{-6}$ pipes/angstrom sec. This defines the term "sec".

4/18 ROSSicult- What are you doing with your one rat/capita? Vice corrected the figure to 4.7

Comcom- Seitz-- Mike Federow still owes us 25% for Peru. Perhaps we should nationalize him. Additional bargains still available- The presidency of Nicaragua for \$1.18, and the Archduchy of Panama for \$1.12 (with plenopontentiary rights to declare oneself Pope.)

4/25 It was moved, seconded and amended that the Society come to the defense of creeping Alpertism, proclaiming that Alpertism is not hereditary, merely infitely contagious.

Loeb- It is hereditary. His whole family has it.

Alpert- It's not hereditary. They caught it from me.

Motion Chickened 8-9-13+Spehn

A new motion was created called the Alpert motion: Bury him 100 km. beneath the Library.

Moved to adjournmeeting. Seconded and passed 7-3-4-+Spehn

After several Miller motions failed, the ultimate weapon was use and the meeting adjourned to the heartbhrbbing strains of the Adjournment Song.

5/2 In view of the gravity of our financial situation, Seitz suggested that we elect a Peter, whom we could then rob to pay Paul.

5/9 A motion to censure Phillies passed 28-0-0+Spehn despite a miscoun by the Skinner.

5/16 It was noted that the quantum of beauty is 10^{-37} microhellens. The unit of grossness is the millialpert. One Smiter=419 smitherines. It was suggested that Duncan Allen be censored for Topological Homomorphism.

5/30 Minicult- Allen-- "Green Slime" is a very bad movie, but at least the slime is green.

9/19 Minicult- According to the Boston Globe, our Vice is the world's 6th nuclear power.

Minicult- Fuzzy Pink is now married to Larry Niven
It was moved and seconded that, in view of Mr. Seitz' recent activities Atomcom be formed for the purpose of engaging in nuclear, chemical and bacteriological blackmail to the financial benefit of the Society. Furthermore, that the oil painting in the Spofford room be appointed Lord High Blackmailer (it was pointed out that this was a rather narrowly framed motion). Passed unanimously, 5-1-3+Spehn

9/26 Old Business Algol Moved and seconded to censure former treasurer. First vote was 7-7-15+Spehn. After the Skinner and President finished breaking ties, motion passed 16-15-15+Spehn.

It was moved and seconded that the Star Chamber chamber be built completely from banana peels. Passed 7-4-2+Spehn. Meeting adjourned.

10/3 The minutes are present to be read. Move that the minutes be approved as not being purple with orange polka dots. Seconded and passed 23-1-6+Spehn.

The World's Seventh Nuclear powered Vice arrived.
Joel Davis believes in self defence: he carries a Mace can with him in a holster and a pen filled with Mace in his pocket. /He still does/

10/17 Alpert is Madcom. Move to commend Skinner for brilliant aptness of person he has made Madcom. Passed 136-7-17+Spehn

Move to create a Moslem motion: To rotate Wayne Christian 730 degrees from all known axes and leave him there in the universe of Flame.

Moslem motion 17-7-13+Spehn

10/24 Libcom- The fact that delicate negotiations are currently in progress to obtain a new larger room for the sacred Library will not be inserted in the minutes, by order of the Skinner. The Cornelia Otis was commended by Seitz for following the standard MITSFS policy of not doing his job.

Minicult- The sculptor of the Sabine women should be arrested for statutory rape.

11/7 Theftcom- Pictures of a well known pistol pervert were distributed to Institute bulliten boards this week, thereby attracting Happy Huns, Bag Bite birds and other necessities of life.

It was moved and seconded that the society create a Phillies motion- That if any Skinner ceases being Skinner for any reason other than leaving the Institute, he be assassinated. Passed Unanimously 21-2-3+Spehn.

11/14 Move to donate surplus funds to British Royal Family. Amended to define all money in Ross' wallet as surplus funds. Passed 13-0-1+Spehn.

Alpert created Chief Biter; he then lectured on Human Sexual Customs, on which subject he is entirely ignorant.

11/21 It was moved to commend Project MAC: after 4 years, Multics has finally developed to the point where it is only slightly less useful than an abacus. Amended to give it the Rube Goldberg award for crashing 3 times in 6 hours, a new record. passed 13-0-3+Spehn

12/5 It was noted that the office of Presidential Mistress was vacant. The female members of the Society will be invited to audition for it.

12/12 Swanson is now Vice. Seitz is Honorary Vice-President Emeritus. Seitz arrived, bearing a replacement Plant, an Oputia Erinacea. He noted that his solid state power supply only draws 14 kw. in heating his house, the equivalent of 81 sticks of dynamite per hour.

1/9/70 Libcom- Library will move tomorrow to new room W20-421. All members plan to appear tomorrow at 10AM to help. New room has 146% of old's cubic volume. The comparative heights of the ceilings are a Star Chamber Official Secret.

1/23 Minicult- Phillies-- Capacitance has units of distance. Hence 1 μ pf = 99 Atofurlongs.

2/27 Move to censure the Skinner for making sense, passed 8-1-1+Spek

3/6 Lord High Embezzeler-- We have +.00239 L.M. The Skinner has failed again.

Minicult- Ross--A bumper sticker reading, "Our God is not dead, Sorry about yours.

Skinner-- exploding a 20 kiloton bomb under a 10⁵ ton battleship does not destroy it, merely lifts it 28 km. Cited example of BB Arkansas, last seen halfway up the Bikini mushroom cloud.

3/13 Skinner announced that on basis of his previous announcement that 99 femtofarads = 1 furlong, diameter of galaxy = 3 cm. True figure is 1 farad = 4.54×10^7 furlongs.

3/20 Move: John Birch Society is leftist opportunist. passed 8-2-4+Sp.

4/17 Skinner has found Freshman keyholding coed to cook roastbeef and ham for the food rally (picnic). We will observe moment of silence for three tools who vanished while attempting coercion on her. Their remain are paying for books and supplying the beef.

Skinner: Discussion of idiotic subjects (such as game of Parliament) are out of order at meetings. Insane subjects are in order, however.

4/24 Move to send Cambodia a shipment of Buck Rogers Death Ray Guns. The Onseck (Alpert) explained this motion was insane, not idiotic as someone claimed, and is therefore in order. Skinner appointed him Official Theologian and Chief Hairsplitter 2nd Class. Passed 7-1-3+Sp.

Minicult-- The average vote on motions has been 1.42x the number of members present. Skinner censured the members for laziness.

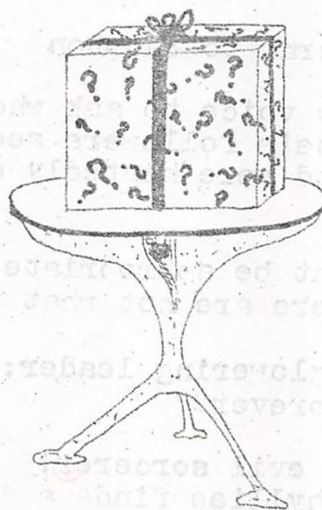
5/1 Tony Lewis has been President, and his wife, Susan, Clerk, of NESFA for three years. The limit is three years. This year's nominations are Susan for Pres., Tony for Clerk. Move to give the Lewises the Majorana Award for Conserving Parity, passed 9-1-4+Spehn. Ross appealed the decision of the chair. Passed 7-5-6+Spehn. Had no effect since it instructed member of Star Chamber to do something.

5/8 Ross appointed Ambassador to the Null Set.

Elections- Alpert, President
Swanson, Vice
Duncan Allen, Lord High Embezzeler
Janet Saul, Onseck

Phillies defined as permanent deceased president.

(to be continued)



Hee Hee!
SOMETHING
GROSS IS
COMING YOUR
WAY AND
HOO HAH —
WILL YOU BE
SURPRISED!

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TOMM SWIFT AND HIS ELECTRIC CHAIR

Part 3 of Victor Appletree's
manuscript, edited by Duncan
Allen and Mark Swanson

Summary of Preceeding Chapters (part 1-TZ 18, part 2-TZ 20):

Tomm Swift lived in the village of Shopton, New York, with his aged father, Burton, from whom he had inherited his love of inventing, and kindly Mrs. Bagitt, house-keeper and mother-figure. Tomm's invention of the electric yo-yo, recounted in a previous book, earned him a place in the Legion of Mad Scientists. Tomm comes to Boston to attend the group's national convention, but arrives only to learn that he is wanted for the murder of Andy Foegar, whom he had felled with a blow upon learning that Mary Nextdoor had jilted him for Andy.

Tomm narrowly escapes pursuers from the Legion, only to fall into the clutches of the Orthodox American Scientists Against Backyard Inventors (OASABI). He is rescued by his old friend Ike Newton, who appears in a balloon. Separated when the craft is shot down by OASABI, Tomm takes a car from the Underground Garage on the Common, and drives until he is forced off the road and into a gigantic evil-looking building by Boston drivers. He finds out that he is at the Massachusetts Institute of Tooling and Technocracy, and that someone named Waddlie seems to be following him. The young inventor takes refuge in a closet in a storage room in the basement of a three-storied building, but is discovered, and now finds himself confronted by a large, rotund, evil-looking character and a band of followers.

Chapter VII

Ike Returns to Shopton

Tomm could not find his voice to ask who Serille was, and it was just as well, for the evil one's followers seemd to have forgotten why they were persecuting him, and were heatedly discussing how he should be disposed of.

"The fires of hell might be appropriate," suggested one of the gang, "but my connections there are not what they once were."

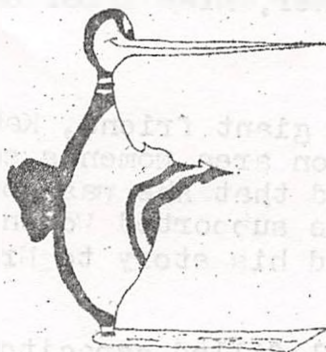
Another addressed the glowering leader: "Might I suggest placing him in suspended animation forever?"

"Oh, longer than that, evil sorcerer!" shouted the MITTSFS members in unison, "until the Phyllies finds a girl friend!"¹

An unpleasant gleam came into the evil one's beady eyes. "As you wish," he murmured, "So be it!" Thus it came to pass that Tomm's inanimate form was placed in a nearby storeroom.²

1. At the time, this event was one of the few held to have a negative probability.
2. This storeroom was used by MITT's theatre groups; it is rumored that at least one Tech Show was distinguished by a remarkably realistic dummy.

