

The  
GRAND WHEEL  
Barrington  
J.  
Bayley  
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### Chapter One

There was a concave stripper in the game.  
Cheyne Scame, as he shuffled the deck preparatory to dealing, covertly sized up the player sitting opposite him across the green baize table. The stripper was not much over twenty-five years of age; with his pale face and thin nose, he had an icy sort of self-assurance about him. Earlier he had introduced himself as Skode Loder, from off-planet, a newcomer to lo- one of the new breed of players who never stayed long in one spot.  
Scame had already gauged Loder to be a card mechanic, but he hadn't been sure just what his particular gimmick was. Now that he held the deck in his own hands, he knew even that.  
Several of the trump cards had been finely shaved on their short edges, so that the stripper-or, now that he knew the secret, Scame himself-could on his deal drop them out of the pack and distribute them whichever way he wanted. The job had been artfully performed: the slight concavities made no perceptible dent. But Scame had found the right touch, the slight difference in pressure, that made the trick work.  
Loder, he noted, wore a slim, gold ring on the third finger of his left hand. That was it, of course. There was a blade vibrator in the ring.  
It was too obvious, in fact, almost blatant, as if the sharp were advertising his trade. Scame had known of stripper blades that were totally invisible, being embedded in the flesh of the finger and anchored to the bone.  
Loder was gazing back at him, a sardonic smile 5

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playing on his lips. Scame was in a dilemma. In the past hour he had been nearly cleaned out by this mechanic. He could now expose him and get his money back. But he hesitated. In too many ways, it didn't add up.  
The sharp had walked into a game between professionals. For his victim he had chosen Cheyne Scame, who as well as being an experienced gambler was also a professor of randomatics-in other words he was one of the hardest men in the solar system to take for a ride. Everything else was wrong for this situation, too. The place: not some unfranchised shack but a Wheel house, where to be caught cheating could mean being banned from every Wheel establishment in a hundred light-year radius. The game: Opus, a game for professionals, one of the only two card games to utilize all seventy-eight cards of the ancient Tarot pack (the other was Kabala, a game whose rules were so abstruse only a handful of people had succeeded in mastering it).  
Who would try to pull off such a stunt? Nobody but a fool.  
Skode Loder was too expert to be a fool.  
Another of the players spoke, good-naturedly. "Eh, don't give us any riffle-stack, Cheyne. Come on, deal us a fair hand."

Scame had automatically been shuffling and reshuffling while he thought the matter over. He glanced again at Loder. He could almost imagine that the man knew-and was laughing at him.

He came to a decision. Squaring up the deck, he laid it in the center of the table, then pushed his remaining chips into the stakes circle. He took out his bank card and threw that in, too.

"Time for me to leave," he said. "But first let's cut for what's left, Loder." Loder bent his head to read the amount printed on the bank card. He sat stock-still for a moment. Then he shrugged.

"Why not?"

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The others looked on with interest, making no comment, as Loder covered Scame's stake. He cut the deck, glancing at the card he drew before laying it face down. Scame in turn cut, showing the card to Loder. It was the queen of wands.

Loder smiled, and revealed his card. It was the card known as the universe: a trump, one of the major arcana, the elaborate picture symbolism that had been devised in antiquity to depict cosmic mysteries. It showed a naked female dancing within an oval wreath, a flaming wand in each hand.

The card was probably stripped, Scame thought. That just about summed up everything. A stripped universe.

There was a time-honored loser's prerogative. Scame reached out and picked up one small chip. "Okay?"

Loder nodded. Scame stood up.

"Another time, perhaps."

The black-jacketed seneschal bowed to him as he emerged from the card room.

Scame had a reason for knuckling under to Loder's deprivations. There was one thrilling explanation that did make sense.

For some time he had been trying to find his way to the inside of that vast, circumspect organization known as the Grand Wheel, controllers of chance and probability, in the gaming sense over the whole of man-inhabited space. He knew that in a less sophisticated phase of its history the Wheel had practiced a rough-shod method of recruitment. It would engineer the ruin of the prospect, leaving him bankrupt, threatened with imprisonment or violence; thus he would be made to feel the Wheel's power even while forced to accept its protection, caught in a closed system from which there was no escape.

These days the Wheel had no need to take such measures. But it had a well-known love of tradition.

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Scame believed Loder was a Wheel operative, going through ancient motions. If Scame had behaved like a hick, denouncing Loder and showing that he understood events only in a simplistic sense, then his opportunity would be gone; he would be deemed too inflexible. Only if he gave some sign that he recognized the hidden level in the game, might there be a further contact.

It was conceivable, of course, that Loder had somehow learned of Scame's long-term object and was perpetrating a double-bluff.

He could only wait and see.

A walk along a blue and gold corridor brought him to a balustraded balcony which overlooked the main gaming area. The tables and ferret machines were busy, bringing in the Wheel its eternal percentages. On one wall a huge numbers display flashed out sequences of multicolored digits. Over the exit the Grand Wheel's emblem, a spoked gold wheel revolving slowly, glittered.

The background music mingled with the calling of bets and made a meaningless din in his ears. He descended the stairway and wandered among the gaming machines.

Idly he stopped at a table with a surface of colored squares. He put Loder's chip on the pale green. The table-top flickered and surged. The chip went down.

"Hello, Cheyne. Anything upstairs worth getting into?"

Scame turned on hearing the voice of Gay Mill-man, an acquaintance. "No, nothing," he said, and walked on.

Centuries ago, he reflected, an establishment like this one would have been filled with simpler mechanical devices, of which the roulette wheel, he supposed, was the archetype.

But that was before the advent of randomatics, the modern science of chance and number, had rendered all such devices obsolete. They were now regarded as primitive, almost prehistoric. Scame could have

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walked into any old-style casino or gambling arcade and, armed with the randomatic equations, would have been guaranteed to win, moderately but consistently, over the space of an hour or two.

Randomatics rested on certain unexpected discoveries that had been made in the essential 'mystery of number. It had been discovered that, below a certain very high number, permutating a set of independent elements did not produce a sequence that was strictly random. Preferred sub-structures appeared in any 'chance' run, and these could be predicted. Only when the number of independent elements entered the billions-the so-called 'billion bracket'-did predictability vanish. This was the realm of 'second-order chance', distinguished from first-order chance in that it was chance in the old sense: pure probability, unadulterated by calculable runs and groupings.

The mythical system once sought by cranks and eccentrics became, therefore, a scientific fact. To meet this challenge the fermat, a new class of machine able to operate beyond the billion bracket, arose. Early versions had been comparatively crude affairs, following, perhaps, the path of a single molecule in a heated gas or counting out exploding atoms. As the randomatic equations, refined and extended, pushed back the billion bracket still further these, too, became obsolete. These days all formats worked on the sub-atomic level, by manipulating the weak nuclear interaction, intercepting neutrinos, processing exotic artificial particles, or even tapping the source of true randomness below the quantum level. The innards of some of them were Wheel secrets.

Making for the exit, Scame paused in the foyer, where there stood a row of a small type of fermat called the mugger. Muggers held a special fascination for Scame, perhaps because of their ubiquity. Wherever one turned there was a mugger. They existed in their billions, all treated by Wheel mathematicians as a single stochastic organism with terminals spread over a hundred star systems. Not bad, Scame thought, for

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something that had evolved from the ancient fruit machine, or one-armed bandit. He fumbled in his pocket for a coin and pressed it into the mugger. He touched the go bar: a cloud of colored dots twinkled silently on the gridded screen. It was like watching a structureless proto-galaxy, speeded up. Number, he thought. Number was what it was all about. What everything was all about. Number, plucked out of some unfathomable sub-universal source.

The sparks settled. Scame scanned the grid slots.

Gold. Gold. Gold. And gold all along the line.

Stupefied, he stared at the golden points. As he did so, a soft conspiratorial voice issued from the base of the mugger.

"Jackpot. You have won the jackpot."

Scame glanced around him. The Legitimacy government had long outlawed Wheel jackpots, though rumors persisted that they were still operated illegally - rumors which, given the nature of the odds, were hard to confirm. Some said the jackpot was an enormous sum of money. Others that it granted a secret wish. The soft voice spoke again, directing him. "Take hold of the silver handles below the pay-off groove. The jackpot will then be delivered."

Scame broke out in a sweat as he looked for the handles, which to the uninitiated were merely part of the mugger's florid decoration. Nervously he

closed his fingers round them, his head reeling to think of the odds against this happening. One jackpot, perhaps, per billions, trillions of throws? It seemed impossible. Impossible? No, he reminded himself, nothing was impossible in a world of random numbers. Only improbable.

And then the jackpot hit him and it was nothing he could have guessed at or expected. The Wheel house dwindled from his consciousness. He was standing on the edge of a precipice. Below him was a raucous,

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roaring, boiling sea. Then the ground vanished from under his feet. He was falling. Down, down, down.

He was sinking, drifting, swimming through a vast shifting foam-like sea out of which abstract entities formed and dissolved without rhyme or order. He came to understand that he had dropped out of the realm of solid reality. He was in the awful other reality, the one he had been contemplating, dimly and theoretically, instants earlier. The gulf of pure randomness that underlay all of existence.

The Great Profundity:

a sea of non-causation, on which the universe of cause-and-effect, of structure, order, space and materiality, floated like scum on turbulent water. Number.

The universe was made of number. The ancient Greeks had been the first to guess at that fact. Modern science, aided and abetted by randomatics, had confirmed it. And here it was: the source from which number flowed in an endless, utterly irrational stream. Before there was the atom, before there was the elementary particle, before there was  $h$ , the quantum of action, there was number.

Scame understood the randomatic equations now in a way he never had before. But even those equations were dissolving, breaking up. Everything dissolved in this foam sea. It was a universal solvent beyond the wildest alchemical dreams, breaking down substance, idea, being itself. Even Scame's own consciousness was dissolving, in ecstasy and terror, into the endless flux....

Then it all vanished and substance returned. The silver handles were cool in Scame's sweating hands. The formats glittered and flashed, ranked silver and red. Vastoess.

His experience had fouled up his sense of orientation. The impression of vastness, in particular, lingered, attaching itself to everyday objects. The blue wall to his left was, at a guess, the distance from the Earth to the Moon.

The fermat before him was a ti-

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tanic construction soaring thousands of miles into the air. Above, the roof ... he glanced up, and quickly looked away again, seeing a titanic moving assemblage of folds and color alongside one of the fermats. It was a woman in a tan robe, thumbing in a coin, touching the go bar, thumbing in a coin, touching the go bar, on and on.

The vast perspective was not all. Everything around him seemed to have been translated from the concrete to the abstract, as though every vestige of meaning had been sucked out of the world. His consciousness had become over-sensitized. Sounds were hard to recognize, floating in the air around him without any identifiable source. Even the formerly pleasant music coming from the softspeakers had lost its tune-fulness; it skirled on, atonal, surrealist, arbitrary.

A voice boomed to him across great cavities.

"YOU ALL RIIIGHT, CHEYNEEEE?"

He made an effort at recognition. It was Gay Mill-man, his face so huge as to make his expression unreadable.

"YOU LOOK PAAAALE ..."

Scame spoke. "YES I'M ALL RIIIIIGHT . . ." Each vibration of his voice was like the beat of a drum. He turned away from Millman and headed for the street, forcing himself to overcome his fear that he would fall over and topple thousands of miles to the floor.

Walking to the exit was like crossing space to another planet. Each step was a stride that crossed a continent. But eventually he stood outside, where he tried to normalize his sense of size and distance. It had been raining and the street was wet. He tried to tone down the sound of the traffic in his mind, and looked up at the black sky of Io. The towers of the town were outlined sharply against the big soft globe of Jupiter. It was too much. He closed his eyes painfully. "A moment if you please, friend." Scame opened his eyes again. A thousand-mile-across face ballooned into view. Thin nose, pale skin,

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jaunty eyebrows all smeared from horizon to horizon. Like a telescope suddenly refocusing, his vision became normal. The face was human size. "Skode Loder," Scame muttered. "You want me?" "His twin, as a matter of fact. Skode is still upstairs." The other flicked his fingers and conjured a card into his hand, giving it to Scame. It was an introduction card, of the type used to make formal contact. A spoked gold wheel revolved slowly, given perpetual motion by electrolytic molecular printing. "Will you be at home at ten tomorrow?" "I suppose so." "Be there." The tone of his voice, the ritualized summons from the Grand Wheel, all implied a certainty that Scame would be on call. Loder turned abruptly and mounted the steps into the gaming house. Scame set off down the street, still too bewildered to form any definite feelings. The illusion of giantism might have disappeared-if it could be called an illusion, size being relative-but the jackpot, the vision of ultimate probabilities, was still vivid in his mind. He was trenchantly aware that behind the glistening street, behind the moving cars and the glittering signs fronting the buildings, lay the almost mystic gulf of non-causation, invisible to the senses, invisible to the unaided mind, on which the world floated without apparent support. Pacing the sidewalk like a stricken man, he came to a corner where there was a news-vendor stand. A flash-sign glowed above the delivery slot: BIG DEFEAT IN HOPULA CLUSTER. LEGITIMACY FORCES REEL BEFORE HA-DRANIC HAMMER-BLOWS. But even this horrifying war news failed to catch his attention, and he passed by, walking through a ghost world.

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#### Chapter Two

When Scame awoke six hours later it was dawn. Atop the highest tower of the town the artificial sun was kindling, casting daylight into the streets and through the windows of his living room. Blearily he rose, still feeling slightly disorientated. More than that, his nerves were beginning to twitch in a way he knew would be indicative of much worse things to come unless he gave himself a needed fix. He unlocked a cabinet and took out what appeared to be an ordinary deodorant spray. The atomizer hissed as he spray-injected a dose of the drug it contained into his jugular vein. Rapidly his nerves steadied. On one occasion he had tried to defy the addiction, letting the withdrawal symptoms continue. It had been an experience he did not intend to go through again. He decided he had better get in touch with Magdan, his contact. He opened a wall closet and swished aside the clothes hanging there, then placed a small stool in the space he made. He climbed in, sat down, and closed the door behind him, reaching as he did so for the switch that activated his secret holbooth. The darkness of the cupboard vanished. He was sitting on an ordinary chair in a small, windowless room. The walls were decorated with blue and gold fretwork: it was a standard holbooth room. The chair facing him was, however, empty.

He waited, until Magdan, his Legitimacy controller, appeared suddenly in the chair about a minute later. He wore a satin dressing gown and was rubbing his eyes. Evidently Scame had got him out of bed.

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"This is a hell of a time to be calling, Scame," the hologram image of Magdan said with a scowl. "There'd better be a good reason for it."

"There is." Briefly Scarne recounted the events of the previous night, the game with Skode Loder and the subsequent approach. "This kind of thing is traditional," he explained. "So there you are: I think I've got my foot in." Magdan showed none of the expected delight. "About time. I was beginning to write you off. How much did this mechanic take off you?"

"Everything. About two hundred thousand." At that, Magdan became angry. "Hell, that was government money," he exploded. "I have to account for everything you throw down the drain."

"It was fun," Scame admitted. "I can't honestly see that I owe you anything. Besides, I thought I just explained: the Wheel wouldn't have made contact until I was destitute. They have a high regard for tradition." He paused. "By the way, did you know the Wheel does still run mugger jackpots?"

"So what's new?" Magdan grunted, sulking into his thoughts for a moment.

"I hit one last night. After the game." Magdan showed interest. "Well! That wasn't exactly coincidence, was it?"

"I don't know . . ." Scame said doubtfully. "The Wheel doesn't fix its muggers. I'm sure of that."

"Oh, certainly. Like your Tarot cards weren't stripped."

"That was different," Scame told him. "The house didn't do the sharpening. A player from outside did it- a hired freelance or a Wheel employee from another level, somebody the house doesn't know anything about. There was something unusual about this jackpot, too." He ruminated, trying to find words to describe his experience. "I had a vision. A vision of randomness-pure randomness, below every level maths can reach." He stopped. There was little point

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in trying to convey abstract ideas to this beefy secret serviceman.

"What are you trying to suggest?" Magdan asked slowly.

"Maybe the Wheel are using their new equations. The luck equations."

"And they steered you a jackpot by sheer luck?" "Yes. Then they wouldn't have to fix it." "It's quite a thought," Magdan conceded. He became thoughtful. "When this is all over we'll have you debriefed over that jackpot. They can be psychologically damaging-that's one reason why they're outlawed." He frowned, sinking his chin into his chest, thinking hard. "I'm still inclined to think the mugger was rigged, though. I don't have your belief in the Wheel's fastidiousness. When did you say they're calling?" "At ten."

"Meantime I'm closing this connection down. We don't want it traced. When you have something for us, call one of the numbers you've already memorized." "The antidote," Scarne said. "Huh?" Magdan looked up at him, sharply. "If you're leaving me without a personal controller, I want the antidote. I'm as good as inside. I've done enough to deserve it."

Magdan pulled an ugly face, expressing derision. "Forget it. You'll get the antidote when you deliver the luck equations, and not a minute before."

He rose from his seat. Scame began to get desperate. "Don't leave me without a link-man," he pleaded. "The Wheel could take me literally anywhere. What if I need to renew my supply?" "Call one of the numbers."

"I might not be able to call a number! Or perhaps your agent won't be able to reach me." Scame's tone became wheedling. "Give me the antidote. You needn't worry about my reneging. I'm on your side."

Magdan cast his eyes upwards. "Oh, sure. Look, you know the score, Scame, or at least you ought to

by now. You're not our only hook in the water, you know. Come through with the goods and you'll be all right. After all, people like you never do anything without an incentive, do they?"

As Magdan turned to go Scame surged to his feet in a sudden fury. "You goddamned bastard," he choked. He threw himself at Magdan. Their two forms tussled, the scanners integrating their hologram images and causing them to respond to one another like physical objects. The holbooth system was nothing if not pure communication.

Abruptly Magdan vanished, quickly followed by the holbooth room itself. Scame found himself back in the darkened clothes closet, threatening empty air. Nothing happened when he tried the activating switch again. Magdan had dissolved the secret hol-booth connection, as he had said he would. Scame stepped from the closet shaking with reaction. One day he'd get even with Magdan, he promised himself savagely, but futilely. In fact, he was aware that he would not have the courage physically to attack the controller in the flesh.

When it came to method, he thought as he padded to the bathroom, there was little to choose between the Legitimacy and the Grand Wheel. Magdan had chosen a hell of a way to ensure his loyalty. The drug his men had forcibly addicted him to was a specific drug, one synthesized exclusively for use on him. The antidote was equally specific. Neither it, nor the drug itself, could be obtained from anyone but his masters, the Legitimacy's secret intelligence service.

In the bathroom mirror he examined his face carefully. Its lines were continuing to deepen, his incipient middle age being accelerated by the ravages of the drug.

Wearily he washed, dressed, and then breakfasted on coffee and synthetic fluffed eggs. There was time to wait before his appointment with the Wheel callers. He tried to relax, attempting to soothe himself by playing with a favorite curio: a pair of cubical white dice,

the faces bearing black dots from one to six. They were centuries old, quite valuable as an antique. Loaded with tiny movable internal weights, with a little expertise-it was all in the wrist action-they could be made to come up with any number to order. Or, again by means of the right shake, they could be converted into even-weighted dice safe for inspection.

He shook the dice in his hand and threw a seven. He threw four more sevens, then switched to eleven.

In a games-conscious civilization the weighted dice were but one item in a long colorful history of cheating devices. Cheating at cards, for instance, was a science all of its own; it had a tradition of ingenuity that made it almost honorable in some eyes. Locaters, shiners, marked cards of inexhaustible variety, strippers both concave and convex, change-cards whose surfaces mutated and could assume the value of any card in the deck-the mechanics of it was endless, not to speak of sleight of hand, which in some practitioners had reached almost superhuman levels.

The ultimate in cheating devices was probably the hold-out robot, given its name from the ancient (but still used) hold-out machine, a device strapped to the arm which delivered either a set of cards or a cold deck into the hand. The hold-out robot was a proxie player, a nearly undetectable man-like robot who entered play but remained in touch with its owner who looked through its eyes and partly controlled it. More than a mere waldo, the hold-out proxie had its own brain and such a sublime sense of touch that it never needed to use trick shuffles or any other gimmick. It could take a deck in its fingers and count the cards down by touch alone, cutting to obtain any card it wanted. It could keep track of every individual card through shuffles and deals and so always knew what everybody was holding.

Hold-out robots had gone out of fashion recently, though. It was becoming easier to detect them. The

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last one Scame had heard about had been smashed to pieces, right there in the card room.

At ten the annunciator toned. Scame, who had become increasingly more nervous during the past half hour, checked the door monitor. Two men stood outside, both snappily dressed. One was big, with an air of restrained violence: the heavy. The other was smaller, more like a functionary.

He let them in. The heavy looked around the apartment in a cool, professional manner. "Is this place bonded?" he asked.

"Yes."

"Right. We don't have to worry about it."

The other spoke, idly but firmly. "We're here to take you to see some people. Professor Scame. Don't expect to be back in a hurry. Unless you have any substantial objections, I suggest we leave now."

Scame coughed, found his voice. "Where are we going?"

"Earth. The planliner leaves in half an hour."

"Could you tell me exactly what I'm wanted for?" Scame asked, stumbling over the words. The Wheel man made no direct answer, but merely stared at him. Do you not understand your good fortune? his eyes seemed to say. You're being taken into the employment of the Grand Wheel. You'll be a Wheel man, like me, a member of the most powerful brotherhood in the human world.

Scame picked up the hold-all he had already pre-prepared. "I'm ready," he said. A car was waiting in the street below. Scame sat in the back, sandwiched between his two escorts, while they rode through the town.

"What are your names?" he asked boldly.

The smaller man gestured to his companion, then to himself. "Caiman. Hervold."

"We're going to Earth, you say. At least you can tell me where on Earth."

"Just Earth." Hervold smiled wryly. "We just do our job, that's all."

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"Of course." Scame peered out of the car window, watching the buildings speeding past.

The shuttle wooshed skywards, leaving lo's miniature landscape laid neatly out below. The towers of Maintown jutted up like a crop of metal whiskers. The atmosphere plant on the outskirts looked like an Earth-type stadium, exhaling the gases of life.

In less than a minute they were above the shallow atmosphere and in darkness. The shuttle pushed its passenger tube into the hull of the planliner; there were clinking sounds and sudden, small movements. Then smoothly and imperceptibly the inertial engines took hold, hurling the planliner on a brief geodesic to Earth. The planliner was about half full. Scame shared a seat with Hervold and Caiman in the large, comfortable lounge. È he remembered correctly, the journey would take around an hour at this time of the year.

He pulled a sealed deck of cards from his pocket. "Care to play?"

"No thanks," Hervold said. A servit entered the lounge and began wheeling between the zigzag rows of seats, offering drinks and smokes. Hervold beckoned the machine over. As he did so, Scame noticed a piece of jewelery dangling from his wrist: a little wheel of gridded gold.

"I'll bet you feel good to wear that," Scame ventured.

Hervold glanced at the trinket and scowled. "Sure."

Scame realized he had been personal. Wheel people were touchy about the emblem of their order.

The other's gaze focused on his throat. "I see you're not travelling alone, either," he said. "You believe in Lady. That's interesting."



Scame fingered the image of Lady, goddess of luck, that hung from his neck. "It's not that I'm religious," he explained. "I don't believe in Lady as an actual being. More as an impersonal force or principle."

"Don't we all," Hervold replied sardonically, tum-

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ing to the servit. He brought green-tinted jamboks for the three of them. The Wheel men were unwilling to talk further. Scame drank his jambok. Then he fell into a reverie.

In a half doze, he seemed to see the wheel symbol spinning dizzily, throwing off probability in all directions. The wheel, most ancient of man's symbols, sigil of chance, image of eternity. The Wheel of Fortune, the Tarot pack called it. Elsewhere it was known as the Wheel of Life. The randomatic equations also had a cyclic form, as had the equations used in most formats.

The Grand Wheel had probably chosen the symbol fortuitously to begin with, back in the days when it had been no more than a semi-criminal gambling syndicate, before it had developed into a political and ideological power well able to withstand the onslaughts of its arch-enemy, the Legitimacy government. It might once have signified no more than a roulette wheel or some such device. But now it had come to mean much more. It was curious, Scame thought, how the Grand Wheel had swallowed itself in its own symbolism, as if hypnotized by its own mystique, delving, for instance, into the arcana of the Tarot pack, and generally indulging in the mystico-symbolism that it was so easy to associate with the laws of chance.

