

The Project Gutenberg EBook of Adaptation, by Dallas McCord Reynolds

This eBook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at www.gutenberg.net

Title: Adaptation

Author: Dallas McCord Reynolds

Illustrator: John Schoenherr

Release Date: March 4, 2008 [EBook #24749]

Language: English

Character set encoding: ISO-8859-1

*** START OF THIS PROJECT GUTENBERG EBOOK ADAPTATION ***

Produced by Greg Weeks, Bruce Albrecht, Stephen Blundell
and the Online Distributed Proofreading Team at
<http://www.pgdp.net>

ADAPTATION

By
**MACK
REYNOLDS**

Illustrated by Schoenherr

When a man has a great deal of knowledge, it becomes extremely easy for him to confuse "knowledge" with "wisdom" ... and forget that the antonym of "wisdom" is not "ignorance" but "folly."

Forward

Hardly had man solved his basic problems on the planet of his origin than he began to fumble into space. Barely a century had elapsed in the exploration of the Solar System than he began to grope for the stars.

And suddenly, with an all but religious zeal, mankind conceived its fantasy dream of populating the galaxy. Never in the history of the race had fervor reached such a peak and held so long. The question of why was seemingly ignored. Millions of Earth-type planets beckoned and with a lemming-like desperation humanity erupted into them.

But the obstacles were frightening in their magnitude. The planets and satellites of Sol had proven comparatively tractable and those that were suited to man-life were quickly brought under his dominion. But there, of course, he had the advantage of proximity. The time involved in running back and forth to the home planet was meaningless and all Earth's resources could be thrown into each problem's solving.

But a planet a year removed in transportation or even communication? Ay! this was another thing and more than once a million colonists were lost before the Earthlings could adapt to new climates, new flora and fauna, new bacteria—or to factors which the most far out visionary had never fancied, perhaps the lack of something never before missed.

So, mad with the lust to seed the universe with his kind, men sought new methods. To a hundred thousand worlds they sent smaller colonies, as few as a hundred pioneers apiece, and there marooned them, to adapt, if adapt they could.

For a millennium each colony was left to its own resources, to conquer the environment or to perish in the effort.

A thousand years was sufficient. Invariably it was found, on those planets where human life survived at all, man slipped back during his first two or three centuries into a state of barbarism. Then slowly began to inch forward again. There were exceptions and the progress on one planet never exactly duplicated that on another, however the average was surprisingly close to both nadir and zenith, in terms of evolution of society.

In a thousand years it was deemed by the Office of Galactic Colonization such pioneers had

largely adjusted to the new environment and were ready for civilization, industrialization and eventual assimilation into the rapidly evolving Galactic Commonwealth.

Of course, even from the beginning, new and unforeseen problems manifested themselves ...

*from "Man In Antiquity"
published in Terra City,
Sol
Galactic Year 3,502.*

I.

HE Co-ordinator said, "I suppose I'm an incurable romantic. You see, I hate to see you go." Academician Amschel Mayer was a man in early middle years; Dr. Leonid Plekhanov, his contemporary. They offset one another; Mayer thin and high-pitched, his colleague heavy, slow and dour. Now they both showed their puzzlement.

The Co-ordinator added, "Without me."

Plekhanov kept his massive face blank. It wasn't for him to be impatient with his superior. Nevertheless, the ship was waiting, stocked and crewed.

Amschel Mayer said, "Certainly a last minute chat can't harm." Inwardly he realized the other man's position. Here was a dream coming true, and Mayer and his fellows were the last thread that held the Co-ordinator's control over the dream. When they left, half a century would pass before he could again check developments.

The Co-ordinator became more businesslike. "Yes," he said, "but I have more in mind than a chat. Very briefly, I wish to go over your assignment. Undoubtedly redundant, but if there are questions, no matter how seemingly trivial, this is the last opportunity to air them."

What possible questions could there be at this late date? Plekhanov thought.

The department head swiveled slowly in his chair and then back again as he talked. "You are the first—the first of many, many such teams. The manner in which you handle your task will effect man's eternity. Obviously, since upon your experience we will base our future policies on interstellar colonization." His voice lost volume. "The position in which you find yourselves should be humbling."

"It is," Amschel Mayer agreed. Plekhanov nodded his head.

The Co-ordinator nodded, too. "However, the situation is as near ideal as we could hope. Rigel's planets are all but unbelievably Earthlike. Almost all our flora and fauna have been adaptable. Certainly our race

has been.

"These two are the first of the seeded planets. Almost a thousand years ago we deposited small bodies of colonists upon each of them. Since then we have periodically checked, from a distance, but never intruded." His eyes went from one of his listeners to the other. "No comments or questions, thus far?"

Mayer said, "This is one thing that surprises me. The colonies are so small to begin with. How could they possibly populate a whole world in one millennium?"

The Co-ordinator said, "Man adapts, Amschel. Have you studied the development of the United States? During her first century and a half the need was for population to fill the vast lands wrested from the Amer-Inds. Families of eight, ten, and twelve children were the common thing, much larger ones were not unknown. And the generations crowded one against another; a girl worried about spinsterhood if she reached seventeen unwed. But in the next century? The frontier vanished, the driving need for population was gone. Not only were drastic immigration laws passed, but the family shrunk rapidly until by mid-Twentieth Century the usual consisted of two or three children, and even the childless family became increasingly common."

Mayer frowned impatiently, "But still, a thousand years. There is always famine, war, disease ..."

Plekhanov snorted patronizingly. "Forty to fifty generations, Amschel? Starting with a hundred colonists? Where are your mathematics?"

The Co-ordinator said, "The proof is there. We estimate that each of Rigel's planets now supports a population of nearly one billion."

"To be more exact," Plekhanov rumbled, "some nine hundred million on Genoa, seven and a half on Texcoco."

Mayer smiled wryly. "I wonder what the residents of each of these planets call their worlds. Hardly the same names we have arbitrarily bestowed."

"Probably each call theirs *The World*," the Co-ordinator smiled. "After all, the basic language, in spite of a thousand years, is still Amer-English. However, I assume you are familiar with our method of naming. The most advanced culture on Rigel's first planet is to be compared to the Italian cities during Europe's feudalistic era. We have named that planet Genoa. The most advanced nation of the second planet is comparable to the Aztecs at the time of the conquest. We considered Tenochtitlán but it seemed a tongue twister, so Texcoco is the alternative."

"Modernizing Genoa," Mayer mused, "should be considerably easier than the task on semiprimitive Texcoco."

Plekhanov shrugged, "Not necessarily."

The Co-ordinator held up a hand and smiled at them. "Please, no debates on methods at present. An hour from now you will be in space with a year of travel before you. During that time you'll have

opportunity for discussion, debate and hair pulling on every phase of your problem."

His expression became more serious. "You are acquainted with the unique position you assume. These colonists are in your control to an extent no small group has ever dominated millions of others before. No Caesar ever exerted the power that will be in your educated hands. For a half century you will be as gods. Your science, your productive know-how, your medicine—if it comes to that, your weapons—are many centuries in advance of theirs. As I said before, your position should be humbling."

Mayer squirmed in his chair. "Why not check upon us, say, once every decade? In all, our ship's company numbers but sixteen persons. Almost anything could happen. If you were to send a department craft each ten years ..."

The Co-ordinator was shaking his head. "Your qualifications are as high as anyone available. Once on the scene you will begin accumulating information which we, here in Terra City, do not have. Were we to send another group in ten years to check upon you, all they could do would be interfere in a situation all the factors with which they would not be cognizant."

Amschel Mayer shifted nervously. "But no matter how highly trained, nor how earnest our efforts, we still may fail." His voice worried. "The department cannot expect guaranteed success. After all, we are the first."

"Admittedly. Your group is first to approach the hundreds of thousands of planets we have seeded. If you fail, we will use your failure to perfect the eventual system we must devise for future teams. Even your failure would be of infinite use to us." He lifted and dropped a shoulder. "I have no desire to undermine your belief in yourselves but—how are we to know?—perhaps there will be a score of failures before we find the ideal method of quickly bringing these primitive colonies into our Galactic Commonwealth."

The Co-ordinator came to his feet and sighed. He still hated to see them go. "If there is no other discussion ..."

II.

Specialist Joseph Chessman stood stolidly before a viewing screen. Theoretically he was on watch. Actually his eyes were unseeing, there was nothing to see. The star pattern changed so slowly as to be all but permanent.

Not that every other task on board was not similar. One man could have taken the *Pedagogue* from the Solar System to Rigel, just as easily as its sixteen-hand crew was doing. Automation at its ultimate, not even the steward department had tasks adequately to fill the hours.

He had got beyond the point of yawning, his mind was a blank during these hours of duty. He was a stolid, bear of a man, short and massive of build.

A voice behind him said, "Second watch reporting. Request permission to take over the bridge."

Chessman turned and it took a brief moment for the blankness in his eyes to fade into life. "Hello Kennedy, you on already? Seems like I just got here." He muttered in self-contradiction, "Or that I've been here a month."

Technician Jerome Kennedy grinned. "Of course, if you want to stay ..."

Chessman said glumly, "What difference does it make where you are? What are they doing in the lounge?"

Kennedy looked at the screen, not expecting to see anything and accomplishing just that. "Still on their marathon argument."

Joe Chessman grunted.

Just to be saying something, Kennedy said, "How do you stand in the big debate?"

"I don't know. I suppose I favor Plekhanov. How we're going to take a bunch of savages and teach them modern agriculture and industrial methods in fifty years under democratic institutions, I don't know. I can see them putting it to a vote when we suggest fertilizer might be a good idea." He didn't feel like continuing the conversation. "See you later, Kennedy," and then, as an afterthought, formally, "Relinquishing the watch to Third Officer."

As he left the compartment, Jerry Kennedy called after him, "Hey, what's the course!"

Chessman growled over his shoulder, "The same it was last month, and the same it'll be next month." It wasn't much of a joke but it was the only one they had between themselves.

In the ship's combination lounge and mess he drew a cup of coffee. Joe Chessman, among whose specialties were propaganda and primitive politics, was third in line in the expedition's hierarchy. As such he participated in the endless controversy dealing with overall strategy but only as a junior member of the firm. Amschel Mayer and Leonid Plekhanov were the center of the fracas and right now were at it hot and heavy.

Joe Chessman listened with only half interest. He settled into a chair on the opposite side of the lounge and sipped at his coffee. They were going over their old battlefields, assaulting ramparts they'd stormed a thousand times over.

Plekhanov was saying doggedly, "Any planned economy is more efficient than any unplanned one. What could be more elementary than that? How could anyone in his right mind deny that?"

And Mayer snapped, "I deny it. That term *planned economy* covers a multitude of sins. My dear Leonid, don't be an idiot ..."

"I beg your pardon, sir!"

"Oh, don't get into one of your huffs, Plekhanov."

They were at that stage again.

Technician Natt Roberts entered, a book in hand, and sent the trend of conversation in a new direction. He said, worriedly, "I've been studying up on this and what we're confronted with is two different ethnic periods, barbarism and feudalism. Handling them both at once doubles our problems."

One of the junior specialists who'd been sitting to one side said, "I've been thinking about that and I believe I've got an answer. Why not all of us concentrate on Texcoco? When we've brought them to the Genoa level, which shouldn't take more than a decade or two, then we can start working on the Genoese, too."

Mayer snapped, "And by that time we'll have hardly more than half our fifty years left to raise the two of them to an industrial technology. Don't be an idiot, Stevens."

Stevens flushed his resentment.

Plekhanov said slowly, "Besides, I'm not sure that, given the correct method, we cannot raise Texcoco to an industrialized society in approximately the same time it will take to bring Genoa there."

Mayer bleated a sarcastic laugh at that opinion.

Natt Roberts tossed his book to the table and sank into a chair. "If only one of them had maintained itself at a reasonable level of development, we'd have had help in working with the other. As it is, there are only sixteen of us." He shook his head. "Why did the knowledge held by the original colonists melt away? How can an intelligent people lose such basics as the smelting of iron, gunpowder, the use of coal as a fuel?"

Plekhanov was heavy with condescension. "Roberts, you seem to have entered upon this expedition with a lack of background. Consider. You put down a hundred colonists, products of the most advanced culture. Among these you have one or two who can possibly repair an I.B.M. machine, but is there one who can smelt iron, or even locate the ore? We have others who could design an automated textile factory, but do any know how to weave a blanket on a hand loom?"

"The first generation gets along well with the weapons and equipment brought with them from Earth. They maintain the old ways. The second generation follows along but already ammunition for the weapons runs short, the machinery imported from Earth needs parts. There is no local economy that can provide such things. The third generation begins to think of Earth as a legend and the methods necessary to survive on the new planet conflict with those the first settlers imported. By the fourth generation, Earth is no longer a legend but a fable ..."

"But the books, the tapes, the films ..." Roberts injected.

"Go with the guns, the vehicles and the other things brought from Earth. On a new planet there is no leisure class among the colonists. Each works hard if the group is to survive. There is no time to write new books, nor to copy the old, and the second and especially the third generation are impatient of the time needed to learn to read, time that should be spent in the fields or at the chase. The youth of an industrial culture can spend twenty years and more achieving a basic education before assuming adult responsibilities but no pioneer society can afford to allow its offspring to so waste its time."

Natt Roberts was being stubborn. "But still, a few would carry the torch of knowledge."

Plekhanov nodded ponderously. "For a while. But then comes the reaction against these nonconformists, these crackpots who, by spending time at books, fail to carry their share of the load. One day they wake up to find themselves expelled from the group—if not knocked over the head."

Joe Chessman had been following Plekhanov's argument. He said dourly, "But finally the group conquers its environment to the point where a minimum of leisure is available again. Not for everybody, of course."

Amschel Mayer bounced back into the discussion. "Enter the priest, enter the war lord. Enter the smart operator who talks or fights himself into a position where he's free from drudgery."

Joe Chessman said reasonably, "If you don't have the man with leisure, society stagnates. Somebody has to have time off for thinking, if the whole group is to advance."

"Admittedly!" Mayer agreed. "I'd be the last to contend that an upper class is necessarily parasitic."

Plekhanov grumbled, "We're getting away from the subject. In spite of Mayer's poorly founded opinions, it is quite obvious that only a collectivized economy is going to enable these Rigel planets to achieve an industrial culture in as short a period as half a century."

Amschel Mayer reacted as might have been predicted. "Look here, Plekhanov, we have our own history to go by. Man made his greatest strides under a freely competitive system."

"Well now ..." Chessman began.

"Prove that!" Plekhanov insisted loudly. "Your so-called free economy countries such as England, France and the United States began their industrial revolution in the early part of the nineteenth century. It took them a hundred years to accomplish what the Soviets did in fifty, in the next century."

"Just a *moment*, now," Mayer simmered. "That's fine, but the Soviets were able to profit by the pioneering the free countries did. The scientific developments, the industrial techniques, were handed to her on a platter."

Specialist Martin Gunther, thus far silent, put in his calm opinion. "Actually, it seems to me the fastest industrialization comes under a paternal guidance from a more advanced culture. Take Japan. In 1854 she was opened to trade by Commodore Perry. In 1871 she abolished feudalism and encouraged by her

own government and utilizing the most advanced techniques of a sympathetic West, she began to industrialize." Gunther smiled wryly, "Soon to the dismay of the very countries that originally sponsored bringing her into the modern world. By 1894 she was able to wage a successful war against China and by 1904 she took on and trounced Czarist Russia. In a period of thirty-five years she had advanced from feudalism to a world power."