YES - I'LL TAKE YOU
TO HIM.



HAVE YOU SEEN
MY FRIEND?

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the Massachusetts Turnpike where he chose to hitch were going there, and the boy's heavy beard (he had forgotten to shave during his search discouraged the drivers.

Ike Newton began searching for his adventuresome friend. He ransacked every electronics and hifi components store in the city, concentrating especially at MITT, figuring that Tomm might have lost track of time. He even gave the Institute's President's office a cursory inspection, when a band of students were so obliging as to open it for him.

He suspected that something serious had happened to Tomm when four years of searching came to nothing and he decided to return and tell Burton Swift the bad news. It took him quite a while to get back to Shopton; few of the people enterin

Finally a 47 ton tank, emblazoned with some birdlike creatures and the slogan "Death to Bags!" stopped. Ike climbed in and discovered that the crew was from the MITT radio station on their way to Shopton to record the sounds of the electric clams³ there.

They explained that the tank allowed them to cover wars, college riots and rock festivals in reasonable safety. It also encouraged candor in the people they interviewed. No one could steal it because none of the controls were labeled.

Ike noticed that they were steadily passing police cars, planes, and road blocks. The tank's four Pratt and Whitney gas turbines were going all out.

"Can't you slow the turbines down," whined Ike.

The tank dropped him off at the Swifts' residence.

"We'd better tell the boss about this," one of the crew muttered,

3. These creatures had somehow adapted to living in water polluted and electrically altered by the Swifts' experiments. When placed in distilled water, they promptly cooked themselves.

as he flipped on his ring radio transmitter. He had to wait for the tubes to heat up. The transistor version hadn't been delivered yet.

The door of the Swifts' residence was answered by a woman 230 cm tall, with measurements 125-85-125. Ike greeted her, "Miss Kako! Happy to see you! Could I see Mr. Swift?"

Miss Kako was the daughter of Tomm Swift's giant friend, Kaku. She had recently returned from Badsley, the Boston area women's school. As she showed Ike down the corridor she announced that she was now Mr. Swift's private secretary and asked Ike if he supported Women's Liberation. Ike freely admitted it, and then told his story to Mr. Swift.

Mr. Burton Swift, after paying out 5000 oil-filled capacitors, had not heard anything about his son. Since Andy Foegar was now a happy cyborg working for Project Electric Chair....Mr. Swift stopped here.

After thinking it over, Mr. Swift recalled Miss Kako and told her to have a search made of the plant.

"When my son starts inventing, he doesn't stop for anything. And I'm sure I heard him talking about a perpetual motion machine!"⁴

Shortly afterwards both men gagged at a horrible odor that filled the room. Mr. Swift muttered something about the Hugo committee having stored the short stories upwind of them. He picked up the phone to try and call them. At first all he got was a cackling noise. Then he was cut off. Miss Kako came back to tell him that the search of the plant had uncovered five Russians, three Chinese, seven French and one FBI spy, all with radios.

She also explained that the internal phone system was on strike. "But it's completely automated!" Swift complained.

"As is Andy Foegar," she replied, "forsooth!"⁵

4. What came of this is told in Tomm Swift Among Maxwell's Demons
5. She had majored in early English literature, and never missed a chance to show off.

Mrs. Bagitt served them a hearty lunch,⁶ and then the discussion resumed. The elder Swift decided to watch the papers for any clue from Tomm, recalling the full page ad in the Times his son had placed during his last adventure.⁷ Ike had another idea, and left to drive one of Tomm's roadsters over to Mary Nextdoor's house a block away.

Chapter VIII

Tomm Joins the MITTSFS

About this time, Tomm woke up. After his eyes had adjusted to the darkness of the storeroom, he took stock of the situation. He had been lying near a pile of old stage sets, not too far from a door where he could see light.⁸ He moved to the door, tripping only twice over the debris on the floor. The door was not locked so Tomm stepped out into a corridor, and walked up a flight of stairs leading outdoors. It took him several minutes to realize where he was. In place of the grassy courtyard he had crossed shortly before taking refuge, there stood a modern building with revolving doors. Closer inspection revealed it to be a chemistry building, just completed.⁹

Tomm rushed to where he had left the wreck of his car, in the garage. There was no trace of it, nor were there any marks on the grass. He turned and started to walk towards the river. Insane laughter drifted from a second story window to his right. Tomm decided to investigate; he entered the huge grey structure and climbed a flight of stairs. The laughter was louder now, mingled with demands for order and incredibly poor jokes. Tomm reached the door to the room from which the laughter came, but hesitated to enter. How glad he was of that, when it became obvious that this was a meeting of the MITTSFS he had suffered he had suffered so cruelly at the hands of!¹⁰

"Damn my eyes, it's Tomm Swift!" came a voice from the corridor behind him. Whirling around with fists clenched, Tomm caught sight of a familiar figure emerging from an office marked "Industrial Liason". It was Mr. Wakefield Demon, an eccentric friend of the Swifts who had invested capital in many of Tomm's ventures. Tomm gestured for him to be quiet; it might not be too late. Yes, the MITTSFS members had mistaken Mr. Demon's cry for part of the general uproar of their meeting, and they continued. Tomm pointed downstairs, and then ran to the first floor and waited for Mr. Demon to catch up.

"Tomm, I didn't know you were at MITT!" exclaimed the industrialist, "Damn my logic circuits if it doesn't fit, though. You haven't been in Shopton for four years. Burton was probably too embarrassed to tell me about it --- what's your major?"

6. Doubtless some of the electric clams.

7. When he was chained to the Times presses, as described in Tomm Swift and His Electric Yo-Yo.

8. Appletree has never given his hero the ability to perceive anything else, like sound or heat.

9. Appletree's distorted time sense, noted in chapter II, is partly made up for by his astonishing predictive abilities.

10. He had overheard plans to bind Ward Tales in a member's skin. This unfortunate had tried to 'borrow' the bound Astoundings.

SI 11

"I'm not a student here, Mr. Demon," replied Tomm, "and I'm more than a little confused. I was put into suspended animation by the MITTSFS while a convention of the Legion of Mad Scientists was in town. Somebody said something about my waking up when the Phyllies finds a girl friend. I gather this must have happened."



"Hmm...could be. The MITTSFS does have a weird reputation and strange tales are told." Wakefield

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Demon began to fill Tomm in on the events of the past years. Suddenly a rhythmic tapping on the floor above made him stop. He motioned to Tomm to stand very still. Before their very eyes, the motely membership of MITTSFS trooped down the stairs and into the street.

Tomm and Mr. Demon decided to follow them, hoping to discover how much trouble could be expected from this group. They were able to follow a safe distance behind, for one of the band continued to produce a soft rhythmic tapping, as of metal on a hard surface. Their quarry entered a huge concrete blockhouse on the other side of a traffic-choked avenue. The pursuers lost half an hour when they missed the elevator to the fourth floor of the building, where the indicator showed the MITTSFS had disembarked, and waited for another. A search of the fourth floor turned up a library full of Society members, including one Tomm recognized as the evil sorcerer who had put him in suspended animation!

"Come on in," sounded a friendly voice from inside, drawing the attention of the rest of the members to the two cowering outside the door. The evil one stepped over to them and remarked, "So it's you. I had forgotten all about that affair, since somehow it did not become a Tradition of the most noble Society to remember it. As I recall, it was a case of mistaken identity on our part. The real culprit has been disposed of." He then proceeded to tell the story of Tomm's apprehension, disposition and miraculous resurrection to the members. "The Society bears you no malice," he concluded, "however, you were in the Library alone, what should we do?"

"I have an idea," said the friendly voice that Tomm had heard, "Since he was in the Library alone, he must have been a keyholder. Therefore he must have been a member for a year, and thus owes us dues for five years. Hiding in a closet is non-standard behavior for a keyholder, though not necessarily for a member, so his key must be taken away."

The MITTSFS members seemed pretty well pleased with this arrangement, and their discussion resumed. Tomm was surprised and not a little worried by the topic. The evil sorcerer was cackling over monies he expected to extort from an upcoming L of MS convention! This knowledge awoke a keen desire in the young inventor--to return home as quickly as possible. Relieved to have gotten off so cheaply from the MITTSFS, Tomm reached for his billfold, but remembered he had spent all his cash to bribe the minions of OASABI. He turned to his friend.

"Damn my piggybank, Tomm Swift," the latter mumbled, "that hardly leaves us enough to get back to Shopton."

Wakefield Demon drove Tomm back to Shopton in his electric Rolls Royce, stopping only to have a parking ticket fixed,¹¹ and to enter the Clean Air Car Race, which he planned to compete in on his return.

It was dark by the time they reached Shopton's main street, and Tomm checked to see whether all was quiet at Mary Nextdoor's house. Imagine his surprise to see a huge tank and one of his roadsters parked outside, and a party going on inside! If you can, you're pretty imaginative.

"Let me off right here, Mr. Demon," cried Tomm.

"Damn my elapsed time, you're impatient," his companion replied, bringing the Rolls to a halt. Tomm jumped out, and the big car sped off towards Toronto. Tomm started up the walk to the Nextdoor residence, whose walls were now booming to the sensuous sound of the Electric Clam, in stereo.¹²

Chapter IX

Tomm Goes to a Party

Suddenly the sound of clicking taps and the echo of horse's hooves was heard. Tomm started.

"They're coming," he whispered to himself, "run!" He turned and sped away, wondering who 'they' were. He remembered that OASABI never used cars, the product of a backyard inventor.¹³ He saw that they were lead by a character waving a long metal wrench and shouting his war cry, "I'm cool!" as he leaned forward in the saddle, clicking his heels

11. This was the major cost of the journey to Shopton. Mr. Demon evidently had a working agreement with the Campus Patrol, finding it easier to fix fines than find a legal parking place at MITT.

12. A new rock group, the Electric Clam. Their only record, Clam Jam, was remaindered three minutes after it was released to record stores.

13. OASABI was not too clear on history or modern production techniques

together under his swaybacked mount's body.

Tomm had run thrice widdershins around the house, crying for help at the top of his lungs¹⁴ and was about to be caught when a new factor entered the equation. The tank Tomm had seen on his arrival started up and came rumbling over, laying down a thick soap screen behind it. The OASABI riders tried to pass through it, but found it impenetrable.

The leader put his feet on the ground and, shaking his fist, shouted, "You'll never discover the secret of Project Electric Chair."

"Yes, I will," declared Tomm, as he turned to the tank.