Had the world always been like this, he wondered? Hustlers and hold-out robots, instantly addictive drugs administered by government agencies, a perpetual struggle between law and hazard. Had civilization always been dichotomic? Or would one side, the Legitimacy or the Grand Wheel, eventually vanquish the other? Probably not, Scame thought. The Wheel was scornful of, rather than antagonistic to, the Legitimacy's obsession for predictability and control, for eradicating chance hazard. It did not seek to replace the government, merely to tap mankind's gambling instinct which the Legitimacy abhorred. And the Legitimacy would never rid society of the Grand Wheel, either; its tentacles were too deep. Indeed, the Legitimacy itself could scarcely do without the Grand

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Wheel anymore. By now the proliferous gaming houses, the interstellar numbers service, the randomatic sweepstakes, were only froth on the Wheel's activities; the Wheel alone, for instance, had the ability to keep the huge interstellar economy running smoothly, applying to the stock and commodity exchanges the same randomatic principles that governed the fermat networks.

Scarne awoke with a start, realizing that he must have dozed off. They had reached parking orbit and the passengers were splitting up, some going to Luna and some to Earth. A trifle blearily, he followed Hervold and Caiman into the Earth shuttle for the short hop. As he took his seat he saw that the shuttle was accepting passengers from another planliner, too. They were mostly military officers; they seemed, like him, in low spirits and short of sleep.

He sat back while the shuttle steadily filled up with uniformed men. Caiman stirred. He looked at the officers with an expression that showed increasing disgust.

Finally he spoke for the first time since lo. "Just look at those punks," he said loudly. "Did you ever see such a pack of deadbeats?" He took something from his breast pocket and handed it to Scame. "Here, just take a look at this. Doesn't it make you sick?"

Scame shook loose the tiny, infinitely foldable news-sheet into readable size and scanned the headlines. The sheet had been printed on lo. It told in detail of the Hopula disaster, of Legitimacy forces falling back across hundreds of light years, of man being forced out of territories he had believed were his.

"The goddamned Hadranics are coming closer every day," the Wheel heavy said in a hard-edged voice. "It's time those Legit generals started putting some guts into it, because in a few years they could be right here in Sol."

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### Chapter Three

The desert was bone-yellow. In the south a sun of a much brighter yellow, the color of sulphur, hovered a third of the way between the horizon and the meridian, looking down on the temporary installations like a baleful eye.

A thin-faced youth, aged fifteen or sixteen, stared at the sun with sullen fear. Suddenly he shivered and tore his gaze away. "I'm cold!" he yelped in a cracked voice. "Get me a cloak, you!"

The burly crewman he had addressed looked at him disdainfully. "Tell me, sonny, have you ever shaved?"

The youth flushed and rounded on Hakandra. «My price is doubled!" he croaked. "I won't take insults!"

Hakandra moved his hand placatingly. "Forget it, Shane. It was just a silly remark."

"Nevertheless it has doubled my price. Or do you think you can do without my services? All right then, do without them. I renounce my obligations as of now. Perhaps the sun is due to explode tomorrow, in the next hour, the next minute. Perhaps it has already begun to explode-I won't tell you."

"Are you gonna let yourself bum up too?" the crewman grunted, and walked away. Hakandra scowled after his retreating back, making a mental note to put in a disciplinary memo. He slipped off his own cloak and draped it round the shoulders of the shivering boy. In fact the air was not at all cold. The lad was suffering from nerves, as usual.

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"Let's get back to the ship," he said. "No use our hanging around here."

They set off up the slope towards the starship which rested on the crest of the hill. "Do you get any murmurs?" Hakandra asked quietly. "No, it's quiet."

The youth walked in silence for a while, and then started whining. "Can't we leave this Godforsaken hole? I don't like it here ... how much longer?"

"No, Shane, we're not leaving. We've a great deal of work to do yet. And please don't let me hear any more talk about increasing your fee. That was all agreed back in Sol."

"You want my power to dry up, don't you? You're all of you going the right way about it to make my power dry up; it's not absolutely reliable, you know. Where would you be then?"

"Probably quite safe," Hakandra replied in a level voice. "But you're not going to dry up, Shane-you're not stupid. You know how important all this is." He stopped, looking around him at the ochre sun and purple sky. "This is where the outcome of the war will be decided. Victory or defeat."

They entered the big starship, riding an elevator up through its many decks.

Hakandra sent Shane to rest in his quarters. Then he made his way to the corner room.

Every day at about this time he spent a few minutes talking to other workteams scattered about the Cave. As he entered the room the techs were accepting narrowbeams from here and there, holding them on-line. Hakandra sat down before a holo screen and had one put through to him. On the screen a lean face emerged, wearing a peaked uniform hat bearing Legitimacy markings. It was the leader of team D1.

The team leader's face was bleak, wavering slightly, the narrowbeam vacillating over the vast distance. "There's been a nova on the outward side," he told Hakandra. "Team K5 was there-without a cold-senser."

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"No survivors, then?" Hakandra responded after a moment, his heart sinking. "No time to do anything. It's so sudden." The team leader sounded desperate. "It's terrifying how fast these things can blow. A star burns steadily for billions of years and then, in the space of minutes-" He broke off, sighing. "Perhaps they didn't die in vain. The automatic stations carried on transmitting data right up to the instant they were vaporized. Perhaps we'll learn something." Hakandra nodded. Knowledge of what made the stars in the Cave go nova at such a rate could be important in the impending struggle. As he had said to Shane, this was where the next stage of the war would be fought.

"Any news from the front?" he asked.

"We've been routing whole streams of messages between there and High Command. There's a big quarrel building up. The military people in the field are doing a good job of covering the evacuation, but Sol seems more concerned with getting out as many intact battleships as possible, and to hell with civilians."

"It's a difficult decision," Hakandra said, aware that reserves were dangerously low.

After a few further desultory comments he left D1 and talked to some of the other teams working in the Cave. So far their surveys had uncovered several hundred usable planets and soon the Legitimacy was going to have to decide which to invest and which to destroy.

Finally he killed the holo screen and sat brooding. The destruction of Team K5 had shaken him, despite himself.

What a hell of a place to have to make a stand, he thought. In the Cave, which to anyone brought up in Legitimacy philosophy was a region of horror, a bastion of the enemies' chance and randomness.

The Cave of Caspar was so called not because it was empty, but because its thin scattering of stars made it comparatively empty. It had the form of a curved oblong, bounded on its long sides by neighbor-

ing spiral arms, and on the shorter ends by straggling limbs of stars that connected the spiral arms. It was now very nearly all that remained between the main bulk of human civilization and the advancing Hadranics; nearly all territory on the further side of the Cave had fallen, including the much-prized Hopula Cluster, and the thin margin of stars remaining were being hastily evacuated behind an improvised defensive screen.

To attack the central regions of man-inhabited space the Hadranics would have to cross this immensity, with its lack of cover and its dearth of worlds. A defensive strategy was slowly being worked out and soon fresh forces would move in to take up their positions. But there was a peculiar difficulty involved in any kind of activity in the Cave. All the stars there were unstable, liable to go nova at any time, without warning.

The reason for it was not understood-probably it had something to do with the unusual nucleonic resonance levels to be found in stellar material within the Cave. The problem was precisely identical to that of radioactive decay: one could calculate how many atoms would explode out of a given number in a given time, but it was impossible to say which particular atoms they would be. Yet it had been estimated that all stars in the Cave would have exploded in another hundred thousand years or less.

Grand Wheel operatives might feel more at home here, Hakandra thought sourly. But the Legitimacy had found an answer-and that answer lay in people like Shane, a cold-senser. The term was a piece of jargon thought up by psychologists, mainly, Hakandra suspected, to cover up their own ignorance, but it meant that he was capable of perceptions that did not always have to be processed through the physical senses. More specifically, he had the ability to predict chance

occurrences: how a pair of dice would fall, what number was due out of a sequence, even on a single throw.

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He was an extreme example of what had once been known as a callidetic. For some years the Legitimacy had been nurturing people like him as part of its eternal struggle against the Grand Wheel. All cold-sensers were now, however, employed in the Cave:

in some manner they were able to predict when a star was about to blow, even though normal scientific observation would detect no difference in its activity. They could give just enough warning for a getaway. Cold-sensers were not completely reliable and the protection they gave was not absolutely dependable; moreover they were hopelessly neurotic-over-stimulation of the thyroid gland was part of the treatment that heightened their talents-but it gave Hakandra a warm feeling to have one on his team.

After a while he left the corn room and worked on some reports. Then he went up into the observation room where he ate a sparse meal, afterwards sitting and watching the desert landscape through the glassite dome. The sun went down, its run flickering and bubbling on the horizon in a way that made Hakandra nervous every night, even though it was only a trick of the atmosphere. Then the dark purple sky took over, filled with the misty swathe of the Milky Way and the great patches of darkness.

A sound came from behind him. Shane entered the room, picking his way through the semi-darkness to lean against the glassite and peer into the sky.

"There was a nova over on the other side," Hakandra told him after a long silence.

Shane nodded calmly. "I'm not surprised. I had a . . . premonition. I thought there might be one going off somewhere..."

Hakandra glanced at the youth. All his former neurosis seemed to have vanished. Hakandra had seen this transformation before: when Shane lost the almost psychopathic aspects of his personality and became collected, almost angelically graceful. But now he seemed, at the same time, depressed and fatalistic.

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"The Cave is a terrible place," the boy murmured. "It's cursed."

Hakandra snorted. "Don't be superstitious."

"I tell you it's cursed. Lady has cursed it. How would you know? You have no sense for such things, but I can tell ... It's an accursed hole that the goddess has deserted. The very stars explode. Everything decays."

Hakandra was disturbed to hear Shane talk in this religious way, smacking as it did of the mystique adopted by the Grand Wheel. "There is no goddess," he said curtly. "Put that nonsense out of your head."

As the sky darkened there was a faint glow in the south. It came from some ruins Hakandra had visited. They were made of a light-retentive stone and glowed at night like phosphorescent bones. The race that had built them had died ages ago, when the planet dried up.

It was the same story all over the Cave, which was littered with the ruins of dead civilizations, as though the force that generated life was insufficient to enable that life to survive the hazards of existence. There was not one example, as far as was known, of a living intelligence still surviving in the Cave.

It almost persuaded Hakandra to believe in Shane's pessimistic mysticism. But he shook off the mood. It was unfitting, in an officer of the Legitimacy.

#### Chapter Four

Overhead, the sun beat down brilliantly on the extended wings of the shuttle. Below, visible through the vehicle's windows once they were within the atmosphere, were spread out chessboard squares of cloud,

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land and sea: the pattern of Earth's controlled weather areas.

As they descended the chessboard effect was reinforced by the fact that pieces stood on some of the squares. The pieces were vertical tower cities, complete with coronas and lumpy protuberances, creating the impression of chess kings and queens, knights and castles.

The shuttle planed down to the big dispersal center. Here there was no automatic immigration count, as there would have been on, say, Mars, a Legitimacy-dominated world. They walked straight off the shuttle and onto the force network platforms. Soon Scarne's escorts had procured a vehicle and they were hurtling through the air towards their destination, propelled by the invisible inertial guidelines.

The landscape was mostly forest and empty plain, dotted here and there with vacation lodges. The population was all in the teeming, colorful cities. It said much for the dichotomic nature of human civilization that Earth, the capital planet, was a Wheel world-one where the Grand Wheel's influence was strong, unchecked by the Legitimacy's repressive efforts. On Earth the game was the thing; it was the site of the original corruption, the birthplace of the Wheel. Here people spent their lives testing fortune, moving from one ingenious game of chance to another.

A vast pile loomed up and became a blur as the inertial vehicle slammed towards it at ten thousand-miles per hour, slowing to a mere sixty in the few seconds before entering the tower city. Briefly they sped through lighted tunnels, changing direction every now and then.

When the inertial beam brought the vehicle to a stop they were in what seemed to be a largish office, or study. An untidy desk was littered with papers, tapes and box files. One or two paintings, mediocre to moderately good, hung on the walls. Chairs, a couch, a service cabinet.

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Hervold folded down the front of the small vehicle. They clambered out, looking around them.

"Where's Soma?" Caiman asked, disgruntled.

"He ain't here." Hervold crossed to the desk, glanced at a notepad there. "Well, we delivered, anyway."

He spoke to Scarne. "He'll be along shortly. Make yourself comfortable."

He nodded to Caiman. The two of them climbed back into the inertial cab. It withdrew into the tunnel;

a facing panel came down, leaving the wall smooth and unbroken. In a few hours they would probably be back on lo.

Suddenly alone, Scame put down his hold-all. He went to the desk. Nothing there gave him any clue.

A door opened behind him. Scame turned to see a pale-eyed woman, aged about thirty-five, standing in sudden surprise in the doorway.

She recovered herself quickly. "Who are you?" she asked. "The man from lo?" She searched her mind. "Professor Scame."

"Yes. Cheyne Scame." He offered his hand. She shook it limply. She was still attractive, Scame thought; but with the faded, slightly worn look of a woman who has lived perhaps a little too fast. Her face had something appealing, almost touching about it.

"Welcome to the Make-Out Club," she said. "I'm Cadence Mellors. We'd better get to know one another, I guess. How long have you been synched?"

"Synched?"

A frown crossed her face. "How long have you been entitled to wear one of these?" She held up her wrist to show him the dangling gridded wheel, similar to Hervold's.

He caught her meaning. There was probably a lot of jargon inside the Wheel organization. "Only since today, as a matter of fact."

"Oh." The new realization clouded her features, as if it disappointed her.  
"Who's this man Soma?" Scame asked.

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"Jerry Soma? He'll be your boss. This is his office. He runs the Make-Out." She crossed to the service unit and came back with two glasses, handing one to Scame. "Have some refreshment."

She clinked her glass against his before they drank. "Good health," she said. While Scarne merely sipped the malt whisky, she knocked hers straight back. "I'd never get through the afternoon without a pick-me-up," she explained cheerfully. The door opened again, admitting a tall, lean man who walked with a slight slouch, head down. He ignored Cheyne and Cadence as he strode to the desk, where he sat down and quickly tapped something out on an integrator.

"Jerry, this is Professor Scame," Cadence said breathlessly. Soma didn't look up until he had finished what he was doing. His eyes went from Scame to Cadence and back again, calculatingly, as though suspicious of then: being together.

"Scame. You got here, then." His hand went to a piece of desk equipment, depressing a key. He read out loud from the showplate. "Lessee . . . born in Minnesota, Earth. A ground town."

"Not everybody likes to live in a tower," Scame interrupted him.

Soma didn't seem to hear. "Your parents were cyb-clerks. Looks like they tried to give their son a start in life. You attended the university of Oceania, majored with honors in randomatics. Then you got drawn back to source, like a lot of randomaticians are: you became a full-time gambler. Your legit-type parents didn't like that, did they? Still, it's a professional hazard . . . the science of probability originally grew out of games of chance, didn't it?"

"I don't see what my parents have got to do with anything," Scame said stiffly. He hadn't seen them for over a decade.

"Ask any psychiatrist. Parents are the first cards you're dealt. It's in the Tarot, isn't it? The Emperor,

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the Empress . . . Anyway, you haven't made very good use of your talent. Drifting around solsystem . . . no concerted plan of action. Caught between two stools: science and gambling. Several times you've been in trouble for bad debts."

"I've always come out clean," Scarne said. He felt uncomfortable, being described in precis in front of the girl.

"But that's all you've done." Soma made a sudden, angry gesture. "Hell, if you'd used your abilities you could have had everything. Money, whatever you wanted. Entry into the Wheel. The Wheel really leaves it wide open for people like you--don't you know that? But only if you can find your own way. All these years you've stayed right there below the fifty-fifty line. You never got into even one weighted game."

Scame didn't know what he was talking about. "I'm surprised you want to use me now, if I'm such a loser."

Soma smiled sourly, contemptuously. "You're a failure. But you're not a loser. Losers we can't use."

"Don't be too hard on him. Jerry," Cadence said tentatively. "You'll make him lose confidence."

"He'd better not be that delicate. All right, Scame, you're working for us now. For the time being you're assigned to the Make-Out while we check your performance. This is a special club, not the usual kind. We have special games, games you probably never heard of, new games, special clientele--private list only, some of them high-ranking Legit officials who've got the bug, even. You'll be learning to play against them." He paused. "One question I'm told to ask: can you play Kabala?"

Scame hesitated. "I think I probably could. I've studied the game, but I've never had an opportunity to play it."

"The report on you says the same." Soma made a note on his pad.

"Will I be playing Kabala?"

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"Not here. Who knows, maybe Dom will want to try you out."

Scarne's mind thrilled at mention of the name. Marguerite Dom-chairman of the Grand Wheel! It excited him to think he might actually be that close to what he wanted.

He coughed and spoke in an innocent tone. "Is this all you want me for, as a player? I had hoped to be introduced to the planning side of things. After all, I am a highly qualified randomatician."

"Is this all we want you for?" Soma mimicked unpleasantly. He leaned forward, his vulpine face glaring at Scame. "We moved on past the three card trick a long time ago. Here on Earth there are people whose whole lives are games of chance organized by the Wheel. There are people playing games just to win a chance to get into bigger games. It's a study of life itself. There are people who don't even know that they are playing. There are people who have a life-game set up for them before they are even born." He leaned back. "Don't tell me it's belittling to be a Wheel player."

"I won't." Soma was a typical Wheel operative, Scame thought. He had that odd combination that made the Grand Wheel so frightening. Intelligence, ability, even a certain amount of scientific knowledge, but along with it all the whiff of the hoodlum, the sinister influence of past Wheel history.

Maybe the members of the mathematical cadre, academic randomaticians like himself, would be of a different sort, he told himself.

He decided to ask a question of his own. "Last night on lo I hit a jackpot on the muggers. I'm curious to know how it was done."

"Are you implying the muggers are fixed?" Soma asked sharply. "If so, forget it. All our formats are inviolably random."

"It's not that," Scame said, skirting clear of the dangerous subject. "It was the vision itself ... I'd like to know how it was achieved."

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"What vision?"

"The vision of probabilities."

Soma looked puzzled for a moment. Then he glanced at Cadence, waving his hand at her peremp-torily. "I'll speak to the professor alone for a moment."

The girl left. Soma settled himself in his chair again, tilting his face to look Scarne directly in the eye. "Tell me about this vision."

Haltingly, as best he could, Scame described what had happened to him when he took hold of the mugger handles. Soma listened attentively, asking a question now and then when Scarne's account became vague.

When Scame had finished he became silent for a moment. "Well, I don't know," he said. "You were supposed to get a brain charge, a few moments of pure pleasure, that's all. This I've never heard of."

"Pure pleasure? Is that standard for a jackpot?"

"Sometimes it's a lot of money, sometimes it's some type of brain charge. It may not sound like much;

actually pure unadulterated happiness is something the average person never experiences normally. He remembers it all his life. This other thing, though, that's something else again. I'll check it out." Soma rose to his feet. "Cadence will show you to your quarters. Do you need any sleep?"

"No, I'm all right."

"Rest a couple of hours, anyway. We'll run through a session tonight." Soma's hand on his shoulder was proprietorial, almost comradely, as he guided Scame through the doorway. Cadence sat in an adjoining office. She rose to her feet, smiling nervously as Soma handed Scarne over to her; then she led him to a travel cubicle.

The cubicle was the standard means of transport in the tower cities. Zipping through a ubiquitous network of square-sectioned tunnels, up, down, sideways and in ranging curves, it could deliver one to almost any dwelling in the pile. This one did not take them far,

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however, staying within the precincts of the Make-Out Club.

For only a few seconds Scame shared the cubicle with the silent presence of the girl. Then she slid open the door panel and they entered a tidy, comfortable room with a bathroom just off it. "Well, this is it. Hope you'll be okay here." She moved around the room, turning on sidelights. "There's just about everything you need."

"No holbooth," Scame said, looking around. She waved to an occasional table with an instrument on it. "There's a vidphone, but it only serves the club, I'm afraid." She looked apologetic. "Jerry doesn't want you calling anybody outside. Your attention has to be on the job."

He threw his hold-all on the bed and sat down beside it. "I couldn't follow everything Soma was saying. What did he mean by weighted games?" Her eyes widened. "You don't know much, do you?" "Maybe not," he said irritably. "That's why I'm asking."

"These days the Wheel is like one of those ancient secret societies," she told him. "Only bigger, grander. They don't just make money-that's centuries in the past. The Wheel opens up all kinds of routes to people. But you can only get it by winning, by combining chance and skill. Some people never even guess the possibilities are there. You, for instance."

"All right!" Scame was exasperated, not liking to be told what a numbskull he was. "But what's a weighted game?"

"One where the Wheel takes less than a fifty per cent chance of winning. It's just a way of showing that you're making progress. That the Wheel sees you as an individual, not merely as one of a statistical mass. The Wheel likes to gamble, too." "But it's not just money that's involved?" "Not always. There are other things besides money. There are life experiences-the Wheel can provide those. Some people want to change their lives alto-

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gether, to become somebody else, somebody completely different. The Wheel can arrange that. There are techniques for changing people's personalities, giving them new abilities and opening new doors for them. If you can put up the stake, play and win, you can choose what kind of person you'll be, what kind of life you'll live. Have you ever known someone to disappear without trace? It could be that's what happened to them."

"What would the stake be in such a case?" Scame asked tartly.

She shrugged. "Or there's power. It's possible to win power inside the Wheel, a high-ranking position."

"You can win influence in the Wheel hierarchy? In a game of chance?" Scame was amazed.

"It's like an esoteric society," she repeated. "On the higher circuits there are grades and degrees; you gain them by winning games of greater and greater difficulty. That's how rank is decided. Hell, you could have got a long way if you really can play Kabala. Not now, though. I think they want you for something special."

"Do you have to be in the Wheel hierarchy already to play these games? Or can you come in direct from outside?"

She smiled. "Theoretically it's possible for an outsider to become a member of the inner council just by playing one game. I can't imagine that happening. But people do try to gamble their way into the lower circuits. We gain control of quite a few Legit officials that way. You have to be able to put up the stake, you see. You must already have power on the outside. If you lose, you owe that



power to the Wheel. But if people win they invariably come over to us-so we can't really lose, whatever happens."

"And the Grand Wheel grows bigger, and bigger, and bigger," Scame said. He deliberated somberly. "Suppose the Wheel had a chance to gamble everything it has gained. Do you reckon they'd do it?"

"I don't know. How could it happen?"

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"I don't know," he admitted. The idea had just come to him, out of the blue. But the question was not meaningless. Centuries ago a gambling organization would not, itself, have been composed of gamblers; it would have preyed on them. Today, he intuited, the case was different. They had made a religion of the thrills of hazard and chance.

"You've been in the Wheel a long time, haven't you?" he said suddenly, looking up at her. "All your life."

"Since I was seventeen." She took a cigarro from a box on the dresser, and sat on the bed with Scame while she lit it, blowing out a streamer of aromatic smoke. "I was living with a man who was an operative. He brought me in as a club girl. Afterwards I just hung around."

"Do you think you did the right thing?" He looked at her curiously.

"Sure." She glanced at him. «Life can be hard. Outside, I don't think I'd have what it takes to weather the knocks. I wouldn't understand what I understand now. The Wheel teaches you that everything happens by chance. It's all random, good or bad. So nothing is really your own fault-you couldn't have done anything about it. Realizing that makes life easier."

"You make it sound as if it hasn't been all that easy," he said cautiously.

"I like to think of the story of two people meeting on a bridge. Suppose there are two people whose lives would be transformed if they were to meet one another. One day they both cross the same bridge in opposite directions. It's possible that they will both cross at the same moment, and that something will happen to bring them together. Then people say they were 'destined for one another'. But that's all rubbish. They could miss one another by hours, by minutes or seconds, or they could simply pass by without really noticing one another. Out of millions of potentially miraculous meetings, one or two are bound to come

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off. It's the law of averages." She shrugged again, a trifle sourly. "The rest of us miss our chance."

"Some people seem to get more than their fair share of coincidences," Scame pointed out. "They're always meeting on bridges."