Joe Chessman took his turn. He said obdurately, "Your paternalistic guidance, given an uncontrolled competitive system, doesn't always work out. Take India after she gained independence from England. She tried to industrialize and had the support of the free nations. But what happened?"

Plekhanov leaned forward to take the ball. "Yes! There's your classic example. Compare India and China. China had a planned industrial development. None of this free competition nonsense. In ten years time they had startled the world with their advances. In twenty years—"

"Yes," Stevens said softly, "but at what price?"

Plekhanov turned on him. "At any price!" he roared. "In one generation they left behind the China of famine, flood, illiteracy, war lords and all the misery that had been China's throughout history."

Stevens said mildly, "Whether in their admitted advances they left behind all the misery that had been China's is debatable, sir."

Plekhanov began to bellow an angry retort but Amschel Mayer popped suddenly to his feet and lifted a hand to quiet the others. "Our solution has just come to me!"

Plekhanov glowered at him.

Mayer said excitedly, "Remember what the Co-ordinator told us? This expedition of ours is the first of its type. Even though we fail, the very mistakes we make will be invaluable. Our task is to learn how to bring backward peoples into an industrialized culture in roughly half a century."

The messroom's occupants scowled at him. Thus far he'd said nothing new.

Mayer went on enthusiastically. "Thus far in our debates we've had two basic suggestions on procedure. I have advocated a system of free competition; my learned colleague has been of the opinion that a strong state and a planned, not to say totalitarian, economy would be the quicker." He paused dramatically. "Very well, I am in favor of trying them both."

They regarded him blankly.

He said with impatience, "There are two planets, at different ethnic periods it is true, but not so far apart as all that. Fine, eight of us will take Genoa and eight Texcoco."

Plekhanov rumbled, "Fine, indeed. But which group will have the use of the *Pedagogue* with its library, its laboratories, its shops, its weapons?"

For a moment, Mayer was stopped but Joe Chessman growled, "That's no problem. Leave her in orbit around Rigel. We've got two small boats with which to ferry back and forth. Each group could have the use of her facilities any time they wished."

"I suppose we could have periodic conferences," Plekhanov said. "Say once every decade to compare notes and make further plans, if necessary."

Natt Roberts was worried. "We had no such instructions from the Co-ordinator. Dividing our forces like that."

Mayer cut him short. "My dear Roberts, we were given *carte blanche*. It is up to us to decide procedure. Actually, this system realizes twice the information such expeditions as ours might ordinarily offer."

"Texcoco for me," Plekhanov grumbled, accepting the plan in its whole. "The more backward of the two, but under my guidance in half a century it will be the more advanced, mark me."

"Look here," Martin Gunther said. "Do we have two of each of the basic specialists, so that we can divide the party in such a way that neither planet will miss out in any one field?"

Amschel Mayer was beaming at the reception of his scheme. "The point is well taken, my dear Martin, however you'll recall that our training was deliberately made such that each man spreads over several fields. This in case, during our half century without contact, one or more of us meets with accident. Besides, the *Pedagogue's* library is such that any literate can soon become effective in any field to the extent needed on the Rigel planets."

III.

Joe Chessman was at the controls of the space lighter. At his side sat Leonid Plekhanov and behind them the other six members of their team. They had circled Texcoco twice at great altitude, four times at a lesser one. Now they were low enough to spot man-made works.

"Nomadic," Plekhanov muttered. "Nomadic and village cultures."

"A few dozen urbanized cultures," Chessman said. "Whoever compared the most advanced nation to the Aztecs was accurate, except for the fact that they base themselves along a river rather than on a mountain plateau."

Plekhanov said, "Similarities to the Egyptians and Sumerians." He looked over his beefy shoulder at the technician who was photographing the areas over which they passed. "How does our geographer progress, Roberts?"

Natt Roberts brought his eyes up from his camera viewer. "I've got most of what we'll need for a while,

sir."

Plekhanov turned back to Chessman. "We might as well head for their principal city, the one with the pyramids. We'll make initial contact there. I like the suggestion of surplus labor available."

"Surplus labor?" Chessman said, setting the controls. "How do you know?"

"Pyramids," Plekhanov rumbled. "I've always been of the opinion that such projects as pyramids, whether they be in Yucatan or Egypt, are make-work affairs. A priesthood, or other ruling clique, keeping its people busy and hence out of mischief."

Chessman adjusted a speed lever and settled back. "I can see their point."

"But I don't agree with it," Plekhanov said ponderously. "A society that builds pyramids is a static one. For that matter any society that resorts to make-work projects to busy its citizenry has something basically wrong."

Joe Chessman said sourly, "I wasn't supporting the idea, just understanding the view of the priesthods. They'd made a nice thing for themselves and didn't want to see anything happen to it. It's not the only time a group in the saddle has held up progress for the sake of remaining there. Priests, slave-owners, feudalistic barons, or bureaucrats of a twentieth-century police state, a ruling clique will never give up power without pressure."

Barry Watson leaned forward and pointed down and to the right. "There's the river," he said. "And there's their capital city."

The small spacecraft settled at decreasing speed.

Chessman said, "The central square? It seems to be their market, by the number of people."

"I suppose so," Plekhanov grunted. "Right there before the largest pyramid. We'll remain inside the craft for the rest of today and tonight."

Natt Roberts, who had put away his camera, said, "But why? It's crowded in here."

"Because I said so," Plekhanov rumbled. "This first impression is important. Our flying machine is undoubtedly the first they've seen. We've got to give them time to assimilate the idea and then get together a welcoming committee. We'll want the top men, right from the beginning."

"The equivalent of the Emperor Montezuma meeting Cortez, eh?" Barry Watson said. "A real red carpet welcome."

The *Pedagogue's* space lighter settled to the plaza gently, some fifty yards from the ornately decorated pyramid which stretched up several hundred feet and was topped by a small templelike building.

Chessman stretched and stood up from the controls. "Your anthropology ought to be better than that, Barry," he said. "There was no Emperor Montezuma and no Aztec Empire, except in the minds of the Spanish." He peered out one of the heavy ports. "And by the looks of this town we'll find an almost duplicate of Aztec society. I don't believe they've even got the wheel."

The eight of them clustered about the craft's portholes, taking in the primitive city that surrounded them. The square had emptied at their approach, and now the several thousand citizens that had filled it were peering fearfully from street entrances and alleyways.

Cogswell, a fiery little technician, said, "Look at them! It'll take hours before they drum up enough courage to come any closer. You were right, doctor. If we left the boat now, we'd make fools of ourselves trying to coax them near enough to talk."

Watson said to Joe Chessman "What do you mean, no Emperor Montezuma?"

Chessman said absently, as he watched, "When the Spanish got to Mexico they didn't understand what they saw, being musclemen rather than scholars. And before competent witnesses came on the scene, Aztec society was destroyed. The conquistadors, who did attempt to describe Tenochtitlán, misinterpreted it. They were from a feudalistic world and tried to portray the Aztecs in such terms. For instance, the large Indian community houses they thought were palaces. Actually, Montezuma was a democratically elected war chief of a confederation of three tribes which militarily dominated most of the Mexican valley. There was no empire because Indian society, being based on the clan, had no method of assimilating newcomers. The Aztec armies could loot and they could capture prisoners for their sacrifices, but they had no system of bringing their conquered enemies into the nation. They hadn't reached that far in the evolution of society. The Incas could have taught them a few lessons."

Plekhanov nodded. "Besides, the Spanish were fabulous liars. In Cortez's attempt to impress Spain's king, he built himself up far beyond reality. To read his reports you'd think the pueblo of Mexico had a population pushing a million. Actually, if it had thirty thousand it was doing well. Without a field agriculture and with their primitive transport, they must have been hard put to feed even that large a town."

A tall, militarily erect native strode from one of the streets that debouched into the plaza and approached to within twenty feet of the space boat. He stared at it for at least ten full minutes then spun on his heel and strode off again in the direction of one of the stolidly built stone buildings that lined the square on each side except that which the pyramid dominated.

Cogswell chirped, "Now that he's broken the ice, in a couple of hours kids will be scratching their names on our hull."

In the morning, two or three hours after dawn, they made their preparations to disembark. Of them all, only Leonid Plekhanov was unarmed. Joe Chessman had a heavy handgun holstered at his waist. The rest of the men carried submachine guns. More destructive weapons were hardly called for, nor available for that matter; once world government had been established on Earth the age-old race for improved arms had fallen away.

Chessman assumed command of the men, growled brief instructions. "If there's any difficulty, remember we're civilizing a planet of nearly a billion population. The life or death of a few individuals is meaningless. Look at our position scientifically, dispassionately. If it becomes necessary to use force—we have the right and the might to back it up. MacBride, you stay with the ship. Keep the hatch closed and station yourself at the fifty-caliber gun."

The natives seemed to know intuitively that the occupants of the craft from the sky would present themselves at this time. Several thousands of them crowded the plaza. Warriors, armed with spears and bronze headed war clubs, kept the more adventurous from crowding too near.

The hatch opened, the steel landing stair snaked out, and the hefty Plekhanov stepped down, closely followed by Chessman. The others brought up the rear, Watson, Roberts, Stevens, Hawkins and Cogswell. They had hardly formed a compact group at the foot of the spacecraft than the ranks of the natives parted and what was obviously a delegation of officials approached them. In the fore was a giant of a man in his late middle years, and at his side a cold-visaged duplicate of him, obviously a son.

Behind these were variously dressed others, military, priesthood, local officials, by their appearance.

Ten feet from the newcomers they stopped. The leader said in quite understandable Amer-English, "I am Taller, Khan of all the People. Our legends tell of you. You must be from First Earth." He added with a simple dignity, a quiet gesture, "Welcome to the World. How may we serve you?"

Plekhanov said flatly, "The name of this planet is Texcoco and the inhabitants shall henceforth be called Texcocans. You are correct, we have come from Earth. Our instructions are to civilize you, to bring you the benefits of the latest technology, to prepare you to enter the community of planets." Phlegmatically he let his eyes go to the pyramids, to the temples, the large community dwelling quarters. "We'll call this city Tula and its citizens Tulans."

Taller looked thoughtfully at him, not having missed the tone of arrogant command. One of the group behind the Khan, clad in gray flowing robes, said to Plekhanov, mild reproof in his voice, "My son, we are the most advanced people on ... Texcoco. We have thought of ourselves as civilized. However, we—"

Plekhanov rumbled, "I am not your son, old man, and you are far short of civilization. We can't stand here forever. Take us to a building where we can talk without these crowds staring at us. There is much to be done."

Taller said, "This is Mynor, Chief Priest of the People."

The priest bowed his head, then said, "The People are used to ceremony on outstanding occasions. We have arranged for suitable sacrifices to the gods. At their completion, we will proclaim a festival. And then—"

The warriors had cleared a way through the multitude to the pyramid and now the Earthlings could see a score of chained men and women, nude save for loin cloths and obviously captives.

Plekhanov made his way toward them, Joe Chessman at his right and a pace to the rear. The prisoners stood straight and, considering their position, with calm.

Plekhanov glared at Taller. "You were going to kill these?"

The Khan said reasonably, "They are not of the People. They are prisoners taken in battle."

Mynor said, "Their lives please the gods."

"There are no gods, as you probably know," Plekhanov said flatly. "You will no longer sacrifice prisoners."

A hush fell on the Texcocans. Joe Chessman let his hand drop to his weapon. The movement was not lost on Taller's son, whose eyes narrowed.

The Khan looked at the burly Plekhanov for a long moment. He said slowly, "Our institutions fit our needs. What would you have us do with these people? They are our enemies. If we turn them loose, they will fight us again. If we keep them imprisoned, they will eat our food. We ... Tulans are not poor, we have food aplenty, for we Tulans, but we cannot feed all the thousands of prisoners we take in our wars."

Joe Chessman said dryly, "As of today there is a new policy. We put them to work."

Plekhanov rumbled at him, "I'll explain our position, Chessman, if you please." Then to the Tulans. "To develop this planet we're going to need the labor of every man, woman and child capable of work."

Taller said, "Perhaps your suggestion that we retire to a less public place is desirable. Will you follow?" He spoke a few words to an officer of the warriors, who shouted orders.

The Khan led the way, Plekhanov and Chessman followed side by side and the other Earthlings, their weapons unostentatiously ready, were immediately behind. Mynor the priest, Taller's son and the other Tulan officials brought up the rear.

In what was evidently the reception hall of Taller's official residence, the newcomers were made as comfortable as fur padded low stools provided. Half a dozen teenaged Tulans brought a cool drink similar to cocoa; it seemed to give a slight lift.

Taller had not become Khan of the most progressive nation on Texcoco by other than his own abilities. He felt his way carefully now. He had no manner of assessing the powers wielded by these strangers from space. He had no intention of precipitating a situation in which he would discover such powers to his sorrow.

He said carefully, "You have indicated that you intend major changes in the lives of the People."

"Of all Texcocans," Plekhanov said, "you Tulans are merely the beginning."

Mynor, the aged priest, leaned forward. "But why? We do not want these changes—whatever they may be. Already the Khan has allowed you to interfere with our worship of our gods. This will mean—"

Plekhanov growled, "Be silent, old man, and don't bother to mention, ever again, your so-called gods. And now, all of you listen. Perhaps some of this will not be new, how much history has come down to you I don't know.

"A thousand years ago a colony of one hundred persons was left here on Texcoco. It will one day be of scholarly interest to trace them down through the centuries but at present the task does not interest us. This expedition has been sent to recontact you, now that you have populated Texcoco and made such adaptations as were necessary to survive here. Our basic task is to modernize your society, to bring it to an industrialized culture."

Plekhanov's eyes went to Taller's son. "I assume you are a soldier?"

Taller said, "This is Reif, my eldest, and by our custom, second in command of the People's armies. As Khan, I am first."

Reif nodded coldly to Plekhanov. "I am a soldier." He hesitated for a moment, then added, "And willing to die to protect the People."

"Indeed," Plekhanov rumbled, "as a soldier you will be interested to know that our first step will involve the amalgamation of all the nations and tribes of this planet. Not a small task. There should be opportunity for you."

Taller said, "Surely you speak in jest. The People have been at war for as long as scribes have records and never have we been stronger than today, never larger. To conquer the world! Surely you jest."

Plekhanov grunted ungraciously. He looked to Barry Watson, a lanky youth, now leaning negligently against the wall, his submachine gun, however, at the ready. "Watson, you're our military expert. Have you any opinions as yet?"

"Yes, sir," Watson said easily. "Until we can get iron weapons and firearms into full production, I suggest the Macedonian phalanx for their infantry. They have the horse, but evidently the wheel has gone out of use. We'll introduce the chariot and also heavy carts to speed up logistics. We'll bring in the stirruped saddle, too. I have available for study, works on every cavalry leader from Tamerlane to Jeb Stuart. Yes, sir, I have some ideas."

Plekhanov pursed his heavy lips. "From the beginning we're going to need manpower on a scale never dreamed of locally. We'll adopt a policy of expansion. Those who join us freely will become members of the State with full privileges. Those who resist will be made prisoners of war and used for shock labor on the roads and in the mines. However, a man works better if he has a goal, a dream. Each prisoner will be freed and become a member of the State after ten years of such work."