As he approached, he heard a voice coming in on the tank's radio

"Do you have permission from the FCC to operate in this area or to take editorial stands on such controversial subjects?"

"Well," replied a voice from the tank, "we did turn in form 19524-AC-43 two months ago, and it was accepted."

"Yes, but we gottahave forms 56864-FE-03 and 54932-MA-19 for a couple months before you can act."

"But Swift's right here!"

"Don't make no nevermind, those are operating procedures, boys. You better leave now."

The tank drove off after some rough language, distasteful (not to mention unfamiliar) to Tomm, was exchanged. Tomm headed for the house of Mary Nextdoor, where the sound of the Electric Clam's Jam in stereo (bam!) was still oscillating the walls.

Tomm wanted to see what was inside the room before he entered. Stealing forward to the window he beheld a curious sight. The room was darkened and those inside were only dimly visible. They seemed to be sleeping. The only light came from a large aquarium which contained brown, noisome looking water to which computer cables were dipped. On the cables were a large number of clams, mostly purple colored with orange polka-dots, though some had puce-and-pink stripes. Tomm saw that the computer cables were connected to a JDJ 13074, the newest and most

14. If he had only used his mouth:

unreliable computer made.¹⁵

As he looked and listened Tomm began to feel very sleepy. He turned and advanced to the rear. As he walked down the long path to the street, what should he meet but a large red-topped monolith! The monolith was one cubit by four cubits by nine cubits in size.¹⁶ It did not look that size, however.

"Well," the monolith said, "It's little Tommy yet again. And what are you doing here, walking away from the house of my future bride?"

Tomm, though overcome with a sense of déjà vue¹⁷, swung at the monolith's middle. Unfortunately, his aim was true. As Tomm sat down groaning the monolith disappeared.

A familiar voice floated back. "I told you I'd get square with you and...I've done it!" A mocking laugh floated back to Tomm, who wondered who this enemy was, and what was the nature of the revenge?

By this time a large procession was moving down the street. Tomm decided from the weapons they were dragging and carrying along, and the strange vehicles and companions they had, that this was the Legion of Mad Scientists after him again. He lay very still.

As they moved past him, beanies set at a rakish angle, Tomm began to hope that they would miss him. Since he was wearing Day-Glo clothes and was standing under an arclamp streetlight, he was spotted. Instantly¹⁸ the entire group surrounded him, and began discussing how to deal away with him.¹⁹

"Oh, please let me fire my hyper-zaratronic blaster at him! It is unstoppable."

"You and your hyper-zaratronic blasters! Ever since you turned it into a handweapon for the Christmas trade you've wanted to fire it at everything!" A loud and noisy argument broke out. Tomm did not know what to do or say. He was in deadly peril!

(What will happen next?)
(see future issues of TZ)

15. Appletree's astonishing predictive abilities appear once again!
16. He knew it was this size because the dimensions were engraved on its surface, though 'cubits' was misspelled.
17. Not at all extraordinary, considering the circumstances
18. None of the Legion believed Einstein. Do you?
19. That sense of déjà vue coming on again?

SCIENCE FICTION AND THE A-BOMB

Ruth Cole

In this paper, I wish to consider the effect, if any, of the atomic bomb on science fiction holocaust stories. I feel that such a survey would be an interesting case study of the science-and-society sort. Also, in this study cause and effect can be rather easily isolated, and one does not have to worry about myriads of other factors. This is mainly due to the peculiar position science fiction has occupied in our society. While the s-f authors themselves tend to be rather sophisticated scientifically, they write primarily for a select audience- youngsters who like science but who may not be very knowledgeable of its technical aspects. An item of popular scientific interest such as the atomic bomb would be a most suitable topic for such a group. Furthermore, I believe that any science fiction survey such as this would of necessity have to concentrate on recent science fiction - it is only within the past forty years that it has come into being as a popular literary genre. And the most significant factor in recent history to make people re-examine their attitudes towards science has been the atomic bomb. For the bomb showed, in an extremely powerful way, that science the benefactor of mankind was also science the destroyer of human lives. And the fact that this weapon was controlled by a few men at the top made the nightmare all the more frightening. Science fiction writers tend to be pro-science anyway - it would be interesting to see what, if anything, happened to their attitudes during these fifteen years.

To gauge the bomb's effects, I adopted a survey-type method for the period 1940-1955. I chose this time period because I wanted to contrast science fiction before and after the bomb, with emphasis on the after. By reading as many holocaust stories as I could for this time period, I hoped to catch patterns that might have developed.

I would next like to define holocaust stories as used in the context of this paper. A holocaust story is one in which most of the earth has been devastated by some sort of overwhelming disaster. Usually most of the population has been destroyed in the process. I did not include in this survey any stories that merely dealt with the threat of extinction; the threat had to be realized.

My method in this study was basically to read a lot of science fiction. I took some material from collections of short stories I had read; however, I obtained most of it by going through fifteen years' worth of the magazine "Astounding" (now "Analog"). I chose "Astounding" because it is one of the most long-lived and respectable of the s-f magazines that were started back in the 1930's. I also read whatever novels I knew contained such a theme, provided they fit into the prescribed time period. I was thus unable to utilize for this paper a number of books such as A Canticle for Liebowitz (1968) which is in many respects the classic holocaust story. I ended up with a total of fifty-four works - four novels and the rest short stories and novellettes.

I classified stories according to the type of destruction which was responsible for the holocaust. The results can be seen in the following table. In some cases, more than one cause was given, and in such cases I have assigned each cause to its own category, so that the number of causes is greater than the number of stories.

Table 1

Cause of Destruction	Number of Stories
Atomic Bomb	30
Biological Warfare	2
Conventional Bombs	5
Unspecified	2
Chemical Processes	2
Other	9

(3 were atomic bombs and biological warfare; 2 were atomic Bombs and chemical processes)

This table is not terribly informative - about all it says is that the majority of the holocaust stories I read used atomic Bombs as the means of destruction. A far more interesting project is to plot the number of atomic bomb stories versus time. Incidentally, when classifying an atomic bomb stories as such, I used as the criteria either the direct mention of an atomic bomb or else unmistakable signs of it - mention of widespread devastation by an intensely powerful explosion, heat and shock wave, plus radiation-caused mutations. A few stories were not definitive enough about the cause of destruction - hence the category "unspecified". In general distinguishing between atomic and conventional bombing was quite simple.

In plotting the number of atomic bomb stories versus time I chose as the date either the first printing, the copyright date, or the date of the magazine in which the story first appeared. In allowing for such things as how long the actual writing of the manuscript takes, the process of submitting and editing the manuscript, preparing the story, etc., I feel that we should allow a time lapse of six months to a year after the writing of the manuscript to the time that it is published. This time lapse must be taken into account when interpreting any relationship between the stories and time.

There are significant peaks in the number of stories published around 1946, 1948-1950, and 1953. It would appear that the sudden appearance and rise in the number of stories from 1944 to 1946 is a direct result of the explosion of the atomic bombs at Hiroshima and Nagasaki in August of 1945. On that date the destructive potential of these bombs was first brought to public attention. There is no definite reason I can find to explain the next peak centered about 1950. However, it was during that time that a number of events brought to the public eye the fact that Russian spies had been gathering information about the bomb and knew enough to build one of their own. For the next peak at 1954 it is interesting to note that the hydrogen bomb was first test-exploded in 1953, and the USSR tested its first fusion bomb on August 1953. Also about this time it became generally known that radioactivity (and thus radioactive fallout) could be in-

creased enormously and spread over larger areas than before. So over the years we find increasing public awareness of the dangers of the bomb since its first use over Hiroshima. The two significant peak dates are then 1946 (year after the Hiroshima explosion) and 1953 (year after the hydrogen bomb). The third peak at 1950 I feel is not very well explained. I think that the evidence given above is strong enough to say that there seems to be a direct causal relationship - in any case, the plots are certainly quite suggestive.

Holocaust stories of various types have been with us for millennia - the Apocalypse and Noah's Ark being two early examples. For this reason we must be wary of attributing too much influence to the atomic bomb - the prophets of doom would have indubitably continued to prophesy on, bomb or no bomb. There are some pre-bomb stories that are remarkable in that they are so very similar to post-bomb stories. As an example I wish to consider one very early story that seems to be the prototype of later holocaust stories. This is Stephen Vincent Benet's work, variously entitled "By the Waters of Babylon" or "The Place of the Gods", which was published in 1937. John, the young protagonist, was the priest and son of a priest. He wished to know more of the Old Days so he went east, which was forbidden. He found a place of the gods, called Newyork. After much searching in the place, John discovered a god - and found it had once been a man like himself. Even though no one could read the god-writings or understand the marvels in the place, John wanted to go back and learn more of the gods and their ways. (The gods had all been destroyed by a "fire falling out of the sky" and a "mist that poisoned and stayed in the ground".) When John returned to his father, fired with his new knowledge, the older priest cautioned him, "Truth is a hard deer to hunt. If you eat too much truth at once, you may die of the truth. Perhaps in the old days they ate knowledge too fast." But despite this warning John is determined to again seek the lost knowledge and concludes "We must build again."

In this story several elements occur that will appear time and again in later holocaust stories. One is that after the holocaust the survivors dispersed themselves into small, isolated tribes. The language of the pre-bomb inhabitants has become corrupted. Yet even though they vanished, signs of their presence remain. In Benet's story we have a strong positive element of rebuilding and regrowth, coupled with a warning not to repeat past mistakes, but to recapture past glories. Underlying this is the assumption that the older ones' knowledge of science and technology out ran their wisdom to know what to do with it. Since these elements are all present in a story at this very early date, their appearance in later stories cannot be attributed to the atomic bomb.

To show that Benet's story was no isolated fluke, consider Nelson Bond's novелlette entitled Magic City, published in 1942. It recounts the story of Meg, a high priestess, and Daiv, her mate, who set out to the east, to conquer their personification of Death. Men and women had become divided and fought each other ever since the "sticks-that-spit-fire and the great eggs that hatched death" had de-

scended upon the people, with Death as their leader. In the course of their explorations Meg and Daiv convince a band of men and women to live once again in harmony. And upon entering Death's city and his temple, a hospital called Slukes, Daiv finds a text-book of anatomy that offers new ways of defeating Death and the pain-imps, his servants. Like John, Meg and Daiv discover that the gods whom they worshipped were men. Together Meg and Daiv see a vision "of a day to come when men and women, hand in hand, should some day climb again to assial the very heights lost by the madness of the Ancient Ones." The parallels between this story and Benet's are quite obvious: the corruption of language, fragmentation of society, and the veneration of the older ones again appear, the prevalent theme is still that knowledge has outrun wisdom, but that the old order is something that men should try to attain again.