He paused. "Do you believe in luck?" "Luck? No. It doesn't exist. There's just chance. People who believe in luck don't understand the laws of probability. Chance doesn't mean everybody gets the same. Everybody gets something different; that's what makes games possible-that's why life is a game, isn't it?" She gazed at him coolly. "Probability alone ensures that there are a few who always have fortunate accidents and a few who always have unfortunate accidents. Then there's the great mass of us in the mediocre middle. Whereabouts are you?" Scame laughed. "That's what's known as the bell-shaped curve."

"So Jerry keeps telling me."

"But all gamblers believe in luck." He fingered his dangling necklace. "Lady. Anyone can tell you it comes in runs. You have to know when you're on a winning streak and when on a losing streak. People still touch someone they think has luck, to try to get some of it."

"But that's probability again, isn't it? They learn how to predict probability." She nudged him in the ribs. "Come on, professor, I don't have to tell you this. You're the randomatician!"

"That's just it," he sighed. "Randomaticians have never decided whether luck exists or not."

She had put her finger on the point of difficulty. Luck-if it really was a separate universal entity- didn't contradict probability; it worked through probability. Mathematically, no one had ever succeeded in separating them-as far as he knew, rumors apart.

It was hard, too, to find empirical evidence of the existence of luck. He thought of the-really great players, the ones who seemed to know what the cards were, to intuit it, to feel it without working it out. Was that

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evidence? No, he decided; it had to be some sort of psychic perception, a rudimentary new faculty. Luck didn't come from within. It struck from outside: the dazzling glances of Lady, lighting on only a few.

What fantastic power it would mean to be able to manipulate luck, he thought. To be able to achieve anything practically by wishing for it. No wonder the Legitimacy wanted it.

But if Cadence knew anything about the new discovery she was keeping that knowledge well hidden. Scame believed her scornful disclaimers. Belief hi Lady was not deeply ingrained in Wheel people on the whole. Oddly enough. Legitimacy people were more inclined to believe in her. She offered the hope of certainty, a quality they craved.

It was depressing to realize how little he knew about the Wheel in whose shadow he had lived for so long. Much of what Cadence had said was new to him.

"The Wheel never took much interest in me before," he said. "I guess I'm not really their type. More a randomatician than a pure gambler, perhaps. But why do they suddenly want me now?"

"It isn't just you. They're pulling in a lot of people like you, people with your kind of talent." She spoke in a low, guarded tone. "I think it's something to do with the war."

"The war? What does the Wheel want with the war?"

He recalled Caiman's bitterness and contempt when they had seen the military officers on the Earth shuttle. But Cadence said nothing further and Scame sat brooding. Perhaps things weren't going his way after all.

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## Chapter Five

The cards in Scarne's hand each carried two symbols: a number and a geometrical figure, either a triangle, a square, a pentagon or a six-pointed star. It was the combination of the two that gave the card its value-in fact, each card had three values, according to the situation it found itself in. There were no such things as suits: neither numbers nor figures could be grouped together. They had to be set off one against the other by a process of rapid mental arithmetic. Scarne had come across a deck similar to this one before, but the game he was playing was entirely new, and superbly difficult. It was a game within a game, a game whose rules were themselves subject to the game. Any player could, if he held the right cards, change the rules of the game, his own cards, his opponents' cards, the other players. Nothing could be known with certainty. The rules were hierarchical, each subject to others in an ascending series, producing dizzying problems of strategy.

Scarne was sweating, his powers of calculation stretched to the limit. The cards he was holding had just had their relative values suddenly inverted by a switch in the method of counting. The past hour's hard playing had been for nothing. And now worse disasters were piling up. The cards were mutating in his hand, taking on even lower values. He reached out to pick up another card from the pile, but as he did so he saw that the faces of the other players were changing, too, becoming different personalities.

They placed down their cards face up, left their

chairs and walked away. Then Scame noticed that his own hand, frozen over the deck, was unfamiliar, dark brown in color. Without realizing it he, too, had become someone else.

At that moment the small room faded. Scame was sitting in a bucket seat in the Make-Out, gripping two silvery rods in his hands. Cadence was lifting the inductor cap from his skull. She rolled away the games machine.

"I lost," Scame gasped hoarsely. Sitting behind him in the corner, Soma granted.

"Don't worry. You won't win them all." "Who the hell was I playing?" "Nobody.

You were playing a computer. You did pretty well, for a first game."

Scame took out a handkerchief and wiped his brow. "Is that game actually played here in the club? Played that well?"

"We're being hard on you to begin with." Jerry Soma stood up and stretched, his lank form stepping across the room. "We have to get your measure, Cheyne. We have to see how far you can stretch your mind." He gestured to Cadence. She opened a wall panel and wheeled out another identity machine.

The machines were something new to Scame. Soma had told him they were used for playing games whose elements transcended physical reality, like the one Scame had just played. In other words they blotted out the physical perception of the world and replaced it with fictional, constructed environments induced into the brain electrically. The principle was similar to that used in dispensing mugger jackpots. But Soma had been circumspect when Scame had asked to what extent the machines were used in the club.

"This machine is probably the nearest we can get to that experience of yours with the jackpot," Soma told him. "The nearest I know about, anyway." He frowned. "You'll lose your identity entirely, so keep a cool head."

"Who will I become?" Scame asked apprehensively.

"Not who. What."

Before Scame could open his mouth to speak again Cadence had jammed a second skullcap on his head and guided his hands to the silver bars, completing the circuit.

For an instant Scame lost consciousness. When he awoke it was with only a vague recollection of his previous existence.

He was a number.

He was number 1413721. As a number, he was like an amoeba, able to arrange himself in any pattern of which that number was capable: all its factors, arrays and subsets. When these were arranged in columns they were like his limbs, which he could put out and withdraw at will.

Consciousness of being 1413721 was really all the consciousness he had. He knew that he even had a degree of rarity: he was one of the few numbers to be both a square and a triangular number. But he could sense, in a kind of void or nullity all around him, countless other numbers, many of them more powerful than he, with all kinds of extraordinary properties.

The numbers were jostling for position.

The game was about to begin.

But as number 1413721 waited to discover the nature of this game he became aware of a massive presence which circled them all like a cosmic snake, and he shrank back. The presence was a creature of second-order chance; as such, it was infinitely superior to the merely rational numbers gathering to begin play. It was capable of swallowing them all, and there was no escape from it.

This great serpent, this incalculable dragon, was pi, a transcendental number, yielding, when expressed in decimal notation, an infinite table of random numbers. As awareness of this transcendental entity overwhelmed his own awareness, 1413721 experienced

terror. He began to disintegrate, to decay like an unstable particle....

Babbling and shaking, Scame felt the skullcap snatched from his head. His hands were unable to let go the silver bars and gripped them compulsively as if in electric shock.

Cadence prised them loose. Scame swung round in his bucket seat. Soma, wearing the monitor cap, looked stunned.

Tearing the cap from his head, the Wheel man stood up and towered over Scame. His voice was harsh. "What did you think you were doing, Scame? What happened to you in there, for Lady's sake?" "I don't know. I got scared." "Scared? Scared of what?" Soma seemed angry and impatient.

"Pi. I got swallowed up by pi." Scame tried to stop shaking. "I was a number. Just an ordinary little rational number, and then I met up with pi."

Soma canned down and became thoughtful. He paced the training room.

"Have you ever experienced anything like this before?"

"Like being a number?" "Yes."

Scame hesitated. "Well, as a mathematician I'm used to contemplating mathematical concepts like numbers. Trying to get inside the essence of some particular number, for instance. I suppose that's what the numbers identity machine does for you."

Soma nodded. "It identifies your attention with a particular number-any number-but at the same time it removes your own identity. You're just left with the number." He paused. "Pi. Fermats use it, don't they? As a basis for randomness."

"Most of them. In fact many fermats spend they time calculating pi indefinitely." Scame was alarmed by the puzzlement on Soma's face. "What's wrong? Wasn't I supposed to meet pi?" "No."

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"Does the machine use that number itself?"

"I believe pi plays some role in the mechanism. But not in games arena-the part your mind had access to."

"Maybe there's a fault in the machine."

"More likely your imagination's overworked." Soma shrugged. "I'll have it checked over. Meantime we'll call it a day. You look overwrought."

He glanced back as he strode from the room. "See he gets some rest. Cadence." Scame rose shakily from his chair and followed Cadence to a cubicle which took them back to his apartment. She looked at him sympathetically as she switched on lights for him.

"You do look bushed at that."

"It's been a harder day than I realized," Scame admitted. "I didn't sleep much last night, either."

"You'd better bit the sack. And don't worry; you did all right."

"Thanks."

"You did marvelously, in fact." She smiled, glancing up and down at him, and left.

Exhausted, he undressed and dropped into bed, falling instantly asleep. He was awakened hours later by the sound of someone moving near him. The coverlet was lifted. A girl's naked body slipped in beside him.

"How you feeling now?" Cadence's voice said softly.

"Better," he said sleepily. "What are you doing here?"

"My room's right next to yours. Didn't I tell you? I'm supposed to keep you happy. All part of the service."

"I thought you were Soma's girl."

"Jerry? No." She chuckled, a trifle bitterly. "He has other girls, not like me at all."

Her hand stroked his chest. "Look," Scame said, half turning to her, "you don't have to. If you don't want."

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"Suppose I do want?" she said impishly, her hand straying lower. "Never let it be said my heart's not in my job."

He reached out and ran his hand over her body. She was not bad, quite cute; a little bit flabby, not too much.

They pressed themselves into one another's arms.

During the next few days Scame continued his training at the Make-Out Club. Soma kept him off the numbers machine; but he practised on the other identity machines, gradually improving his performance.

He was not always sure if he was engaged in pure practice runs or actual games without outside players. Sometimes, though, Soma used him on club business, holding the bank in in-the-flesh games or entering as an additional player.

Scarne slowly learned how the Grand Wheel operated from the inside.

None of the club's real business, however, seemed to warrant the process Soma was putting him through. It was as if Scame was being tested against some other more advanced standard.

Soma's own remarks came seldom, but as far as they went he seemed satisfied with Scarne's progress. "You're more of a technician than a pure gambler," he said to him once.

"Is that bad?" Scame asked. "Not at all. It means maybe we can use you. There are two kinds of players, the technician and the instinctive player, the guy that takes all the risks, who has flair. Take a partnership game, like bridge. A technician won't give away anything, but he won't bring in much, either. He's the main defence. But he has to be complemented by an offensive player, a real gambler who takes the initiative. They need each other."

"Why does that mean, you can use me? Use me for what?" Soma makes it sound as if they're trying to get into something, he thought. But the Wheel already is everything.

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The nearest Soma came to giving an answer was two days later, when he called Scarne to his office. "I put in a report about what you told me happened on the jackpot," he said. "Also about the incident on the numbers machine. You're to go to Luna. There are people there want to talk to you."

"The mathematical cadre?"

"I guess so." Soma paused, then looked at Scame with burning black eyes. "All I know is I'm to send you to the demesne of Marguerite Dom. You're going right to the top."

## Chapter Six

Luna was an old, quaint, well-worn environment favored by the wealthy and successful. Everything there seemed to be hundreds of years old. The sun-burnished towns and cities were luxuriously ancient, built in a rococo style fashionable half a millennium ago, and the planet's dry, dead surface was criss-crossed with an antiquated tracked transport system.

As before, Scame travelled with a two-man escort. The conservationist-minded local government had steadfastly refused to install a modern atmosphere plant, and the shuttle descended through vacuum until entering the landing bay at Tycho, the oldest and largest of Luna's cities.

Tycho was not their destination, however; they left the shuttle and walked through concourses until coming to the track station adjoining the landing bay. Scame found time to revel in the magnificence of the station's baroque, cavernous interior, which glowed in the unique lunar light falling through the high-

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vaulted roof. Visiting Luna always made him feel good.

His escort guided him through the bustling main area to where a private carriage waited on a small siding, tucked away under the lower edge of the cascading

roof. Within, the carriage was plush and luxurious, upholstered with purple velvet.

Immediately they had seated themselves it surged into motion, shooting through the big track tunnel cut through the wall of Tycho crater and emerging onto the arid landscape beyond. Rapidly the terrain sped by. Half an hour later, as the track carriage came over the lip of a range of low hills and began a descent to the plain below, he caught his first glimpse of what he was assured was the private manse of Marguerite Dom, chairman of the Grand Wheel. Most of what he saw of the manse was pure indulgence, totally non-functional: a wandering maze of gables, domes and belvederes.

The track carriage slowed as it approached the looming manse. Shuffling into the shadow of an overhanging roof, it coasted through an air lock and came to a stop in what appeared to be a reception foyer. The carriage doors clicked back; they stepped out.

The two Wheel men with Scame seemed nervous and tense. This is probably their Mecca, Scame thought.

An automatic glass door opened; a tall Negro entered the foyer. His teeth flashed in a polite smile.

"Mr. Scame?"

"Here he is," said one of the Wheel men. "Delivered as per schedule."

The Negro spoke to them, pointing to a door at the further end. "Go through there and take some refreshment. You will be informed." He turned to Scame.

"This way, if you please."

Scame followed him through the glass door. They paused while the floor sank beneath their feet. When it steadied they were standing on a circular mosaic which resembled the center of a three-dimensional

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spider's web. Passages, trellised arbors, crooked stairways both ascending and descending, radiated from it in all directions. It was an architectural fancy, a folly.

The Negro tamed to him again. "We are ready to see you now. But perhaps the journey has fatigued you. Would you prefer to rest, to refresh yourself?" Scame steeled his nerve. "No. Now will be fine."

They walked down a corridor into the deepening silence of the rambling house. Finally the Negro opened a timber door and entered a wood-panelled room, glancing at Scame to follow.

Five men, of all races and ages—one of them was scarcely more than a boy—sat around a horseshoe-shaped table. A sixth place was empty, while yet another chair, evidently intended for Scame, stood in the gap of the horseshoe. Here he was, facing the Grand Wheel's mathematical cadre at last—and he felt like an amateur. These people were all special, he realized; some of them prodigies, probably, gathered from all over man-inhabited space. Wordlessly he lowered himself into the solitary chair, aware that the interrogators were subjecting him to a chilling scrutiny. The tall Negro, lank and self-controlled, walked around the table and took up the vacant sixth place. Somehow it took Scame by surprise to learn that he, too, was a cadre member.

"Now," the Negro said, speaking in a deep, well-modulated voice, "tell us about this jackpot."

Self-consciously Scame began slowly to repeat the account he had given to Jerry Soma. They stopped him before he got beyond the third sentence.

His new listeners were of different mettle from the club manager. Merely verbal descriptions did not satisfy them at all. They wanted mathematics, the language of pure thought. The inquisition became arcane, almost bizarre, as they forced Scame to sharpen and redefine every item of his experiences, probing and testing every concept he put forward as he plunged, in memory, back into what had happened

while he held the handles of the mugger, and later, while he was under the identity machine.

When the account was finally finished they put him to yet another examination. They fired prodigious equations at him from all directions, giving him but scant seconds to solve them in his head. They were testing out the limits of his ability.

After an hour of the hardest work Scarne had ever known, it was over. He was asked to wait in an adjoining room.

He left, and found himself in a long, narrow, musty-smelling annex lined with shelves. It was given a vault-like appearance by the deep alcoves which punctuated the walls at intervals, and which also contained nothing but shelves, all loaded with files and papers. He was, apparently, in some sort of ill-ordered data library.

Bending his ear to the door he had just closed, he heard the murmur of voices. He crossed to one of the shelves, pulled out a file, opened it and scanned its contents with frantic speed. It contained a dissertation on some particularly abstruse point in randomatics.

Replacing it, he looked at another and then another. This was a storeroom of papers in randomatics, a kind of cellar, probably, of past and discarded work emanating from the cadre which was now discussing him in the next room.

His heart beat rapidly. He dashed up and down the annex, looking wildly at the shelves. But there was no ordering system evident, nothing to tell him where he might look to find a clue to the rumored luck equations.

He calmed down. It was highly unlikely that any reference to the equations—presuming they existed at all—would be found here, he reasoned. Glancing through the files, he finally settled on one whose meaning, at a cursory inspection, baffled even him. It was a prime example of rarefied speculative thought, containing no explanatory text at all. It might, he decided, keep an average mathematician guessing for a

while. Taking a pen from his breast pocket he photographed several pages with its hidden vid recorder.

He was still handling the file when the door opened and the tall Negro walked in. Calmly Scarne replaced it on the shelf and turned to meet him.

The cadre randomatician gave no sign that he saw anything improper in Scarne's behavior. "We've discussed your story, Mr. Scarne," he said. "We found it quite interesting."

"But what does it mean?"

"Your experience can only have been subjective, of course. We think you have a type of mind which has a particularly intuitive grasp of mathematical relations. The jackpot shot must have impinged on this faculty in some way, inducing an hallucination. It's possible. The incident with the identity machine would be a hangover from that. In many ways you have a fortunate combination of qualities. You will make a good gamesman."

The Negro hesitated, became reflective. "You have what we pure theoreticians lack, in fact."

"Really? I've always considered myself too much of a mathematician, not enough of a player," Scarne said dubiously.

A faint smile came to the other's lips. "Jerry Soma's assessment shows you to be quite talented. You may be just the type of person we are looking for—but that's by the way, for now." He straightened, self-consciously formal again. "The Chairman would be pleased if you would join him at breakfast, which he is about to take."

The invitation was so sudden that it sent a shock of anticipation through Scarne. "Yes, of course. I would be honored," he murmured.

The sound of a string quartet, weaving a melancholy pattern of melody, was the first impression Scarne received as his guide opened the door to Marguerite Dom's breakfast room. The cadre member did not follow him in; Scarne heard the door close

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softly behind him. He was alone with one of the most powerful men-in some eyes the most powerful man -in human-held space.

The Wheel leader rose from a wrought-iron chair, one of two facing one another across a low table, to greet him. He wore a long soft jacket of green velvet; a foot-long cigarette holder dangled from one hand. "So pleased to meet you, Mr. Scarne. Did you have a good journey? I do hope my couriers were courteous ..." He waved his hand, causing the music to stop, and pointed negligently to the table. "Shall we be seated?"

Obediently Scarne took the chair opposite the grand master.

Dom's frame was spare, his height medium. His sparse black hair, slicked and combed back, failed to cover a balding pate. He had been born at a time when there had been a brief fashion for naming one's children after members of the opposite sex-though usually with ancient-sounding names. Consequently Sol was replete with middle-aged male Marguerites, Pamelas and Elkas, and with female Arthurs, Yuris and Dwights. It so happened that Dom suited his first name perfectly. He was that ripe combination, the thoroughly masculine, camp, decadent male. His movements were almost feminine. When he spoke, an ingratiating and deceptively defensive smile was apt to come to his features, and the modulations of his voice were more exaggerated than those of the average man, giving the impression of a neurotic factor in his make-up.

Although he seemed a far cry from the tough, solid types who had built up the Wheel centuries ago, Scarne needed to contemplate his face for scant moments to realize that there was only one vital difference between him and those legendary creators of the syndicate. As a rule, those men had not been addicted to the practices which brought them their wealth. But Dom's face, with its creases and strain lines, its deep intensive eyes, told Scarne that he belonged to a highly specific human type: the compulsive gambler. It was a

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strong face: his was not a weakness, or a compulsion to lose, as it was with many. It was a need to win.

A butler appeared and began serving coffee, steak and eggs. "I hear you have some unusual tendencies," Dom said lightly. "Glimpses into ultimate reality and so forth." His mouth creased into a tight smile, as though with nervousness or sarcasm.

"Your cadre people assure me it was hallucinatory," Scarne said.

"Oh, they always put everything down to delusion. But we know it's not that simple, don't we? After all, everything you saw is known scientifically. We know that matter is constructed of waves, and that these waves are waves of probability. We also know that below this quantum level there is another level, a level of pure randomness where no physical laws obtain. The material world floats on that, so to speak. But then it's all in the Tarot, isn't it?" Dom flicked his hand; a card appeared in it, and he passed it to Scarne.

Scarne bent his head to study the card. It was number Ten, the Wheel of Fortune. The card was of traditional design: the upright wheel was held in a frame which was supported by boats, or pontoons, floating on water.

"Somewhat cursory symbolism, but apt," Dom was saying. "In substance, that represents the content of your first vision, does it not?"

Scarne felt slightly dizzy. Dom was right. The picture on the card seemed bland and ordinary-until one put one's mind to work on it. The wheel stood for chance as it was manifested in the physical universe- in human life, for instance. But



it floated on the waters of a greater randomness, the one he had perceived in his 'black-out' in the gaming house.

"Water symbolizes the foundation of the universe in several ancient mythologies," Dom continued. "Because it is fluid and formless, the ancients thought it a perfect symbol of randomness. In Hindu mythology, the world is supported by a series of animals standing on one another's backs, all ultimately carried by a

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turtle swimming in an infinite sea. Sometimes the turtle is a fish, but again swimming in the sea of chaos. Charming, don't you think?"

"But not very scientific." Scame laid down the card and attempted to tackle the food he had been given, feeling not at all hungry.

Dom chuckled. "But what is science studying, after all? Don't be put off by the mathematical cadre. The gods are greater than science-but purely scientific types can never understand that. All they can do is calculate."

"You believe in the gods, then?"

"Not as persons, of course. Not as actual entities." It was the standard reply an educated person gave- often covering up for a more primitive acceptance of the gambler's pantheon.

"I'm glad you're not superstitious," Scarne said.

Dom flicked his hand again, producing the card numbered zero: the Fool. "Do I look like one of these?"

"No."

Scame felt awkward. He was aware that Dom was watching him, that behind all his charm and camaraderie a cold shrewdness was at work.

"I've gained the impression that I'm being groomed for a special project," he said boldly.

"A game," Dom said, a veiled look coming over his face. "We're setting up a new, very important game."

"Who's playing?"

Dom laughed.

Having eaten all he could, Scame pushed aside his plate. "Chairman, perhaps you can clear up a conundrum for me. The very same night I was introduced into the Wheel I hit a mugger jackpot. Now, I've made a simple calculation about that. The odds against hitting a jackpot are high enough, but the odds of its coinciding with another equally significant event . . . do you follow me? They are unbelievable. The gods may, as you say, be greater than science, but why

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should the gods be interested in me? I'm forced to the conclusion that your people rigged the mugger."

"Out of the question. Whatever you got, you got by chance."

"But it just doesn't make sense."

Dom laughed again. "Then perhaps we have learned to propitiate Lady! You certainly were very lucky. And we do employ the very best mathematicians . . ."

Dom continued to chuckle, and Scarne made no reply. He had gone as far as he dared in sounding the chairman out. Dom's replies were meant to be cryptic, of course-he had no idea that Scame had ever heard of the luck equations.

But his answer was a final confirmation that luck was an authentic scientific principle, a universal quantity-and that the Wheel had derived equations that brought it within reach!

Scarne wondered who was responsible for this awesome feat. The people who had just questioned him? And how was it done? Imagine a high-tension charge of luck, steered onto one individual so as to make him bit a billions-to-one shot... it was incredible.

As the butler cleared away the breakfast things, Dom produced a fresh Tarot pack. "Well how about a game? I believe you have never played Kabala . . ." Kabala, it was said, if played properly, brought about a change of consciousness in the players. Scame, already brain-weary from his interrogation, found the contest with Dom equally an ordeal. The game required a unique combination of calculation and intuition, and he was forced to think so fast, to extend his mind so far, that at times he did feel almost as though he were on some drug-induced high. But it was only the kind of mental exhilaration that came from prolonged effort.

Perhaps the reward of changed consciousness came only to the winner. Because Dom, of course, won. Two hours later the Wheel master sat back silently,

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eyes glazed, drawing meditatively on his cigarette holder and blowing out puffs of smoke.

"You play well, Scarne," he said at length. "One day, perhaps, you will be able to beat me."

Scame felt that he had passed the final test. Whatever the scheme was that was afoot, he was hi it.

"How did you like it?" Dom murmured. "Your first game?"

"It was taxing-but satisfying. Very satisfying. To tell you the truth I've never been sure if I was equal to it." Scame, in fact, felt drained.

Dom inclined his head in an abbreviated nod. "It sorts out the men from the boys, all right. If you can play Kabala you can play anything-and that's an established fact. That's why we need men like you."

Dom rose, pushing away his chair and stretching, so that he seemed to loom over Scame. "I want to show you something," he said. "Come with me."