He turned to his subordinates. "Roberts and Hawkins, you will begin tomorrow to seek the nearest practical sources of iron ore and coal. Wherever you discover them we'll direct our first military

expeditions. Chessman and Cogswell, you'll assemble their best artisans and begin their training in such basic advancements as the wheel."

Taller said softly, "You speak of advancement but thus far you have mentioned largely war and on such a scale that I wonder how many of the People will survive. What advancement? We have all we wish."

Plekhanov cut him off with a curt motion of his hand. He indicated the hieroglyphics on the chamber's walls. "How long does it take to learn such writing?"

Mynor, the priest, said, "This is a mystery known only to the priesthood. One spends ten years in preparation to be a scribe."

"We'll teach you a new method which will have every citizen of the State reading and writing within a year."

The Tulans gaped at him.

He moved ponderously over to Roberts, drew from its scabbard the sword bayonet the other had at his hip. He took it and slashed savagely at a stone pillar, gouging a heavy chunk from it. He tossed the weapon to Reif, whose eyes lit up.

"What metals have you been using? Copper, bronze? Probably. Well, that's steel. You're going to move into the iron age overnight."

He turned to Taller. "Are your priests also in charge of the health of your people?" he growled. "Are their cures obtained from mumbo-jumbo and a few herbs found in the desert? Within a decade, I'll guarantee you that not one of your major diseases will remain."

He turned to the priest and said, "Or perhaps this will be the clincher for some of you. How many years do you have, *old man*?"

Mynor said with dignity, "I am sixty-four."

Plekhanov said churlishly, "And I am two hundred and thirty-three." He called to Stevens, "I think you're our youngest. How old are you?"

Stevens grinned, "Hundred and thirteen, next month."

Mynor opened his mouth, closed it again. No man but would prolong his youth. Of a sudden he felt old, old.

Plekhanov turned back to Taller. "Most of the progress we have to offer is beyond your capacity to understand. We'll give you freedom from want. Health. We'll give you advances in every art. We'll eventually free every citizen from drudgery, educate him, give him the opportunity to enjoy intellectual curiosity. We'll open the stars to him. All these things the coming of the State will eventually mean to you."

Tula's Khan was not impressed. "This you tell us, man from First Earth. But to achieve these you plan to change every phase of our lives and we are happy with ... Tula ... the way it is. I say this to you. There are but eight of you and many, many of us. We do not want your ... State. Return from whence you came."

Plekhanov shook his massive head at the other. "Whether or not *you* want these changes they will be made. If you fail to co-operate, we will find someone who will. I suggest you make the most of it."

Taller arose from the squat stool upon which he'd been seated. "I have listened and I do not like what you have said. I am Khan of all the People. Now leave in peace, or I shall order my warriors ..."

"Joe," Plekhanov said flatly. "Watson!"

Joe Chessman took his heavy gun from its holster and triggered it twice. The roar of the explosions reverberated thunderously in the confined space, deafening all, and terrifying the Tulans. Bright red colored the robes the Khan wore, colored them without beauty. Bright red splattered the floor.

Leonid Plekhanov stared at his second in command, wet his thick lips. "Joe," he sputtered. "I hadn't ... I didn't expect you to be so ... hasty."

Joe Chessman growled, "We've got to let them know where we stand, right now, or they'll never hold still for us. Cover the doors, Watson, Roberts." He motioned to the others with his head. "Cogswell, Hawkins, Stevens, get to those windows and watch."

Taller was a crumbled heap on the floor. The other Texcocans stared at his body in shocked horror.

All expect Reif.

Reif bent down over his father's body for a moment, and then looked up, his lips white, at Plekhanov. "He is dead."

Leonid Plekhanov collected himself. "Yes."

Reif's cold face was expressionless. He looked at Joe Chessman who stood stolidly to one side, gun still in hand.

Reif said, "You can supply such weapons to my armies?"

Plekhanov said, "That is our intention, in time."

Reif came erect. "Subject to the approval of the clan leaders, I am now Khan. Tell me more of this State of which you have spoken."

IV.

The sergeant stopped the small company about a quarter of a mile from the city of Bari. His detachment numbered only ten but they were well armed with short swords and blunderbusses and wore mail and steel helmets. On the face of it, they would have been a match for ten times this number of merchants.

It was hardly noon but the sergeant had obviously already been at his wine flask. He leered at them. "And where do you think you go?"

The merchant who led the rest was a thin little man but he was richly robed and astride a heavy black mare. He said, "To Bari, soldier." He drew a paper from a pouch. "I hold this permission from Baron Mannerheim to pass through his lands with my people and chattels."

The leer turned mercenary. "Unfortunately, city man, I can't read. What do you carry on the mules?"

"Personal property, which, I repeat, I have permission to transport over Baron Mannerheim's lands free from harassment from his followers." He added, in irritation, "The baron is a friend of mine, fond of the gifts I give him."

One of the soldiers grunted his skepticism, checked the flint on the lock of his piece, then looked at the sergeant suggestively.

The sergeant said, "As you say, merchant, my lord the baron is fond of gifts. Aren't we all? Unfortunately, I have received no word of your group. My instructions are to stop all intruders upon the baron's lands and, if there is resistance, to slay them and confiscate such properties as they may be carrying."

The merchant sighed and reached into a small pouch. The eyes of the sergeant drooped in greed. The hand emerged with two small coins. "As you say," the merchant muttered bitterly, "we are all fond of gifts. Will you do me the honor to drink my health at the tavern tonight?"

The sergeant said nothing, but his mouth slackened and he fondled the hilt of his sword.

The merchant sighed again and dipped once more into the pouch. This time his hand emerged with half a dozen bits of silver. He handed them down to the other, complaining, "How can a man profit in his affairs if every few miles he must pass another outstretched hand?"

The sergeant growled, "You do not seem to starve, city man. Now, on your way. You are fortunate I am too lazy today to bother going through your things. Besides," and he grinned widely, "the baron gave me personal instructions not to bother you."

The merchant snorted, kicked his heels into his beast's sides and led his half dozen followers toward the city. The soldiers looked after them and howled their amusement. The money was enough to keep them soused for days.

When they were out of earshot, Amschel Mayer grinned his amusement back over his shoulder at Jerome Kennedy. "How'd that come off, Jerry?"

The other sniffed, in mock deprecation. "You're beginning to fit into the local merchant pattern better than the real thing. However, just for the record, I had this, ah, grease gun, trained on them all the time."

Mayer frowned. "Only in extreme emergency, my dear Jerry. The baron would be up in arms if he found a dozen of his men massacred on the outskirts of Bari, and we don't want a showdown at this stage. It's taken nearly a year to build this part we act."

At this time of day the gates of the port city were open and the guards lounged idly. Their captain recognized Amschel Mayer and did no more than nod respectfully.

They wended their way through narrow, cobblestoned streets, avoiding the crowds in the central market area. They pulled up eventually before a house both larger and more ornate than its neighbors. Mayer and Kennedy dismounted from the horses and left their care to the others.

Mayer beat with the heavy knocker on the door and a slot opened for a quick check of his identity. The door opened wide and Technician Martin Gunther let them in.

"The others are here already?" Mayer asked him.

Gunther nodded. "Since breakfast. Baron Leonar, in particular, is impatient."

Mayer said over his shoulder, "All right, Jerry, this is where we put it to them."

They entered the long conference room. A full score of men sat about the heavy wooden table. Most of them were as richly garbed as their host. Most of them in their middle years. All of them alert of eye. All of them confidently at ease.

Amschel Mayer took his place at the table's end and Jerome Kennedy sank into the chair next to him. Mayer took the time to speak to each of his guests individually, then he leaned back and took in the gathering as a whole. He said, "You probably realize that this group consists of the twenty most powerful merchants on the continent."

Olderman nodded. "We have been discussing your purpose in bringing us together, Honorable Mayer. All of us are not friends." He twisted his face in amusement. "In fact, very few of us are friends."

"There is no need for you to be," Mayer said snappishly, "but all are going to realize the need for co-operation. Honorables, I've just come from the city of Ronda. Although I'd paid heavily in advance to the three barons whose lands I crossed. I had to bribe myself through a dozen road-blocks, had to pay exorbitant rates to cross three ferries, and once had to fight off supposed bandits."

One of his guests grumbled, "Who were actually probably soldiers of the local baron who had decided that although you had paid him transit fee, it still might be profitable to go through your goods."

Mayer nodded. "Exactly, my dear Honorable, and that is why we've gathered."

Olderman had evidently assumed spokespersonship for the others. Now he said warily, "I don't understand."

"Genoa, if you'll pardon the use of this name to signify the planet upon which we reside, will never advance until trade has been freed from these bandits who call themselves lords and barons."

Eyebrows reached for hairlines.

Olderman's eyes darted about the room, went to the doors. "Please," he said, "the servants."

"My servants are safe," Mayer said.

One of his guests was smiling without humor. "You seem to forget, Honorable Mayer, that I carry the title of baron."

Mayer shook his head. "No, Baron Leonar. But neither do you disagree with what I say. The businessman, the merchant, the manufacturer on Genoa today, is only tolerated. Were it not for the fact that the barons have no desire to eliminate such a profitable source of income, they would milk us dry overnight."

Someone shrugged. "That is the way of things. We are lucky to have wrested, bribed and begged as many favors from the lords as we have. Our twenty cities all have charters that protect us from complete despoilation."

Mayer twisted excitedly in his chair. "As of today, things begin to change. Jerry, that platen press."

Jerry Kennedy left the room momentarily and returned with Martin Gunther and two of the servants. While the assembled merchants looked on, in puzzled silence, Mayer's assistants set up the press and a stand holding two fonts of fourteen-point type. Jerry took up a printer's stick and gave running instructions as he demonstrated. Gunther handed around pieces of the type until all had examined it, while his colleague set up several lines. Kennedy transposed the lines to a chase, locked it up and placed the form to one side while he demonstrated inking the small press, which was operated by a foot pedal. He mounted the form in the press, took a score of sheets of paper and rapidly fed them, one by one. When they were all printed, he stopped pumping and Gunther handed the still wet finished product around to the audience.

Olderman stared down at the printed lines, scowled in concentration, wet his lips in sudden comprehension.

But it was merchant Russ who blurted, "This will revolutionize the inscribing of books. Why, it can well take it out of the hands of the Temple! With such a machine I could make a hundred books—"

Mayer was beaming. "Not a hundred, Honorable, but a hundred thousand!"

The others stared at him as though he was demented. "A hundred thousand," one said. "There are not that many literate persons on the continent."

"There will be," Mayer crowed. "This is but one of our levers to pry power from the barons. And here is another." He turned to Russ. "Honorable Russ, your city is noted for the fine quality of its steel, of the swords and armor you produce."

Russ nodded. He was a small man fantastically rich in his attire. "This is true, Honorable Mayer."

Mayer said, tossing a small booklet to the other, "I have here the plans for a new method of making steel from pig iron. The Bessemer method, we'll call it. The principle involved is the oxidation of the impurities in the iron by blowing air through the molten metal."

Amschel Mayer turned to still another. "And your town is particularly noted for its fine textiles." He looked to his assistants. "Jerry, you and Gunther bring in those models of the power loom and the spinning jenny."

While they were gone, he said, "My intention is to assist you to speed up production. With this in mind, you'll appreciate the automatic flying shuttle that we'll now demonstrate."

Kennedy and Gunther re-entered accompanied by four servants and a mass of equipment. Kennedy muttered to Amschel Mayer, "I feel like the instructor of a handicrafts class."

Half an hour later, Kennedy and Gunther wound up passing out pamphlets to the awed merchant guests. Kennedy said, "This booklet will give details on construction of the equipment and its operation."

Mayer pursed his lips. "Your people will be able to assimilate only so fast, so we won't push them. Later, you'll be interested in introducing the mule spinning frame, among other items."

He motioned for the servants to remove the printing press and textile machinery. "We now come to probably the most important of the devices I have to introduce to you today. Because of size and weight, I've had constructed only a model. Jerry!"

Jerry Kennedy brought to the heavy table a small steam engine, clever in its simplicity. He had half a dozen attachments for it. Within moments he had the others around him, as enthusiastic as a group of youngsters with a new toy.

"By the Supreme," Baron Leonar blurted, "do you realize this device could be used instead of waterpower to operate a mill to power the loom demonstrated an hour ago?"

Honorable Russ was rubbing the side of his face thoughtfully. "It might even be adapted to propel a coach. A coach without horses. Unbelievable!"

Mayer chuckled in excitement and clapped his hands. A servant entered with a toy wagon which had been slightly altered. Martin Gunther lifted the small engine, placed it in position atop the wagon, connected it quickly and threw a lever. The wagon moved smoothly forward, the first engine-propelled

vehicle of Genoa's industrial revolution.

Martin Gunther smiled widely at Russ. "You mean like this, Honorable?"

Half an hour later they were re-seated, before each of them a small pile of pamphlets, instructions, plans, blueprints.

Mayer said, "I have just one more device to bring to your attention at this time. I wish it were unnecessary but I am afraid otherwise."

He held up for their inspection, a forty-five-caliber bullet. Jerry Kennedy handed around samples to the merchants. They fingered them in puzzlement.

"Honorable," Mayer said, "the barons have the use of gunpowder. Muskets and muzzleloading cannon are available to them both for their wars against each other and their occasional attacks upon our supposedly independent cities. However, this is an advancement on their weapons. This unit includes not only the bullet's lead, but the powder and the cap which will explode it."

They lacked understanding, and showed it.

Mayer said, "Jerry, if you'll demonstrate."

Jerry Kennedy said, "The bullet can be adapted to various weapons, however, this is one of the simplest." He pressed, one after another, a full twenty rounds into the gun's clip.

"Now, if you'll note the silhouette of a man I've drawn on the wooden frame at the end of the room." He pressed the trigger, sent a single shot into the figure.

Olderman nodded. "An improvement in firearms. But—"

Kennedy said, "However, if you are confronted with more than one of the bad guys." He grinned and flicked the gun to full automatic and in a Götterdämmerung of sound in the confines of the room, emptied the clip into his target sending splinters and chips flying and all but demolishing the wooden backdrop.

His audience sat back in stunned horror at the demonstration.

Mayer said now, "The weapon is simple to construct, any competent gunsmith can do it. It is manifest, Honorable, that with your people so equipped your cities will be safe from attack and so will trading caravans and ships."

Russ said shakily, "Your intention is good, Honorable Mayer, however it will be but a matter of time before the barons have solved the secrets of your weapon. Such cannot be held indefinitely. Then we would again be at their mercy."

"Believe me, Honorable," Mayer said dryly, "by that time I will have new weapons to introduce, if

necessary. Weapons that make this one a very toy in comparison."

Olderman resumed his office as spokesman. "This demonstration has astounded us, Honorable Mayer, but although we admire your abilities it need hardly be pointed out that it seems unlikely all this could be the product of one brain."

"They are not mine," Mayer admitted. "They are the products of many minds."

"But where—?"

The Earthman shook his head. "I don't believe I will tell you now."

"I see." The Genoese eyed him emotionlessly. "Then the question becomes, *why?*"

Mayer said, "It may be difficult for you to see, but the introduction of each of these will be a nail in feudalism's coffin. Each will increase either production or trade and such increase will lead to the overthrow of feudal society."

Baron Leonar, who had remained largely silent throughout the afternoon, now spoke up. "As you said earlier, although I am a lord myself, my interests are your own. I am a merchant first. However, I am not sure I want the changes these devices will bring. Frankly, Honorable Mayer, I am satisfied with my world as I find it today."