Other early holocaust stories are not quite as complex as these two, so I will discuss them in less detail. In "Adam and No Eve" by Bester published in 1941, there is a single survivor left on earth - a scientist who, in an attempt to reach the moon, synthesized a variety of rocket fuel that rendered the entire earth dust and ashes. In the story there appears the so-called Frankenstein complex that seems to inflict so many science fiction writers - namely that when a man creates something that overreaches his present knowledge he will be destroyed by it. The Frankenstein complex is different from the knowledge vs. wisdom theme in that with the Frankenstein complex the fault lies in insufficient knowledge of the thing that is created. In the other there is usually enough technical knowledge but not enough consideration of possible consequences. The latter theme reached epidemic proportions of use after Hiroshima, as we shall see.

A book entitled Final Blackout by L. Ron Hubbard (1940) deals with the devastation of Europe by conventional bombs and how men behave under the stress of warfare. Another story¹ depicts primitive people in an icy land - the theme is that the old people could read, but couldn't survive. A story with a different twist tells of survivors of a plague on Mars who flee to earth and are burned to death after teaching a primitive man how to build a fire.² Still another very early story (1941)⁴ deals with two aliens who land on a plague ridden earth. Seeing a boy and his pet crow, they kill the boy under the impression that he is a beast of burden. "Robot's Return" pictures three robots who return to earth, ruined by a bacteriophage, to discover their ancestry. Other stories describe holocausts caused by overspecialization through natural mutation⁵ and the last survivor of a bacterial plague fleeing to a robot planet.⁶ "Jackdaw" is about an earth ruined by anunnamed holocaust. The aliens who discover it regard the devastation and its survivors as a huge joke.

All these stories are before 1945. There is no consistent pattern in these stories, although a few of them seem to reflect the Frankenstein complex. The most common form of destruction tends to be biological - plagues that were no fault of the men who were their victims. Of course the most notable exceptions (Magic City and "The Place of the Gods") are precisely those stories that have the most impact and levels of complexity.

The 1945 to 1950 period is the most fruitful to examine. At this time the atomic bomb stories were at their height, both in number and, I believe, in quality. The non-bomb stories include Arthur C. Clarke's "Rescue Party" (1946) in which the earth's sun goes nova, and the earth's inhabitants take off across interstellar space. "The Million Year Picnic" describes an earth family that flees to Mars to escape the (conventional) bombings on earth. "The Blindness" (1946) extrapolates the effects of Halley's comet coming too close to earth - after starting widespread disasters, it causes blindness which stops a threatened war.

Stories dealing with some aspect of the atomic bomb proliferate in this time period. Starting in 1946 we have Kuttner's "Absalom". After the atomic wars a backswing to a Puritan culture begins as a reaction to the anti-scientist riots that had preceded it. Radiation produces a number of child geniuses, of which Absalom is one. When Absalom's father refuses to let him study what he wishes, the boy turns against him with a grotesque revenge. In "The Memorial" (1946) a huge crater is blasted as a deterrent to future wars. Instead, it touches off the very wars it was supposed to prevent. Finally, when most of the humans and mutants are killed off, the remnant of humanity is at peace - according to the dreams of the pit's creator. "The Last Objective" is a particularly gruesome story - Americans destroy the enemy with atomic bombs and then in turn are destroyed by an uncontrollable chemical process devised by the enemy. "Tomorrow's Children" repeats the theme of mutation caused by radiation from the bomb. In this case, however, most of the mutations are grotesque. In the fragmented remains of human society, infanticide and desertion are common. The two solutions are to either sterilize the mutants or try to fit them into a new society. In this story, as in several others mentioned previously, science and technology is shown to be not enough to insure the survival of humanity as we know it. As one character in the story states "The race brought its own destruction anyway, through the misuse of science. Our culture was scientific anyway, in all but its psychological basis. It's up to us to take that last and hardest step. If we do, the race may yet survive." Whether this character meant the "pure" human race or one including the mutants was deliberately left unclear. But what he is saying is rather interesting - since science cannot adapt to people, the people must adapt to science. Another instance of this theme will appear later.

In many post-bomb holocaust stories there is a violent reaction against the science and the scientists that created the atomic bomb. In one such, an attempt to bring science back to a devastated world fails completely - mankind is on its way to the dark ages and nothing could prevent it! Similar to this is the phoenix theme pointed out in one story - man periodically regenerates himself in holocausts of his own making for the ultimate survival of the race. After the war in "Margin for Error", the scientists defensively band together for self-protection. Similar in sentiment to the quote from "Tomorrow's Children" is this one: "Instinct failed the race when it made the first atomic bomb. The single answer now is not a new control for atomics, but a new kind of man". The sharp distinction between scientists and

other people seems to be a recent development beginning in this time period. Another story that likewise accentuates this division is one in which scientists band together and convert their labs to arsenals in revenge for their destroyed homeland. The scientist has become a terrible figure - he is no longer the "poor god" of Benet's story but an unrepentant sinner who seeks to complicate the leftovers of society still further.

Most stories use mutations from atomic warfare to point out one particularly repulsive feature of the use of atomic weapons. One unusual story entitled "The Aristocrat" pictures a society dominated by a hierarchy of non-mutant elders, to whom all the learning was restricted. In the face of threats and persuasion, learning is "democratized" by giving it back to the majority. This story is distinctly anomalous because it depicted advanced knowledge as something both elite and desirable after a war that has caused horrible mutations.

In this period, then, a pattern seems to emerge. There is more of a "science is not enough" feeling and also one that too much knowledge frequently causes more pain than it is worth. There are virtually no stories in which the torch of ancient learning is carried back to the people and joyfully received. Science is no longer the savior, as in Magic City, but an evil that corrupts men to misuse it. And in most of these stories the holocaust is a direct result of men tinkering with powerful forces - there are fewer stories that use unspecified plagues or other natural disasters as the means of destruction. No beneficial effects of the bomb are mentioned, whereas in some of the holocausts caused by other means (notably "The Blindness" and "Rescue Party") several "benefits" appear. These include peace and considerable technological achievement. The only beneficial effect of the atomic bomb is an occasional favorable mutation.

Stories written during the post peak interval (1953) seem to become more complex and go beyond the immediate results of the devastation and more into the psychological consequences. One such attempt is a story entitled "Null-P" (1951), in which there is a strong reaction against the mutants caused by radiation. Consequently, when a man is found to be a statistical average of the perfectly average man, he is immediately elected president and emulated. Humanity starts to breed towards uniformity and placidity. Eventually intelligent Newfoundland dogs take over the earth and mankind disappears. A similar story is one which describes a man left alone on a bombed-out world with mutant intelligent rats; he is forced to fight them and loses.⁹ Another way out of the holocaust is dramatized in "The Two Shadows" where a last group of survivors flees to Mars. Similar to the moon colony in the Arthur C. Clarke story they are the only humans left when the earth is rendered uninhabitable.¹⁰ In these stories the survivors have widely varying sentiments towards the society that destroyed their world. The survivor in the rat story damns them all; the hero of "The Two Shadows" is a poet who longs for the good old days of Keats and Milton; the survivors in Clarke's moon colony strive to remember the glories of earth's past.

A few stories, peculiar to this last time period, contrast man's enduring machines with his own frailty. In "Dumb Waiter" the hero confronts a fully automated city that is incapable of adjusting to an environment without people. The war machines in "The Flying Dutchman" carry on the war even though all the people have long since died. The aliens who come to earth and see "Grand Central Terminal" conclude that earthlings must have been technologically advanced but thoroughly irrational. The theme of "There Will Come Soft Rains" is a poem by Sara Teasdale:

And no one will know of the war, not one
Will care at last when it is done
No one would mind, either bird or tree
If mankind perished utterly;
And Spring herself, when she woke at dawn
Would scarcely know that we were gone.

This poem is chosen by an automated house to be read to its dead mistress, who has been burned to ash by a passing bomb. The house still carries on all its normal functions - serving food, cleaning up, and entertaining its non-existent inhabitants. These stories are the only ones I encountered in which man's inventions outlive man himself. Usually in a holocaust story it is the technological achievements that are destroyed first and the survivors are forced to carry on without the modern conveniences to which they have become accustomed. This other technique is primarily a device to point out that man affects only himself by his folly and the rest of the world - machines and all - will carry on quite nicely for themselves.

A number of stories from this time period dealt with the extensive changes in society that the holocaust occasioned. One of these was "Null-ABC" (1953) in which scientists are held responsible for the war and literature is despised. Rather surprisingly, the theme of this story, in which literacy was democratized so there could be a revival of scientific research and progress, was that men must try to regain their lost knowledge. Two other stories also stressed this theme.^{11,12} These authors seem to have softened the hard line of earlier years and concluded that knowledge does not inevitably lead to destruction. Many other stories, however, deal only with the indisputably evil effects of the bomb and do not even mention the possibility of a scientific revival. "And He Created Them" described the life of a girl wedded to a man she hates but must live with by government order, since they are among the few people who can produce normal children. In "Pattern for Survival" the sole survivor of an atomic holocaust adopts a mild psychosis to keep himself from going totally insane. "Lot's Daughter" leaves her son and father-in-law to shift for themselves in a bombed-out wilderness - by hanging on to the last threads of civilization, they have not developed the self-reliance needed for survival. A discourse by a two-headed mutant in another story points out that man created Adam in his own image as a result of the Adam bomb. Therefore the original man must have been some sort of vile monster.¹³ After the atomic destruction, in a story by Damon Knight, the last two inhabitants, by clinging to out-dated pre-war behavior, destroy each other. In a gruesome novel by Wilson Tucker,

The Long Loud Silence, the dehumanization of man is graphically described, as people are forced to return to primitive conditions in the fight for survival after an atomic holocaust. Several other stories do likewise.^{14,15} The stories mentioned above all made extraordinarily gloomy reading; they were uniformly pessimistic and quite depressing. They typify most of the stories of the 1950 to 1955 period.