Full of anticipation, Scame followed. Dom led him to even deeper levels of the manse. They went down in an elevator (Scame experiencing an embarrassed, privileged nervousness to be sharing the cubicle with so unique a personage), and then down a winding staircase to a concrete cellar.

The denouement was not what he had expected. At one end of the cellar, fed by dozens of pipes and cables and surrounded by humming machinery, stood a glass tank filled either with a liquid or a dense gas- it was hard to tell which. It provided a murky, brownish-purple environment which was inhabited by a flapping, aquatic-looking shape.

Dom stepped before the tank and gazed into it with an ironic expression. "The sequence of events that have led to your coming here began with the arrival in Sol of this creature," he told Scame. "We call him Pendragon-just a name, no particular significance. As for his origin, it hardly matters; he's been everywhere. He really is travelled-like all hustlers." Dom was chuckling, as though at some joke known to himself. Scame peered closer. The creature, resembling no

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it? Or perhaps it's to represent the wheel of the galaxy. As yet we're not sure whether they are restricted to this galaxy only, or if they actually originate from outside. That's why we've tried to get Pendragon to tell us something about Andromeda, but his knowledge of that quarter is sketchy."

"Then your game," Scarne said quietly, "is with them."

"Yes!" Dom's eyes became lustrous. "A game with the Galactic Wheel-that's what this is all about. With the help of Pendragon we eventually made contact. Now we're on the verge of setting something up."

"Are the Hadranics anything to do with this? I heard this training programme was something to do with the war."

Dom shook his head. "We're not interested in them. We're thinking on a bigger scale. We aren't the sort of people to stay huddled in our own little comer, collecting pennies, now we know what's going on out there in the wider world. If

this Galactic Wheel exists we want a piece of it. I think we've got what it takes to get it."

"How do you know you can play your way inside this galactic thing?" Scarne asked. "You might just stay punters. How intelligent are they? How much experience have they got? Do you even know any of this?"

Dom moved his shoulders in a sinuous motion. "They could be millions of years old for all we know," he admitted. "But we've a thousand years of experience ourselves. I think we're out of the kindergarten stage. After all, Pendragon made the mistake of underestimating us." He leaned closer. "I taught him to play Kabala, you know. Offered him his freedom if he could beat me. But he's quite hopeless at it. Can barely play at all."

There was a sudden surge of movement at the back of the tank. The fluid roiled and became congested. A bunch of plastic plaques, oblong in shape, were flung towards them to splatter against the near wall of

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the tank, spinning and tumbling in the murk, displaying the colored Tarot figures etched on them: Pen-dragon's special pack.

"And if this game comes off," Scarne said, "what will the stakes be?"

Dom's expression became veiled. The hint of a smile played at the corners of his mouth. "That," he said, "is the big question."

After Scarne had left for Luna, Marguerite Dom received a briefer, rarer visitor. Historically the interview was unique, though since it was held in secret it would remain unrecorded. Never before had a meeting taken place between the Chairman of the Grand Wheel and the Premier of the Legitimacy. And even now it would have seemed unthinkable, to the public mind, that the Premier should have been the one to make the move, to request the meeting, and to travel to the demesne of Marguerite Dom.

Dom reposed himself in his main lounge to await the Premier's arrival, permitting himself feelings neither of triumph nor of curiosity. When Premier Mheert entered, he found him to be a fair copy of the personality profile he had already studied: a white-haired man of about Dom's age, with flinty blue eyes, a strong, prominent nose, and a face that displayed an obdurate, committed character.

They wasted no time in dispensing pleasantries. Mheert, his subdued tone expressing how burdensome he found the necessity for his visit, told Dom that the war situation was grave. Every effort would be needed to beat back the Hadranics. War production would have to be expanded. For this, industry would have to be re-directed. Otherwise there was a possibility of total military collapse.

The Legitimacy, regrettably, did not have enough practical power to achieve the necessary rationalization. Too much commercial influence—the huge stock and commodity exchanges, the banks, the commercial

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houses—was under the aegis of the Grand Wheel. To avert catastrophe, therefore, the Legitimacy had need of an unprecedented cooperation from the Wheel.

Dom listened to this argument coolly, and when the Premier had finished he fitted another purple cigarette into his long holder, blowing out fragrant streamers. The Grand Wheel was not a government, he pointed out, and had none of the responsibilities of a government. The conduct of the war was, entirely and absolutely, a matter for the Legitimacy.

Mheert was shocked and indignant at his refusal. "Do you not understand the consequences? We have our backs to the wall. We are all in this together!"

Dom made a proposal of his own. "You're asking us to bail you out because you can't handle this thing on your own," he said. "You're asking me, in effect, to save humanity for you. All right, we'll cooperate on the industrial side—if you can meet the price. Something reciprocal and condign."

"And what is that?" asked Mheert suspiciously. "The Legitimacy becomes our property." Mheert snorted, aghast. "You want to own mankind!"

"Yes!" Dom's eyes blazed. "If we pull it out of the fire, it belongs to us. We are not for hire, Premier. I'm putting you the same deal you just put to me. Ê you want to hold off the Hadranics, move over."

"It is impossible. You cannot simply take over the government. There would be chaos."

Dom's expression mellowed. "We don't want to be the government. We want the Legitimacy to stay on in that role. The only difference will be that you'll be in thrall to us. You'll make a secret covenant with us. Nobody will know about it for the present, maybe not ever. I don't even say we'll necessarily ever invoke that covenant. But it will be there if we want to."

"To destroy everything we have tried to achieve- to plunge humanity into disorder, superstition, random activity!" Mheert spoke with passion-the passion of a man who had spent his life trying to construct a

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civilization that was durable, in control of itself, and not subject to the contingencies of nature. Always the fight had been against nature's tendency to disorder, to chance and hazard. Mheert saw mankind as fighting a perpetual war against these destructive natural forces-and he saw the Grand Wheel as merely an extension of the same forces, capitulating to them by reason of its evil philosophy and threatening any hope for the future.

"It won't be so bad," Dom said boldly. "The basic ideology of you people is that you can build a civilization so solid that it will always be able to resist the shocks of chance. That's a rigid concept; and anyway it can't be done. In the long run you can't go against nature, any more than King Canute could stop the tides. We all come under the law of accident. The gambler learns to live with it, but the Legitimacy thinks it can build a kind of seige civilization, a rigidly controlled shell isolated from accident." He shook his head sadly. In a way he admired the Legitimacy for its obstinacy; but he was sure that, come what may, the Grand Wheel would outlive it-just as it had preceded it.

"The law of accident!" Mheert muttered. "I'll tell you what the law of accident means. It means that every plan, every effort, is endangered. Years of preparation go into some vital endeavor, and then something unforeseen happens to wreck everything. Only if chance eventualities can be eradicated can mankind be assured of a continued existence. Otherwise, something like this-" He slipped his jacket over one shoulder and pulled aside the shirt beneath, displaying the surgery scars at the shoulder where the arm was grafted on. "You know well what these scars mean, Chairman Dom. A medicinal drug added to the water supply, harmless as it was thought. Yet it caused an entire generation to give birth to limbless children. It was years before the source of the deformities was isolated."

Dom was indeed familiar with the scars. He had

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them himself, at shoulders and hips. Everyone of their age group had. "In that case science triumphed," Mheert continued. "Thanks to Legitimacy planning we were able to grow culture limbs from each victim's body cells and graft them on. Chance was overcome. But another time-"

Dom laughed sourly. "Planning had nothing to do with it. It was luck. What if it had happened centuries earlier, when it wasn't known how to switch off repressor genes in individual body cells? Then no limbs could have been grown. We would have had a generation with neither arms nor legs."

"We could still have managed with prosthetics. But granted, the disaster could have been worse. By the law of averages some such worse disaster awaits mankind at an unspecified date in the future-unless we learn how to eliminate these

accidents. The war with the Hadranics is itself an accident, an interruption of our plans. Let's see you try to gamble your way out of that one." Dom's sour smile had not left his face. "Let's see you plan your way out of it," he said.

The meeting proceeded little further. Men of diametrically opposed minds cannot discourse for long. Dom sat musing for a while after Premier Mheert departed. In one sense, he reflected, both of them worshipped the same thing: power. Unfettered, broad and absolute power.

Not for one moment had he expected Mheert to accede to his demand, even though the covenant, by its nature, would be virtually unenforceable. But it had been worth a try.

A few days later Dom was obliged to travel several thousand miles to the partly abandoned town of Vorid-nov, where he entered a large building so decrepit it was hard to believe it was still air-tight.

Within, he paused at the head of a flight of iron stair's, recovering his breath. It was a long climb, but

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tradition had to be respected; all who entered the room to which the staircase gave access had to get there on their own two feet-hence, there could be no elevator.

The armed vigils standing guard outside the steel door snapped to attention. He put them at ease with a wave of his hand.

"Are all present?"

"Yes, Chairman. All are here."

He stepped forward. The door, responding to secret factors about his person, moved ponderously aside. He walked through a bare ante-room, and then into the dusty, sacrosanct council chamber.

The eyes of the eleven men seated at the large circular table turned to meet him. He, Dom, made the twelfth. He took his place, his eyebrows lifted in private amusement. Twelve men of disparate character, he was thinking to himself, bound together in close brotherhood. Hadn't that been so of another crucial time in history? But no, that would have to be thirteen if he, Dom, was to regard himself as the leader. And somehow he couldn't think of himself as a Christ.

The chair grimed his clothes as he sat down. Everything in the council chamber was filthy. It was never cleaned: nobody was allowed in except for council members, and that was the way it had been for centuries here in this gutted building on the nether, unfashionable side of the Moon (Dom, like many fond lunarites, liked to refer to his adopted planet by its affectionate archaism, the Moon).

To call a full meeting a consensus of four voices was necessary. In this case the number had been six, which meant that Dom's policy was being challenged. He was, however, sure of his five assenters.

His eyes glittered as they roved over his co-members. "Well, gentlemen, you have called this meeting, as is your right-or some of you have. Now, put your business."

The first to speak was the tall, smooth, engaging Holt. "The business of the meeting is already known

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to you, Chairman. Some of us are doubtful about the coming project."

"So. And why?"

"Think what we stand to lose!"

"What has the Wheel come to?" Dom said suavely, as though he found it difficult to take the matter seriously. "Are you afraid now of a little gamble? In my view, the odds are favorable."

Pawarce, a thick-set man with hard, brutal eyes, took up the argument. "There's another angle to this caper. Supposing this Pendragon animal is smarter than he seems? It could be that we are still being hustled-railroaded into playing a game where we're out of our depth."

This point had not escaped Dom. Essentially, he could only answer it in a pragmatic sense. "That is something we have to assess for ourselves as we proceed," he said. "If we feel suspicious, we can always withdraw. So far, I see nothing to indicate that we are being tricked. Safeguards can be arranged-are being arranged. I believe our opponents are as interested in testing our performance as we are in testing theirs."

"Then why don't we play for smaller stakes, to begin with?" Pawarce demanded harshly.

"They are not interested in playing for pennies," Dom said mildly. "Come, gentlemen! Life was a gamble since the first amoeba crawled up out of the slime. Besides, if you want a better reason for abandoning your caution, consider this: the stakes we are putting into the game may shortly be valueless. I have recently received information from the Legitimacy which makes it clear that total defeat at the hands of the Hadranics is an imminent possibility. Think of that, when you tremble to risk what we have."

But when the argument was over, minds remained unchanged. Attitudes had already been finned up before the meeting took place. They took a vote. It was six to six.

Dom felt a sudden impatience with the dissenters. 'Go and join the Legitimacy, you creeping tortoises,' he

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thought 'Build a shell round yourselves, like them.' He rose from his place and stepped to the other side of the chamber, laying his hand on the dust-encrusted casing of a machine standing there.

"The matter must move forward," he said stonily. Everyone gazed at the machine in fascination. "Ve-likosk's roulette?" Pawarce rasped in a hushed tone. "But that thing hasn't been used for fifty years."

"What matter? It is still in good order, and there is precedence. Unless someone wishes to change his vote."

They all sat as if paralyzed. With a nervous smile Dom lifted a flap of metal and slapped a switch. When he returned to his wrought-iron chair, to which the machine was connected as it was to all the others, he was calm. Gracefully, he sat down.

The Velikosk roulette machine hummed as it went into action. A flicker of light ran round the edge of the table, momentarily pausing at each man in turn. Hands gripped the table in unbearable nervous tension. Dom, however, was relaxed, facing whatever the future might bring with practiced imperturbability. Faster and faster ran the ghostly nimbus. Then, abruptly, it ceased to be. And the chair over which it had last flickered was empty. Its occupant had disappeared, sucked into the gulf of pure randomness that underpinned the universe.

This was the fifth time, Dom believed, that the Velikosk machine had been put to the purpose of resolving differences of opinion among the council of the Grand Wheel. Until recently no one had even remotely understood how it worked-Velikosk had nev-er been able to explain it to anybody. Even now it was doubtful if it could be repaired should it break down, in which case a tradition would die. The empty chair had been Pawarce's.

"I believe the vote will now prove to be six to five, gentlemen," Dom intoned calmly. "Shall we formalize it, or would you prefer to leave it at that?"

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Chapter Seven

At the end of its descent from the orbiting team ship, the planetary lander, a long gondola with a lifter engine at each end, settled onto the crumbling terraces amid a skirl of dust. When the air had settled, the door opened. Hakandra, followed by his constant companion, Shane the cold-senser, stepped out.

This planet was not unlike the one he had recently left, he thought as he looked about him. Dry and bleached-looking. The sky was a very pale blue, as though all the real color had been seared out of it. Interesting how most of the planets that bore-or had borne-life in the Cave followed the same dehydrated pattern. In this case, some life still remained. Tough, fibrous tendrils a yard thick, looking like great white worms, snaked out across the desert, interspersed with occasional cactus-like growths. Intelligent life was gone, but the terraces characterizing this part of the desert were regular enough to betray their artificial origin. With a soft rumbling sound Caerman's digging machines were biting into the terraces, vacuuming away the rubble to be sorted in a vibrating sieve system. Piles of skeletons and artifacts, the output of the sieves, littered the landscape. Team E-7 was archeologizing the site, not gently, perhaps, but well.

Caerman himself, a big-boned man who moved easily and energetically, stepped forward to meet them. He had abandoned the cloak usually worn by team leaders and wore a one-piece track suit.

"Glad you decided to drop in," he welcomed cheerfully. "Care for some refreshment?"

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Hakandra replied curtly. "No thank you. I'd rather get down to work."

"Okay. Over here." He led the way to a nearby pavilion. As they walked he turned to Shane. "How do you read this place?"

Shane glanced at the yellow sun and shrugged. "It's all right. We'll be okay here for a while. Everything feels calm."

"That's good to know. I'll pass the word around-it makes me nervous seeing my men watch the sun all the time."

"How long since this civilization fell?" Hakandra asked.

"Not long. I estimate this city had inhabitants not more than fifty thousand years ago, maybe much less."

"And the cause?"

Caerman spread his hands, looked glum. "There's nothing specific. I can only put it down to one thing:

premature ecological aging."

"A peculiar concept."

"It's one I've learned to accept since working in the Cave. Here as in other places, the whole biota went, though there are still a few bits and pieces hanging on, mostly cactuses. The intelligent species lasted longer than any other animal life, which is unusual. We have reason to believe they planned to survive and were aware of the nova situation here in the Cave."

He ushered them into the pavilion. "Well, here it is."

The interior of the pavilion looked like a museum, or display, depicting the dead civilization. Painted reconstructions of the natives adorned the walls. They were sad-looking creatures with lizard-like skulls and bony, scaly limbs. But team E-7 was less interested in their appearance than in their technology. Caerman led Hakandra to the find that had caused him to break off his itinerary and come here.

The alien machine still showed signs of its long internment in the earth. The metal casing, though rustproof, was much corroded. It was shaped like a huge

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drum, the top surface of which consisted of a flat crystalline lens which sparkled vividly but was totally opaque.

"You say it's functional?"

"All we know is that it responds to a power input. Until we can work out what power level and waveform it uses we won't really be in a position to say what sort of shape it's in."

"But what about its purpose?"

Caerman pointed to a thin, nervous-looking man who entered the pavilion at that moment and went to speak to the technicians working on a transformer. "Wishom here can tell you more about that. He's in charge of the technical study." Wishom joined them, nodding a greeting to Hakan-dra and listening carefully to his questions. "We know these people were interested in random phenomena," he said in a reedy voice. "It seems they were working on the problem of why stars in the Cave are apt to go nova. In my belief they had hoped to control the process so as to ensure their own survival."

"They planned to stop stars going nova?"

"That's what I think."

Shane cackled wildly. "They needn't have bothered -they died anyway! They never stood a chance-nobody does in Caspar!"

Caerman frowned in the sudden silence. "Quite right," he agreed quietly. "They needn't have bothered."

"But they did bother, right up until they realized that, novae apart, they were going to become extinct bio-logically." Wishom tapped the casing of the alien machine. "This was found in a sealed preservation chamber-obviously they set considerable store by it. Its core is a globe of black solid material that's opaque to everything we've beamed at it. We are fairly sure it's a randomness machine of some sort, but we're reluctant to take it apart in case we can't put it back together again. Instead we're giving it the black box

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treatment-giving it inputs and seeing what comes out."

"Perhaps it's only a fermat," Hakandra conjectured. "In some ways it reminds one of a fermat, but there's clearly more to it than that."

Hakandra pondered briefly. "I'm here to decide whether tills investigation should continue," he told Wishom in a brusque voice. "I can only do so if there is a significant possibility that it will be militarily useful."

Wishom blinked. "By controlling the nova process?" "Exactly."

"It's a tall order," Wishom said doubtfully. "As yet I don't know of anything that would suggest the natives were close to their goal, or even that they knew something we don't." The scientist's gaze became vague. "How soon do you need to decide?" "Immediately."

Wishom snorted. Just then the technicians at the transformer signalled to him.

"Better stand back," he advised, "we're about to begin an experiment."

The transformer hummed as it fed into the alien drum a power waveform Wishom had calculated the machine might use. The flat crystal table-top suddenly sparkled and blazed, throwing off spears of light.

Wishom and his technicians scarcely seemed to notice the display. Wishom had returned to the transformer and was busy studying the recording instruments.

"Interesting," he murmured, pointing out something to his helpers.

Suddenly a yell of fear came from Shane. He cringed away from the glowing machine, his mouth sagging open and his face white. "Stop it!" he keened. "Stop it!" Hakandra leaped to the boy. "What is it, Shane?" he barked.

"Uncontrollable-" Shane whimpered.

He began to drool.

At a gesture from Caerman the transformer was

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switched off. Its hum died into a strained silence. Hakandra seized Sbane by the shoulders, peering at him anxiously. "Is it all right now?" he demanded.



Shane nodded weakly. "Tension," he muttered. "Tension in the air, in the stars-but uncontrollable. Uncontrollable." His voice faded.

Hakandra straightened, looking first at Shane and then at the machine, weighing the youth's words.

"Gentlemen," he announced, "the project goes on."

#### Chapter Eight

Looking around the crowded force network platform, Cheyne Scame decided the time had come to make a break for it. He turned to one of his two escorts.

"I have to go to the men's room," he said.

"Okay, we'll wait here." The escorts seemed relaxed. Scame was not on probation any more.

The washroom was at the end of the platform, near the main concourse. Once inside the door Scame went to the visionless phone on the wall and tapped out the number Magdan had given him.

A woman's voice answered. "Yes?"

Pretending to stroke his cheek, Scame cupped his hand round his mouth to muffle his words. "This is Professor Scame," he murmured. "I'm at Sanfran force station. I have what you want. Will you pick me up?"

Scame heard a click, a buzz, then a hum. Another voice, which from its intonation he knew to be a computer voice, spoke. "Give me your exact location."

"I'm in the washroom on platform sixteen."

"Do you have company?"

Scame paused before answering. A citizen brushed

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by him and went out of the door. "Two Wheel heavies. They're waiting for me further up the platform."

"Lock yourself in cubicle number nine and wait there until you are contacted."

The phone fell silent. Scame went and did as he was told. Inside the cubicle he sat down on the pedestal, feeling at once excited and weary.

After five minutes there came a sharp rap on the door. As he opened it a slim, conservatively dressed young man squeezed in quickly, closing the door behind him.

The two of them so crowded the small space that Scame was obliged to sit again, the Legitimacy man towering close above him. The agent opened the attache case he carried and spoke in a low voice.

"Remove your outer clothes."

Scame obeyed, clumsily. The agent was impatient. "Faster," he murmured, "your friends will be wondering about you." From the case he took fresh garments: a brown striped suit and a small flat hat, an item Scame would normally never have worn.

When he had changed, transferring his belongings to the new suit, the agent stuffed his old garments into the case.

"Now for the face," he said softly.

Scame was obliged to sit once more while the other man pulled something soft and squishy-feeling over his head and over his face, pressing it into his neck. The stuff seemed to melt into his skin with a faint burning sensation.

Opening his eyes, Scame found he was being studied intently. The agent tilted his face. "That's good enough. Better than it need be, in fact. Okay, we leave now. Enter the main concourse by the other door, so the Wheel mugs don't see you-get it? I'll be right behind you."

Scame nodded. He eased himself out of the closet. In the washroom he paused to examine himself in a mirror. His face was gone. In place of it was a different face altogether, with a different shape and a different texture. It was totally convincing. The hair was dif-

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ferent, too. It was as if he had been given a new head.

Coming out into the main concourse he came briefly in view of platform sixteen again and could not resist taking a glance. His Wheel escorts, thinking he had taken more than long enough, were heading for the toilets.

"Keep going," said a gruff voice behind him. "Make for the travel cubicles, fast but easy. Those goons are about to discover you've given them the slip and they're liable to do something drastic."

Scarne hurried on until they both entered a travel cubicle. The agent tapped out a destination, then turned to him with a knowing smile as the tiny room zipped on its way.

"That wasn't too hard, was it? You can take that face off now. Here, let me help you."

He placed his hands on Scarne's neck and tugged. There was a faint ripping sound as the mask came away. Scarne touched his cheeks with his fingers. They were warm.

"Where are we going?" he asked.

"Don't worry, it's all being taken care of."

There was a holset in the corner of the cubicle. Scarne pointed to it. "I want you to put me in touch with Magdan."

"Who's Magdan?"

"My controller-until recently. That's the only name I have for him: Magdan." He spoke with flinty patience. "Get him for me."

Moving at speed through Sanfran's conveyor system, the cubicle jerked and swayed. The agent stared at him. "Are you crazy or something? You ought to know there's no way I could do that."

Scarne avoided his rescuer's gaze. He's probably right, he thought. The time to make his play, he decided, would be when he got to debriefing.

Neither spoke further, and shortly the cubicle slowed. The agent tapped out another code on the address register, taking them through a secret routing gate, at

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which they speeded up again before sliding smoothly to a stop.

As he left the cubicle and emerged into a long corridor Scarne immediately felt that he had been here before. This was where he had previously been briefed and addicted. The walls were the same shade of green. He was ushered down a passage and into a side room he also thought he remembered. The furniture, the layout, everything.

A big, cadaverous-looking man sat behind the desk. He directed a bright, dazzling light onto Scarne's face.

"Sit down," he ordered.

Scarne groped his way to the seat. "Would you mind turning the light off?" he complained. "It stops me thinking properly."

The glare diminished a little in intensity, enabling him to make out the debriefing officer's enormous head. "Been up on Luna, have you?" The man's voice was almost caressing. "Got something for us?"

"I was at Marguerite Dom's demesne. I met the Wheel's top mathematicians there."

"And they gave you the equations? Just like that?" The caress became menacing, scornful.

Scarne licked his lips. "It wasn't so hard, really. I saw some secret papers. I more or less have the run of the place-they think I have talent, they trust me." He raised his voice. "But I didn't make a record of them. It's all in my head. Before I tell what I know I want your part of the arrangement fulfilled. I want the antidote."

A short, explosive half-snarl, half-laugh came from the other side of the light. "What are you trying on, Scarne? I'll get a mathematician in here and you can talk to him. Later-well, we'll see."

"No. I won't talk. I want the antidote."

"You fool, don't you know we can get anything we want out of you?"