Amschel Mayer smiled wryly at him. "I am afraid you *must* adapt to these new developments."

The baron said coldly, "Why? I do not like to be told I must do something."

"Because, my dear baron, there are three continents on the planet of Genoa. At present there is little trade due to inadequate shipping. But the steam engine I introduce today will soon propel larger craft than you have ever built before."

Russ said, "What has this to do with our being forced to use these devices?"

"Because I have colleagues on the other continents busily introducing them. If you don't adapt, in time competitors will invade your markets, capture your trade, drive you out of business."

Mayer wrapped it up. "Honorable, modernize or go under. It's each man for himself and the devil take the hindmost, if you'll allow a saying from another era."

They remained silent for a long period. Finally Olderman stated bluntly, "The barons are not going to like this."

Jerry Kennedy grinned. "Obviously, that's why we've introduced you to the tommy gun. It's not going to make any difference if they like it or not."

Russ said musingly, "Pressure will be put to prevent the introduction of this equipment."

"We'll meet it," Mayer said, shifting happily in his seat.

Russ added, "The Temple is ever on the side of the barons. The monks will fight against innovations that threaten to disturb the present way."

Mayer said, "Monks usually do. How much property is in the hands of the Temple?"

Russ admitted sourly, "The monks are the greatest landlords of all. I would say at least one third of the land and the serfs belong to the Temple."

"Ah," Mayer said. "We must investigate the possibilities of a Reformation. But that can come later. Now I wish to expand on my reason for gathering you.

"Honorable, Genoa is to change rapidly. To survive, you will have to move fast. I have not introduced these revolutionary changes without self-interest. Each of you are free to use them to his profit, however, I expect a thirty per cent interest."

There was a universal gasp.

Olderman said, "Honorable Mayer, you have already demonstrated your devices. What is there to prevent us from playing you false?"

Mayer laughed. "My dear Olderman, I have other inventions to reveal as rapidly as you develop the technicians, the workers, capable of building and operating them. If you cheat me now, you will be passed by next time."

Russ muttered, "Thirty per cent! Your wealth will be unbelievable."

"As fast as it accumulates, Honorable, it shall be invested. For instance, I have great interest in expanding our inadequate universities. The advances I expect will only be possible if we educate the people. Field serfs are not capable of running even that simple steam engine Jerry demonstrated."

Baron Leonar said, "What you contemplate is mind-shaking. Do I understand that you wish a confederation of all our cities? A joining together to combat the strength of the present lords?"

Mayer was shaking his head. "No, no. As the barons lose power, each of your cities will strengthen and possibly expand to become nations. Perhaps some will unite. But largely you will compete against each other and against the nations of the other continents. In such competition you'll have to show your mettle, or go under. Man develops at his fastest when pushed by such circumstance."

The Earthling looked off, unseeing, into a far corner of the room. "At least, so is my contention. Far away from here a colleague is trying to prove me wrong. We shall see."

V.

Leonid Plekhanov returned to the *Pedagogue* with a certain ceremony. He was accompanied by Joe Chessman, Natt Roberts and Barry Watson of his original group, but four young, hard-eyed, hard-faced and armed Tulans were also in the party. Their space lighter swooped in, nestled to the *Pedagogue's* hull in the original bed it had occupied on the trip from Terra City, and her port opened to the corridors of the mother ship.

Plekhanov, flanked by Chessman and Watson, strode heavily toward the ship's lounge. Natt Roberts and two of the Tulans remained with the small boat. Two of the other natives followed, their eyes darting here, there, in amazement, in spite of their efforts to appear grim and untouched by it all.

Amschel Mayer was already seated at the officer's dining table. His face displayed his irritation at the other's method of presenting himself. "Good Heavens, Plekhanov, what is this, an invasion?"

The other registered surprise.

Mayer indicated the Texcocans. "Do you think it necessary to bring armed men aboard the *Pedagogue*? Frankly, I have not even revealed to a single Genoese the existence of the ship."

Jerry Kennedy was seated to one side, the only member of Mayer's team who had accompanied him for this meeting. Kennedy winked at Watson and Chessman. Watson grinned back but held his peace.

Plekhanov sank into a chair, rumbling, "We hold no secrets from the Texcocans. The sooner they advance to where they can use our libraries and laboratories, the better. And the fact these boys are armed has no significance. My Tulans are currently embarked on a campaign to unite the planet. Arms are sometimes necessary, and Tula, my capital, is somewhat of an armed camp. All able-bodied men—"

Mayer broke in heatedly, "And is this the method you use to bring civilization to Texcoco? Is this what you consider the purpose of the Office of Galactic Colonization? An armed camp! How many persons have you slaughtered thus far?"

"Easy," Joe Chessman growled.

Amschel Mayer spun on him. "I need no instruction from you, Chessman. Please remember I'm senior in charge of this expedition and as such rank you."

Plekhanov thudded a heavy hand on the table. "I'll call my assistants to order, Mayer, if I feel it necessary. Admittedly, when this expedition left Terra City you were the ranking officer. Now, however, we've divided—at your suggestion, please remember. Now there are two independent groups and you no longer have jurisdiction over mine."

"Indeed!" Mayer barked. "And suppose I decide to withhold the use of the *Pedagogue's* libraries and

laboratories to you? I tell you, Plekhanov—"

Leonid Plekhanov interrupted him coldly. "I would not suggest you attempt any such step, Mayer."

Mayer glared but suddenly reversed himself. "Let's settle down and become more sensible. This is the first conference of the five we have scheduled. Ten years have elapsed. Actually, of course, we've had some idea of each other's progress since team members occasionally meet on trips back here to the *Pedagogue* to consult the library. I am afraid, my dear Leonid, that your theories on industrialization are rapidly being proven inaccurate."

"Nonsense!"

Mayer said smoothly, "In the decade past, my team's efforts have more than tripled the Genoese industrial potential. Last week one of our steamships crossed the second ocean. We've located petroleum and the first wells are going down. We've introduced a dozen crops that had disappeared through misadventure to the original colonists. And, oh yes, our first railroad is scheduled to begin running between Bari and Ronda next spring. There are six new universities and in the next decade I expect fifty more."

"Very good, indeed," Plekhanov grumbled.

"Only a beginning. The breath of competition, of unharnessed enterprise is sweeping Genoa. Feudalism crumbles. Customs, mores and traditions that have held up progress for a century or more are now on their way out."

Joe Chessman growled, "Some of the boys tell me you've had a few difficulties with this crumbling feudalism thing. In fact, didn't Buchwald barely escape with his life when the barons on your western continent united to suppress all chartered cities?"

Mayer's thin face darkened. "Never fear, my dear Joseph, those barons responsible for shedding the blood of western hemisphere elements of progress will shortly pay for their crimes."

"You've got military problems too, then?" Barry Watson asked.

Mayer's eyes went to him in irritation. "Some of the free cities of Genoa are planning measures to regain their property and rights on the western hemisphere. This has nothing to do with my team, except, of course, in so far as they might sell them supplies or equipment."

The lanky Watson laughed lowly, "You mean like selling them a few quick-firing breech-loaders and trench mortars?"

Plekhanov muttered, "That'll be enough, Barry."

But Mayer's eyes had widened. "How did you know?" He whirled on Plekhanov. "You're spying on my efforts, trying to negate my work!"

Plekhanov rumbled, "Don't be a fool, Mayer. My team has neither the time nor interest to spy on you."

"Then how did you know—"

Barry Watson said mildly, "I was doing some investigation in the ship's library. I ran into evidence that you people had already used the blueprints for breech-loaders and mortars."

Jerry Kennedy came to his feet and rambled over to the messroom's bar. "This seems to be all out spat, rather than a conference to compare progress," he said. "Anybody for a drink? Frankly, that's the next thing I'm going to introduce to Genoa, some halfway decent likker. Do you know what those benighted heathens drink now?"

Watson grinned. "Make mine whisky, Jerry. You've no complaints. Our benighted heathens have a national beverage fermented from a plant similar to cactus. Ought to be drummed out of the human race."

He spoke idly, forgetful of the Tulan guards stationed at the doorway.

Kennedy passed drinks around for everyone save Mayer, who shook his head in distaste. If only for a brief spell, some of the tenseness left the air while the men from Earth sipped their beverages.

Jerry Kennedy said, "Well, you've heard our report. How go things on Texcoco?"

"According to plan," Plekhanov rumbled.

Mayer snorted.

Plekhanov said ungraciously, "Our prime effort is now the uniting of the total population into one strong whole, a super-state capable of accomplishing the goals set us by the Co-ordinator."

Mayer sneered, "Undoubtedly, this goal of yours, this super-state, is being established by force."

"Not always," Joe Chessman said. "Quite a few of the tribes join up on their own. Why not? The State has a lot to offer."

"Such as what?" Kennedy said mildly.

Chessman looked at him in irritation. "Such as advanced medicine, security from famine, military protection from more powerful nations. The opportunity for youth to get an education and find advancement in the State's government—if they've got it on the ball."

"And what happens if they don't *have it on the ball*?"

Chessman growled, "What happens to such under any society? They get the dirty-end-of-the-stick jobs."

His eyes went from Kennedy to Mayer. "Are you suggesting you offer anything better?"

Mayer said, "Already on most of Genoa it is a matter of free competition. The person with ability is able to profit from it."

Joe Chessman grunted sour amusement. "Of course, it doesn't help to be the son of a wealthy merchant or a big politician."

Plekhanov took over. "In *any* society the natural leaders come to the top in much the same manner as the big ones come to the top in a bin of potatoes, they just work their way up."

Jerry Kennedy finished his drink and said easily, "At least, those at the top can claim they're the biggest potatoes. Remember back in the twentieth century when Hitler and his gang announced they were the big potatoes in Germany and men of Einstein's stature fled the country—being small potatoes, I suppose."

Amschel Mayer said, "We're getting away from the point. Pray go on, my dear Leonid. You say you are forcibly uniting all Texcoco."

"We are uniting all Texcoco," Plekhanov corrected with a scowl. "Not always by force. And that is by no means our only effort. We are ferreting out the most intelligent of the assimilated peoples and educating them as rapidly as possible. We've introduced iron ..."

"And use it chiefly for weapons," Kennedy murmured.

"... Antibiotics and other medicines, a field agriculture, are rapidly building roads ..."

"Military roads," Kennedy mused.

"... To all sections of the State, have made a beginning in naval science, and, of course, haven't ignored the arts."

"On the face of it," Mayer nodded, "hardly approaching Genoa."

Plekhanov rumbled indignantly, "We started two ethnic periods behind you. Even the Tulans were still using bronze, but the Genoese had iron and even gunpowder. Our advance is a bit slow to get moving, Mayer, but when it begins to roll—"

Mayer gave his characteristic snort. "A free people need never worry about being passed by a subjected one."

Barry Watson made himself another drink and while doing so looked over his shoulder at Amschel Mayer. "It's interesting the way you throw about that term *free*. Just what type of government do you sponsor?"

Mayer snapped, "Our team does not interfere in governmental forms, Watson. The various nations are

free to adapt to whatever local conditions obtain. They range from some under feudalistic domination to countries with varying degrees of republican democracy. Our base of operations in the southern hemisphere is probably the most advanced of all the chartered cities, Barry. It amounts to a city-state somewhat similar to Florence during the Renaissance."

"And your team finds itself in the position of the Medici, I imagine."

"You might use that analogy. The Medici might have been, well, tyrants of Florence, dominating her finances and trade as well as her political government, but they were benevolent tyrants."

"Yeah," Watson grinned. "The thing about a benevolent tyranny, though, is that it's up to the tyrants to decide what's benevolent. I'm not so sure there's a great basic difference between your governing of Genoa and ours of Texcoco."

"Don't be an ass," Mayer snapped. "We are granting the Genoese political freedoms as fast as they can assimilate them."

Joe Chessman growled, "But I imagine it's surprising to find just how slowly they can assimilate. A moment ago you said they were free to form any government they wished. Now you say you feed them what you call freedom, only so fast as they can assimilate it."

"Obviously we encourage them along whatever path we think will most quickly develop their economies," Mayer argued. "That's what we've been sent here to do. We stimulate competition, encourage all progress, political as well as economic."

Plekhanov lumbered to his feet. "Amschel, obviously nothing new has been added to our respective positions by this conference. I propose we adjourn to meet again at the end of the second decade."

Mayer said, "I suppose it would be futile to suggest you give up this impossible totalitarian scheme of yours and reunite the expedition."

Plekhanov merely grunted his disgust.

Jerry Kennedy said, "One thing. What stand have you taken on giving your planet immortality?"

"Immortality?" Watson said. "We haven't it to give."

"You know what I mean. It wouldn't take long to extend the life span double or triple the present."

Amschel Mayer said, "At this stage progress is faster with the generations closer together. A man is pressed when he knows he has only twenty or thirty years of peak efficiency. We on Earth are inclined to settle back and take life as it comes; you younger men are all past the century mark, but none have bothered to get married as yet."

"Plenty of time for that," Watson grinned.

"That's what I mean. But a Texcocan or Genoese feels pressed to wed in his twenties, or earlier, to get his family under way."

"There's another element," Plekhanov muttered. "The more the natives progress the more nearly they'll equal our abilities. I wouldn't want anything to happen to our overall plans. As it is now, their abilities taper off at sixty and they reach senility at seventy or eighty. I think until the end we should keep it this way."

"A cold-blooded view," Kennedy said. "If we extended their life expectancy, their best men would live to be of additional use to planet development."

"But they would not have our dream," Plekhanov rumbled. "Such men might try to subvert us, and, just possibly, might succeed."

"I think Leonid is right," Mayer admitted with reluctance.

Later, in the space lighter heading back for Genoa, Mayer said speculatively, "Did you notice anything about Leonid Plekhanov?"

Kennedy was piloting. "He seems the same irascible old curmudgeon he's always been."

"It seems to me he's become a touch power mad. Could the pressures he's under cause his mind to slip? Obviously, all isn't peaches and cream in that attempt of his to achieve world government on Texcoco."

"Well," Kennedy muttered, "all isn't peaches and cream with us, either. The barons are far from licked, especially in the west." He changed the subject. "By the way, that banking deal went through in Pola. I was able to get control."

"Fine," Mayer chuckled. "You must be quite the richest man in the city. There is a certain stimulation in this financial game, Jerry, isn't there?"

"Uh huh," Jerry told him. "Of course, it doesn't hurt to have a marked deck."

"Marked deck?" the other frowned.

"It's handy that gold is the medium of exchange on Genoa," Jerry Kennedy said. "Especially in view of the fact that we have a machine on the ship capable of transmuting metals."

VI.

Leonid Plekhanov, Joseph Chessman, Barry Watson, Khan Reif and several of the Tulan army staff stood on a small knoll overlooking a valley of several square miles. A valley dominated on all sides but the sea by mountain ranges.

Reif and the three Earthlings were bent over a military map depicting the area. Barry Watson traced with his finger.

"There are only two major passes into this valley. We have this one, they dominate that."

Plekhanov was scowling, out of his element and knowing it. "How many men has Mynor been able to get together?"

Watson avoided looking into the older man's face. "Approximately half a million according to Hawkins' estimate. He flew over them this morning."

"Half a million!"

"Including the nomads, of course," Joe Chessman said. "The nomads fight more like a mob than an army."