Later stories describe the effect of the bomb on society in general, rather than on specific people. In all these stories specific features stand out. There is usually a fragmented society split into small tightly organized hierarchical groups, a strong suspicion of science, and marked intolerance of any physical or intellectual differences. Such stories include The Long Loud Silence, The Stars Are Ours, Re-birth, Mutant, "Final Weapon", "The Return", "On The Care and Breeding of Pigs" and one non-bomb story entitled "A Pail of Air". These stories were mostly written around 1954 and 1955. "Final Weapon", Re-birth, and Mutant all examine the consequences of the birth of mutant telepaths in a society accustomed to rejecting all deviations. Re-birth is especially interesting: the author describes a post-holocaust puritanical culture in which anything out of the ordinary is a Blasphemy. Likewise, any attempt to change the established order of things will bring down the Tribulation of the old days. The group of child telepaths that are born into this society are rescued by a group of distant people who have developed both their telepathy and their technology. The Stars Are Ours also deals with the intolerance of a post-bomb society to science. It is interesting to note that in these stories there is a great deal a sympathy for the scientists, or at least for those people who have kept their inquiring minds. "On The Care and Feeding of Pigs" describes how a few survivors attempt to build up a viable colony after most of the other people in the world have been killed.

There are only a few non-bomb stories in this later period. One of them "A Pail of Air" is rather early (1951) and depicts a frozen earth that has moved away from the sun. The people in the story hang onto the past with a dogged tenacity that is rarely seen in atomic bomb stories. Two other non-bomb stories in this time period are one by Clarke and one by Dick. In Clarke's story cosmic dust causes a sharp drop in the temperature, similar to "A Pail of Air"'s predicament.¹⁶ Dick's story is strictly Frankenstein, and includes robots that take over when most of humanity has killed itself off with biological weapons.

It would appear that when the atomic bomb emerged as a weapon of tremendous destructive potential a number of science fiction writers seized upon it because of the possibilities it offered for plots. For bomb stories were uniquely suited to the s-f audience at the time - here was a weapon of vast potential, created by man to use against his brethren; besides the damage caused by fire and shock waves there were the interesting side effects of radiation sickness and mutations. The bomb and science fiction writers were both in the spotlight at this time, especially since one s f author in 1944 wrote a story describing the bomb's mechanism so exactly that the FBI nearly

arrested him as a spy.¹⁶ Since 1940 (when the late John Campbell editor of Analog, started to make his influence felt) a trend lead to more science in science fiction. The atomic bomb was an ideal vehicle because it allowed writers to be as spectacular as they wished with their effects while still retaining some scientific accuracy. Furthermore, at this time science fiction was still far outside the mainstream of literature, and stories reflecting public anxiety over the bomb were more likely to be well received. Thus we have several factors that would encourage writing and publication of atomic bomb stories.

The bomb encouraged s-f writers to write more holocaust stories specifically those with atomic bombs as the cause of the destruction. Among the stories written between 1940 and 1955 there seems to be a consistent trend away from the idea of science as all pervadingly good. The scientist goes from savior to Satan.

There is still much to speculate about: Have any other scientific advances had a similar effect on science fiction? Did the general public show a shift in opinion similar to that of science fiction writers of the time? Did the holocaust stories have any noticeable effect on the people who read them - the s-f enthusiasts who later became scientists (and/or writers) themselves? These will have to wait for future papers.

Footnotes

1. "In The Day of the Cold" Sam Weston Astounding, January 1940
2. "Unguh Made A Fire" Ross Rocklynne Astounding, April 1940
3. "Quietus" Ross Rocklynne Astounding, Sept. 1941
4. "Evolution's End" Robert Arthur Adventures in Tomorrow
Kendell Foster Crossen, ed. (1941) Doubleday
5. "Though Dreamers Die" Lester DelRay Astounding, Jan. 1944
6. "Turning Point" Banks, Pendleton Astounding, May 1947
7. "Letter to a Phoenix" Frederic Brown Astounding, August 1947
8. "The Rats" Arthur Porges (1950) Best S-F Stories
1952 Anthony Bleiler, ed. Berkeley Publishers, 1952
9. "If I Forget Thee, Oh Earth" Arthur C. Clarke Expedition to Earth
Ballantine, 1953
10. "Pax Galactica" Ralph Williams Astounding, Nov. 1952
11. "Ledy With A Past" Irving Cox Astounding, May 1953
12. "The Mute Question" Forrest J. Ackerman Adventures in Tomorrow
Kendell Foster Crossen ed., Doubleday, 1952
13. "Instinct" Lester Del Ray Astounding Jan. 1952
14. "Second Variety" (1953) Philip Dick Spectrum II Amis & Conquest, eds., Berkeley Publishers, 1964
15. "The Forgotten Enemy" Arthur C. Clarke Reach For Tomorrow
Ballantine, 1958

editor's note: Bibliography and graphical data suppressed; available on request. I have also done some cutting and editing of the original manuscript. (Sorry, Ruth, but you wouldn't have rewritten it if I'd asked you to, right?)-JF

Jonathan Fox

There are several points I wish to make in connection with Miss Cole's paper.

As Miss Cole observes, the holocaust stories tend to follow in the wake of events concerned with the atomic bomb. We can assume that the authors' primary motivation to write these stories was less the call of the Muse as that of the Unpaid Bills; this being so we can safely say that the authors wrote the stories to sell, ie to conform to the tastes of the "mass" audience.

That the old "knowledge is death" Frankenstein Theme was progressively scrapped or modified as time went by is not at all extraordinary, considering how much technology has come to dominate our lives. We have become more and more seduced by science without understanding it. Thus we have grown quite blasé about Science's most fearsome product, especially as the years since its most deadly use grow. Nowadays the Bomb itself is carefully hidden in the middle of vast weapons systems; it is a foregone conclusion, and rarely mentioned in the apocalyptic terms of years past. (Vietnam had a lot to do with this)

Still, during the period covered by the paper people were concerned about the bomb, and it is extremely curious to note their reactions as detailed by the stories.

As Miss Cole points out, they immediately separated themselves from any involvement in either the construction or the delivery of the weapon. The holocaust is always the work of a mad scientist, a chance accident, or conveniently not mentioned at all; in any case the characters in the story are innocent as lambs of any participation, direct or indirect, in the preceeding final war. I suppose everyone realizes that the holocaust will be brought about for the hobblest of motives: for God and Country, and to prevent the Other Guy from being First. The holocaust then is brought about in these stories as the result of some sort of momentary aberration and it generally wreaks havoc on the landscape and the populace. Except, of course, for those portions of The Big City, etc., that are useful to the author's plot, and those characters in the populace Out West (dare I say in Middle America?) who then can enter the now destroyed City of the Gods.....and so on. The classic rural-city conflict is implicit in this salvation of the country-destruction of the cities theme. The better holocaust stories devastate everywhere, which besides being more reasonable scientifically, allows for greater invention, at least in writers of any talent; those in Miss Cole's paper are not of the most creative types, unfortunately, as should be obvious from the stories she discusses, with certain exceptions.

Having thus upset society, what do the authors of these stories do with the survivors? They are quickly reduced to the level of savages, preserving only in arcane form the knowledge of a previous civilization. The immediate survivors are too worried about day to day existence to meditate much on the destruction, or feel any responsibility for what has happened, and the later savages are isolated from guilt by their ignorance. Thus the author purges us of guilt about the atomic bomb and make its employ the work of forces beyond our control.

This is also true of the outcome of these stories, indeed of almost all the holocaust stories. It comes out as "Devastation is Good for You", for it will better the survivors and/or encourage the growth of favorable mutations. Characters in stories like these inevitably swear not to repeat the mistakes of their bomb-throwing forebears, and often the survivors are shown to be better morally, physically and socially for the experience. Some stories contain the implicit promise that things impossible in the old world will be possible in the new. Telepathy, starships, magic that works, "forbidden" social arrangements appear. I recall in this context the movie The World, The Flesh and the Devil (based on MP Sheil's The Purple Cloud, with a substitution of bombs for poison gas) in which a postbomb healthy blond female (the late Inger Stevens) not only gets to (implicitly) make it with a black (super)man (Harry Belafonte) but then happily enter into a ménage à trois with Mel Ferrer when this latter person gets tired of chasing Belafonte around a postbomb New York. He throws down his gun in front of the UN's swords into plowshares quote on its front wall. Wasn't it lucky it wasn't melted?

We then see that in a sense these stories served to soothe our fears of atomic destruction. Firstly, by making the destruction the work of unstoppable forces (nature, madness, imperious science) our culpability in the advocacy of atomic diplomacy was explained away, and, secondly, in showing that the survivors of a nuclear exchange would be better people because of it, and society would benefit from a dose of radiation, the authors comforted our fears of the total destruction that might be caused by the use of atomic or other terror weapons.

It must be noted that not all stories are so optimistic. Several (like, say, Level 7) predict the end of the human race altogether, though it is interesting to note that the most famous of these stories, not to mention the best written, (Dr. Strangelove, Fail Safe, On The Beach) (not James Joyce but not Ross Rocklynne, either) were produced by people well outside the scifi mainstream. Perhaps total destruction is just as wrong as saying that things will be better after the war, for if everyone is destroyed, the other side won't win, and no one will be left to wonder whether it was worth it.

These days no one in scifi worries too much about nuclear war. Ecological disaster stories now fill the void left by the stories discussed in Miss Cole's paper. Most of these make earnest attempts not to make the disaster the work of forces unknown, but this is always how it works out. Can you work up much guilt for smog?

FLASH GORDON

by Jonathan Fox

Episode 1 - China

The waiting room of Peking's airport was filled with the People's Army. Soldiers sat quietly on the rows of benches or stood talking in small groups, all glancing apprehensively at the silent loudspeaker bolted above the door to the field. Occasionally someone would look curiously at the tall American who stood off to the side, a bag and a bulging briefcase about his legs. Larry Gordon felt these eyes on him and shifted uneasily. He had been abandoned here two hours earlier by his Chinese interpreter and told to wait for the plane to his destination in southern Sinkiang province.

The doorway to the airfield swung open, and a stocky Occidental with a full brown beard strode in. He glanced about at the assembled Chinese, his eyes finally coming to rest on Gordon. The bearded man pushed his way through the crowd to the American.

"You are Dr. Gordon, no?" he asked. He had a slight Russian accent and was dressed like a Chinese Army officer.

"That's right," said Gordon, "Are you --- "

"This way," said the man, turning and retracing his steps through the crowd. Gordon picked up his bags and followed after him. The bearded man pushed open the door and plunged through, leaving it swinging in Gordon's face. Pushing it open, Gordon saw the man walking swiftly towards a large military transport plane that was loading nearby. He ran to catch up.