"Easier to give me the antidote." He leaned forward. "Unless I'm mistaken, I've been in this building before. You have a laboratory here somewhere. Take

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me there and give me the antidote. Then I'll talk." A whine came into his voice.

"I haven't had a dose for three days. I didn't take my supply with me to Luna."

A door opened at the back of the room. A tall, slender figure stood there, hazy in Scarne's dazzled vision, then moved to just behind the debriefing officer.

"These equations are so easy to memorize? That sounds improbable."

"No, they're not. I'll probably have lost most of it in a few hours, if I don't write it down. I don't have all of it at that-just enough to make the case clear."

The newcomer sighed, turning to the seated man. "How tiresome he is. All right, have his releaser brought up here, and we need waste no more time."

Scarne shook his head vigorously, aware that he was whining. "Not good enough. You could give me anything-just water." His words came out in an eager rush. "I want to go down, myself, to the laboratory- the same one where I was given that foul stuff. I want to see the antidote in its bottle, I want to see it put in the hypo. Then I'll know it's the right one."

"How will you know?"

"All know."

The tall man leaned down and switched off the spotlight. "You are a nuisance, Mr. Scame. You are playing games with us. Well, come along."

As Scame's eyes adjusted to the room's normal light he saw that the second officer had a smooth, round face and a long, gawky neck. His eyes were bright and staring, like polished pebbles. But his movements, as he stepped towards the door to the corridor, were smooth and self-assured.

Meekly, Scame went with him.

The drugs laboratory was several levels further down, confirming Scame's belief that he was in the Secret Intelligence Service's main center of Earth operations. He remembered it when he walked into it:

the long benches, the racks of vials. Everything neat and tidy. It was like walking into a recurring nightmare.

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A moonfaced biochemist in a white smock came towards them smiling. "Another customer?" he greeted, looking Scame up and down. "I dare say we can find him something to fit." He chuckled.

With a disclaiming gesture Scame's companion explained that Scame was to be 'normalized'. Scame followed every word of their conversation avidly. He poked into every moment of the transaction like someone who knew he would be cheated if the opportunity arose for but one instant. When the vial arrived he grabbed at it, reading the number pasted on it. HJ30795/N. He had memorized that number; it had been on the bottle from which he had been addicted. But what was the N? "N for normalization," the biochemist said reassur-ingly. The smile never left his face; it was fixed there.

Somehow it was too easy, too glib. But they want the equations badly, he told himself. And ã not out of here yet. I still have to convince them they've got something, and head back to the Grand Wheel. Only they can protect me now.

The dermal spray hissed into his arm. "How long will it take?" he asked.

"Only a few minutes. The releaser is a related compound that forms a bipole with each molecule of the addictive substance. The new compound so formed is more complicated. It gives the same relief as the old drug but phases out the addiction, preventing withdrawal symptoms. You'll feel weak, perhaps slightly dizzy for a day or two, then you'll be as good as new."

"Now are you satisfied, Mr. Scame?" the SIS interrogator said indignantly, turning his pebble eyes on him. "If you would kindly step in here, please . . ."

He gestured to a side door. Through it was a small interview room. He sat down, placing a recorder box on the table.

"Though not as accomplished as yourself, I imagine, I also am a trained randomatidan," he told Scame. "Would you please be good enough to give us what data you have."

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"You've made a mess of your situation, Scarne. Trying to fool us with this-junk! Now you're going to have to make it back into the Wheel as best you can. You're on your own. If you can't come up with something genuine soon . . ."

"They're up there," Scame groaned. "I swear to the gods the equations are up there on Luna..."

The nightmarish vision collapsed into a jumble of vague impressions, of disturbed mutterings and blank periods accompanied by nothing except nausea. He awoke to find himself lying on a bench. Above him soared the vaulted roof of Sanfran station, and for some moments he stared at it, unable to move. Then, with an effort, he levered himself to a sitting position, his head throbbing. As he checked the time, he noticed that he was wearing his own clothes again. Just over an hour had passed since he had entered the washroom on platform sixteen. His body like lead, he dragged himself to the nearest holbooth, and soon, after getting the number from the directory, he was through to the Make-Out Club.

Cadence answered, slipping into the chair across the table from him in the little holbooth room.

Her eyes widened to see him. "What happened to you, Cheyne? Where have you got to? Jerry's furious--"

"I had a black-out," Scame interrupted her. "I don't know what happened. I just woke up on a bench here in the station."

"Oh. Are you all right?"

He nodded. "I think so."

"The others called in to say you'd disappeared. They're out looking for you now. We'd just about written you off, this end."

"Well, here I am. Ill find my own way to you, shall I?"

She frowned. "How come they didn't find you at the station? Did you go somewhere else?"

"I've no idea."

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"Well, you'd better come right over here. Things are happening. I'll tell Jerry--don't be long, now."

"What things?" he started to say, but she cut the connection. The holroom dwindled. He was back in the plastic booth, staring at the scanning plate.

I played it all wrong at the SIS center, he told himself as he emerged from the booth. I have other information I could have sold them--about the Pendragon creature, about Dom's galactic contacts. But it's too late now. They'd never believe me.

The drug, he thought suddenly. It was the drug that was responsible for these mental experiences--coupled, probably, with the impetus given by the jackpot's brain-charge. That item, too, he would file away for future reference.

Wearily he trudged towards platform sixteen.

"What are you, some sort of brain-rotted cripple?" Soma accused harshly when Scame reported to his office. "You want nurses, or something?"

Scame was apologetic. "I'm sorry," he said.

Soma seemed unwilling or unable to give him more than a few seconds of his attention. He was ferociously busy, glancing through piles of tapes and papers he had stacked on his desk, handing some to an underling who incinerated them,

while others went back to file. While he was doing this he barked orders at people who came into the office.

"Whatever it is, it can be sorted out later," he said. "We're leaving. Word just came through: the Legitimacy is staging a raid on Dom's demesne-the bastards will be sorry for puffing a stunt like that, by Lady. Not that it makes much difference, we have our plans, too. Dom and his retinue are pulling out, to Chasm. That includes you and me."

"Chasm," Scame repeated thoughtfully. "That's quite a way from here."

"The Legits won't be able to get their claws on us there," Soma said. "We were to have had a venue

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there shortly in any case. We've brought our schedule forward a bit, that's all."

"Is it just you and me that are going from here? What about the others?" Scame coughed softly.

Soma looked up. He grinned wolfishly. "Hungry for your little girl friend, eh? Don't worry. Cadence is on the list too-if only to keep you happy. You should be proud. You're one of Dom's specials."

Scame suddenly became concerned for his SIS supply. "Have I got time to pack a case?"

"Don't be more than five minutes."

As he left. Cadence passed him on her way into the office, and smiled nervously to see him. He hurried to his apartment and collected what he needed. Minutes later he rejoined her, Soma and three other members of the Make-Out staff in a cubicle elevator which took them all the way to the summit of the tower city. Scame stepped out of the cubicle and gazed about him. Below, the landscape was lost in a haze of distance. The city itself was largely occluded from view by the roof platform; only some of the wings and pro-turberances could be seen, seemingly floating in the air beneath their feet.

Cadence appeared at his elbow. She pointed upwards. "Here it comes. Right on cue."

He followed her gaze. A small shuttlecraft was dropping out of the sky. It came expertly to a stop only a few feet above the platform and hovered there while they boarded.

Then it shot instantly back into the void, heading out. In ten minutes Earth had shrunk to a disk seen through the passenger windows. At the same time a medium-sized ship, interstellar class and Wheel-owned, came rising from Luna to meet them-and not just

them, but about a dozen other shuttlecraft that had simultaneously quit the mother planet.

As soon as the passengers had been transferred and the shuttles had receded again, the Wheel ship took its bearings. In minutes it was on course for a destination fifty light-years away.

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Somewhere in the ship, as they departed. Marguerite Dom watched a special transceiver. On the holscreen an SIS cruiser was descending towards his now deserted manse, blowing up clouds of moondust. Dom, his face expressionless, watched as SIS commandos poured from the cruiser and disappeared into the building. Then he leaned over to switch off the set, sat back and sighed.

#### Chapter Nine

Chasm was a Wheel world; the only such world where the Legitimacy had no vestige of authority. Not that the Legitimacy minded that too much, for Chasm had but one city-also called Chasm-which was what Las Vegas had once been: a place wholly given to gambling, and associated pleasures.

Addicts and pleasure-seekers flocked here from all over man-inhabited space. It was possible to arrive in Chasm's colorful caverns with a penny and leave a

wealthy man. Conversely, games were played here that could never have been staged elsewhere: games in which irresistible prizes were balanced against the risk of serious life impairments—disease, drug addiction, decades-long bondage. The Wheel ruled here: there was no law except the law of wins and losses. The name Chasm was a descriptive one. The city was carved into the sides of a deep natural abyss, the only shelter the planet offered from the hundred-mile-per hour winds which swept its lifeless, rocky surface, and against which Dom's starship battled as it descended towards the mouth of the chasm. Below the gaping Up, the air was remarkably calm.

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The starship rolled into a cavern in the first level of excavations, just under the surface. Scarne disembarked to see the ship disgorging the rest of its passengers and cargo: some dozens of top Wheel operatives, big crates of equipment (and, probably Pendragon). He saw no sign of Dom, unless he was in the covered hover-litter that hummed towards the elevator shafts and disappeared. Jerry Soma joined him, picking his way through scattered boxes and loading-trolleys. Cadence in tow.

"Ever been to Chasm before?" he asked.

Scarne shook his head. "I've never been out of Sol."

"Come on, I'll show you the town."

They emerged from the cavern onto a broad stone promenade. About half a mile away reared Chasm's massive opposite wall. Overhead, Scarne saw what looked like a racing river crossing the gap. It was wind-borne dust, flowing in complicated streams and tendrils.

The promenade was bounded by a balustrade only waist-high. He walked to it and peered down—and caught his breath. The abyss simply went down and down, crisscrossed with bridges that merged into a cobweb-like tangle. The walls glowed with colored lights.

Soma laughed. "Quite a sight, huh?"

Scarne drew back. "How deep is it?"

"Five miles. But the city itself only goes down a mile and a half. After that the air gets too thick. Let's take a dive."

He led the way to an elevator station. They swooped down with sickening speed—it was like being in a tower city—coming to a stop in a tiled tunnel-like area.

Passing through a proscenium arch, they came out onto what was, to all intents and purposes, a crowded street. On one side, the gulf; on the other, an endless procession of gaudy entrances, animated light-signs and barkers.

Cadence hung on Scarne's arm as he gaped around him. The sky was no more than a crack far above.

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Seen from here, deep among Chasm's numerous levels, the plummeting walls were less sheer. Not only were they carved and tunnelled into, they also supported jutting piers, daring walkways, slender bridges, all of which made up a seemingly rickety maze hanging over the abyss.

Out into that abyss, too, floated noise and music, drifting from the levels of the city above and below them. Chasm fulfilled its reputation: it was fantastic, and unique.

Then Scame gave a cry of horror. "Look!"

Someone had fallen from one of the overhanging structures. The figure came tumbling through the air, narrowly missing an arched bridge, limbs flailing. Scame saw the victim's face—a man's—as it swept past them barely yards away, eyes staring and the mouth drawn into the Oh of a soundless scream. Then it was gone.

Soma cackled. "Oh, you'll soon get used to that. It happens all the time. Every few minutes, in fact."

Scarne stared at him blankly. "But why?"

"Just the natural accident rate. Don't look so shocked, Cheyne, it isn't any greater than the rate for automobile accidents on Mars or somewhere like that. It's just more visible, that's all. Think about it: Chasm has a population at any average time of a third of a million people. They slip off a bridge or something occasionally; and then there's suicides. The point is, there's only one way for them to go, down this narrow chasm where everybody can see them."

"But why not have safety nets?"

"This is Chasm," Soma answered, his mouth firming. "Come on, we have to get to our quarters. There's a lot to sort out."

They walked along the street. Scame had already noticed, in point of fact, that, as on the top level, all balustrades protecting pedestrians from the gulf were only waist-high.

Cadence seemed to notice his questioning stares. She gave his arm a squeeze.

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"It's like he says," she told him. "Just a normal accident rate. You soon get used to it."

Do you? he wondered. But people who came here, he reflected, had attuned themselves to the idea of risk. They were looking to win; some were looking to lose. But other people's losses were a matter of indifference.

They turned into the lobby of a hotel. Scarne took a last look up into the gulf. Far above, falling fast, were two small figures, one a woman's, the other, even smaller, probably a child's. Still holding hands, tipped upside down, they went hurtling together towards the depths.

The Straight Flush restaurant was built on a platform extending out over emptiness, giving an excellent overall view of the chasm city. Here, while eating or whiling away his time over drinks or beverages, the customer could gaze down into the ever-busy gambling metropolis and, protected from falling objects and bodies by a transparent sloping roof, drink in the lurid scene that was like a visionary's painting of one of the minor departments of Hades. Scame sat near the edge of the semi-circular ledge, sipping coffee laced with rum, an extremely worried man.

Though he had more than one problem, the most pressing of them was that his last deodorant can of SIS drug would not last more than a few weeks now. Here in Chasm the holo numbers he had been given were useless, so he had no direct means of renewing his supply.

But he had hope. There would be Legitimacy agents in Chasm, he reasoned. If they knew that Dom had brought him here they might contact him.

During the starship journey he had come directly under Dom's tutelage. The work was taxing; therefore every fourth day was his own. On these rest days he deserted Cadence and tried to make himself available, establishing a routine round of the city, visiting one or two of the big casinos, the displays, and a leisurely hour or two, always at the same time, at the Straight Flush.

A shadow fell across him.

"Mind if I sit here?" a voice said.

Scame made a vague gesture. "Of course not."

His heart thumped as he studied the face of the man who sat down at the table. He didn't recognize him.

The stranger pointed into the gulf. "Weird, isn't it? Some might say scary."

"A lot different from Earth, or Tycho," Scame agreed. "Are you new to Chasm?"

"Yes." The man leaned suddenly forward and rattled off one of Scame's holbooth numbers. "You're moving fast, aren't you?" he said. "What's going on?"

Scame shrugged, glancing around him, wondering for the thousandth time if the Wheel had tabs on him. "Marguerite Dom brought me out here. It wasn't my idea to stage that raid on Luna. That was a real hick move, wasn't it?"

"Based on information supplied by you." The agent's voice came to him in a metallic, bitter-tasting tone. "But nothing was found."

"Of course not! You ought to have known Dom's own intelligence service is good enough to tip him off about any developments of that kind. He's got people everywhere, he's probably better informed than you are."

The Legitimacy agent took the sideswipe insult without overt reaction. "Did Dom bring the goods with him?"

"I don't know."

"We figure he must have. He's making this place his base. The mathematical cadre is here."

"I didn't know that," Scame said truthfully. There had been a lot of people on the ship; he saw only a few of them.

"Apparently you're quite a protege. You're right close to the center."

"I'm only a trainee. Nothing's definite yet."

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"A trainee for what?"

"A games player of some sort." He hesitated. "For one of their special clubs, or something, I think."

He couldn't do it. He couldn't tell his Legitimacy masters what the game really was, not if his suspicions, his horrible but all-too-probable suspicions were true. Because he knew what the Legitimacy's reaction would be, once they had confirmed his story. Indeed they would see very little choice, desperate though the recourse would be. Chasm would be the first world to be delivered a planet-busting bomb. Other Wheel-predominated worlds would also be destroyed, in short order. It was fairly certain, too, that the Wheel would have some means of retaliating to all this. And the Hadranics would walk in to trample on what was left.

"Listen," he said, lowering his voice, "I've been waiting for you to contact me. Did you bring me a supply?"

"Supply?"

"My supply! The aerosols!" He became suddenly impatient, irritable.

The agent chuckled mockingly. "You'll be all right for a while yet. You know the arrangement." He bent his head forward, glaring at Scame from beneath raised eyebrows. "Now you listen to me. All the Wheel big shots are in Chasm right now. It's a regular convention-we reckon they're making this the Grand Wheel's capital. We're certain the data is here, and the equipment to make it effective too, if any exists. Find it!"

"You've got Chasm crawling with agents," Scame retorted. "You find it."

The Legitimacy man spread his hands. "You don't even have to procure it yourself. You only have to lead us to it."

Scame grimaced. "How can you be sure there are any... there is the data you want?"

"You know it as well as we do. There's no doubt, at this stage." The agent gave a monitory tap on the

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tabletop. "You're the man who's placed to get it-so get it. That's an order that comes from high up, from way up, and you're on the spot. Time's running out for you, isn't it, Scame? You've got about two weeks, so I'm told. You'd better hear this-nothing else is coming to you. You either get released, or you get nothing."

"You really want this information bad, don't you?" Scame said, the realization suddenly dawning on him.

"That's outside your brief-and mine," the other answered sternly, with a wave of his hand. "Just do what's required of you."



Scame nodded. "You really need it. Why, I wonder? It's the war, isn't it? We're going to lose the war, unless the government can pull something out of the hat pretty soon."

The agent stiffened. He stared at Scarne in disgust. "You're talking crap," he said. "The. Legitimacy doesn't lose wars. Ever."

Back at the five-level hotel, Scarne found Cadence talking with Soma and others of the retinue in one of the lounges. She eyed him closely as he flopped down next to her. "Had a bad day? You look wiped out."

"This town depresses me," Scame said. "I'll be glad when it's time to leave." He called across to Soma. "Hey, Jerry! When are we leaving this dump? When's the big game?"

Soma raised one upright finger before his face, a recognized, final signal. "No info."

"That's what they always say."

Hank Marem, another games player in Dom's selection group, a heavily built, deceptively slow, lugubrious man, answered Scame. "Well I'm as sure as hell not eager to leave yet. Hell. . ." He trailed off, staring into his drink. "I'd like a million years before I feel ready," he finished.

A door at the rear of the lounge opened. A hush fell on the gathering as the charismatic figure of

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Marguerite Dom entered, sauntering into the room. The Wheel boss's gaze seemed to flick over them all, taking in every detail.

A waiter hurried up as Dom casually seated himself at the table, offering him a cocktail. Dom sipped it, set it down, then turned to Scarne.

"Have a relaxing day, Scame? Ready for a few sessions tomorrow?"

Dom's fruity and idiosyncratic, slightly mocking voice was impossible to read.

"Fairly, sir," Scame said uneasily, feeling the other's eyes on him. Dom's presence was something he had learned to sense instinctively. It was something he could almost smell, a slightly rotting odor.

"Jolly good," Dom murmured. "We don't want to overstrain you, you know. How's your health?"

"I feel fine."

"Excellent." The Wheel master swallowed his cocktail. "See you tomorrow." He rose and sauntered away, making for the front of the hotel, an eccentric, confident, all-powerful figure.

When he had gone Scame breathed an inward sigh of relief, though he was not altogether sure why. Lately he had been getting to know Dom intimately; he was one of Dom's favorites, and was being groomed by him as a games partner, in a kind of relationship that could only be compared with marriage, Scame was finding it harder and harder to shake off the man's clinging aura; his combination of smooth charm and total cynicism both fascinated and repelled him. Scame was aware of how far he had come. He was at the end of a long process of selection that had screened both Wheel operatives and free-lancers like himself—a process that was still going on. Scame predicted that Marem would be dropped soon. The ever more vigorous tests were finding his limitations. Scame, however, was almost certain of being included in the team that would face the Galactic Wheel.

He had only one black mark against him: his supposed 'black-out'. En route to Chasm he had been giv89

en a thorough medical check and pronounced fit, the addictive substance in his bloodstream apparently evading detection. But Dom had warned him that any recurrence and he would be out. He wasn't interested in anybody who was liable to flake out on him.

Scarne spent much of his time playing Kabala, and related games, with Dom. He could beat him now, about one time in three. He had been unable to prevent a

kind of perverse loyalty for Dom developing in him; but along with it, as he became more sure of Dom's utter egotism, and of his intentions for the coming game, there was a festering hatred.

He was in a state of agitation when he went with Cadence back to their suite. She watched him, her pale eyes wide, as he paced the main room, his face creased as if in pain.

"Cheyne? What is it? Is it too much for you? The games? I thought-" A foretaste of disappointment clouded her features for a moment.

"No, it's not that," he snapped irritably. He put his hand to his forehead. "I can't do it alone," he muttered.

"You want me to call Jerry or someone?"

"No!"

His exasperation softened as he looked at her and saw her concern. He was never sure how much of her growing attachment to him was professional and how much was due to her having genuinely fallen for him -or whatever passed for that in her Wheel-enclosed life. She was a Wheel creature, of course. It wouldn't really be fair of him to try to divide her loyalties.

But there wasn't anyone else. And besides, as he gazed at her, taking in her worn, blameless face, Scame realized that the gamble would be worth the risk. Cadence was a born loser. She would be almost sure to do the thing that went most against her own interests.

He crossed to where she sat and knelt down beside her, taking her hand in his and looking at her im-

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ploringly. "You know more about this place than I do," he said. "Did the mathematical cadre leave Luna too?" They must be here, he thought. They'd be needed. She nodded. "And all their material?" "What do you mean?"

"I want to take a look at some confidential material, Cadence. I want to do it secretly. And I want you to help me."

Her frown deepened. "What for?" she said at length. Then she raised her eyebrows ingenuously. "Are you a spy?"

Desperately he squeezed her hand. "This game," he said, "it's got to be stopped."

She snatched her own hand away, staring at him now in complete, displeased puzzlement. "Stopped? What are you talking about? It's supposed to be the greatest thing that's happened for a million years." Ever since she had been let into the big secret, in fact, she had looked on her participation as a matter for personal pride.

"Cadence, don't you know what's going on?" He climbed to his feet, glowering down at her. "Don't you know what Dom is setting up? He's a maniac, an utterly ruthless lunatic. All he wants is some ultimate gamble to satisfy his lust as a gamesman. He plans to go for broke-with the whole of mankind in the center of the table! We're the stake-every man, woman and child alive!"

"Has he told you this himself?" "Not in so many words." Scame pulled a kerchief from his pocket and mopped his brow. "But that's what it will be, all right.

He's so sure of himself-so sure he can win. He won't care what he has to put up to stay in the game-he's made that abundantly clear. And either you put up a stake the galactics want, or you can't play."

She folded her hands in her lap, staring at them. "If he says we'll win..."

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"He's a fool," Scame told her curtly. "Unbalanced. He's going in blind, without knowing anything about the galactics to speak of."

"But it isn't just Dom's decision," she said defen-sively. "It was the whole council's." "Oh yes, the council!" Scame laughed bitterly. "There's been a purge in it recently, I hear. It's pretty obvious the decision was by no means unanimous. Like all tyrants, Dom knows how to deal with councils."

He walked to the other side of the room and took a cigar from a box. He lit it and sat down, resting his head dejectedly on his hand, puffing out clouds of violet smoke.

Two hours later Cadence said woodenly: "There are a lot of other excavations out back of this hotel. A lot of different sorts of stuff is kept there. I've seen cadre people go in and out, sometimes." "Could we get in there?"

She shrugged. "I don't know. Probably. I've been in there once, with Jerry. It's not guarded, really. Nowhere is once you get past the hotel lobby."

I could just tell the Legit people it's in there and let them do their stuff, he thought. But what if it's not there? I wouldn't have any more credibility left.

"How about you and me having a look around?" he said. "Maybe nobody would question us if we're together." Then, seeing the fear on her face, he said: "Show me the way there, anyway."

She stood up, her shoulders bowed. "All right. Let's go."

Scame felt a quiet but pleasureable sense of triumph. Cadence had gone through an emotional crisis and had come through as he had predicted.

He had to hand it to her. She was prepared to commit treason for the sake of conscience. There weren't many people like that about, these days.

Or perhaps his revelations about Dom's stake had scared her as much as they scared him. Apart from that, he had lied to her, admitting he intended to pass

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information to the Legitimacy while strenuously denying he was an agent. All he wanted, he had said, was knowledge of where the impending game was to be held. The government would then be able to prevent it from taking place, even if Dom, himself, Cadence and everyone else involved were destroyed in the process.

If only it were that simple, he thought wryly.

They met no one they knew on their walk through the hotel's long carpeted corridors. The place seemed quiet, most people having retired early so as to be fresh in the morning.

Soon they had left behind the inhabited sections and entered a posterior region of storerooms and larders, gouged out of the bare rock. Hesitating only once or twice at intersections. Cadence led Scame to an ordinary metal door at the end of a short tunnel.