Plekhanov was shaking his massive head. "Most of them will melt away if we continue to avoid battle. They can't feed that many men on the countryside. The nomads in particular will return home if they don't get a fight soon."

Watson hid his impatience. "That's the point, sir. If we don't break their power now, in a decisive defeat, we'll have them to fight again, later. And already they've got iron swords, the crossbow and even a few muskets. Given time and they'll all be so armed. Then the fat'll be in the fire."

"He's right," Joe Chessman said sourly.

Reif nodded his head. "We must finish them now, if we can. The task will be twice as great next year."

Plekhanov grumbled in irritation. "Half a million of them and something like forty thousand of our Tulans."

Reif corrected him. "Some thirty thousand Tulans, all infantrymen." He added, "And eight thousand allied cavalry only some of whom can be trusted." Reif's ten-year-old son came up next to him and peered down at the map.

"What's that child doing here?" Plekhanov snapped.

Reif looked into the other's face. "This is Taller Second, my son. You from First Earth have never bothered to study our customs. One of them is that a Khan's son participates in all battles his father does. It is his training."

Watson was pointing out features on the map again. "It will take three days for their full army to get in

here." He added with emphasis, "In retreat, it would take them the same time to get out."

Plekhanov scowled heavily. "We can't risk it. If we were defeated, we have no reserve army. We'd have lost everything." He looked at Joe Chessman and Watson significantly. "We'd have to flee back to the *Pedagogue*."

Reif's face was expressionless.

Barry Watson looked at him. "We won't desert you, Reif, forget about that aspect of it."

Reif said, "I believe you, Barry Watson. You are a ... soldier."

Dick Hawkins' small biplane zoomed in, landed expertly at the knoll's foot. The occupant vaulted out and approached them at a half run.

Hawkins called as soon as he was within shouting distance. "They're moving in. Their advance cavalry units are already in the pass."

When he was with them, Plekhanov rubbed his hand nervously over heavy lips. He rumbled, "The cavalry, eh? Listen, Hawkins, get back there and dust them. Use the gas."

The pilot said slowly, "I have four bullet holes in my wings."

"Bullet holes!" Joe Chessman snapped.

Hawkins turned to him. "By the looks of things, MacBride's whole unit has gone over to the rebels. Complete with their double-barreled muskets. A full thousand of them."

Watson looked frigidly at Leonid Plekhanov. "You insisted on issuing guns to men we weren't sure of."

Plekhanov grumbled, "Confound it, don't use that tone of voice with me. We have to arm our men, don't we?"

Watson said, "Yes, but our still comparatively few advanced weapons shouldn't go into the hands of anybody but trusted citizens of the State, certainly not to a bunch of mercenaries. The only ones we can *really* trust even among the Tulans, are those that were kids when we first took over. The one's we've had time to indoctrinate."

"The mistake's made. It's too late now," Plekhanov said. "Hawkins go back and dust those cavalymen as they come through the pass."

Reif said, "It was a mistake, too, to allow them the secret of the crossbow."

Plekhanov roared, "I didn't *allow* them anything. Once the crossbow was introduced it was just a matter of time before its method of construction got to the enemy."

"Then it shouldn't have been introduced," Reif said, his eyes unflinching from the Earthman's.

Plekhanov ignored him. He said, "Hawkins, get going on that dusting. Watson, pull what units we already have in this valley back through the pass we control. We'll avoid battle until more of their army has fallen away."

Hawkins said with deceptive mildness, "I just told you those cavalymen have muskets. To fly low enough to use gas on them, I'd get within easy range. Point one, this is the only aircraft we've built. Point two, MacBride is probably dead, killed when those cavalymen mutinied. Point three, I came on this expedition to help modernize the Texcocans, not to die in battle."

Plekhanov snarled at him. "Coward, eh?" He turned churlishly to Watson and Reif. "Start pulling back our units."

Barry Watson looked at Chessman. "Joe?"

Joe Chessman shook his head slowly. He said to Reif, "Khan, start bringing your infantry through the pass. Barry, we'll follow your plan of battle. We'll anchor one flank on the sea and concentrate what cavalry we can trust on the hills on the right. That's the bad spot, that right flank has to hold."

Plekhanov's thick lips trembled. He said in fury, "Is this insubordination?"

Reif turned on his heel and followed by young Taller and his staff hurried down the knoll to where their horses were tethered.

Chessman said to Hawkins, "If you've got the fuel, Dick, maybe it'd be a good idea to keep them under observation. Fly high enough, of course, to avoid gunfire."

Hawkins darted a look at Plekhanov, turned and hurried back to his plane.

Joe Chessman, his voice sullen, said to Plekhanov, "We can't afford any more mistakes, Leonid. We've had too many already." He said to Watson, "Be sure and let their cavalry units scout us out. Allow them to see that we're entering the valley too. They'll think they've got us trapped."

"They will have!" Plekhanov roared. "I countermand that order, Watson! We're withdrawing."

Barry Watson raised his eyebrows at Joe Chessman.

"Put him under arrest," Joe growled sourly. "We'll decide what to do about it later."

By the third day, Mynor's rebel and nomad army had filed through the pass and was forming itself into battle array. Rank upon rank upon rank.

The Tulan infantry had taken less than half a day to enter. They had camped and rested during the

interval, the only action being on the part of the rival cavalry forces.

Now the thirty thousand Tulans went into their phalanx and began their march across the valley.

Joe Chessman, Hawkins, Roberts, Stevens and Khan Reif and several of his men again occupied the knoll which commanded a full view of the terrain. With binoculars and wrist radios from the *Pedagogue* they kept in contact with the battle.

Below, Barry Watson walked behind the advancing infantry. There were six divisions of five thousand men each, twenty-four foot *sarissas* stretched before their sixteen man deep line. Only the first few lines were able to extend their weapons; the rest gave weight and supplied replacements for the advanced lines' casualties. Behind them all the Tulan drums beat out the slow, inexorable march.

Cogswell, beside Watson with the wrist radio, said excitedly, "Here comes a cavalry charge, Barry. Reif says right behind it the nomad infantry is coming in." Cogswell cleared his throat. "All of them."

Watson held up a hand in signal to his officers. The phalanx ground to a halt, received the charge on the hedge of *sarissas*. The enemy cavalry wheeled and attempted to retreat to the flanks but were caught in a bloody confusion by the pressure of their own advancing infantry.

Cogswell, his ear to the radio, said, "Their main body of horse is hitting our right flank." He wet his lips. "We're outnumbered there something like ten to one. At least ten to one."

"They've got to hold," Watson said. "Tell Reif and Chessman that flank has to hold."

The enemy infantrymen in their hundreds of thousands hit the Tulan line in a clash of deafening military thunder. Barry Watson resumed his pacing. He signaled to the drummers who beat out another march. The phalanx moved forward slowly, and slowly went into an echelon formation, each division slightly ahead of the one following. Of necessity, the straight lines of the nomad and rebel front had to break.

The drums went *boom, ah, boom, ah, boom, ah, boom*.

The Tulan phalanx moved slowly, obliquely across the valley. The hedge of spears ruthlessly pressed the mass of enemy infantry before them.

The sergeants paced behind, shouting over the din. "Dress it up. You there, you've been hit, fall out to the rear."

"I'm all right," the wounded spearman snarled, battle lust in his voice.

"Fall out, I said," the sergeant roared. "You there, take his place."

The Tulan phalanx ground ahead.

One of the sergeants grinned wanly at Barry Watson as his men moved forward with the preciseness of

the famed Rockettes of another era. "It's working," he said proudly.

Barry Watson snorted, "Don't give me credit. It belongs to a man named Philip of Macedon, a long ways away in both space and time."

Cogswell called, "Our right flank cavalry is falling back. Joe wants to know if you can send any support."

Watson's face went expressionless. "No," he said flatly. "It's got to hold. Tell Joe and the Khan it's got to hold. Suggest they throw in those cavalry units they're not sure of. The ones that threatened mutiny last week."

Joe Chessman stood on the knoll flanked by the Khan's ranking officers and the balance of the Earthmen. Natt Roberts was on the radio. He turned to the others and worriedly repeated the message.

Joe Chessman looked out over the valley. The thirty-thousand-man phalanx was pressing back the enemy infantry with the precision of a machine. He looked up the hillside at the point where the enemy cavalry was turning the right flank. Given cavalry behind the Tulan line and the battle was lost.

"O.K., boys," Chessman growled sourly, "we're in the clutch now. Hawkins!"

"Yeah," the pilot said.

"See what you can do. Use what bombs you have including the napalm. Fly as low as you can in the way of scaring their horses." He added sourly, "Avoiding scaring ours, if you can."

"You're the boss," Hawkins said, and scurried off toward his scout plane.

Joe Chessman growled to the others, "When I was taking my degree in primitive society and primitive military tactics, I didn't exactly have this in mind. Come on!"

It was the right thing to say. The other Earthmen laughed and took up their equipment, submachine guns, riot guns, a flame thrower, grenades, and followed him up the hill toward the fray.

Chessman said over his shoulder to Reif, "Khan, you're in the saddle. You can keep in touch with both Watson and us on the radio."

Reif hesitated only a moment. "There is no need for further direction of the battle from this point. A warrior is of more value now than a Khan. Come my son." He caught up a double-barreled musket and followed the Earthmen. The ten years old Taller scurried after with a revolver.

Natt Roberts said, "If we can hold their cavalry for only another half hour, Watson's phalanx will have their infantry pressed up against the pass they entered by. It took them three days to get through it, they're not going to be able to get out in hours."

"That's the idea," Joe Chessman said dourly, "Let's go."

VII.

Amschel Mayer was incensed.

"What's got into Buchwald and MacDonald?" he spat.

Jerry Kennedy, attired as was his superior in fur trimmed Genoese robes, signaled one of the servants for a refilling of his glass and shrugged.

"I suppose it's partly our own fault," he said lightly. He sipped the wine, made a mental note to buy up the rest of this vintage for his cellars before young Mannerheim or someone else did so.

"Our fault!" Mayer glared.

The old boy was getting decreasingly tolerant as the years went by, Kennedy decided. He said soothingly, "You sent Peter and Fred over there to speed up local development. Well, that's what they're doing."

"Are you insane!" Mayer squirmed in his chair. "Did you read this radiogram? They've squeezed out all my holdings in rubber, the fastest growing industry on the western continent. Why, millions are involved. Who do they think they are?"

Kennedy put down his glass and chuckled. "See here, Amschel, we're developing this planet by encouraging free competition. Our contention is that under such a socio-economic system the best men are brought to the lead and benefit all society by the advances they make."

"So! What has this got to do with MacDonald and Buchwald betraying my interests?"

"Don't you see? Using your own theory, you have been set back by someone more efficiently competitive. Fred and Peter saw an opening and, in keeping with your instructions, moved in. It's just coincidence that the rubber they took over was your property rather than some Genoese operator's. If you were open to a loss there, then if they hadn't taken over someone else could have. Possibly Baron Leonar or even Russ."

"That reminds me," Mayer snapped, "our Honorable Russ is getting too big for his britches in petroleum. Did you know he's established a laboratory in Amerus? Has a hundred or more chemists working on new products."

"Fine," Kennedy said.

"Fine! What do you mean? Dean is our man in petroleum."

"Look here, if Russ can develop the industry even faster than Mike Dean, let him go ahead. That's all to our advantage."

Mayer leaned forward and tapped his assistant emphatically on the knee. "Look here, yourself, Jerry Kennedy. At this stage we don't want things getting out of our hands. A culture is in the hands of those who control the wealth; the means of production, distribution, communication. Theirs is the real power. I've made a point of spacing our men about the whole planet. Each specializes, though not exclusively. Gunther is our mining man, Dean heads petroleum, MacDonald shipping, Buchwald textiles, Rykov steel, and so forth. As fast as this planet can assimilate we push new inventions, new techniques, often whole new sciences, into use. Meanwhile, you and I sit back and dominate it all through that strongest of power mediums, finance."

Jerry Kennedy nodded. "I wouldn't worry about old man Russ taking over Dean's domination of oil, though. Mike's got the support of all the *Pedagogue's* resources behind him. Besides, we've got to let these Genoese get into the act. The more the economy expands, the more capable men we need. As it is, I think we're already spread a little too thin."

Amschel Mayer had dropped the subject. He was reading the radiogram again and scowling his anger. "Well, this cooks MacDonald and Buchwald. I'll break them."

His assistant raised his eyebrows. "How do you mean?"

"I'm not going to put up with my subordinates going against my interests."

"In this case, what can you do about it? Business is business."

"You hold quite a bit of their paper, don't you?"

"You know that. Most of our team's finances funnel through my hands."

"We'll close them out. They've become too obsessed with their wealth. They've forgotten why the *Pedagogue* was sent here. I'll break them, Jerry. They'll come crawling. Perhaps I'll send them back to the *Pedagogue*. Make them stay aboard as crew."

Kennedy shrugged. "Well, Peter MacDonald's going to hate that. He's developed into quite a high liver—gourmet food, women, one of the swankiest estates on the eastern continent."

"Ha!" Mayer snorted. "Let him go back to ship's rations and crew's quarters."

A servant entered the lushly furnished room and announced, "Honorable Gunther calling on the Honorables Mayer and Kennedy."

Martin Gunther hurried into the room, for once his calm ruffled. "On the western continent," he blurted. "Dean and Rosetti. The Temple got them, they've been burned as witches."

Amschel Mayer shot to his feet. "That's the end," he swore shrilly. "Only in the west have the barons held

out. I thought we'd slowly wear them down, take over their powers bit by bit. But this does it. This means we fight."

He spun to Kennedy. "Jerry, make a trip out to the *Pedagogue*. You know the extent of Genoa's industrial progress. Seek out the most advanced weapons this technology could produce."

Kennedy came to his own feet, shocked by Gunther's news. "But, Amschel, do you think it's wise to precipitate an intercontinental war? Remember, we've been helping to industrialize the west, too. It's almost as advanced as our continent. Their war potential isn't negligible."

"Nevertheless," Mayer snapped, "we've got to break the backs of the barons and the Temple monks. Get messages off to Baron Leonar and young Mannerheim, to Russ and Olderman. We'll want them to put pressure on their local politicians. What we need is a continental alliance for this war."

Gunther said, "Should I get in touch with Rykov? He's still over there."

Mayer hesitated. "No," he said. "We'll keep Nick informed but he ought to remain where he is. We'll still want our men in the basic positions of power after we've won."

"He might get hurt," Gunther scowled. "They might get him too, and we've only got six team members left now."

"Nonsense, Nick Rykov can take care of himself."

Jerry Kennedy was upset. "Are you sure about this war, chief? Isn't a conflict of this size apt to hold up our overall plans?"

"Of course not," Mayer scoffed. "Man makes his greatest progress under pressure. A major war will unite the nations of both the western continent and this one as nothing else could. Both will push their development to the utmost."

He added thoughtfully, "Which reminds me. It might be a good idea for us to begin accumulating interests in such industries as will be effected by a war economy."

Jerry Kennedy chuckled at him, "Merchant of death."

"What?"

"Nothing," Kennedy said. "Something I read about in a history book."

VIII.

At the decade's end, once again the representatives of the Genoese team were first in the *Pedagogue's* lounge. Mayer sat at the officer's table, Martin Gunther at his right. Jerry Kennedy leaned against the ship's bar, sipping appreciatively at a highball.