Just before they reached the aircraft, the bearded man stopped and turned to Gordon, who had just come up behind him.

"I am Zarkov," the man said, "we are going to my laboratory in the South of Sinkiang now. Do you have the device with you?"

"Of course, Dr. Zarkov," replied Gordon, "just as you asked me to, in your letters. Are we going aboard this plane?"

Zarkov shook his head, and waved his hand towards the field beyond. Gordon saw a small passenger jet with Chinese markings waiting just off the runway. Two guards lounged by the plane, machine guns tucked under their arms. Zarkov waved at them and began to move.

"Hey, wait a minute!" cried an English-accented female voice from behind them. Zarkov and Gordon paused and turned. A tall, slender auburn-haired girl, carrying a large camera case, dashed up.

"Have you managed to get a seat aboard this thing?" the girl asked breathlessly, "they said in the airport that no Westerners, especially reporters, were allowed aboard to go to Sinkiang!"

"I beg your pardon," said Zarkov, "we are not going on this aircraft, and we are not reporters, so if you will excuse us....."

"But we are going to Sinkiang, Dr. Zarkov," said Gordon. Zarkov glared at him and nodded stiffly at the girl.

"Give me a ride then," pleaded the girl, looking at Gordon. She had an attractive, intelligent face and large grey-green eyes. Gordon nodded.

"It's not my decision, though," he said. He and the girl both looked at Zarkov, who threw up his hands and grunted his acceptance. He then began to walk towards the jet, setting a swift pace for Gordon and the girl.

"I'm Dale Arden, correspondent for the Times," the girl gasped to Gordon, "That isn't the Dr. Zarkov, is it?"

"I suppose it is, Miss Arden," said Gordon, "I'm Larry Gordon, sometime astrophysicist and former space cadet, at your service."

The girl smiled at him. The trio reached the jet and Zarkov conferred briefly with the two soldiers. One climbed the stairs into the plane, followed by Zarkov, Gordon and Dale Arden. The second soldier glanced about outside and then ran up the stairs into the plane. After securing them and closing the hatch, he walked forward through the cabin to the cockpit, closing the cockpit door behind him.

"He must ride with the pilot," said Zarkov, "as you can see, there are not enough seats."

Gordon and the girl sat on the one set of standard airplane seats in the cabin. Zarkov went forward to sit at a chair set before a desk and the other soldier sat by the door on a stool swung out from on wall. The rest of the cabin appeared to have been modified for cargo, though now it was bare.

The engines were started and the plane began to taxi down the runway.

"How do you know Zarkov?" asked Dale Arden, "He has been ensconced in the astrophysical installation up in the mountains for as long as I can remember. No one is permitted near that place without clearance from the very high-ups."

"I just met the man," said Gordon, "if met is the word. Zarkov

asked me to come here; he is interested in testing a device I designed for detecting and identifying stellar radiation emissions."

"I presume it is of a non-military nature, then," said the girl, "or are you a defector, like Zarkov?"

"I have the USA's full approval to be here," replied Gordon, "you see, Zarkov is the mystery man of plasma physics at the moment, publishing all sorts of advanced papers that drive everyone crazy, mostly with jealousy. So they're him and his research. When someone is invited to visit him, well..."

The girl nodded. "They are willing to pay an 'entry fee'. Yes, Zarkov is a very mysterious gentleman. And who are you, exactly? The US intelligence agencies usually prefer the bland blonde brawny and/or brainless patriot for spying, and you are too tall, dark and handsome for that role. What is this about 'space cadet' then?"

Gordon shrugged. "Slight joke. I was one of the few scientist-astronauts ever to fly, and then only to Skylab, before manned space flight was placed aft of perpetual motion machines in man's list of priorities."

"I wouldn't know much about that," said Dale, "I am rather out of touch with scientific affairs in the West, having been in China now some six years. They tend to keep long term Western visitors as much in the dark as they can, allowing only certain articles in, which they search, keeping watch on one's movements day and night, and so on."

"Must be rather maddening," said Gordon, "how can you stand it?"

Dale Arden stared out the window and was silent as the plane stopped, turned down an empty runway, gathered speed and climbed into the sky. As the jet turned to the southwest she said, "At times it is downright frightening. You are never alone, but form no real friendships. It preys on the mind, giving rise to the most frightful introspection." The girl shook her head and tore her gaze from the window. She did not look at Gordon.

Zarkov rose from his seat and came aft to where Gordon was sitting.

"You have the plans for the device? Let me see them!" he ordered, extending his hands. Gordon gave him the briefcase. Uttering a soft cry the bearded scientist returned to his seat, where he rapidly opened the case and eagerly spread the enclosed papers on the table before him. Dale regarded the scene with amazement.

"What did you bring him?" she asked, "I didn't think anything would get a response out of Zarkov."

"It's a modification of the standard system for navigation by

US spacecraft, which became public knowledge when NASA opened its files last year. It makes navigating between points in deep space much easier."

"What would Zarkov want it for?"

"Another question the US wants to know the answer to."

Dale Arden lifted her eyebrows slightly in wonderment.

"I was going down to cover the latest military exchange with the Russians at the border, but this is becoming, even if the reports are true that the Russians have invaded in force."

"I heard about that," said Gordon, "will it involve us in any way?"

"We will have to ask the Russians if and when we see them," Dale said, "their motives in the present incursion are very obscure."

Gordon awoke some time later at Dale's urgent prodding.

"Look outside," she said, in an urgent whisper. Gordon looked past her out the window and saw that a fighter with Russian markings was paralleling their course.

"Zarkov says we are almost over the airfield," said Dale, "the Russian showed up a few minutes ago. No doubt there are several of his companions in the area."

"He doesn't look like he's anything but curious," said Gordon, "Has Zarkov said anything about it?"

"Oh, he's been bent over your diagrams for hours. There's the airfield below us now." Dale pointed off to the right of the plane where the white lines and grey boxes of an airport lay amongst low hills of green. The Russian jet pulled off as the plane made a turn into the airport and lowered its wheels.

The plane touched down on the runway and turned right towards the hanger area. Several military aircraft stood about in various stages of repair. Two mechanics appeared in front of the plane and steered it into an open space on the apron near the edge of the airfield. Zarkov got up and came back with Gordon's briefcase.

"We have a truck parked on the other side of this area," Zarkov said. Gordon took the briefcase and stood up. As the travelers gathered their belongings, the Chinese soldier in the rear opened the hatch and extended the stairs. The pilot and the other soldier emerged from the cabin to join the soldier on the field. Zarkov, Gordon and Dale followed. As the travelers gathered on the field, they heard the whine

of jets overhead.

"You don't suppose those are those are the Russians?" said Gordon.

"This way," said Zarkov, "the truck is under those trees by the road leading off the field." The Chinese soldiers leading, the group began to cross the stretch of concrete towards the road. Suddenly, a jet screamed across their path, flying close to the ground. The plane the travelers had just left exploded with a roar, and threw bright streamers of flaming wreckage in all directions. Another jet followed, dropping tanks of napalm that exploded and set other craft on the field nearby aflame. The travelers scattered to avoid the bombs. The field was an inferno; burning fuel flowed across the concrete, and thick black smoke covered everything.

Gordon found that he had become separated from his companions while trying to avoid the attack. His eyes streaming from the smoke, Gordon looked about frantically for Dale Arden, calling her name. There was no response.

Somewhere to his left, there was another explosion as the fires ignited the fuel in another plane. The smoke rolled away with the shock wave, revealing the girl. Dale Arden, her clothes shredded by the blast, staggered blindly into a burning aircraft.

Gordon cried out and ran to the girl, leaping across rivers of flame that blocked his path. As he reached Dale she stumbled and fell. Gordon caught and lifted the fainting girl off her feet. The heat of the nearby fires beat at his senses as he looked about for a route of escape. There were fires everywhere, and Gordon could hear jets strafing in the distance.

At last Gordon determined a route through the burning fuel. He followed it swiftly, balancing the girl and the briefcase in his arms.

A jet shrieked overhead; Gordon ducked as it riddled the runway with cannonfire. Running with his head down, he made for the edge of the runway in the direction he hoped would bring him out near the place Zarkov had indicated.

A figure emerged from the smoke ahead of him. It was Zarkov. As he saw Gordon, he turned again and disappeared into the smoke. Gordon shouted and followed the scientist as fast as he could. Zarkov halted at the edge of the runway, beside a small concrete outbuilding. The two Chinese soldiers huddled beside it, cradling their weapons. As Zarkov approached they stood up, and began to move out towards the trees, which lay a distance away across an open field. Zarkov and Gordon followed, running in a low crouch. The girl in Gordon's arms

did not stir. Fortunately they were not spotted by the jets overhead, which appeared to have ended their attack. The airfield was completely destroyed.

The travelers reached the shelter of the trees. There they discovered the pilot warming up the motor of the truck, an old US Army transport. The two soldiers assisted Gordon in getting the girl onto the bench in the rear, then helped Gordon and Zarkov to board. Zarkov walked to the front by the window to the cab and shouted at the pilot. The two soldiers climbed aboard and the truck lurched slowly forward onto the road.

Dale Arden stirred, groaned and tried to sit up. Gordon sat beside her, lifting her into a sitting position. The girl lay against him, breathing deeply, her long hair falling about her face. Gordon brushed it back; Dale lifted her face and smiled at him, her eyes half closed.

"I'm all right," she whispered, "just a little dizzy still. You saved my life, Larry."

"It's all right, Dale," replied Gordon, "I have a nickname I prefer to Larry, though."

"Oh," said the girl, pushing herself upright.

"Flash" explained Gordon, "after my daily jogs to and from the Houston Manned Spaceflight Center. I acquired it from my jovial car-driving former colleagues."

"All right, Flash," said Dale with a wide grin, "and I think that's a great name." She looked down at Gordon's feet, where the briefcase, now scorched and blackened, rested on the floorboards. "You wouldn't want to show me the contents of that valuable item, would you?"

Gordon bent over and opened the case. Inside were a mass of papers and several carefully braced metal cans. Gordon explained that these were the plans and modified components in the system he had mentioned, a modification of the US space shuttle's navigation system.

"Do you think Zarkov has such a craft at his lab?" asked Dale. Zarkov, overhearing her question, moved over to Gordon and Dale.

"Actually, no, Miss Arden," said Zarkov, "what I have at my lab is unique. Like no other spacecraft on Earth."

"Then you have made the Chinese very happy," said Dale, "they like that sort of thing."