She stopped before going on, gazing at him coolly. "I don't really know why I'm doing this," she said in a calmer tone than before. "I just want you to know one thing."

"What?" he asked.

"I hope you're telling me the truth. I belong to the Wheel. If Dom's mad we all have to be protected from him. If not--"

She didn't finish, but fished in her pocket for a set of keys she carried, pressing several in turn against the door's lock plate. The door didn't budge.

She looked back at him- "It's locked. We can't get in after all."

"Here, let me try." He produced a cigarette lighter and pressed it against the plate flicking the switch a few times. The tube glowed as it should-but at the same time the lock hummed as the circuits in the base of the lighter sorted through its combinations.

He tried the handle. The door swung open.

Cadence was staring in fascination. "Where did you get that?" she asked suspiciously.

"This?" Scame smiled, showing her the lighter.

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"Never seen one of these before? You can get them, for a price. There aren't many electronic locks this won't open."

Behind the door the rock corridor continued, ending in a second door which bore no lock. Cautiously Scame opened it.

They crept into a rectangular vault. Uttered with metal-bonded crates, with arched openings on all sides. The place was dimly lit by glow-globes, but it was not dark enough to warrant the use of the lamp Scame had brought with him. "Which way, do you think?" he asked softly. She pointed. "When I came with Jerry we went that way, to collect a games machine." She looked around her. "I saw one of the cadre people go through that arch, over there." She held back as he stepped forward. "But why are you asking about that? I thought you wanted to know the location of the game." "It's in the form of a special code," he told her. "The cadre has possession of it."

He knew his explanations were inadequate and that she was beginning to realize it. He also knew he was out on a limb, jumping off the board without seeing if there was any water in the pool. But it didn't matter. Either he would be cured or he would be dead.

The arched opening gave onto another, similar vault, and so on. It was a veritable maze of replicated units. Scame pressed forward, past looming crates and enigmatic chests, sometimes past uncrated machinery. He had intended to bluff his way through if challenged, but in fact there seemed to be no one about.

Occasionally there were closed doors, and deeper into the maze notices and directional arrows began to appear. Scame pulled himself up short before one door which bore no legend, but instead an outline of an aquatic-looking, meanta-like shape. The door was locked, but his electronic skeleton key soon dealt with that; he eased himself inside, followed by Cadence.

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The chamber was smaller than the cellar of Dom's manse on Luna, but its contents were the same. Pen-dragon reposed in his murky tank, surrounded by his life-support equipment. At the sound of their entrance he stirred slightly, undulating a few feet to the stick-mike, which he grasped in a flapper-like limb. "Who is it?"

"A friend," Scarne said, moving to stand squarely before the tank. "We've met before."

"I don't have any friends here," Pendragon responded. "Still, you've already told me something about yourself. You crawl."

Cadence stayed close behind Scame, hanging on to his shoulder and staring wide-eyed at the alien. "Sorry if I was too familiar," Scarne said. "Tell me, Pendragon, what do you know about luck?"

"Ah, luck!" hissed Pendragon. "That is what I do not have."

"Tell me about it," Scame said reasonably. "How do people use it where you come from?"

Pendragon flapped his extremities, a gesture conveying impatience. "You're beginning to sound like Marguerite Dom. He pesters me sick on the subject." He paused, adding thoughtfully: "There, now, is a being who has luck. Plenty of it."

"He says he knows how to propitiate Lady." "Lady?" "The goddess of luck."

Pendragon paused again. "I don't believe in any gods or goddesses. You'd better get out of here. Something tells me you're trespassers."

The creature released the stick-mike and retreated to the back of the tank.

Cadence, who had heard of the alien but never seen him before, nudged Scame urgently. "Go on, ask it!" she whispered hoarsely. "It will know!"

Scame decided he was wasting his time. He turned his back on the tank, took Cadence by the hand and led her away. In the distance, the hum of a machine started up.

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They came to a series of signposts, all of them cryptic:

MARK II STORE; EARMARKED CYTUS COMPONENTS; IDENTIFICATION DATA. Scame lingered at the last, and might have followed it if he had not noticed the last of the

signs, which bore a script written in randomatic symbols only. It pointed in the direction from which the machine hum emanated.

He turned to Cadence. "Look, you can go back if you like, and put yourself in the clear. I can take it from now on."

"No," she said, pale-faced. "We'll stick together." "Okay." Forcing himself not to break into a run, Scame led the way.

The hum grew louder, and then seemed to subside somewhat. Without warning Scame found, he believed, what he was looking for. They were suddenly on the threshold of a vault slightly different from those they had been passing through. In the center of the vault several men were deep in conversation around a table, a computation unit in front of each. He recognized one of them as the tall Negro who was a member of the mathematical cadre; the faces of the others were indistinct. The table was littered with papers.

The whole of the long wall behind them comprised a bank of machinery: a huge instrument panel, and a battery of smaller pieces of apparatus. It was one of these that was giving off the hum.

As soon as he spotted the scene Scame drew Cadence into the cover of a pillar. He was not sure if one of the attendants standing at the instrument panel had seen him.

He peeped out. The Negro rose and walked to the bank of instruments, saying something to the attendant. The latter began adjusting settings.

There was little doubt in Scarne's mind that this was where the work on the luck equations was being done. Now was the time to withdraw, he told himself. He obviously couldn't gain any definite data himself, for the moment. But he could tell the Legitimacy

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where to stage their raid, or whatever. The question was, could he calm Cadence's doubts about him?

He was about to creep away when a bland computer voice spoke out of the air, seemingly right into his ear.

"You are in a restricted area. Do you have proper authorization?"

"Yes," Scarne muttered.

"State it."

Scarne fumbled in his mind for something to say. "You answer the description of no authorized person," the computer voice resumed. "Please do not move."

Someone stepped into Scarne's line of view. It was the black mathematician. The two of them stared at one another for some moments.

Scame turned to Cadence. "Stay here. I'm going to talk to that man."

He went forward. But before he had taken as much as a step unconsciousness came down on him like a curtain.

Mocking laughter. "Here he comes again. What a clown."

Scarne returned to awareness for the third time. Dom's method of interrogation was swift, relatively painless (though anything but pleasant), but the mind did tend to close down every few minutes or so.

He was strapped to a low table. The helm-like cap on his skull, attached by wires to a nearby apparatus, reminded him of the skull-cap of an identity machine. Whenever Dom asked a question it delivered a brain-charge, making it impossible for Scame either to lie or to withhold. The sensation was as if his brain was being sucked out through a straw.

As well as Dom and two white-gowned assistants, Cadence was also in the room, but as far as he knew she had not been on the interrogation table. She stood pressed against the wall, ashen-faced.

"See how easily gulled you are, my dear?" Dom told her. He turned back to Scame.

"I confess to disappointment," he said petulantly. "I was coming to look

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on you as a valuable partner. Now it transpires you are a spy and a cheat! How could you do this to me, Cheyne?"

Scarne had already confessed that he was a Legitimacy recruit, set on the trail of the Wheel's reported ability to control luck. The first part of his confession was nothing new; his conversation in the ledge restaurant earlier in the day had been recorded, as was nearly everything that went on in public in Chasm.

He heaved in his bonds and groaned, partly because of the helplessness of his position, partly because of his humiliation in front of Cadence. "I couldn't help it," he said in a weak voice. "They planted an addiction on me. I'm their creature."

Dom leaned closer. "You said something this afternoon. Your aerosols ..." Scame nodded, then let his sweat-dampened head fall back on the table. "My supply. The drug I have to take. Disguised as deodorant."

Dom tutted. "Nasty. I had those aerosols opened. But whatever was in them instantly denatured."

"Yes," said Scame, closing his eyes. Will they let me kill myself? he wondered. They must let me kill myself. Because otherwise-

"It's a special trick," he said. "The aerosols are a special environment that keep the compound stable. Expel the drug or break them open, and it straight away decomposes-unless it can get into the one other environment where it can survive: my bloodstream, no one else's."

They weren't using the brain charge on him now, evidently thinking it unnecessary. "They've got me every way," he finished. "The compound is specific, synthesized exclusively for myself."

Dom drew back, his hands raised in astonishment, his expression solicitous. "Is that all that bothers you, Cheyne? But why didn't you tell me?"

"How could I tell you? I was stuck in the middle!"

"But I could have had you cured!"

Scame was surprised at Dom's ignorance. "This poi-

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son is foolproof," he said with a shake of his head. "It can't be analyzed."

"Faugh. That's what they tell you-typical of them. I have some excellent biochemists here. They've dealt with this kind of thing before. I assure you they'll rustle up an antidote in less than twenty-four hours."

A surge of unbelieving hope rose in Scarne. He blinked, and almost didn't notice the sternness with which Dom then spoke, turning to Cadence.

"All right, you can get her out of here now."

She was hustled from the room, a picture of demoralization. "Don't take it out on her," Scame said weakly. "I led her into it-she wasn't willing."

He stopped as Dom turned back to face him and loomed over his supine form, arrested by the hardness in the man's eyes. "What will happen to me now?" he asked.

"Happen?" Dom's eyes widened. "Why, you have been bad, Cheyne. You will have to be punished." He raised a hand. A second door opened and before Scame could say anything further he was borne helplessly away down a long rock corridor.

Scarne was an object, a rag doll, a mass of raw feeling forced to spend long hours in delirium and fear. The physicians who examined him beneath the glare of powerful lights never deigned to speak to him. They drew blood samples in heated phials. At intervals they came to him to subject him to medications which made him feverish, sick and deathly cold by turns.

He knew that they were experimenting on him to find the right compound, and despite his position this knowledge gave him hope. Gradually, a feeling of calm began to pervade his body. Days later, though still feeling weak and ill, he walked again into the presence of Marguerite Dom.

In a small but exquisitely appointed room, filled with valuable objets d'art, the Wheel master lounged smoking in an armchair. It might have been some

tiny living room where an impecunious cognoscente of minor treasures had arranged his lifetime's collection- though in fact it had probably been set up in a few hours.

Scame entered, receiving from Dom a glance at once feral and tender.

"Sit down, Cheyne. How are you feeling, hmmm?"

Moving into the glowing lamplight, Scame hesitated before taking the only other chair available, intimidated by the other's powerful presence in this cunning miniature of a room. The two of them fitted into the meticulously ordered space with an unnatural intimacy.

"The prognosis is favorable, I'm glad to say," Dom congratulated, speaking softly. "How does it feel to be cured?"

"I ought to be half insane by now, without my shot," Scame said. "It seems unbelievable, but your boys have apparently pulled it off."

Dom nodded, murmuring. "And do you feel you can rely on me now?"

Bowing his head, Scame muttered a reply. "So it seems."

"You should always tell me your problems, whatever they may be," Dom went on.

"Now you are free of your slavery, free of the Legitimacy, and we can take stock of your position anew. The question is, can I rely on you? I am not a vengeful man, but just the same you have committed a serious transgression."

Scame did not answer. Dom drew on his cigarillo. 'Tm aware you were never an enthusiastic Legitimacy agent-indeed you failed to apprise your contact of the true nature of our project, though for your information, that knowledge would never have gone beyond Chasm. Nevertheless, I appreciate your reticence in that regard."

"I have no allegiances," Scame said. "Not to the Legitimacy, to the Wheel, to anything."

Dom chuckled. "But to Earth?" he responded. "To civilization-to mankind?"

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Scame stared at him.

"All I need concern myself with," Dom continued, "is that you will play until your guts hang out-and play to win. That I am fairly confident you will do."

"So you're pardoning me?"

Dom said nothing, puffing at his cigarette holder, looking enigmatic and self-contained.

"And what about Cadence Mellors?" Scame asked.

"Silly young woman. This project gave her the only chance she'll ever get of getting into something big. Now she's finished. I'm taking your little girl friend away, Cheyne, as a small punishment for your treachery towards me."

"What have you done to her?" "Packed her off to a work-camp club on one of the minor worlds. It's a pretty rough place, I'm afraid. She'll spend the rest of her days there as a club tart. Until she's too old. I dare say they'll end up using her as a cleaner."

Dom sneered slightly, suddenly derisive and supercilious. Scame clenched his fists. His feelings were confused. He felt a sudden surge of rage at Dom for his treatment of Cadence. At the same time he was filled with relief-and amazement-that Dom was letting him off so lightly.

Then it struck him. Dom's total lack of normal feeling. He felt no vindictiveness towards Scame, no resentment at the role he had played. Everything was a game to Dom, viewed with a slightly amused detachment. There were no loyalties, no recriminations.

"None of it was the girl's fault," he said painfully. "I led her into it-you should be more lenient to her."

Dom snorted. "This sort of thing is your whole weakness, Cheyne. Think straight for once. Here you are worrying about a club girl when the fate of worlds is at stake-when you stand on the brink of something almost too big to imagine. And

not only that, but at the moment when you finally found what you were looking for." His eyes glistened. "Yes, Cheyne. A

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mathematical treatment of luck! We have it! Together with a practical technique to put it to use!"

"Then the mugger jackpot-"

"One of our practice shots."

Scame sighed, pondering.

"I can make someone so lucky he hits a mugger jackpot first time," Dom went on.

"Or conversely, so unlucky his arm drops off."

"You make it sound like magic."

"Manipulated luck is magic, more or less."

"Do you propose using it when we meet the Galactic Wheel? Is that what makes you so confident?"

Dom paused. "Not at first," he said. "The technique is still under development. Later we'll probably use it. The important thing is that the galactics, as far as we know, don't have this technique. We may have something completely original."

"Should they discover what you're doing, they might well accuse you of cheating."

Dom laughed. "Of course it's not cheating! I never heard of a player yet who claimed it was cheating to be lucky. There are all kinds of charms, tokens and prayers aimed at attracting luck, and no one objects to them. This is the same thing, but applied through scientific method."

Perplexed, Scame frowned.

"Of course, you disapprove of what we're doing, don't you?" Dom said gently.

"I think you're taking an insane risk."

"Good! I like your attitude-it means you'll do your utmost to win!" Dom leaned across, peering closely at Scame. "Yes, I have your measure. You'll play, and play as never before."

Scame looked down at his clenched fists. He felt trapped in this tiny, golden room. Dom was right-he had him where he wanted him, giving his talents to the Wheel in spite of himself. He would play to win, because only in that way could he rescue humanity from the Wheel leader's mad gamble.

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Chapter Ten

Shane was whimpering, his head down on a table already wet with his tears.

Hakandra watched sadly, aware that the boy's faith in his ability had been badly eroded.

"You shouldn't blame yourself," he said inadequately. "You're in a new situation."

Shane shook his head. Hakandra put a hand on his heaving shoulder, patting it gently.

He gazed through the window of the tent they shared, looking up into the sky. He could see a star, shining in the fading evening with a steady, cool light. In thirty years, as viewed from here, it would flare up and take on the vivid aspect of a nova.

In fact, the event had already occurred. Thirty years might seem a fair stretch of time in local terms, but when translated into stellar distances it was nothing. A star had gone nova, only thirty light-years away, and Shane hadn't known anything about it: that was the plain, irreducible fact. Hadn't predicted it, hadn't even felt it when the explosion came, though he did claim to have received a sudden, dramatic convulsion some hours later-probably that was hysterical in origin, Hakandra thought, since by then the news had already arrived over the narrowbeam.



Self-induced or not, Shane was reacting to his experience-and even more so to his failure-with a typical lack of resilience. Hakandra continued to watch while the youth's high-pitched sobs subsided into sleepy sniffles under the action of the sedative he had been given. Soon he fell into a drowse.

Wishom entered the tent. He glanced at Shane. 103

"Is he all right?"

"For the moment. Help me get him to his couch."

Shane's body was unresisting as they eased it to the bunk bed at one end of the tent. The youth mumbled his way into a deeper sleep.

The scientist straightened and sighed. "Well, there doesn't seem much doubt of it," he said, his clipped voice holding a repressed excitement. "It was the machine."

Hakandra paced the floor, looking again out of the window before replying. "That machine caused the star to go nova?"

Wishom frowned. "It may be going too far to put it quite like that. Cause and effect isn't the correct law to apply where random effects are concerned. We would have to describe it in synchronistic terms."

"Please spare me the sophistries." Hakandra waved his hand. "I want concepts we can use."

"All right. We can definitely say that the machine had something to do with it. The nova coincided with that new jolt we fed in. We believe the machine operated so as to raise the probability of a nova in this area."

"My god!" Hakandra sat down, suddenly weak. "We're playing with fire. It could have been this sun. And Shane..." He trailed off.

"That's what makes me certain the machine was responsible," Wishom said. "Shane would have predicted it otherwise. It isn't that the machine's influence overrides Shane's talent-it doesn't. But it produces synchronistic forces that are too wild for him to handle. Poor kid."

"Yes, I know." Hakandra's face creased, showing the strain he was under.

His guilt feelings were beginning to get the better of him. He was aware that they were abusing Shane. They were no longer using him as a safety device, to predict novae, but as a research tool. Shane's cold-senser ability picked up the probabilistic distortions emanat-

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ing from the machine. Through him, they could know when they were getting a response from it.

The effect on Shane of the weird probability-field was cruel. It was steadily destroying him. Hakandra was not sure how much more of it the boy could take, and he himself was torn in an agonizing conflict of loyalties. The need to see the work through flew right in the face of the sense of responsibility he felt towards Shane.

Yet in the end, the requirements of the Legitimacy came before everything.

"The ability to trigger a nova isn't quite what we're after," he pointed out.

"We want to be able to prevent them, to make the Cave safe for us to work in."

Wishom gaped. He had not expected to be criticized. "The controlled production of novae might itself be of military interest," he said. "An enemy fleet might be lured into a position where the exploding sun would destroy it. Or a nova could be used as a safety screen behind which to withdraw."

Hakandra smiled indulgently. The scientist plainly had no grounding in military matters. "Your suggestions are naive," he told Wishom. "No commander, Hadranic or otherwise, concentrates his forces in space. Neither will Hadranic ships get too close to any Caspar sun if they can help it. Only if they were to set up planetary bases, as we are doing, would the capability prove useful."

Seeing Wishom's rueful expression, he smiled again. "I'm sorry. I didn't mean to be discouraging. I realize you've already worked miracles. I realize, too, that

your discoveries have implications going far beyond our present situation here in Caspar . . . How much further do you think you can go?"

"It's all a matter of time."

"Time..."

Hakandra tried hard not to show his gloom.

Although the High Command had now assigned him permanently to the project, he felt he would have been better employed in doing what he had originally

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been doing—helping to set up the defensive pattern that was designed to prevent the Hadranics from crossing the Cave. He knew, by now, that the chances of any immediate usefulness coming out of the alien machine were infinitesimal. This latest result, spectacular though it was, merely demonstrated how little they understood the machine, and the High Command's insistence that they continue the work on the spot, instead of moving the machine further back, was a kind of reflex action that symptomized the Legitimacy's refusal to let anything go.

Isolated though he was from the mainstream of activity, Hakandra still heard how things were going in the Cave, over the narrowbeam. And the news was that there was very little time. The attempted evacuation of the far side of the Cave had failed when the thin defensive screen collapsed. There were horrifying tales of massacre. And the Hadranic forces were now poised to invest Caspar.

"Everything would be different," Hakandra said, "if we had more time."

On the bed, Shane muttered and whimpered.

Chapter Eleven

"Here it comes," Jerry Soma said.

He and Cheyne Scame were sitting in a small cocktail lounge aboard the Wheel transport Disk of Hyke. The big ship was moving into the Cave of Caspar; as it did so, it had briefly intercepted a narrowbeam transmission from one of the big military bases there. The communications room was now putting through the decoded signals to anyone who cared to hear them.

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Soma hunched over the small speaker unit, listening to the stream of disconnected messages. Much of it was machine talk—one computer reporting to another. But there were enough verbal messages, many of them informal, to tell the tale.

"Goddamn," Soma said, almost gloating. "Just hear it. What a mess."

"I wonder how people are talking this in solsystem," Scarne tendered.

"Closing their eyes to it, that's how they're taking it," Soma said. "Going around in a dream. The real truth won't hit them until they find themselves under siege."

He switched off the speaker. "I heard something interesting just there.

Something about an alien random-ness machine. Maybe well be investigating that."

"You think the Hadranics will really get across the Cave?"

"Sure they will. Then the war will really start."

Scame spoke with difficulty. "The Wheel ought to help. Instead of..."

He tailed off. Instead of making matters worse, was what he meant.

For civilization was being threatened on two sides. If the Hadranics didn't make mankind their property, Marguerite Dom would gamble it away.

Perhaps contact with the Legitimacy had affected his attitudes, Scame thought.

Everything seemed crazy to him now: a civilization practically run by gamblers, reckless enough to throw it onto the gaming table.

Earlier he had talked the matter out with Soma. Although contemptuous of Scame's newly-revealed background, he remained cordial and had been forthcoming. Where Dom was concerned, he was quite specific.

"Dom has a need for real hazard," he had said. "It goes right to the core of his being. It's a mystical thing with him. Religion, almost."

Yes. Scarne recalled what Dom himself had said. Not formal laws, but hazard and contingency, lay at

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the basis of existence. Therefore a life lived contingently was the true life. To the Legitimacy, of course, such an outlook was insane. They were on the side of formal laws. And yet Dom was vindicated: for here was the Grand Wheel setting out to meet others of like nature, gamblers who controlled, possibly, civilizations larger and more powerful than anything mankind had seen. Soma noticed his pensiveness. "You're looking glum, Cheyne," he said. He leered. "Missing Cadence, eh? You're going to have to show your worth before the Chairman gives you another woman."

The medallion on Scame's lapel chimed, informing him that Dom wanted him. He finished his drink, rose from his seat and left without another word.

Crossing a spacious hallway, he glanced at the murals depicting Lady, Johnny Diceman, the Queen of Cups, and other members of the ill-organized gambler's pantheon. How long, he wondered, before this mythical lore crystallized into a formal religion? Another century or two? He was certain that already Marguerite Dom believed, quite literally, in the existence of these supernatural personages.

How did he really see the coming contest? As an exercise in the worship of Lady? Scame passed on, heading for Dom's apartments, savoring the particular atmosphere which the Disk of Hyke shared with no other Wheel establishment he had ever visited (including the roving gaming ships which plied the fringe worlds)-the sense of special activity, the peculiarity in the acoustics which lent every sound a feeling of echo and distance. The transport was massive, a private world of its own. Aboard were all the people Dom wanted for the jaunt: the mathematical cadre, some council members, certain technicians. And, of course, his team of trained players.

Events had moved suddenly. Word had come that the game was arranged, and a time bracket set. The venue (chosen by the host, as was his right) came as

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a surprise: not some place well outside man-controlled space, towards the heart of the galaxy, perhaps, the probable home of the Galactic Wheel-but the Cave of Caspar, at the present time heavily invested by Legitimacy forces. The location made Scarne feel uneasy; no one knew the reason for it.

Entering the section of the ship set aside as Dom's domain, he fought to calm himself. Each time he was called to Dom's presence he found it harder to reconcile the various feeling he had for the man, fascination, even a certain degree of loyalty, fighting with feelings of disgust and the belief that he alone was in a position to sabotage the potential disaster.

The door to the chairman's quarters closed behind him. He was in the oddly illusory quality of Dom's apartments, where nothing that one looked at directly was what it had seemed to be out of the corner of the eye. He kept his eyes downcast, not wanting to be distracted by the visual tricks, to glimpse corridors that became blank walls, to be attacked by colorful monsters that turned out to be still-life paintings.

Like all of Dom's domiciles, the apartments had been constructed meticulously according to his personal tastes. Scame walked through an arrangement resembling a set of Chinese boxes: one room opened onto a smaller room which opened onto a yet smaller room, and so on until the series ended in Dom's favorite interior: a minute room in which all space was cunningly used, and which could comfortably contain no more than two people.

In this case the tiny room was painted a brilliant yellow and was decorated in the style known as decadent-baroque. Dom smiled a welcome as Scame entered.

"Ah, Cheyne, please sit down. I want to try out a new gambit I have been thinking over. Take up your cap, will you?"

As Scame had anticipated, it was to be a training session. In the corner of the room stood an identity machine. He sat opposite Dom, avoiding his eyes

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while he fitted on the skull-cap and took hold of the silver rods, completing the circuit.