They could hear the impact of the space boat from Texcoco when it slid into its bed.

"Poor piloting," Gunther mused. "Whoever's doing that flying doesn't get enough practice."

They could hear ports opening and then the sound of approaching feet. The footsteps had a strangely military ring.

Joe Chessman entered, followed immediately by Barry Watson, Dick Hawkins and Natt Roberts. They were all dressed in heavy uniform, complete with decorations. Behind them were four Texcocans, including Reif and his teen-age son Taller.

Mayer scowled at them in way of greeting. "Where's Plekhanov?"

"Leonid Plekhanov is no longer with us," Chessman said dourly. "Under pressure his mind evidently snapped and he made decisions that would have meant the collapse of the expedition. He resisted when we reasoned with him."

The four members of the Genoese team stared without speaking. Jerry Kennedy put down his glass at last. "You mean you had to restrict him? Why didn't you bring him back to the ship!"

Chessman took a chair at the table. The others assumed standing positions behind him. "I'm afraid we'll have to reject your views on the subject. Twenty years ago this expedition split into two groups. My team will accomplish its tasks, your opinions are not needed."

Amschel Mayer glared at the others in hostility. "You have certainly come in force this time."

Chessman said flatly, "This is all of us, Mayer."

"All of you! Where are Stevens, Cogswell, MacBride?"

Barry Watson said, "Plekhanov's fault. Lost in the battle that broke the back of the rebels. At least Cogswell and MacBride were. Stevens made the mistake of backing Plekhanov when the showdown came."

Joe Chessman looked sourly at his military chief. "I'll act as team spokesman, Barry."

"Yes, sir," Watson said.

"Broke the back of the rebels," Jerry Kennedy mused. "That opens all sorts of avenues, doesn't it?"

Chessman growled. "I suppose that in the past twenty years your team had no obstacles. Not a drop of blood shed. Come on, the truth. How many of your team has been lost?"

Mayer shifted in his chair. "Possibly your point is well taken. Dean and Rosetti were burned by the formerly dominant religious group. Rykov was killed in a fracas with bandits while he was transporting some gold." He added, musingly, "We lost more than half a million Genoese pounds in that robbery."

"Only three men lost, eh?"

Mayer stirred uncomfortably, then flushed in irritation at the other's tone. "Something has happened to Buchwald and MacDonald. They must be insane. They've broken off contact with me, are amassing personal fortunes in the eastern hemisphere."

Hawkins laughed abruptly. "Free competition," he said.

Chessman growled, "Let's halt this bickering and get to business. First let me introduce Reif, Texcocan State Army Chief of Staff and his son Taller. And these other Texcocans are Wiss and Fokin, both of whom have gone far in the sciences."

The Tulans shook hands, Earth style, but then stepped to the rear again where they followed the conversation without comment.

Mayer said, "You think it wise to introduce natives to the *Pedagogue*?"

"Of course," Chessman said. "Following this conference, I'm going to take Fokin and Wiss into the library. What're we here for if not to bring these people up to our level as rapidly as possible?"

"Very well," Mayer conceded grudgingly. "And now I have a complaint. When the *Pedagogue* first arrived we had only so many weapons aboard. You have appropriated more than half in the past two decades."

Chessman shrugged it off. "We'll return the greater part to the ship's arsenal. At this stage we are producing our own."

"I'll bet," Kennedy said. "Look, any of you fellows want a real Earthside whisky? When we were crewing this expedition, why didn't we bring someone with a knowledge of distilling, brewing and such?"

Mayer snapped at him, "Jerry, you drink too much."

"The hell I do," the other said cheerfully. "Not near enough."

Barry Watson said easily, "A drink wouldn't hurt. Why're we so stiff? This is the first get-together for ten years. Jerry, you're putting on weight."

Kennedy looked down at his admittedly rounded stomach. "Don't get enough exercise," he said, then

reversed the attack. "You look older. Are you taking your rejuvenation treatments?"

Barry Watson grimaced. "Sure, but I'm working under pressure. It's been one long campaign."

Kennedy passed around the drinks.

Dick Hawkins laughed. "It's been one long campaign, all right. Barry has a house as big as a castle and six or eight women in his harem."

Watson flushed, but obviously without displeasure.

Martin Gunther, of the Genoese team, cocked his head. "Harem?"

Joe Chessman said impatiently, "Man adapts to circumstances, Gunther. The wars have lost us a lot of men. Women are consequently in a surplus. If the population curve is to continue upward, it's necessary that a man serve more than one woman. Polygamy is the obvious answer."

Gunther cleared his throat smoothly, "So a man in Barry's position will have as many as eight wives, eh? You must have lost a *good many* men."

Watson grinned modestly. "Everybody doesn't have that many. It's according to your ability to support them, and, also, rank has its privileges. Besides, we figure it's a good idea to spread the best seed around. By mixing our blood with the Texcocan we improve the breed."

Behind him, Taller, the Tulan boy, stirred, without notice.

Kennedy finished off his highball and began to build another immediately. "Here we go again. The big potatoes coming to the top."

Watson flushed. "What do you mean by that, Kennedy?"

"Oh, come off it, Barry," Kennedy laughed. "Just because you're in a position to push these people around doesn't make you the prize stud on Texcoco."

Watson elbowed Dick Hawkins to one side in his attempt to get around the table at the other.

Chessman rapped, "Watson! That's enough. Knock it off or I'll have you under arrest." The Texcocan team head turned abruptly to Mayer and Kennedy. "Let's stop this nonsense. We've come to compare progress. Let's begin."

The three members of the Genoese team glared back in antagonism, but then Gunther said grudgingly, "He's right. There is no longer amiability between us, so let's forget about it. Perhaps when the fifty years is up, things will be different. Now let's merely be businesslike."

"Well," Mayer said, "our report is that progress accelerates. Our industrial potential expands at a rate that surprises even us. In the near future we'll introduce the internal combustion engine. Our universities still multiply and are turning out technicians, engineers, scientists at an ever-quickening speed. In several nations illiteracy is practically unknown and per capita production increases almost everywhere." Mayer paused in satisfaction, as though awaiting the others to attempt to top his report.

Joe Chessman said sourly, "Ah, almost everywhere per capita production increases. Why *almost*?"

Mayer snapped, "Obviously, in a system of free competition, all cannot progress at once. Some go under."

"Whole nations?"

"Temporarily whole nations can receive setbacks as a result of defeat in war, or perhaps due to lack of natural resources. Some nations progress faster than others."

Chessman said, "The whole Texcocan State is one great unit. Everywhere the gross product increases. Within the foreseeable future the standard of living will be excellent."

Jerry Kennedy, an alcoholic lisp in his voice now, said, "You mean you've accomplished a planet-wide government?"

"Well, no. Not as yet," Chessman's sullen voice had an element of chagrin in it. "However, there are no strong elements left that oppose us. We are now pacifying the more remote areas."

"Sounds like a rather bloody program—especially if Barry Watson, here, winds up with eight women," Martin Gunther said.

Watson started to say something but Chessman held up a restraining hand. "The Texcocan State is too strong to be resisted, Gunther. It is mostly a matter of getting around to the more remote peoples. As soon as we bring in a new tribe, we convert it into a commune."

"Commune!" Kennedy blurted.

Joe Chessman raised his thick eyebrows at the other. "The most efficient socio-economic unit at this stage of development. Tribal society is perfectly adapted to fit into such a plan. The principal difference between a tribe and a commune is that under the commune you have the advantage of a State above in a position to give you the benefit of mass industries, schools, medical assistance. In return, of course, for a certain amount of taxes, military levies and so forth."

Martin Gunther said softly, "I recall reading of the commune system as a student, but I fail to remember the supposed advantages."

Chessman growled, "They're obvious. You have a unit of tens of thousands of persons. Instead of living in individual houses, each with a man working while the woman cooks and takes care of the home, all live in community houses and take their meals in messhalls. The children are cared for by trained nurses.

During the season all physically capable adults go out en masse to work the fields. When the harvest has been taken in, the farmer does not hole up for the winter but is occupied in local industrial projects, or in road or dam building. The commune's labor is never idle."

Kennedy shuddered involuntarily.

Chessman looked at him coldly. "It means quick progress. Meanwhile, we go through each commune and from earliest youth, locate those members who are suited to higher studies. We bring them into State schools where they get as much education as they can assimilate—more than is available in commune schools. These are the Texcocans we are training in the sciences."

"The march to the anthill," Amschel Mayer muttered.

Chessman eyed him scornfully. "You amuse me, old man. You with your talk of building an economy with a system of free competition. Our Texcocans are sacrificing today but their children will live in abundance. Even today, no one starves, no one goes without shelter nor medical care." Chessman twisted his mouth wryly. "We have found that hungry, cold or sick people cannot work efficiently."

He stared challengingly at the Genoese leader. "Can you honestly say that there are no starving people in Genoa? No inadequately housed, no sick without hope of adequate medicine? Do you have economic setbacks in which poorly planned production goes amuck and depressions follow with mass unemployment?"

"Nevertheless," Mayer said with unwonted calm, "our society is still far ahead of yours. A mere handful of your bureaucracy and military chiefs enjoy the good things of life. There are tens of thousands on Genoa who have them. Free competition has its weaknesses, perhaps, but it provides a greater good for a greater number of persons."

Joe Chessman came to his feet. "We'll see," he said stolidly. "In ten years, Mayer, we'll consider the position of both planets once again."

"Ten years it is," Mayer snapped back at him.

Jerry Kennedy saluted with his glass. "Cheers," he said.

On the return to Genoa Amschel Mayer said to Kennedy, "Are you sober enough to assimilate something serious?"

"Sure, chief, of course."

"Hm-m-m. Well then, begin taking the steps necessary for us to place a few men on Texcoco in the way of, ah, intelligence agents."

"You mean some of our team?" Kennedy said, startled.

"No, of course not. We can't spare them, and, besides, there'd be too big a chance of recognition and exposure. Some of our more trusted Genoese. Make the monetary reward enough to attract their services." He looked at his lieutenants significantly. "I think you'll agree that it might not be a bad idea to keep our eyes on the developments on Texcoco."

On the way back to Texcoco, Barry Watson said to his chief, "What do you think of putting some security men on Genoa, just to keep tabs?"

"Why?"

Watson looked at his fingers, nibbled at a hangnail. "It just seems to me it wouldn't hurt any."

Chessman snorted.

Dick Hawkins said, "I think Barry's right. They can bear watching. Besides in another decade or so they'll realize we're going to beat them. Mayer's ego isn't going to take that. He'd go to just about any extreme to keep from losing face back on Earth."

Natt Roberts said worriedly, "I think they're right, Joe. Certainly it wouldn't hurt to have a few Security men over there. My department could train them and we'd ferry them over in this space boat."

"I'll make the decisions," Chessman growled at them. "I'll think about this. It's just possible that you're right though."

Behind them, Reif looked thoughtfully at his teen-age son.

IX.

Down the long palace corridor strode Barry Watson, Dick Hawkins, Natt Roberts, the aging Reif and his son Taller, now in the prime of manhood. Their faces were equally wan from long hours without sleep. Half a dozen Tulan infantrymen brought up their rear.

As they passed Security Police guards, to left and right, eyes took in their weapons, openly carried. But such eyes shifted and the guards remained at their posts. Only one sergeant opened his mouth in protest. "Sir," he said to Watson, hesitantly, "you are entering Number One's presence armed."

"Shut up," Natt Roberts rapped at him.

Reif said, "That will be all, sergeant."

The Security Police sergeant looked empty after them as they progressed down the corridor.

Together, Watson and Reif motioned aside the two Tulan soldiers who stood before the door of their destination, and pushed inward without knocking.

Joe Chessman looked up wearily from his map and dispatch laden desk. For a moment his hand went to the heavy military revolver at his right but when he realized the identity of his callers, it fell away.

"What's up now?" he said, his voice on the verge of cracking.

Watson acted as spokesman. "It's everywhere the same. The communes are on the fine edge of revolt. They've been pushed too far; they've got to the point where they just don't give a damn. A spark and all Texcoco goes up in flames."

Reif said coldly, "We need immediate reforms. They've got to be pacified. An immediate announcement of more consumer goods, fewer State taxes, above all a relaxation of Security Police pressures. Given immediate promise of these, we might maintain ourselves."

Joe Chessman's sullen face was twitching at the right corner of his mouth. Young Taller made no attempt to disguise his contempt at the other's weakness in time of stress.

Chessman's eyes went around the half circle of them. "This is the only alternative? It'll slow up our heavy industry program. We might not catch up with Genoa as quickly as planned."

Watson gestured with a hand in quick irritation. "Look here, Chessman, don't we get through to you? Whether or not we build up a steel capacity as large as Amschel Mayer's isn't important now. Everything's at stake."

"Don't talk to me that way, Barry," Chessman growled truculently. "I'll make the decisions. I'll do the thinking." He said to Reif, "How much of the Tulan army is loyal?"

The aging Tulan looked at Watson before turning back to Joe Chessman. "All of the Tulan army is loyal—to me."

"Good!" Chessman pushed some of the dispatches on his desk aside, letting them flutter to the floor. He bared a field map. "If we crush half a dozen of the local communes ... crush them hard! Then the others ..."

Watson said very slowly and so low as hardly to be heard, "You didn't bother to listen, Chessman. We told you, all that's needed is a spark."

Joe Chessman sat back in his chair, looked at them all again, one by one. Re-evaluating. For a moment the facial tic stopped and his eyes held the old alertness.

"I see," he said. "And you all recommend capitulation to their demands?"

"It's our only chance," Hawkins said. "We don't even know it'll work. There's always the chance if we throw them a few crumbs they'll want the whole loaf. You've got to remember that some of them have been living for twenty-five years or more under this pressure. The valve is about to blow."

"I see," Chessman grunted. "And what else? I can see in your faces there's something else."

The three Earthmen didn't answer. Their eyes shifted.

He looked to young Taller and then to Reif. "What else?"

"We need a scapegoat," Reif said without expression.

Joe Chessman thought about that. He looked to Barry Watson again.

Watson said, "The whole Texcocan State is about to topple. Not only do we have to give them immediate reform, but we're going to have to blame the past hardships and mistakes on somebody. Somebody has to take the rap, be thrown to the wolves. If not, maybe we'll all wind up taking the blame."

"Ah," Chessman said. His red-rimmed eyes went around them again, thoughtfully. "We should be able to dig up a few local chieftains and some of the Security Police heads."

They shook their heads. "It has to be somebody big," Natt Roberts said thickly, "a few of my Security Police won't do it."

Joe Chessman's eyes went to Reif. "The Khan is the highest ranking Texcocan of all," he said, finally. "The Khan and some Security Police heads would satisfy them."

Reif's face was as frigid as the Earthman's. He said, "I am afraid not, Joseph Chessman. You are Number One. It is your statue that is in every commune square. It is your portrait that hangs in every distribution center, every messhall, every schoolroom. You are the Number One—as you have so often pointed out to us. My title has become meaningless."

Joe Chessman spat out a curse, fumbled the gun into his hand and fired before the Tulan soldiers could get to him. In a moment they had wrested the weapon from his hand and had his arms pinioned. It was too late.

Reif had been thrown backward two paces by the blast of the heavy-calibered gun. Now he held a palm over his belly and staggered to a chair. He collapsed into it, looked at his son, let a wash of amusement pass over his face, said, "Khan," meaninglessly, and died.