"To be candid, Miss Arden, the Chinese are not fully aware of my creation. They believe I have built a manned suborbital craft capable

of delivering nuclear weapons and avoiding the Russian anti-missile satellite that was launched last year."

"While in reality you have....." said Flash.

"A starship of my own design, powered by controlled thermonuclear fusion," said Zarkov, and returned to his seat.

"Of course," said Flash, "makes sense. Why else would a plasma physicist at an astrophysical installation want a high-powered space navigation device?"

"I cannot think of another reason," agreed Dale, nodding, "but in fact his story is utterly fantastic."

Zarkov ignored them. The silence in the truck was absolute. Flash determined that they were on their way into the mountains, he presumed to Zarkov's laboratory. The road they traveled wound through the peaks, climbing higher into the mountain range.

Several hours later, the truck made its way through a narrow pass high in the mountains. It had become quite cold and the travelers were now bundled in winter gear supplied by Zarkov from a pile in the truck. The scientist had said nothing further to his guests about his project and maintained a stony silence when Gordon attempted to question him.

The truck squealed to a sudden stop. The driver got out and ran to the rear to shout frantically at a dozing Zarkov. The bearded scientist came instantly awake and scrambled over the other passengers to get out of the truck. He walked forward with the driver, Gordon following. Ahead of the truck the road sloped down into a small flat valley, at the end of which was a large blue glacial lake. On the far side of the lake were a collection of concrete buildings built on a shelf of rock along the wall of the mountain. This Gordon guessed, was their destination, Zarkov's laboratory.

"Why don't we proceed, Zarkov," Gordon said. Zarkov turned and pointed to his left. Far below in the valley a line of tanks was crawling up another road to the near side of the lake.

"A Russian force," said Zarkov, "they cross our line of travel. The driver became concerned when he did not see the ferry operating on the lake nor any other lake traffic. There must be troops at my laboratory. We will never be able to get there now."

"Are we safe where we are now?" said Gordon.

"We seem to lie behind the Russian line of advance."

"Do we stay here, then, or what?"

"Frankly I do not know, Gordon. It is imperative that we reach

my laboratory with all possible speed. The Russians may take it and destroy my work."

"Not likely," said Gordon, "I am beginning to believe that it is your design that's brought the Russians here. The Chinese have no doubt found out about your spaceship, and the Russians....."

"I agree," said Zarkov, "but there was nothing I could do that I did not do to prevent this. What's that noise?" The steady drone of large engines came from a source behind the travelers. Two large cargo helicopters came overhead and roared over the travelers' heads to descend into the valley. As they came into view of the lab complex, flashed began to appear from the buildings and the helicopters took evasive action. Large explosions began to occur, and the Russian armor began lining the near lakeshore to return the fire.

"Where's the heavy artillery coming from?" asked Flash. Zarkov pointed to the far lakeshore where several large gun emplacements could be made out.

"They have made the lake shore a fortress," said Zarkov, "and listen, more helicopters come."

"Listen, Zarkov," said Flash, "I don't think it will be too much longer before someone down there decides to investigate this high ground, so I suggest we get out of here." One of the Chinese soldiers pointed off to their right, where a small path lead off the road. The soldier said something to Zarkov, who nodded and said, "He says that path leads down to the lake farther on. Perhaps we can find a boat.."

It was agreed to follow the path down on foot. Zarkov took Gordon's case and the group set off down the trail. Below them the battle had been joined as Russian and Chinese artillery exchanged rounds across the lake. A cloud of dust and smoke had engulfed the lab area, and three Russian tanks were burning by the lake.

The path the travelers were following was a twisting series of switchbacks running along the side of the mountain, shielded from view of the lake shore by intermediate hills. Gordon was glad this was so for the icy rock-stream footpath made rapid travel almost impossible. Zarkov set the pace as he scrambled down the slope, the Chinese soldiers behind him keeping an eye out below them for signs of Russian soldiers. Finally the party reached the lake. A bare stony shore surrounded the water, and there was no sign of life in either direction. The group hid itself behind some boulders at the foot of the path.

"Not many boats around, are there," said Gordon. Zarkov glanced up at the sky where a new flight of helicopter could be heard.

"There will be soon," he said. The others glanced up. Two cargo helicopters were proceeding at top speed towards the Russian pos-

itions along the lake; an amphibious landing craft hung beneath each one. Chinese antiaircraft began firing at the copters; black puffs appeared around the craft.

The tail of one of the copters exploded and the copter veered wildly downwards towards the travelers. The pilot of the copter attempted to moderate his descent but the craft fell swiftly towards the lake. The landing craft underneath the copter separated as the two crashed into the water, the wave caused by the copter's fall pushing the landing craft almost onto the shore in front of the travelers.

Flash ran out of concealment, followed by the two soldiers, guns at the ready. They waded out to the craft and scrambled over the side. A brief examination showed that the vessel was undamaged. Gordon waved to his companions still concealed in the rocks on shore to come aboard. As Dale, Zarkov and the pilot came onto the beach, a squad of Russian soldiers appeared from the Russian positions farther along the shore. The Chinese soldiers began to lay down covering fire and the Russians scattered from the beach into the rocks, where they began firing at the landing craft and the people on shore. Flash leaped from the craft on the far side from the Russians and made his way to shore, bullets flying around him. As he ran to meet the approaching party, the pilot fell, hit in the leg. Zarkov and Flash picked him up and with Dale in the lead dashed into the water to board the landing craft.

Shots rattled off the hull and filled the air above, making it impossible to stay above the shelter of the hull. Zarkov crawled to the controls of the craft in the stern, and succeeded in starting the engines. He guided the craft out onto the lake, increasing speed until the craft was out of range of the Russians. The travelers stood up and looked back towards the shore. As they did so, a shell whistled in and exploded in the water nearby, throwing up a geyser of water that almost swamped the landing craft. Zarkov swung the vessel away, trying to get out of the sights of the Russian artillery while bringing the ship closer to the far shore. Gordon could begin to make out their destination, a small pier stuck to the rear of the lab buildings, far from the scene of the continuing combat. The second Russian landing craft was now too making its way across the lake, under a covering hail of fire.

As Zarkov drew the craft up alongside the pier, the soldiers leaped out and steadied the craft along the waterlevel walkway up on to the pier itself. Zarkov and Gordon lifted Dale and the wounded pilot out and then followed, leaving the craft to drift.

The travelers made their way up the stairway onto the pier. The two soldiers carried the pilot. There was no one to greet them. The pier was the end of a road that lead up to a large doorway set in a tall featureless slab of concrete that was the end of the lab. The shelf of rock supporting the complex tailed off into the cliff some distance beyond the pier.

Zarkov lead the way off the pier, walking to the door. Dale huddled against Gordon, who put his arm about her. When Zarkov reached the doorway he walked to one side and fumbled at a black panel set in the concrete. Eventually it swung open to reveal a set of switches, which Zarkov manipulated at length, finally causing the door to roll open sideways into the wall with the whir of heavy machinery.

"Inside, quickly," hissed Zarkov, and his companions complied. As soon as they were all inside the door rolled shut again with an ominous rolling slam that echoed in the empty building.

Gordon looked about him. Zarkov had brought the travelers to a large low building like an aircraft hanger, which stretched far into the distance ahead of him. Only a small corner of the building was illuminated, a small square of yellow light at the far end of the building. Under this light stood a large amount of scaffolding and engineering equipment, centered about a single gleaming object.

"Is that your spaceship, Zarkov?" Gordon asked.

"It is," said the scientist, "let us proceed there at once." Zarkov, Gordon and Dale followed the soldiers across the empty floor to the ship. As they came closer, Gordon was able to make out the details of the craft. It possessed the same lifting body configuration as the US space shuttle's orbital stage, but was somewhat smaller. It appeared to be fully ready for flight, though Gordon couldn't understand why some panels of the wing areas and fuselage were of a grid-like design where they should have been solid.

The soldiers took their burden past the spacecraft and on into one of the doorway leading to workshops at the far end of the building. Zarkov helped Dale and Gordon up onto the scaffolding to look down at the ship.

"You see, Gordon, through the access panel there in the rear, the fusion device and field generators. They power the gravity field grids and generate the field that permits us to exceed the speed of light."

"A tremendous achievement, Doctor," said Gordon, "I assume you've tested it?"

"No," said Zarkov, "this will be its maiden flight, when your devices here have been installed in the places I have provided for them. Yours was the last piece I needed to finish." Zarkov clambered onto the wing of the spaceship and disappeared down a ladder leading into the craft near its center. Gordon and Dale followed him down. Then inside, the two found themselves in a narrow corridor bounded by banks of electronic equipment, which they followed forward until it opened out into a small control room in the nose. Zarkov was standing by the rear wall of the room as they entered, a panel swung open before him.

"All this back here," Zarkov explained as he lifted Gordon's metal canisters out of the battered briefcase, "are computers, control mechanisms and life support. Behind them, the engines and field generators, here, the navigational and communications modules. I now install the navigation device so, and everything is complete." Zarkov fitted the canisters into slotted recesses inside the panel. Gordon walked forward to the control panel.

"You know, Zarkov," he said, examining the control board, "I bet I could fly this thing. It's like the space shuttle in many ways. This must be your computer control, and this your power indicators, all very simple."

"I am not one for over complication," said Zarkov, joining Gordon at the controls, "I have let the computer do all the unessential dial-reading, and, as you say, many designs are based on the shuttle. You could probably fly this ship if you knew the operation of the anti-gravity, acceleration, and other field, and the proper sequence for the reactor, but of course only I know that."

"Where are you planning to take your creation, Dr. Zarkov," asked Dale Arden, "Mars?"

"Mars? Hardly, Miss Arden," said Zarkov, "I go to the star known as 19 Omicron Scorpii, to a planet in that star system."

"How do you know there's a planet there, Zarkov?" asked Gordon, "I didn't know that planets had been detected by anyone for that star system."

Zarkov ignored the question. Stepping in front of the computer console, he quickly punched in a sequence that lit the dials on the control board, and started various hummings and other sounds in the rear of the ship. Several columns of numbers appeared on a small screen on the control panel.

"I have started the power sequence," explained Zarkov, "to start up the reactor and begin the countdown checkout."

"Leaving so soon?" said Dale, "not one for long goodbyes, are you?"

"The way things are now, Miss Arden," said Zarkov, "this would be very dangerous, saying good bye. Also, you are coming with me."

"What-!" cried Flash and Dale.