Scame was by now Dom's favorite partner; it was certain they would be paired in any team games against the galactics. As the identity machine went into operation the two of them disappeared into one of the mind-games Wheel theoreticians believed most effective as training techniques.

Together they faced a situation accessible only to abstract thought. It was a game distilled to an essence, consisting of basic symbols capable of being translated into a thousand real games. Dom was sure they would encounter something like it when they played the galactics.

Eventually they came out of it. Dom removed his skull-cap and sat deep in thought. They had won, but only because the random distribution of elements at the beginning of the game had favored them.

"Let's try it once more," the Chairman said. "I'm not sure."

Scame emerged from the second round feeling tired. For some minutes they discussed the new gambit. Then Scame sighed.

"Did you hear the narrowbeam that was picked up from inside the Cave?" he asked.

"Yes," Dom drawled. "All rather predictable. There was one intriguing item, though . . ."

"Doesn't it mean anything to you?" Scame said heatedly. "What's liable to happen if the Hadranics break through?"

Dom raised his eyebrows. "Really, I thought it would all have become clear to you by now, Cheyne. That's the very reason why we have to get into the game with the galactics without too much delay. We may need somewhere to go."

Scame pondered these words, the light suddenly breaking on his understanding. If the Legitimacy lost to the Hadranics, it would mean the end of the Wheel's pitch-possibly the end of humanity as at present constituted. The hard-headed Wheel leaders

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did not care particularly about mankind-only about themselves, and the continuation of the Grand Wheel. Contact with the galactics offered the promise of other pitches to move into-other races to set up business among, perhaps, or whatever was available in the ambience of the supra-galactic syndicate.

The rats were looking ahead to the time when they might have to leave a sinking ship.

Once again Scame felt the sinister coldness that surrounded Dom. The most basic of all loyalties-species identity-was absent in him. Perhaps that loyalty had gone instead to the Grand Wheel.

"You really think the Legitimacy is going to lose, don't you?" he said.

"I wouldn't lay any bets on their winning." Scame grunted. "And I thought you were being reckless, hi fact, you're hedging your bets. Backing both horses."

"Oh, but we could lose, and the Legitimacy could win. It's still a gamble."

"The Legitimacy will win," Scame said savagely. "They have to win-they must."

He should, as Dom had pointed out, have seen more clearly what the tactic was. But his plain disbelief that the worst could happen had constrained him. The Legitimacy had always seemed so solid and immovable.

Scame was familiar with all details of the yellow room. He glanced to where an antique ormulu clock gave the time as three minutes to ten. He knew that the clock signalled each hour with pleasant bell-like chimes.

In his mind a plan that had formed several days previously reached a point of decision. He came to his feet, ignoring Dom's quizzical gaze, and turned to a secretaire that occupied nearly the whole of one wall of the miniature room.

Dom showed remarkable presence of mind. He sat calmly while Scame, his movements only partly screened by his back, opened a drawer and took out a

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case containing two hand-made single-shot duelling pistols. Dom had shown the pistols to him himself when giving him a guided tour of the room's treasures. Like the onnulu clock they were antiques, three hundred years old and copied from weapons nearly a thousand years older.

Scame took a single cartridge from the ammunition box. He now had it in his power to kill Dom outright, but he had known all along that he would never bring himself to do that. The second course, however, was acceptable-and probably, to both of them.

He loaded one of the pistols, then replaced them both in their velvet-lined box, turning it over several times before returning to his chair.

Placing the box on the table, he removed the lid and spun the box several times. He could not be sure, now, which of the pistols he had loaded.

"What is this, Cheyne?" Dom asked in an equable voice.

"I want to play another game," Scarne said tersely. "A fifty-fifty game. That's a read game, isn't it?- one randomatics can't touch. An even chance for both of us." He swallowed. "Only one of these pistols is loaded-I don't know which. Take one. When the clock chimes the hour, we both fire."

Dom chuckled lightly. "Ah, I understand. You want to stop me from reaching our appointment, but you wish to do so with honor." He paused. "There used to be a game not dissimilar from this, called Russian roulette. I have heard of this version, also. A form of duel suitable for confined spaces, I believe." Without hesitation he picked up one of the pistols by its curved and polished stock, cocked it and pointed it at Scarne's heart.

Scame did likewise, his movements heavy, his muscles rigid.

They were sitting barely two feet apart. After a brief glance at the clock, Scame fixed his eyes firmly on the Chairman's chest. The fingers stood at one minute to ten.

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He reminded himself that while he had removed the element of skill from the encounter, the luck factor remained. Still, he did not think Dom had experimented with luck recently.

Dom was smiling, his face creased in a manner that might have indicated strain, or else simply amusement-or, more likely, excitement. For his part, Scarne could feel the blood draining from his face as the seconds ticked away on the ormulu clock. But he kept the barrel of the gun levelled steadily at Dom's heart, and a deepening silence enveloped them both.

In that silence, the clock suddenly chimed the first of ten strokes. Instantly Scame squeezed the trigger.

The hammer fell with a dull click. And after that, the silence became even deeper.

Dom had not fired.

The Chairman chuckled. Opening the chamber of his gun, he removed the cartridge. Then he took Scarne's weapon from his nerveless fingers and replaced both pistols in their case.

Now he laughed whole-heartedly. "How interesting! It seems that you owe me your life, Cheyne! Perhaps I shall have occasion to remind you of it-a debt is a debt."

Carelessly he tossed the pistol case onto the sec-retaire. "That was a stimulating experience," he congratulated. "Now, Cheyne, I would like to try the gambit just one more time ..."

## Chapter Twelve

Marguerite Dom was sitting alone in his little yellow room when an urgent signal came from the bridge. He switched on the chamber's holbooth equipment

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and within a couple of seconds was hollered into the ship's control room, his parallaxed image free to move about there.

They were nosing deeper into the Cave of Caspar, waiting for a message that would tell them exactly where the rendezvous was to be. So far, their instructions were no more precise than that.

The bridge Captain turned to him as his hoi image appeared. "The sensors have picked up a device approaching us fast, sir. We think it's a weapon."

Dom stepped forward, then stopped at the markers on the floor that informed him of the boundaries of his yellow room. He stepped back, fumbling in the air until his hand closed on a control stick. His image glided forward, crossing the bridge and halting by the captain's side, from where he could view the bank of displays by which the ship was guided.

The oncoming object was expanding on the forward telescopic screen. It was a long, thin pipe, hurtling through space like a spear.

"That doesn't look Legit," he remarked.

The Captain attended to an information terminal that at that moment flickered into life. "It's just been identified as Hadranic, sir," he said, straightening.

"An unmanned self-programmed missile."

"This far back?"

"No doubt the Hadranics have despatched them in droves, just for nuisance value."

They watched as the Disk of Hyke carried out its own automatic defensive action. Its first volley of countering missiles were easily evaded by the Hadranic pipe, which then returned to the attack, its memory locked on to the Wheel ship. The Disk of Hyke was then forced to take evasive manoeuvres of its own, and finally destroyed the missile with a second volley.

Dom sighed when it was all over. For a brief time it had looked as if the outcome might be in doubt. It augured ill if their wait in the Cave was to be a long one.

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"We are much too exposed here," he said. "Ha-dranic missiles, Legitimacy battle fleets-and a major battle liable to begin at any moment!" He pursed his lips fretfully. "We might be well advised to get down on a planet somewhere, out of harm's way."

"You are aware, sir, of the peculiarity attaching to stars in the Cave?" the Captain asked.

Dom nodded. "Indeed, I cannot help thinking it is in some way connected with the choice of venue. But it seems to me that the risk of being caught in a nova is not too great, and certainly less than the dangers we face here in free space." He turned to the navigator. "How close are we to that archeological team?"

"Quite close, sir. They sent out another narrow-beam ten hours ago."

Dom wanted, if possible, to get a look at the machine the earlier transmission had mentioned. Since the first interception had been of an all-package beam sent from Cave HQ, locating the planet where the machine lay, done by picking up local narrowbeam traffic, had proved difficult. But Dom was interested in any new scientific treatment of randomness, especially if it came from an alien source.

"An archeological site probably doesn't have much by way of defensive armament," he decided. "Let's go over there. Captain, and take a look. If we can do it quietly, maybe we can take over for a while."

His parallaxed image flicked out as the Captain acknowledged the order.

As the raiding party lunged over the arid, ravaged terraces, the half-tracks that carried it sent up a wake of dust. The Grand Wheel maintained no regular militia, but it understood perfectly the use of force. A space-tensor blanket

had been thrown over the Legitimacy camp to forestall a narrowbeam 80S, and in effect the site was already in Wheel hands.

From where he sat in the leading half-track. Marguerite Dom could see people emerging from their tents and staring at the approaching raiders in puzzle-115

ment. They would not have guessed, yet, what was afoot. Nor was ignorance all on their side. Behind Dom the Disk of Hyke towered over the desert for twenty-three decks, looking more than anything like a scaled-up 19th century riverboat. Most people aboard did not know yet that the ship had landed, and probably would not even when it took off again, so complete was the Wheel transport's internal life.

In the event, the archeological camp was practically unarmed. Even when the Wheel insignia was recognized, there was little shooting. Dom's men strode from tent to tent, making a brief survey of each, herding the team members into sullen groups where they looked on, half resentful, half perplexed.

Half an hour later Dom stepped into the tent containing the alien machine. The first thing that caught his eye, however, was not the machine itself but a youth of about sixteen who lolled in an armchair, his face slack and exhausted.

He paused, looking the boy up and down. "Who is this?"

He was answered by Haskand, the Wheel scientist he had assigned to examine the machine. "His name is Shane, sir. He plays some part in the research project."

"So young? What's his specialty?" "What does this boy do?" Haskand asked a thin man in a white gown who stood nervously by. Wis" horn did not answer, but another man, with stem steady eyes and wearing the cloak of a Legitimacy official, glided up to stand behind Shane's chair, placing a proprietary hand on his shoulder.

"I am Shane's guardian," Hakandra said. "No one answers for him but me." "What's wrong with him?" Hakandra hesitated. "He is not well." Dom's eyes strayed to the object of his visit; the alien device. The lent was crammed with modems, transformers and similar equipment, all of it wired up to the glistening drum.

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ly to Haskand, and stepped past the two armed guards, beckoning Scarne to follow him.

They walked through the archeologists' camp. Just beyond its bounds were fresh mounds of earth and heaps of odd-looking artifacts. From the look of them, though, the digging and sifting machines had not been used for some time. A thick layer of dust had blown over them. Everything, Scarne guessed, had come to a stop because of the study of the randomness machine.

Dom spoke, his tone gloating. "They're up to something," he said. "They are trying to hide whatever it is has to do with the boy. I have an instinct about him-see if I'm not right."

A wheelman climbed down from a parked halftrack and spoke quietly to Dom, pointing to a small yellow tent that lay not far off. Dom instantly made for it.

"That's where they chief technician lives," he told Scame. "All the data is there. Now we'll really find out what they've been doing with that gadget."

Inside the tent, one of Dom's people was huddled over a reading machine to which was attached a transliteration modem. All around him were scattered tapes, papers and coils.

He looked up as Dom entered. "The Legits certainly lay some store by this device they've found, sir," he said. "They've been working all out on it."

"Well, what is it?"

"They think it's able to affect probability in some way, to increase or decrease it. But they don't have it under control, that's certain."

Dom became very thoughtful. "What makes them think it can do that?"

"There's a new nova about thirty light years from here. They think the machine triggered it."

Dom sat down as if in sudden surprise. "Well!"

"It seems they were hoping to learn how to control the nova process here in the Cave. As you can imagine, sitting on top of a potential nova is something that drives the Legits crazy."

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Dom uttered a short, sharp laugh. The scientist indicated the spread mass of tapes. "They don't really have a clue how or why it works, though, and objectively a chance result like a nova would be difficult to confirm. These records only deal with uninterpreted responses the machine makes to specified inputs. It's what they use to register those responses that's interesting, and probably more important."

He paused. "Well, go on," Dom murmured. "The Legits have been developing something they've managed to keep secret from us--"

He stopped as a high-pitched howl came from the direction of the research tent. They looked at one another. "What was that?" Scame said.

"It sounded like that youth," Dom answered. Scame bolted and ran towards the sounds of torment. Behind him, he heard Dom's feet, pounding at a slower pace. The howling had died down by the time he reached the tent. He burst in to be greeted by a weird scene. The alien drum was blazing, throwing off an eerie light. The youth Shane was sprawled in his chair, his face ashen, mumbling into a microphone which Hakandra held to his lips.

Wishom, also, was bending over the boy, directing questions at him in a clipped, fussy voice.

"It was like the last time," Shane said in faint, resigned tones. "As if tragedy was about to break now, in the next minute, and couldn't be avoided--awful tragedy. Only nothing ever happens." He struggled upright. "That's what it is," he said contemptuously. "A tragedy machine. Only you haven't got it to work right yet."

"What," Dom interrupted, "is going on?" Haskand sidled close to him. "The machine has some peculiar effect on the youngster. He was in quite a state. It shook me up, I can tell you."

"I knew there was something!" Dom exclaimed softly.

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He stepped to Shane, looking at him with concern. "Poor boy," he murmured. Then he straightened to confront Hakandra. "And you have a considerable amount of explaining to do."

Hakandra snapped shut his recorder. "To the Grand Wheel? Hardly. It is you who will be called to account when this charade is over."

"You mean when forces arrive to investigate what has happened here, I presume? I doubt that they will, until after we have left. We should be able to arrange for your usual reports to go out."

The scientist who had been studying Wishom's data entered the tent. He stared hard at Shane, then turned to Dom.

"This is what I was about to tell you, sir. The boy there is some sort of psychic sensitive. He can sense probabilities with his mind. When the machine goes into operation, it creates some sort of field which registers with him. He's their instrumentation."

"He can sense probabilities?" Dom echoed.

"Yes sir."

"You mean he's a randomatician?"

"I think it's a little more than that."

"Why were you brought into the Cave?" Dom asked Shane. "To study the machine?"

Hakandra hushed the boy, but he spoke up nevertheless. "I know when a star is about to blow," he said. "Usually, anyway. I give warning. At least," his mouth twisted wryly, "that's what I used to do."



"But the nova process occurs at random here. Even randomaticians can't predict it for a specific star."

Shane shrugged.

"Are there others like you?" Dom asked after a pause.

"A few."

want him, Dom thought. The Wheel had long suspected there was some such faculty in human beings. Gamblers and card players sometimes felt it- the certainty that the next card would be a particular. But it was a certainty that occurred so seldom that it

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was easily put down to delusion. If the Legitimacy really had developed it, then they had a powerful weapon to use against the Wheel.

Equally, it could form a valuable adjunct to Wheel capabilities-something as useful, perhaps, as the luck equations.

"Why were you screaming?"

Shane twisted up his face. "It hurts. It hurts so much. My talent is like a delicate flower. The machine bruises it, crushes it. It hurts."

"A talent for poetry, too," Dom murmured. He faced Hakandra again. "It is plain you have been mistreating this unfortunate youth. I am taking him into my care, for his own good."

"No!" His face suddenly desperate, Hakandra clasped his arms around Shane. "He belongs to me-to the Legitimacy!"

"You do not know how to behave to a tender boy. You will do him permanent damage." Dom beckoned forward the two guards who stood by the door. They tore Shane from Hakandra's grasp.

"This is blatant kidnapping," the Legitimacy official stormed. "You won't get away with it. Chairman. This is something that simply won't be tolerated!"

The glare from the randomness machine had died down. Dom cast one last glance at Haskand before he left.

"Investigate the machine as best you can. Give me a daily report."

Hakandra stood with clenched fists as he led Shane away.

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Chapter Thirteen

"Now Shane," Dom said gently. "Let's see if you can tell me what these cards are."

Slowly he laid cards face down on the table one after the other, glancing at Shane expectantly each time.

With a jerky movement Shane grabbed up the glass of fruit juice Dom had given him, gulped it, then pushed it away again. "I don't know," he said indignantly. He brightened. "Tell you what. Pass them out and I'll tell you when you come to the Ace of Wands."

"All right." Silently Dom began to transfer the deck a card at a time from his left hand to a growing pile on the table. After a minute Shane raised his hand.

"There it is."

Dom turned over the designated card. It was, indeed, the Ace of Wands.

"Ah," he breathed.

He gazed fondly at Shane, smiling. "Young man, you could make yourself rich."

Shane grunted. "Fat chance. I've been a ward of the Legitimacy since I was born."

"But I have taken you away from all that," Dom said, his voice seductive. "Those Legitimacy people have just used you for their own purposes, Shane. I can teach you how to make your gift work for yourself."

They were back in the Disk of Hyke. Dom had spent the afternoon alone with Shane. Scarne had joined them for an evening meal. Now he sat to one side,

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watching while the Wheel master spun out his spiel to the youth.

Shane did not, on the face of it, seem either cooperative or impressionable. Scame did not know quite how to read him. In one way he seemed totally submissive; in another, neurotic and fractious. There was definitely something very odd about him.

His upbringing probably had a lot to do with it. His was a naturally rebellious disposition that had learned to be malleable. What was obvious was that Dom was excited by his new find, even more so than with the alien machine.

Shane stretched and yawned. "I'm tired."

"Yes, of course," Dom replied soothingly. He rang a bell. A valet appeared and, opening a door to a small bedroom next to the lounge, ushered Shane into it and helped him prepare for bed.

Dom himself slept in a more luxurious bedroom off the opposite side of the lounge. After Shane had retired he sat shuffling the Tarot pack for some moments, deep in thought. At length he spoke to Scame.

"At least we have an indication now why the galac-tics chose to play us in the Cave of Caspar."

"Oh? Why?" Scame asked.

"Shane explained it to me. He claims the Cave is deficient in luck. Everything is bad luck here. For that reason, races, biotas and civilizations consistently collapse here-and stars keep exploding."

"Is that possible?"

Dom nodded. "Luck is a cosmic quality. There is no reason why it should not be more concentrated in some regions than in others. I have asked my technicians to make some tests, and I have no doubt that they will find that luck has a very low index here- Lady has deserted the place, is how Shane puts it. Presumably our opponents prefer that as a background to play against."

"Or perhaps they wish to forestall any mathematical manipulation of luck."

"It wouldn't make any difference-I've already

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up on the ground some distance away. He watched for a while as sprays were directed onto the tent frameworks, hardening to form nearly solid structures. The lifts were also busy taking down crated items of equipment. It looked like preparations were in hand for a long stay, and more than the gaming team was to be present. There were squads of armed men also, probably to keep the Legitimacy camp sewn up.

At length Scame found himself being nudged onto one of the lifting platforms and he descended to the ground. At the camp he found that a small tent had been set up for him, close to the pavilion structure that housed Marguerite Dom.

Shane, however, slept in one of the partitions within the pavilion itself.

Two hours later he watched the Disk of Hyke whisper up from the desert, creating a brief dust shower, and go soaring off to disappear into the sky.

After that, anti-climax.

The first day was tense with expectation. Both Dom and Shane stayed in the pavilion and did not appear. Eventually, however, as nothing further came from the Galactic Wheel, the atmosphere relaxed. Dom set up a table outside the pavilion and took his meals there, inviting members of the team to join him. Sometimes he ventured into the Legitimacy camp, discussing the alien machine with Haskand and Wishom who, (despite his membership of the Legitimacy Armed Forces) seemed glad to discuss the problem with a scientist from a somewhat different cultural background).

With a pang of jealousy Scame watched as Dom paid every attention to Shane, cosseting him, ordering special menus for him, showering him with calculated affection. Shane accepted his favored status with a kind of smug pride. He was probably used to being treated as something special, Scame thought, but with the Legitimacy it had meant extra strictness, extra rigor. Dom was offering him the lush life.

Then, at the sunset of the fourth day, everything happened at once.

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Scame was sitting in his tent when he was called into the pavilion. All ten members of the games team were present. Shane, however, was nowhere to be seen. "The final message has just come through," Dom told them quietly. "A galactic vessel is on its way to pick us up."

A shiver ran through the assembled team. "How long..."

"Almost immediately." Dom paused, for a moment looked uncertain. "This isn't quite the way I wanted it. I would have preferred for us to arrive at the gaming place under our own steam, instead of having them pick us up. But that, after all, is how we often handle it when we stage a game."

His words caused a slight stir. "Yeah, when there's a security problem," someone pointed out. "Does this suggest that the game is illegal, in galactic terms?" Dom's eyes were withdrawn. "We have no information on that. The feasibility of the game, and the ability to pay up, is what is relevant."

The sun was just vanishing below the horizon when they left the pavilion and followed Dom through the camp. The desert dusk was beginning to envelope everything. Somehow, the camp looked forsaken and forlorn without the massive presence of the Disk of Hyke, and Scame, looking at the back of Marguerite Dom ahead of him, saw for the first time a fallible, undefended individual man. The majesty of the Grand Wheel—the whole interstellar edifice of gaming houses, clubs, personal vassalage and economic control—was absent. Here was a small group of men with only their brains, their naked ability, to rely on. All along Scame had supposed that Dom was too clever to have been conned by some devious, alien means. Now he was not sure that Dom himself was not a victim of his own obsessions. They seemed to be walking into something arranged in a flimsy, transparent manner, without guarantees.

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Dom turned briefly to them. "We walk into the sunset. We will be met."

Scame's doleful thoughts were suddenly interrupted by an outbreak of shouting and gunfire. The camp seemed to be erupting. Scame swung round, trying to make sense of the chaos in the gloom. Two Wheel half-tracks were approaching fast out of the semi-darkness from different directions. As they entered the camp's illumination he saw that in fact much of the gunfire came from them. The men and women aboard were all wearing Legitimacy garb, and they were all armed and shooting wildly.

The half-tracks ploughed into the ranked tents, coming to a stop just short of the pavilion. Scame glimpsed the burly figure of Caerman, the archeological team leader, picking off Wheel personnel with a gamma rifle, and he threw himself to the ground, raising his head to watch the engagement with a dazed detachment.

In the same dazed manner he saw Dom rushing back into the camp, his face blazing. He found time to realize that the Legitimacy team had been biding their time, hiding weapons and awaiting their opportunity to hit back. They must have overpowered the guards at the archeological camp and seized the halftracks. And now the real reason for the raid became clear. Running between burning tents came Shane, his expression one of terror. Dom sprang to meet him; the youth ran almost blindly into his arms.

Close behind him came his ward, the Legitimacy official Hakandra. When he saw Shane and Dom together he slowed his pace to a walk, but still he came on, his face set, a ray pistol in his hand.

"Hand the boy over, Dom. He's mine, not yours!"

In his panic the youth seemed to be struggling in Dom's arms even while he sought to escape Hakandra. Dom held him tight, his arms clasped around his chest. "Leave him be, you monster!" he cried out in an

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uncharacteristically strong voice. "Can't you see he hates you? He ran from you!"

"He ran from the gunfire, not from me," Hakandra replied, coming to a stop a few yards from the pay. "Let him go and you will see him return to me of his own accord." His expression seemed to become desperate. "Come to me, Shane. Come back home!"

Getting no response, he holstered his pistol and rushed at them. Scame was amazed to see the two men tussle and fight for possession of the boy, who began squalling and bawling like a child.

Caerman and another Legitimacy man appeared from nowhere. Between the three of them they wrested Shane from Dom, who went staggering and almost lost his footing. By the time he had recovered, Shane was being taken at a run towards one of the half-tracks.

"Marguerite!" Scame suddenly shouted, using the Wheel Chariman's personal name for the first time. "Look! Look!"

Dom's eyes followed his outstretched arm. A few hundred yards out in the desert a faintly glowing transparent dome, or bubble, had appeared. "The galactic ship!" Scame shouted.

Dom glanced back and forth. Hakandra was helping Shane into the half-track. Seconds later it roared out of the camp, not back to the Legitimacy site but off into the darkness of the desert.

The Wheel master rejoined Scame. "We mustn't miss the appointment," he said, frustration in his face. "We'll get Shane back later."

There was still sporadic fighting behind them as they hurried out into the desert. They heard the second half-track start up and head back in the direction from which it had come.

The Legitimacy people had shown commendable enterprise, Scame thought, but he doubted that their rebellion would last very long. Only the element of surprise had enabled them to gain this much, even though the Disk of Hyke had departed. Not until they were able to summon help from outside would they be able

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to overthrow their captors, and they couldn't do that while the space-tensor blanket was in operation.