Natt Roberts shrilled at Chessman, "You fool, we were going to give you a big, theatrical trial. Sentence you to prison and then, later, claim you'd died in your cell and smuggle you out to the *Pedagogue*."

Watson snapped to the guards, "Take him outside and shoot him."

The Tulans began dragging the snarling, cursing Chessman to the door.

Taller said, "A moment, please."

Watson, Roberts and Hawkins looked to him.

Taller said, "This perhaps can be done more effectively."

His voice was completely emotionless. "This man has killed both my father and grandfather, both of them Khans of Tula, heads of the most powerful city on all Texcoco, before the coming of you Earthlings."

The guards hesitated. Watson detained them with a motion of his hand.

Taller said, "I suggest you turn him over to me, to be dealt with in the traditional way of the People."

"No," Chessman said hoarsely. "Barry, Dick, Natt, send me back to the *Pedagogue*. I'll be out of things there. Or maybe Mayer can use me on Genoa."

They didn't bother to look in his direction. Roberts muttered savagely, "We told you all that was needed was a spark. Now you've killed the Khan, the most popular man on Texcoco. There's no way of saving you."

Taller said, "None of you have studied our traditions, our customs. But now, perhaps, you will understand the added effect of my taking charge. It will be a more ... profitable manner of using the downfall of this ... this power mad murderer."

Chessman said desperately, "Look, Barry, Natt, if you have to, shoot me. At least give me a man's death. Remember those human sacrifices the Tulans had when we first arrived? Can you imagine what went on in those temples? Barry, Dick—for old time's sake, boys ..."

Barry Watson said to Taller, "He's yours. If this doesn't take the pressure off us, nothing will."

X.

At the end of the third decade, the Texcocan delegation was already seated in the *Pedagogue's* lounge when Jerome Kennedy, Martin Gunther, Peter MacDonald, Fredric Buchwald and three Genoese, Baron Leonar and the Honorables Russ and Modrin appeared.

The Texcocan group consisted of Barry Watson, Dick Hawkins and Natt Roberts to one side of him, Generalissimo Taller and six highly bemedaled Texcocans on the other.

Before taking a seat Barry Watson barked, "Where's Amschel Mayer? I've got some important points to

cover with him."

"Take it easy," Kennedy slurred. "For that matter, where's Joe Chessman?"

Watson glared at the other. "You know where he is."

"That I do," Kennedy said. "He's purged, to use a term of yesteryear. At the rate you laddy-bucks are going, there won't be anything left of you by the time our half century is up." He snapped his fingers and a Genoese servant who'd been inconspicuously in the background, hurried to his side. "Let's have some refreshments here. What'll everybody have?"

"You act as though you've had enough already," Watson bit out.

Kennedy ignored him, insisted on everyone being served before he allowed the conversation to turn serious. Then he said, slyly, "I see we've been successful in apprehending all of your agents, or you'd know more of our affairs."

"Not all our agents," Watson barked. "Only those on your southern continent. What happened to Amschel Mayer?"

Peter MacDonald, who, with Buchwald, was for the first time attending one of the decade-end conferences, had been hardly recognized in his new girth by the Texcocan team. But his added weight had evidently done nothing to his keenness of mind. He said smoothly, "Our good Amschel is under arrest. Imprisoned, in fact." He shook his head, his double chin wobbling. "A tragedy."

"Imprisoned! By whom?" Taller scowled. "I don't like this. After all, he was your expedition's head man."

Barry Watson rapped, "Don't leave us there, MacDonald. What happened to him?"

MacDonald explained. "The financial and industrial empire he had built was overextended. A small crisis and it collapsed. Thousands of investors suffered. In brief, he was arrested and found guilty."

Watson was unbelieving. "There is nothing you could do? The whole team! Couldn't you bribe him out? Rescue him by force and get him back to the ship? With all the wealth you characters control—"

Jerry Kennedy laughed shortly. "We were busy bailing ourselves out of our own situations, Watson. You don't know what international finance can be. Besides, he dug his grave ... uh ... that is, he made his bed."

Kennedy signaled the servant for another drink, said, "Let's cut out this dismal talk. How about our progress reports?"

"Progress reports," Barry Watson said. "That's a laugh. You have agents on Texcoco, we have them on Genoa. What's the use of having these conferences at all?"

For the first time, one of the Genoese put in a word. Baron Leonar, son of the original Baron who had

met with Amschel Mayer thirty years before, was a man in his mid-forties. He said quietly, "It seems to me the time has arrived when the two planets might profit by intercourse. Surely in this time one has progressed beyond the other in this field, but lagged in that. If I understand the mission of the *Pedagogue* it is to bring us to as high a technological level as possible in half a century. Already three decades have passed."

The Texcocans studied him thoughtfully, but Jerry Kennedy waved in negation with the hand that held his glass. "You don't get it, Baron. You see, the thing is we wanta find out what system is going to do the most the quickest. If we co-operate with Barry's gang, everything'll get all mixed up."

The Honorable Russ, now a wizened man of at least seventy, but still sharply alert, said, "However, Texcoco and Genoa might both profit."

Kennedy said happily, "What do we care? You gotta take the long view. What we're working out here is going to be used on half a million planets eventually." He tried to snap his fingers. "These two lousy planets don't count that much." He succeeded in snapping them this time. "Not that much."

Barry Watson said, "You're stoned, Kennedy."

"Why not?" Kennedy grinned. "Finally perfected a decent brandy. I'll have to send you a few cases, Barry."

"How would you go about that, Jerry?" Watson said softly.

"Shucks, man, our space lighter makes a trip to Texcoco every month or so. Gotta keep up with you boys. Maybe throw a wrench or so in the works once inna while."

Peter MacDonald said, "Shut up, Jerry. You talk too much."

"Don't talk to me that way. You'll find yourself having one helluva time floating that loan you need next month. How about another drink, everybody? This party's dead."

Watson said, "How about the progress reports? Briefly, we've all but completely united Texcoco. Minor setbacks have sometimes deterred us but the march of progress goes on. We—"

"Minor setbacks," Kennedy chortled. "Must of had to bump off five million of the poor slobs before that commune revolt was finished with."

Watson said coldly, "We always have a few reactionaries, religious fanatics, misfits, crackpots, malcontents to deal with. However, these are not important. Our industrial potential has finally begun to roll. We doubled steel production this year, will do the same next. Our hydro-electric installations tripled in the past two years. Coal production is four times higher, lumber production six times. We expect to increase grain harvest forty per cent next season. And—"

The Honorable Modrin put in gently, "Please, Honorable Watson, your percentage figures are impressive only if we know from what basis you start. If you produced but five million tons of steel last year, then

your growth to ten million is very good but it is still not a considerable amount for an entire planet."

Buchwald said dryly, "If our agents are correct, Texcocan steel production is something like a quarter of our own. I assume your other basic products are at about the same stage of development."

Watson flushed. "The thing to remember is that our economy continues to grow each year. Yours spurts and stops, jerks ahead a few steps, then grinds to a halt or even retreats. Everything comes to a pause if you few on the top stop making a profit; all that counts in your economy is making money. Which reminds me, how in the world did you ever get out of that planet-wide depression you were in three years ago?"

Peter MacDonald grunted his disgust. "Planet-wide depression, indeed. A small recession. A temporary readjustment due to overextension in certain economic and financial fields."

From the other side of the table, Dick Hawkins laughed at him. "Where'd you pick up that line of gobbledygook, Peter?" he asked.

Peter MacDonald came to his feet. "I don't have to put up with this sort of impudence," he snapped.

Watson lurched to his own feet. "Nor do we have to listen to your snide cracks about the real progress Texcoco is making. We don't seem to be getting anywhere." He snapped to his associates, "Hawkins, Taller, Roberts! Let's go. Ten years from now, there'll be another story to tell. Even a blind man will see the difference."

They marched down the *Pedagogue's* corridor toward their space boat.

Kennedy called after them, "Ten years from now every family on Geno'll have a car. Wait'll you see. Television, too. We're introducing TV next year. An' civil aviation. Be all over the place in two, three years—"

The Texcocans slammed the spaceport after them.

Kennedy sloshed some more drink into his glass. "Slobs can't stand the truth," he explained to the others.

XI.

With the exception of a few additional delegates composed of high-ranking Texcocan and Genoese political and scientific heads, the line-up at the end of forty years was the same as ten years earlier—except for the absence of Jerry Kennedy.

Extra tables had been set up, and chairs to accommodate the added numbers. To one side were the Genoese: Martin Gunther, Fredric Buchwald, Peter MacDonald, with such repeat delegates as Baron Leonar and the Honorables Modrin and Russ and half a dozen newcomers. On the other were Barry

Watson, Dick Hawkins and Natt Roberts, Taller and such Texcocans as the scientists Wiss and Fokin, army heads, Security Police officials and other notables.

Note pads had been placed before each of them and both Watson and Gunther were equipped with gavels.

While chairs were still being shuffled, Barry Watson said over the table to Gunther, "Jerry?"

Martin Gunther shrugged "Jerry's indisposed. As a matter of fact, he's at one of the mountain sanitariums, taking a cure. He'll be all right."

"Good," Dick Hawkins said. "We've lost too many."

Watson pounded with his gavel. "Let's come to order. Gunther do you have anything to say in the way of preliminaries?"

"Not especially. I believe we all know where we stand, including the newcomers from Genoa and Texcoco. In brief, this is the fourth meeting of the Earth teams that were sent to these two planets to bring backward colonists to an industrialized culture. It would seem that we are both succeeding—possibly at different rates. Forty years have passed, ten remain to us."

For a moment there was silence.

Finally Roberts said, "Possibly you have already discovered this through your agents, but we have released the information on prolonging of life."

Peter MacDonald said wryly, "We, too, were pressured into such a step."

Baron Leonar said, "And why not?"

Taller, across the table from him, nodded.

Martin Gunther tapped twice on the table with his gavel. "The basic reason for our meeting is to report progress and to reconsider the possibilities of new elements having entered into the situation which might cause us to re-examine our policies. I think we already have a fairly good idea of each other's development." His voice went wry. "At least our agents do a fairly good job of reporting yours."

"And ours, yours," Watson rapped.

"However," MacDonald said, "now that we are drawing near the end of our half century, I think it becomes obvious that Amschel Mayer's original contention—that a freely competitive economy grows faster than one restricted by totalitarian bounds—has been proven."

Barry Watson snorted amusement. "Do you?" he said. "To the contrary, MacDonald. The proof is

otherwise. On Genoa you still have comparative confusion. True enough, several of your nations, particularly those on your southern continent, are greatly advanced and with a high living and cultural standard—when times are good. But at the same time you have other whole peoples who are little, if any, better off, than when you arrived. On the western continent you even have a few feudalistic regimes that are probably worse off—mostly as a result of the wars you've crippled them with."

Natt Roberts said, his voice musing, "But even that isn't the important thing. The Co-ordinator sent us here to find a *method* of bringing backward cultures to industrialization. Have you got a blueprint to show him, when you return? Can you trace out the history of Genoa for this past half century and say, this war was necessary for progress—but that should have been avoided? Or is this whole *free competition* program of yours actually nothing but chaos which *sometimes* works out wonderfully for *some* nations, but actually destroys others? You have scorned our methods, our collectivized society—but when we return, we'll have a blueprint of how we arrived where we are."

Gunther banged the table with his gavel. "Just a moment. Is there any reason why we have to listen to these accusations when—"

Watson held up a hand, curtly, "Let us finish. If you have something to say, we'll gladly listen when we're through."

Gunther was flushed but he snapped, "Go ahead then, but don't think any of we Genoese are being taken in."

Watson said, "True enough, it took us a time to unite our people ..."

"Time and blood," Peter MacDonald muttered.

"... But once underway the Texcocan State has moved on in a progression unknown in any of the Genoese nations. To industrialize a society you must reach a certain taking off point, a point where you have sufficient industry, particularly steel, sufficient power, sufficient scientists, technicians and skilled workers. Once that point has been reached you can move in almost a geometric progression. You build a steel mill and with the steel produced you build two more mills the following year, which in turn gives you the material for four the next year."

Buchwald grunted his disbelief.

Watson looked up and down the line of Genoese, the Earthmen as well as the natives. "On Texcoco we have now reached that point. We have a trained, eager population of over one billion persons. Our universities are turning out highly trained effectives at the rate of more than twenty million a year. We have located all the raw materials we will need. We are now under way." He looked at them in heavy amusement. "By the end of the next decade we will bury you."

Martin Gunther said calmly, "Are you through?"

"Yes. For the time," Watson nodded.

"Very well. Then this is *our* progress report. In the past forty years we have eliminated feudalism in all the more advanced countries. Even in the remote areas the pressures of our changing world are bringing them around. The populace of these countries will no longer stand to one side while the standard of living on the rest of Genoa grows so rapidly. On most of our planet, already the average family not only enjoys freedom but a way of life far in advance of that of Texcoco. Already modern housing and household appliances are everywhere. Already both land cars and aircraft are available to the majority. The nations have formed an Inter-Continental League of governments so that it is unlikely that war will ever touch us again. And this is merely a beginning. In ten years, continuing our freely competitive way of developing, all will be living on a scale that only the wealthy can afford today."

He came to an end and stared antagonistically at the Texcocans.

Taller said, "There seems to be no agreement."

Across the table from him the ancient Honorable Russ said, "It is difficult to measure. We seem to count refrigerators and privately owned automobiles. You seem to ignore personal standards and concentrate on steel tonnage."

The Texcocan scientist, Wiss, said easily, "Given the steel mills, and eventually automobiles and refrigerators will run off our assembly lines like water, and will be available for everyone, not just those who can afford to buy them."

"Hm-m-m, eventually," Peter MacDonald laughed nastily.

The atmosphere was suddenly hostile. Hostile beyond anything that had gone before in earlier conferences.

And then Martin Gunther said without inflection, "I note that you have removed from the *Pedagogue's* library the information dealing with nuclear fission."

"For the purpose of study," Dick Hawkins said smoothly.

"Of course," Gunther said. "Did you plan to return it in the immediate future?"

"I'm afraid our studies will take some time," Watson said flatly.

"I was afraid so," Gunther said. "Happily, I took the precaution of making microfilms of the material involved more than a year ago."

Barry Watson pushed his chair back. "We seem to have accomplished what was possible by this conference," he said. "If anything." He looked to right and left at his cohorts. "Let's go."

They came stiffly erect. Watson turned on his heel and started for the door.

As they left, Natt Roberts turned for a moment and said to Gunther, "One thing, Martin. During this next ten years you might consider whether or not half a century has been enough to accomplish our task."

Should we consider staying on? I would think the Co-ordinator would accept any recommendation along this line that we might make."

The Genoese contingent looked after him, long after he was gone.

Finally Martin Gunther said, "Baron Leonar, I think it might be a good idea if you began putting some of your men to work on making steel alloys suitable for spacecraft. The way things are developing, perhaps we'll be needing them."

Buchwald and MacDonald looked at him unblinkingly.

XII.

It was fifty years to a day since the *Pedagogue* had first gone into orbit about Rigel. Five decades have passed. Half a century.

Of the original crew of the *Pedagogue*, six now gathered in the lounge of the spaceship. All of them had changed physically. Some of them softer to the point of flabbiness; some harder both of body and soul.

Barry Watson, Natt Roberts, Dick Hawkins, of the Texcocan team.

Martin Gunther, Peter MacDonald, Fredric Buchwald, of the Genoese.