"You, as the saying goes, know too much, and could endanger my project. Besides, you have no choice. The Russians or the Chinese would not be gentle hosts, especially when they find me gone."

Gordon looked at the girl. "It appears we have little choice," he said.

"I agree," said Dale, "I believe this will make me the first

reporter in space, does it not?"

"You will send no communiques," said Zarkov roughly. He continued to work over the board. "I would appreciate it, Dr. Gordon, Miss Arden, if you left me in peace for the moment."

Reluctantly, Flash and Dale left the control room and ascended the ladder back up to the top of Zarkov's starship. The lab was deserted, but the sounds of battle continued from outside.

"I'm frightened, Flash," said Dale, putting her arms about "Gordon, "Zarkov is mad with his flight to the stars...no one can do that, can they?"

Gordon shook his head. "He's crazy, maybe, but I wouldn't put it past him if this really were a starship, for God's sake! I'm sorry you got involved; there's no telling what Zarkov is up to."

"Just stay around, will you?" said Dale, "I'll be all right."

A rumbling noise came from above, and, as Flash and Dale watched doors in the roof of the building rolled slowly open to reveal the evening sky. Men's voices could be heard in the labs and workshops of the building. The two Chinese soldiers and an officer came through one of the doors and looked at the spaceship. When the officer caught sight of the two Westerners atop the ship, he turned and ran back into the doorway. He returned shortly thereafter with a man in a lab coat, evidently a scientist in the laboratory. The ship's engines had increased in volume so that it was hard to hear what the officer shouted at the ship. Dale eventually deduced what he was saying.

"He's asking for Zarkov," she explained, "they want to take over this ship, which the officer claims he needs to rebel the invaders."

"He must be desperate," said Flash, "let's inform Zarkov." The two climbed down the ladder. As they reached the deck, the ladder was withdrawn and the hatchway shut. There was a sudden lurch as the ship rose from its supports and floated gently upwards. Gordon could feel the ship gradually gaining speed. He motioned Dale ahead of him into the control room. They found Zarkov seated at the pilot's console.

"I saw what was happening in the viewscreen and I thought it best if we avoid the questions of my former assistants," said Zarkov, "you will observe the extremely smooth and immediate reactions of the ship."

The spaceship had just emerged through the roof doors. Zarkov increased the rate of climb and added horizontal thrust that swiftly took them away from the lab.

"I bet the Russians had a shock when they saw us emerge and fly away," said Dale, "I know I did."

"Let's hope that they don't decide to attack us, as we have no armament. Right, Zarkov, or are you hiding your ray guns from us?"

"We are unarmed," said Zarkov, "I had not thought armament would be necessary, so I omitted it from the design. And now, my friends, if you would brace yourselves against the frame, so, I will take us into orbit. There will be a slight feeling of acceleration, but not such as you have experienced, Dr. Gordon."

It was as Zarkov had said. The ship shot upwards at tremendous speed, as evidenced by the receding landscape on the viewscreen, but the passengers had as little feeling of the climb as if they were on an elevator. Gordon was now entirely convinced that Zarkov's invention was beyond the range of present science as he knew it.

It seemed but moments later that the blue curve of the Earth filled the view screen. Zarkov bent over the controls, involved with calculations on the computer. He told his passengers that he was preparing the ship for interstellar travel, programming a power impulse that carry the ship accurately and safely on course to its destination.

"Perhaps you would like to listen in on the satellite telemetry bands?" asked Zarkov, "we will listen in." The scientist adjusted a control and almost at once the whistling sound of telemetry filled the cabin.

"Zarkov," said Gordon, his voice strained, "where is that particular signal coming from?"

"I don't know," said Zarkov, "a moment....ah, it is quite close, somewhat outside the range of the viewscreen."

"Well, then, Zarkov, it is time to see whether you have satisfied the Chinese requirements for the ship as well as you have your own."

"What are you saying, Gordon," said Zarkov.

"Those signals we're hearing: I've heard them before, in a Skylab briefing. They're unique to the Russian anti-missile satellite."

"Are you sure?" said Dale.

Flash nodded. "They told us, 'you ever hear that nearby, run for cover'; that thing isn't active like that except when it's in its attack mode." He stared out into space. "I'll bet it's after us."

Zarkov stared at the control panel. "Unfortunately, manoeuvring is not possible at this point. All the power is involved in the impulse which must happen at a specific place, otherwise we will be destroyed."

"Meaning that we're virtual sitting ducks for that thing," said Flash, "I think I see it now, that flash at the lower right hand edge of the screen."

Zarkov adjusted the controls that magnified the image on the screen before them. The indicated corner grew until the image of the gleaming satellite filled the screen.

"Thirty seconds to impulse," announced Zarkov.

"Too long," said Gordon. Dale moved over to his side as the trio watched the rockets on the satellite roll it over until the shout of a large laser stared directly into the screen.

"Ten seconds," said Zarkov, "any moment now...."

A blinding white light filled the screen. The ship shuddered and lights in the cabin went out. There was a roar, and another sudden ran through the craft as Gordon was jerked forward to crash into the control panel. His mind spun into blackness as he felt the ship tumble out of control.

TO BE CONTINUED

FANZINE REVIEWS

Proper Boskonian 8 - NESFA PO Box G MIT Station, Cambridge, Mass. 02139
Long and very well done. There's an article for everyone: fiction reviews, trivia, humor. You name it, it's there. - M.A.

Godless 1 - B.D.Arthurs 815 N.52 St. #21, Phoenix, Arizona
Main article Bounty Hunter (story) by William L. Rupp, taken from an old Analog story about population control (old idea of loner fighting to have more than the Government imposed limit of children). It's not bad. Arthurs also has an article about how he smoked out and turned in a plagiarist in his writing class. Noble Fellow, B.D.!
(as you tell yourself several times in the article) -JF

Stefantasy - William M. Danvers RD 1, Kennerdell, Pa. 16374
Random collection of odd, interesting tidbits, mostly culled from Scientific American. A strange sense of humor, but funny just the same
-MA

Schamooob 10 - Frank Johnson 3826 Washington Ave., Cincinnati, Ohio 45220
Story, Dr. Kleiber by George Wagner, good idea (cloning) carried out in pseudo-Poe style. Needs further development. Many reviews of books, records, fanzines, and movies. The review of Tucker's Year of the Quiet Sun is an elaborate, but inadequate, defense of Tucker's failures in the book. A record review of Sticky Fingers (Rolling Stones) seems drawn from the pages of a rave magazine and is not very discerning. The movie reviews attempt to evaluate several low budget losers on the basis of the logic of their plots. Criticism of Riders to the Stars especially poorly stated. Still, not a bad mag. -J.F.



" ..Inclosed find 2 ads I drew a while back for a local pizza joint. The Flash Gordon had to do with the advisability of having your pizza delivered -- originally drawn for "The Pizzeria", but the manager claimed the BEM would make his customers sick; eventually sold to "Pizza King".....such is life in Bloomington, Ind. "

J.S.Dorr

For all of you who have an attic full of old magazines, we are interested in purchasing or trading for the following magazines:

Air Wonder Stories: 1929 7,10,11; 1930 1,4	New Worlds(Brit):#2,96,116,117, 142-145,149,151,172,173,180;
Amazing: 1926 6;1927 1,2;1928 6; 1930 2,3;1931 8;1932 3,4; 1936 2,4,10,12;1937 2,4,8,12; 1938 2;1939 3,6,8,10;1943 1;	Other Worlds:1957 6,11;1958 1,7,8, 10,12;1959 2,5,12;1960 2,6;
Amazing Stories Annual: 1927 1;	Science Fantasy(Brit):1958 4,12;
Amazing Stories Quarterly: 1928 winter,spring;1929 winter, summer;1930 winter,fall; 1931 winter,spring,fall;1933 summer,winter;1934 winter;	Science Fiction:1939 3;1940 3,10; 1941 9;
Astonishing Stories: 1941 4;1942 3;	Science Fiction Adventures(Brit): 1958 6;
Arkham Sampler: 1948 all;1949 spring,summer,fall;	Science Fiction Fortnightly(Brit): #1,2,3,6,7,8,9,12,13,16,18,21;
Beyond Fantasy Fiction: #10;	Science Fiction Quarterly:#3,4;
Beyond Fantasy Fiction(Brit):1954 5;	Science Wonder Quarterly:1930 sum; 1931 summer,fall;
Bizaare:1941 1;	Wonder Stories;1929 11;1930 2,6,7; 1931 6,7,9,10;1932 5;1933 11; 1935 3,4;1936 10;1937 2;
Captain Future:1940 winter,spring;	The Spider:1933-1934 all;1935 1,3-1. 1936 2-12;1937 1-6,8-12;1938 1-8 10,11,12;1939-1940 all;1941 1, 3-5,7-12;1942 1-11;1943 1,4,6,8;
Captain Hazard: 1938 5;	Startling Stories:1939 3,9;1940 1; 1942 2,9;
Cosmic Science Stories(Brit): #1;	Strange: 1952 3;
Doc Savage:1933 3-9,11,12;1934 1-3, 10;1935 3-11;1936 1,3-9,11,12; 1937 1,3,4,6-11;1938 1,2,4-7,9-11; 1939 1-3,5-8,11;1940 1-7,9-12; 1941 1-8,10-12;1942 1,2,4-12; 1943 1,2,4-12;1946-1949 all;	Strange Stories:1939 4,6,10;1940 2, 4,6,10,12; 1941 2;
Fantastic Adventures:1939 7,1940 5; 1941 5;1942 2,10; 1944 6;	Strange Tales: all;
Fate:all	Super Science Fiction:1957 10,12; 1958 8;1959 4,6,8,10;
Future Fiction:1942 12;1943 4;	Super Science Stories:1941 5;1942 8 1943 2;
Futuristic Science Stories(Brit): #1,6,7,11,14-16;	Tales of the Frightened:1957 8;
Imaginative Tales:1958 1,7;	Tales of Wonder(Brit):#1-11,13-16;
Marvel Science Stories:1939 4,5,12; 1940 5; 1941 4;	Tales of Tomorrow(Brit):#1,2,5,7-10
Marvel Tales:all;	Wonders of the Spaceways(Brit):#8,9
Miracle Science and Fantasy Stories 1931 4-5;	Worlds of Fantasy(Brit):#7,10,11,12
Mystic Magazine:all;	Weird Tales:1923-1924 all;1925 1-10 12;1926 1,3,4,6-10,12;
	Wu Fang: all;
	Vargo Statten: all;

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