The gathering wasn't so large as the one before. Only Taller and the scientist Wiss attended from Texcoco; only Baron Leonar and the son of Honorable Russ from Genoa.

From the beginning they stared with hostility across the conference table. Even the pretense of amiability was gone.

Watson rapped finally, "I am not going to dwell upon the measures you have been taking that can only be construed as military ones aimed eventually at the Texcocan State."

Martin Gunther laughed nastily. "Is your implication that your own people have not taken the same measures, in fact, inaugurated them?"

Watson said, "As I say, I have no intention of even discussing this. Surely we can arrive at no agreement. There is one point, however that we should consider on this occasion."

The corpulent Peter MacDonald wheezed, "Well, out with it!"

Natt Roberts said, "I mentioned the matter to you at the last meeting."

"Ah, yes," Gunther nodded. "Just as you left. We have considered it."

The Texcocans waited for him to go on.

"If I understand you," Gunther said, "you think we should reconsider returning to Terra City at this time."

"It should be discussed," Watson nodded. "Whatever the ... ah ... temporary difficulties between us, the original project of the *Pedagogue* is still our duty."

The three of the Genoese team nodded their agreement.

"And the problem becomes, have we accomplished completely what we set out to do? And, further, is it necessary, or at least preferable, for us to stay on and continue administration of the progress of the Rigel planets?"

They thought about it.

Buchwald said hesitantly, "It has been my own belief that Genoa is not quite ready for us to let loose the ... ah, reins. If we left now, I am not sure—"

Roberts said, "Same applies to Texcoco. The State has made fabulous strides, but I am not sure what would happen if we leaders were to leave. There might be a complete collapse."

Watson said, "We seem to be in basic agreement. Is a suggestion in order that we extend, for another twenty-five years, at least, this expedition's work?"

Dick Hawkins said, "The Office of Galactic Colonization—"

MacDonald said smoothly, "Will undoubtedly send out a ship to investigate. We shall simply inform them that things are not as yet propitious to our leaving, that another twenty-five years is in order. Since we are on the scene, undoubtedly our recommendation will be heeded."

Watson looked from one Earthman to the next. "We are in agreement?"

Each in turn nodded.

Peter MacDonald said, "And do you all realize that here we have a unique situation that might be exploited for the benefit of the whole race?"

They looked to him, questioningly.

"The dynamic we find in Genoa—and Texcoco, too, for that matter, though we disagree on so many fundamentals—is beyond that in the Solar System. These are new planets, new ambitions are alive. We have at our fingertips man's highest developments, evolved on Earth. But with this new dynamic, this freshness, might we not in time push even beyond old Earth?"

"You mean—" Natt Roberts said.

MacDonald nodded. "What particular of value is gained by our uniting Genoa and Texcoco with the so-called Galactic Commonwealth? Why not press ahead on our own? With the vigor of these new races we might well leave Earth far behind."

Watson mused, "Carrying your suggestion to the ultimate, who is to say that one day Rigel might not become the new center of the human race, rather than Sol?"

"A point well taken," Gunther agreed.

"No," Taller said softly.

The six Earthmen turned hostile eyes to him.

"This particular matter does not concern you, Generalissimo," Watson rapped at him.

Taller smiled his amusement at that and came to his feet.

"No," he said. "I am afraid that hard though it might be for you to give up the powers you have held so long, you Earthlings are going to have to return to Terra City, from whence you came."

Baron Leonar said in gentle agreement, "Obviously."

"What is this?" Watson rapped. "I'm not at all amused."

The Honorable Russ stood also. "There is no use prolonging this. I have heard you Earthlings say, more than once, that man adapts to preserve himself. Very well, we of Genoa and Texcoco are adapting to the present situation. We are of the belief that if you are allowed to remain in power we of the Rigel planets will be destroyed, probably in an atomic holocaust. In self-protection we have found it necessary to unite, we Genoese and Texcocans. We bear you no ill will, far to the contrary. However, it is necessary that you all return to Earth. You have impressed upon us the aforementioned truism that *man adapts* but in the *Pedagogue's* library I have found another that also applies. Power corrupts, and absolute power corrupts absolutely."

There were heavy automatics in the hands of Natt Roberts and Dick Hawkins. Barry Watson leaned back in his chair, his eyes narrow. "How'd you ever expect to get away with this sort of treason, Taller?"

Martin Gunther blurted, "Or you, Russ?"

Wiss, the Texcocan scientist, held his wrist radio to his mouth and said, "Come in now."

Dick Hawkins thumbed back the hammer of his hand gun.

"Hold it a minute, Dick," Barry Watson said. "I don't like this." To Taller he rapped, "What goes on here?"

Talk up, you're just about a dead man."

And it was then that they heard the scraping on the outer hull.

The six Earthmen looked at the overhead, dumfounded.

"I suggest you put up your weapons," Taller said quietly. "At this late stage I would hate to see further bloodshed."

In moments they heard the opening and closing of locks and footsteps along the corridor. The door opened and in stepped,

Joe Chessman, Amschel Mayer, Mike Dean, Louis Rosetti, and an emaciated Jerry Kennedy. Their expressions ran the gamut from sheepishness to blank haughtiness.

MacDonald bug-eyed. "Dean ... Rosetti ... the Temple priests burned you at the stake!"

They grinned at him, shamefaced. "Guess not," Dean said. "We were kidnaped. We've been teaching basic science, in some phony monastery."

Watson's face was white. "Joe," he said.

"Yeah," Joe Chessman growled. "You sold me out. But Taller and the Texcocans thought I was still of some use."

Amschel Mayer snapped, bitterly, "And now if you fools will put down your stupid guns, we'll make the final arrangements for returning this expedition to Terra City. Personally, I'll be glad to get away!"

Behind the five resurrected Earthmen were a sea of faces representing the foremost figures of both Texcoco and Genoa in every field of endeavor. At least fifty of them in all.

As though protectively, the eleven Earthmen ganged together at the far side of the messtable they'd met over so often.

Martin Gunther, his expression dazed, said, "I ... I don't—"

Taller resumed his spokesmanship. "From the first the most progressive elements on both Texcoco and Genoa realized the value of your expedition and have been in fundamental sympathy with the aims the *Pedagogue* originally had. Primitive life is not idyllic. Until man is free from nature's tyranny and has solved the basic problems of sufficient food, clothing, shelter, medical care and education for all, he is unable to realize himself. So we co-operated with you to the extent we found possible."

His smile was grim. "I am afraid that almost from the beginning, and on both planets, your very actions developed an ... underground, I believe you call it. Not an overt one, since we needed your assistance to build the new industrialized culture you showed us was possible. We even protected you against

yourselves, since it soon became obvious that if left alone you'd destroy each other in your addiction to power."

Baron Leonar broke in, "Don't misunderstand. It wasn't until the past couple of decades that this *underground* which had sprung up independently on both planets, amalgamated."

Barry Watson blurted, "But Joe ... Chessman—" he refused to meet the eye of the man he'd condemned.

Taller said, "From the first you made no effort to study our customs. If you had, you'd have realized why my father allied himself to you after you'd killed Taller First. And why I did not take my revenge on Chessman after he'd killed Reif. A Khan's first training is that no personal emotion must interfere with the needs of the People. When you turned Joe Chessman over to me, I realized his education, his abilities were too great to destroy. We sent him to a mountain university and have used him profitably all these years. In fact, it was Chessman who finally brought us to space travel."

"That's right," Buchwald blurted. "You've got a spaceship out there. How could you possibly—?"

Taller said mildly, "There are but a handful of you, you could hardly keep track of two whole planets and all that went on upon them."

Amschel Mayer said bitingly, "All this can be gone over on our return to Terra City. We'll have a full year to explain to ourselves and each other why we became such complete idiots. I was originally head of this expedition—before my supposed friends railroaded me to prison—does anyone object if I take over again?"

"No," Joe Chessman growled.

The others shook their heads.

Taller said, "There is but one other thing. In spite of how you may feel at this moment of embarrassment, basically you have succeeded in your task. That is, you have brought Texcoco and Genoa to an industrialized culture. We hold various reservations about how you accomplished this. However, when you return to your Co-ordinator of Galactic Colonization, please inform him that we are anxious to receive his ambassadors. The term is *ambassadors* and we will expect to meet on a basis of equality. Surely in all Earth's millennia of social evolution man has worked out something better than either of your teams have built here. We should like to be instructed."

Dick Hawkins said stiffly, "We can instruct you on Earth's present socio-economic system."

"I am afraid we no longer trust you, Richard Hawkins. Send others—uncorrupted by power, privilege or great wealth."

When they had gone and the sound of their departing spacecraft had faded, Amschel Mayer snapped, "We might as well get underway. And cheer up, confound it, we have lots of time to contrive a

reasonable report for the Co-ordinator."

Jerry Kennedy managed a thin grin, almost reminiscent of the younger Kennedy of the first years on Genoa. "Say," he said, "I wonder if we'll be granted a good long vacation before being sent on another assignment."

THE END

Transcriber's Note:

This etext was produced from *Astounding Science Fiction* August 1960. Extensive research did not uncover any evidence that the U.S. copyright on this publication was renewed. Minor spelling and typographical errors have been corrected without note.

End of the Project Gutenberg EBook of *Adaptation*, by Dallas McCord Reynolds

*** END OF THIS PROJECT GUTENBERG EBOOK ADAPTATION ***

***** This file should be named 24749-h.htm or 24749-h.zip *****
This and all associated files of various formats will be found in:
<http://www.gutenberg.org/2/4/7/4/24749/>

Produced by Greg Weeks, Bruce Albrecht, Stephen Blundell
and the Online Distributed Proofreading Team at
<http://www.pgdp.net>

Updated editions will replace the previous one--the old editions will be renamed.

Creating the works from public domain print editions means that no one owns a United States copyright in these works, so the Foundation (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth in the General Terms of Use part of this license, apply to copying and distributing Project Gutenberg-tm electronic works to protect the PROJECT GUTENBERG-tm concept and trademark. Project Gutenberg is a registered trademark, and may not be used if you charge for the eBooks, unless you receive specific permission. If you do not charge anything for copies of this eBook, complying with the rules is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. They may be modified and printed and given away--you may do practically ANYTHING with public domain eBooks. Redistribution is subject to the trademark license, especially commercial redistribution.

*** START: FULL LICENSE ***

THE FULL PROJECT GUTENBERG LICENSE
PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project Gutenberg-tm mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase "Project Gutenberg"), you agree to comply with all the terms of the Full Project Gutenberg-tm License (available with this file or online at <http://gutenberg.net/license>).

Section 1. General Terms of Use and Redistributing Project Gutenberg-tm electronic works

1.A. By reading or using any part of this Project Gutenberg-tm electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project Gutenberg-tm electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project Gutenberg-tm electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.

1.B. "Project Gutenberg" is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg-tm electronic works even without complying with the full terms of this agreement. See paragraph 1.C below. There are a lot of things you can do with Project Gutenberg-tm electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg-tm electronic works. See paragraph 1.E below.

1.C. The Project Gutenberg Literary Archive Foundation ("the Foundation" or PGLAF), owns a compilation copyright in the collection of Project Gutenberg-tm electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is in the public domain in the United States and you are located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg-tm mission of promoting free access to electronic works by freely sharing Project Gutenberg-tm works in compliance with the terms of this agreement for keeping the Project Gutenberg-tm name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg-tm License when you share it without charge with others.

1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg-tm work. The Foundation makes no representations concerning the copyright status of any work in any country outside the United

States.

1.E. Unless you have removed all references to Project Gutenberg:

1.E.1. The following sentence, with active links to, or other immediate access to, the full Project Gutenberg-tm License must appear prominently whenever any copy of a Project Gutenberg-tm work (any work on which the phrase "Project Gutenberg" appears, or with which the phrase "Project Gutenberg" is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at www.gutenberg.net

1.E.2. If an individual Project Gutenberg-tm electronic work is derived from the public domain (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase "Project Gutenberg" associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg-tm trademark as set forth in paragraphs 1.E.8 or 1.E.9.

1.E.3. If an individual Project Gutenberg-tm electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project Gutenberg-tm License for all works posted with the permission of the copyright holder found at the beginning of this work.

1.E.4. Do not unlink or detach or remove the full Project Gutenberg-tm License terms from this work, or any files containing a part of this work or any other work associated with Project Gutenberg-tm.

1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg-tm License.

1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg-tm work in a format other than "Plain Vanilla ASCII" or other format used in the official version posted on the official Project Gutenberg-tm web site (www.gutenberg.net), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original "Plain Vanilla ASCII" or other form. Any alternate format must include the full Project Gutenberg-tm License as specified in paragraph 1.E.1.

1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg-tm works unless you comply with paragraph 1.E.8 or 1.E.9.

1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg-tm electronic works provided that

- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg-tm works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg-tm trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, "Information about donations to the Project Gutenberg Literary Archive Foundation."
- You provide a full refund of any money paid by a user who notifies you in writing (or by e-mail) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg-tm License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg-tm works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg-tm works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg-tm electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from both the Project Gutenberg Literary Archive Foundation and Michael Hart, the owner of the Project Gutenberg-tm trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread public domain works in creating the Project Gutenberg-tm collection. Despite these efforts, Project Gutenberg-tm electronic works, and the medium on which they may be stored, may contain "Defects," such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the "Right of Replacement or Refund" described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg-tm trademark, and any other party distributing a Project Gutenberg-tm electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT

LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH F3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you 'AS-IS' WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg-tm electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg-tm electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg-tm work, (b) alteration, modification, or additions or deletions to any Project Gutenberg-tm work, and (c) any Defect you cause.

Section 2. Information about the Mission of Project Gutenberg-tm

Project Gutenberg-tm is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need, is critical to reaching Project Gutenberg-tm's goals and ensuring that the Project Gutenberg-tm collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg-tm and future generations. To learn more about the Project Gutenberg Literary Archive Foundation

and how your efforts and donations can help, see Sections 3 and 4 and the Foundation web page at <http://www.pglaf.org>.

Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Its 501(c)(3) letter is posted at <http://pglaf.org/fundraising>. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's principal office is located at 4557 Melan Dr. S. Fairbanks, AK, 99712., but its volunteers and employees are scattered throughout numerous locations. Its business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887, email business@pglaf.org. Email contact links and up to date contact information can be found at the Foundation's web site and official page at <http://pglaf.org>

For additional contact information:

Dr. Gregory B. Newby
Chief Executive and Director
gbnewby@pglaf.org

Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project Gutenberg-tm depends upon and cannot survive without wide spread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine readable form accessible by the widest array of equipment including outdated equipment. Many small donations (\$1 to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit <http://pglaf.org>

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg Web pages for current donation

methods and addresses. Donations are accepted in a number of other ways including including checks, online payments and credit card donations. To donate, please visit: <http://pglaf.org/donate>

Section 5. General Information About Project Gutenberg-tm electronic works.

Professor Michael S. Hart is the originator of the Project Gutenberg-tm concept of a library of electronic works that could be freely shared with anyone. For thirty years, he produced and distributed Project Gutenberg-tm eBooks with only a loose network of volunteer support.

Project Gutenberg-tm eBooks are often created from several printed editions, all of which are confirmed as Public Domain in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our Web site which has the main PG search facility:

<http://www.gutenberg.net>

This Web site includes information about Project Gutenberg-tm, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.