The transport the galactics had sent, as Scame guessed it was, looked like a glass ball fifty feet in diameter, with about a quarter of its bulk apparently passing into the ground. The Wheelmen paused on coming to it, staring up at its shimmering surface.

"What happens now?" someone asked.

A teamster named Muller ventured close to the sphere and touched it with his fingers.

His hand passed right through.

"I guess this is what happens," he said. Boldly he stepped through the wall of the sphere and stood looking at them from inside.

Dom surveyed the gloom-darkened desert in all directions, as if searching for signs of the vanished Shane, before he too stepped inside the fragile-looking globe. Silently they all followed suit, passing through the pervious wall which swallowed them all without the slightest distortion in its perfect curvature. The sensation was, literally, like passing through the wall of a soap bubble—except that the bubble didn't burst. For some moments they all stood there in an apprehensive group, gazing up at the sheen curving over their heads, at the black sky, towards the invisible horizon.

Then, though there was no sensation of motion, it became evident that they were moving. The bubble had disengaged from the surface of the planet, taking with it that portion of the ground which it had enclosed and leaving a perfectly bowl-shaped depression where it had rested. The desert fell away. They shot into the

sky, coming in view of the sun again, and in scant seconds had passed out of the atmosphere.

Shortly afterwards, Scame lost consciousness. When he came round again he was still on his feet, standing with the others on the dusty circle of ground the sphere had scooped out of the desert, but he had the impression that a considerable period of time had elapsed.

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"I passed out," Dom said calmly. "Did everyone else?" He was answered with a chorus of nods.

Outside, there was no nearby sun and they were passing through the abyss of interstellar space. But now something glimmered out of that darkness. They were approaching their destination.

At first Scarne thought it was a planet, drifting through space free of any sun, but as they loomed closer he saw that it was in fact a planetoid, only a few hundred miles in diameter. And although it was lit by no sun, it was not dark. Its surface was covered in a calm, grey light by which certain features could be seen, though it was hard to say what they were. Dark and light patches; some structures, perhaps; small towns, possibly?

It struck Scame that most asteroids, even largish ones, were not as regularly shaped as the one down below. He leaped to the conclusion that there was a significant artificial element in its make-up.

Steadily, gracefully, the transparent sphere swept down towards their rendezvous.

The half-track raced at top speed across the nearly pitch-black landscape. The headlights were switched off; Hakandra was driving by gyro compass. Behind it, the vehicle was covering up its tracks with vibrating brushes as it went.

The only other occupant was Shane. He had said little since Hakandra had rescued him, but had resumed his former sullen compliance, sitting in the back of the open cab and feeling the wind rushing past his face.

"You haven't been using the machine much lately," he said once.

"Only minor tests," Hakandra told him.

"I didn't feel very much from it. Of course, I wasn't so close to it."

Hakandra made no reply. He was too busy checking his course on the instruments and worrying about

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possible pursuit. They had to get under cover quicky if they were to evade recapture.

After an hour's drive he scanned the terrain anxiously until he saw a slight hump in the ground, outlined against the faint, almost absent starlight.

Approaching it, he at length stopped the half-track and clambered down from it carrying a spade. After stumbling about before a sudden rise in the ground, a bank of earth about ten feet high, he began digging away the dust. Finally he bent down and pulled at a metal ring.

A counterweighted canopy rose up, revealing a cavern in the bank. Hakandra ran back to the half-track and drove it through the opening.

Only when he had again closed the door to the place did he switch on a hand-torch, and by its light then switch on some interior lighting. They were in a chamber either cut into the rock or else constructed out of some kind of concrete. At the rear were further passages.

"The natives built this," Hakandra explained as Shane climbed down. "It's an archeological dig we sealed off months ago to stop the dust getting in." He led the way through one of the rear openings to a smaller room cozily furnished with beds, a table and chairs. Wall cupboards contained shelves of food.

"We'll be all right here," Hakandra continued eagerly. "They'll never find us and we needn't come out again until it's safe."

He sat Shane down and inspected him, wiping his dusty face with a damp cloth.

"Are you all right? How did Dom treat you?"

"Better than you ever did," Shane answered with a shrug.

A look of pain crossed Hakandra's face. "You have been in the hands of evil people," he said, his tone urgent. "Don't you understand? The Legitimacy is fighting to ward off chaos, to make life safe and controllable for mankind. On all sides there are threats and dangers. The Grand Wheel is one of the worst of

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them." His eyes burned into Shane's. "We have to stand firm. You see that, don't you? We have to do our duty!"

Shane looked away and sighed. "Yes, I suppose so," he said. "I guess you're right. For a while it looked as if life might be fun with the Wheel, that's all."

Hakandra sat down, suddenly very, very tired. He rubbed his hand over his eyes.

"Yes, Shane," he said woodenly, "I expect it did."

Chapter Fourteen

The lucid globe had clearly carried them a considerable number of light years. Scarne could see, standing out against the starry galactic background, a more brilliant point of light that was obviously a fairly recent nova, and which had not been visible from their point of departure.

He took his eyes from the sky and studied the ground as the sphere fell towards it. The view was so open that, although the sphere contained a stable in-ertial frame, all within it automatically put out their arms to steady themselves.

The globe touched ground and, to Scarne's mild surprise, continued to sink into it until the patch of desert they stood upon made a seamless fit with the somewhat lighter soil outside. What had happened to the earth the globe had presumably displaced he could not imagine.

Muller was the first to risk leaving the space bubble. When no harm came to him, the others follow, There was no sign of vegetation on the landscape, but the air was fresh and invigorating, and the gravity, too, approximated to Earth-normal-more signs that

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the planetoid had been artificially modified. The horizon was considerably less than a mile away. Its clean, sharp line was interrupted in one direction by the outlines of buildings that jutted up from just beyond it.

Where the asteroid's illumination came from was a mystery. Their bodies cast no shadows. It was as if the air itself was aglow; not brightly, but with a cool, sterile light that, had there been a moon, could have been taken for moonlight. Dom gestured to the distant shapes. "That's it, I imagine. Let's walk."

They kept silence while trudging across the cinder-like soil. Soon their destination revealed itself as a complete installation that could have been a town, a fairground, or any of a dozen other hypothetical sites. Scarne guessed it was some sort of commercial gaming area. The entire planetoid, in fact, could have been an alien version of the gameships the Grand Wheel deployed on the fringes of man-controlled space.

They walked between modestly-sized nondescript buildings which had a steely sheen. Further off, Scarne saw a large concourse, or midway, lined with booths. The installation appeared to be deserted. The first indication of life was when a lighted sign began to flash on and off over the entrance to one of the larger buildings which had a domed roof.

"PLEASE ENTER HERE."

"Our own language, too," Dom remarked wryly. He led the way through the arched opening and into a sort of foyer. A second archway led to a spacious round chamber beneath the building's dome. There, seated on a high chair with an

expansive crescent-shaped table at the level of his feet, waited one of their hosts.

The creature was humanoid, but considerably larger than a man-when standing, he might easily have stretched eight foot tall. He wore what seemed to be a tailored suit of outlandish cut whose soft colors altered when he moved. Studying his too-large face, Scame was struck by a

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fascinating fact. It was not a human face, the distribution and shape of the features being wrong, yet it reminded him forcibly of the face of Marguerite Dom. It was creased much as Dom's was, and possessed the same overripe magnetism, the same air of decadence and ancient toughness. There, too, were the intensive eyes Scame had first noticed on Dom-and, by an odd coincidence, they were the same shade of brown. Dom was faced with a kindred soul. "Please be seated," the Galactic Wheelman said, indicating the human-sized chairs arranged around the table. His voice was resonant, rich with all kinds of strange overtones.

They complied, Dom taking the center chair. Once seated, Scame could see that the crescent of the table continued into a full circle, a fact which had not been evident when they entered the chamber. Or was it only an illusion? They seemed to be separated from the other half of the table by a semi-transparent curtain. Behind it were vague seated shapes-their opposite numbers in the galactic team. It was impossible to say whether the curtain was a real physical barrier, or only a screen for some kind of projection.

When they were settled, the seated giant spoke again. "It is our custom, in a new session with a new client, to preface the game with a short contest in the form of a general knowledge quiz. Agreed?"

Dom looked uncertainly at Scame before answering. "What is the purpose of this custom?" "To sound each other out."

Dom hesitated. "Agreed, provided no bets are made on the outcome."

"The winner deals first in the subsequent game, or throws first, depending on the nature of the game, which is yet to be decided. A study of randomatics reveals that an advantage lies with the dealing team." "Very well, we'll agree to that." "Then we will begin."

There was a stir behind the curtain. A gruff but well enunciated voice spoke.

"Three billion light years due

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galactic west lies a galaxy containing a star designated as catalogue number 684739472 by the astronomers of a neighboring galaxy. On the northern continent of the fourth planet of that star, three mountains lie in a straight line, each one hundred thousand feet in height. What is the name given to the most northern of these mountains by the natives of that continent?" A long pause followed the question. "We cannot answer that," Dom snapped, then. "It constitutes information impossible to know."

"We know," the voice rejoindered. "The name of the mountain is Kzzozz."

"It is now your turn to put a question," the giant in the center of the table said.

Dom thought, and smiled. "On the island of Britain, planet Earth, is an inland territory known on old maps as Shropshire county, where there lies a small hill surmounted by a stone monument, close to the ancient town of Telford. What is the name of that hill in the local language?"

"The name of the hill," answered a second, sharper voice from behind the curtain, "is Lilleshall Hill, formerly Lulla's Hill, after a saxon chief."

The gruffer voice resumed. "What was the event that initiated the war between a water planet and a sulphur planet in the Andromeda galaxy one million years ago?"

"But there is no way we can know these details!" Dom protested, "We are being subjected to trickery!"

"There is no trickery," interjected the alien in the center. "You satisfied yourself on that score before coming here."

"Then our opponents have mental faculties we don't. It was agreed that neither side would pre-empt the other in that way."

Very briefly, the giant paused. "Only in a technical sense are we in default. One of our players is a psychic who is able to elicit distant, though useless, facts. Since in the game we are to play this ability offers no substantial advantage, his presence is admissible."

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"It remains unfair as far as this contest goes," Dom persisted firmly. "We withdraw from the quiz."

The giant shrugged. "Very well. Since we have answered one question, and you have failed to answer any, we have first deal. We will pass on to the main business." Scarne could not avoid the impression that he was amused. Perhaps they had been playing a joke on Dom.

The alien shifted his bulk, drawing himself more erect. "Games are of many varieties, containing greater or lesser skill, greater or lesser an element of chance. There are board games, and there are games consisting of arrays of independent abstract symbols. These games create their own dimensions, so to speak. What are your preferences?"

"The latter," Dom said.

While the alien spoke Scarne had been receiving rapid mental impressions; his mind was bombarded with vivid images of boards, counters, decks of cards, and so on. Some kind of telepathic machine was at work. The Galactic Wheelman was not relying on words alone to make sure his meaning got across.

"One of the simplest of these," the alien continued, "though one of the hardest to play, employs only two symbols and offers equal probability on either of them appearing after a randomizing process, the players calling bets on each result. This can be done, for instance, by flipping a coin. The process is repeated many thousands of times while the players pit their random skills against each other in predicting the throws."

"We've played it," Dom said confidently, "but we don't intend to play it here." He pulled out a deck, ripped off the wrapping and spread it on the table before the alien. "We play cards. My game is Kabala."

The alien's face bent to view the painted cards. "Yes, we have studied it," he remarked. "We have a comparable game, and I suggest it is a game of this type that we now play."

He pointed to a console that stood on one side of the

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domed chamber, against the wall. "It was agreed during negotiations that the game could not be one in which one but not the other of the parties was versed, which effectively rules out both your Kabala and our game, which we call Constructions. Instead, the designing machine will put together a special game for the occasion, of the same type as both Kabala and Constructions, and will teach it to us by means of mental induction. The experience we have gained in the past with our respective games will thus find a natural application here."

He clapped his hands, and looked expectantly at the console. For about a minute nothing happened. Then a cool, bright light issued from it and seemed to dart, first to Scarne's eyes, and then into his brain.

He was dazzled by the light: it was like having a spotlight trained on one. He fancied he could feel it, like something icy, alive and intelligent.

And there formed in his mind complete knowledge of the new game. It was a game using a hundred and fifty card deck, as difficult and abstruse as Kabala was, if not more so, and bore many resemblances to it.



Scarne felt as if he had been playing it all his life. He wondered how Dom had satisfied himself that the galactics would not cheat. It was obvious they had an impressive armory of tricks.

"You are ready to play?" the seated alien asked.

The solmen all nodded.

"A playing team may consist of up to four players, which may reduce as the game proceeds," their host continued. "We will therefore begin with four a side. You may, between rounds, stand any member down and use substitutes. There is a room nearby where the others can rest, or else they may kibitz."

"Understood," Dom said. "I've already got my four picked out."

The alien moved his hand and suddenly there appeared on the table before Dom an avalanche of little oblong objects in various colors. They appeared to be made of some rubbery material. "We have agreed

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beforehand on the stock represented by these tokens," the alien said. "The pile before you consists of one million units, in various denominations."

Dom nodded.

Scame stared in fascination while Dom sorted out his starting team, thinking over what that pile meant. He failed to understand how Dom's mind could encompass so gigantic and final a fact. But there it was.

When the discarded members had retreated, Dom, with Scame sitting at his right, looked questioningly at the alien. The creature spoke again, in a cordial tone.

"We will play for twenty hours, or until your stake is exhausted. The bank cannot be broken-it is inexhaustible. There is only one further point for me to mention. To be able to read an opponent's facial and bodily expression is held by some players to be part of the game. Since in this case the players are of differing biological species and are strangers to one another it would not normally be possible. We have overcome this difficulty by arranging for visual translation. Your opponents will appear to you to be human beings, and vice versa. "Let us begin."

All at once the big alien disappeared, together with the chair on which he had been sitting. Immediately following, the table underwent a transformation. It dwindled, drawing in on itself. The obscuring curtain disappeared. The four men found themselves sitting at a smaller circular table, just large enough to comfortably seat eight people.

Facing them were the alien team, aged perhaps between twenty and sixty. Scame looked at each of their faces in turn. He could find nothing unusual in them. They were not exactly average human beings-they were average-looking professional card players. They were the sort of people he had been staring at over green baize tables all his life.

The scene was delusively familiar. Even the setting was unremarkable, for the architecture of the domed

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room was nondescript. It could have been anywhere. It was hard to imagine that so much hung on what would transpire between these eight players in the next few hours.

On the table was a deck of cards that the designing machine had in the intervening minutes newly manufactured. One of the aliens picked it up and inserted it into a shuffling machine. When the shuffled deck was ejected he began dealing it round the table, placing the residue in a shoe dispenser of the type used by the Grand Wheel.

Scarne picked up the ten cards dealt him. They were no ordinary cards. Some carried complicated picture symbolism, like the major arcana of the Tarot. Some of the number cards sported colored decals which responded to thought. By concentrating, he could change their values.

These shifting cards, an elaboration of the principle of wild joker, were a feature of the game. Even one's opponents could, in certain circumstances, change the cards in one's hand.

Dom was straining at the leash, the excitement already building up in him. The game began.

Depth after depth.

It was already apparent that Dom had early anticipated what kind of game they would be called on to play. Mutating cards, changing rules, were features of one of the games Scame had been taught at the Make-Out Club, under the identity machine.

But here were no machine aids; everything was done by strength of mind. The rules of the game were hierarchical; it constructed itself as it went along in a dizzying spiral of strategy which made each round a consequence of what had gone before.

The objective of the game was to create a symbolic structure out of the cards according to certain definite laws. There was a range of such structures, each comprising a sufficient number of cards to pre-

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clude any other similar system from being assembled from the same deck. To win, a team had finally to hold all the requisite cards and no others, neither one too few nor one too many-and the team leader had to announce the fact without ever having seen what his partners held.

The calling of bets, again the business of the team leader, was a close combination of bluff and intention. At the beginning of a round it was rarely possible to envisage the target system with any accuracy; only later did the outlines of a possible structure take shape. Betting began modestly, leaping prodigiously as events progressed, controlled as much by random influences as by the will of the players. Cards were bought unseen for enormous sums; subtle and pernicious double, treble and quadruple bluffs were perpetrated.

Total concentration was necessary; only someone with complete control over his mental faculties could hope to play a game with so many layers of complexity. As the hours passed Scame became oblivious of his surroundings; the symbols of the deck enveloped him, seeming to constitute the only reality, a new universe in which he and the other players were trapped and destined to live out their lives.

It was rumored that Kabala could heighten one's consciousness. With this game, the promise was kept. Scame broke new mental ground, his mind working with a speed he had never experienced before. It was like being reborn.

Then, after seven hours, Dom called a break. Scame brought himself down to earth with difficulty; it was like coming out of a trance.

He was covered with perspiration. So, he noticed, was Dom.

Dom rose, bowing stiffly to the other side of the table.

"If it's all the same to you, I would like to play two a side from now on."

The alien players glanced at one another. As they got the feel of the cards, both sides had by common

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consent already reduced their teams to three. The leader, depicted by visual translation as young and suave, nodded.

"That suits us perfectly."

The solmen took themselves to a buffet on their side of the dome; the aliens retreated to a corresponding facility in their half. Dom's redundant players, some of whom had been trying to follow the game, gathered round. Dom, however, took a single shot of whisky and spoke only to his co-players.

"Cheyne," he said tensely, "you and I are going in together. We're in trouble."

Scarne could not help but agree. Although they had won more rounds than the aliens-had constructed more metaphysical systems-the wagering was so complicated that the aliens were actually far ahead of them. Dom's stock was already one-half depleted.

'Two points," Dom told Scame. "First, we have to concentrate less on systems-building as a target and more on winning side-bets. They can be more important than the ultimate outcome-that's something they've tumbled to sooner than we have. They've latched onto the second point well ahead of us, too. The symbols involved in this deck are very potent- much more so than those of the Tarot. It's possible by means of this game to alter your opponent's mentality and hence to gain control over it-the team that happens to loses everything. I think they've already started building their strategy on that. And some of us have been falling for it. Even you, Cheyne."

Scame reflected, thinking over the mental changes he had been experiencing. He nodded soberly. "I think you may be right."

"We've got to win everything back, and then some. Are you ready? Let's go."

Scame downed his whisky and finished his bread roll, then they rejoined the aliens at the table. Each pair of partners now faced one another, and he looked briefly into Dom's eyes before beginning. It was impossible to tell what the Wheel chief was feeling. Des-

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peration? Fascination? Or only pleasure in the game, still?

It was Scarne's turn to deal. He sent the cards round the table, ten to a hand, then picked up his own and studied them, the number cards, the stable picture cards, the inner and outer sets.

He suddenly felt the slight mental jolt, like a missed heartbeat, that meant someone was practising thought-change on a card. With surprise he saw that it was one of his own cards that was mutating. He fought back using his own control to keep the card from transforming. What, he thought, was the object of the manoeuvre? Play had not begun; his opponents had no clue as to the cards he held.

Then he got the answer. The galactics had no idea what the card was, but they could feel his resistance;

they knew now that it was a card he wanted to keep unaltered.

Once again they had stolen a small advantage with a trick that could only be used once.

Dom led, with a picture card of the outer set, the card titled the infinite ray; he pushed a hundred units into the stakes circle. It was a bold move, a direct challenge. The player following tried to buy the card;

Dom refused to sell. Another picture card fell down in answer to the challenge and Scame, sensing Dom's intention, added to it a card of even higher value.

Dom had set in train a process that could not be halted. There accumulated on the table a collection that naturally formed the core of a target construction- indeed no suitable system could be assembled without it. The struggle for possession of this package was now inevitable.

As usual, Scame had developed a rapport with Dom that was almost telepathic. He understood fully that the cards in the center of the table were Dom's gambit, a decoy he had arranged while he attempted to win on the side-bets. Scame's mind speeded up, his thoughts flashing ahead to strategy and counter-strategy . . . the possibilities were endless. The deck was capable of

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a universe of interrelationships, echoing and resonating ad infinitum.

The rapidity of his calculation took another leap, like a starship slipping into overdrive. Then he discovered, with a shock of fright, that he could no longer see Dom, or the domed room, or the cards in his hand. A white haze surrounded him. At first the haze seemed to be composed of nothing but frosty light;

gradually he became aware that actually there was an image in it-an image that, indefinitely reproduced, made up the haze and was everywhere, like certain holo images.

The image was an enigmatic pattern resembling a manic machine, made up of rods and helices, some of which sported glistening blobs and nodules. It was the picture card known as the Apparatus, a card whose meaning was not entirely clear to Scame. Once his eyes grasped it, the pattern began to move, breaking apart and reforming in a variety of alternative configurations. As he watched, it suddenly broke open, flinging itself out like an enormous disarrayed switchback, and constructed a bizarre, impossible landscape.

The terrain could not adequately be described in ordinary physical terms. It had no dimensions of its own, only those which emanated from the supporting framework of the Apparatus. The white haze, a frosty fog, hung over everything. Odd objects, made from smaller rods, spirals, and oozing blobs, emerged from and sank back into the interstices.

In the near distance Scame saw the two galactic partners sitting in their straight-backed chairs, watching him intently.

He knew he had to find his way out of here and back to the card table. But how? Mentally he tried to retrace the route his thoughts had taken prior to his arriving in this place, to banish the landscape, but with no results. "Cheyne!"

The voice was Dom's, though he could not say

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whether he heard it physically or only in his mind. "Cheyne, can you hear me?"

"Yes."

"Listen carefully, Cheyne. The symbols in this deck are extremely powerful-even more so than those of the Tarot. The game has unlocked our minds. The galactics are using it to create alternate realities."

"Is this part of the game?"

"Yes. A resultant level that they, once again, have realized ahead of us. The cards as physical entities are redundant. We are playing mind to mind."

"Is all this an illusion?"

"Probably. But-perhaps not entirely. It would be foolish to be dogmatic."

Briefly, Scame seemed to see Dom's face in front of him, struggling to emerge from the fog. "How do I get out of here?" he asked.

"We can't-not directly. We have to play..."

Dom's voice faded, then came back again. "They probably don't know we're adept at this kind of thing, too. Use the doorway technique, Cheyne. Play a card - counter their" realities with ours."

Scame noticed that the chairs on which the galactics sat were gliding slowly nearer to him. He sensed menace. "I don't know if I can-not with these cards."

"Then use the Tarot. The correspondence is close enough-it ought to work. If we can't do it they've got us beaten; we won't be able to withstand their mental bombardment. We'll be changed, and they'll win."

There was silence, and Scame realized that Dom was no longer in communication with him. He was on his own.

Scame had been taught the doorway technique, as Dom called it, after his mind had been made more pliable by experience on the identity machine. It was in fact a meditative practice employed by ancient Kabalists, by which one projected oneself into each card in turn, identifying with it so completely that it came to life, as if one had stepped through a door into the realm it represented. By projecting into the cards

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of the major arcana one could explore various facets of the Kabalistic system; by projecting into the court cards, one felt oneself to be glimpsing one of the four worlds of that system-the archetypal world, the creative world, the formative world and the physical world. By concentrating on the numbered cards

of the minor arcana, one gained access to worlds dominated by one or other of the four elements as understood by the ancients—fire, water, air and earth. It was presumably some such method as this that the galactics were now using, the difference being that others besides the practitioner were projected into the realities evoked. Scarne looked down at his hand, and after a few moments was able to see the cards he had held at the table. Some were unique to the deck created for the game, and had no correspondence in the Tarot. Others, however, could easily be cross-identified. He concentrated, and these cards underwent mutation, changing into their Tarot counterparts.

He chose one: the Ace of Wands, Root of the Powers of Fire. He raised it before his eyes, summoning up all his attention in the manner Dom had taught him, driving his full consciousness into the simple illustration of an upright baton round which were twined a pair of snakes.

Something snapped in his mind. The scene erected by the card Apparatus vanished, together with the galactic players who had invoked it.

He stood in the midst of a baking desert that stretched in all directions to a far horizon. The air scorched his throat as he breathed. Overhead was a sun that sent wave after wave of heat pounding mercilessly down, turning the sand into a blazing carpet.

He turned his head. A small salamander-like creature sat on a sun-bleached stone, regarding him with tiny glittering eyes. As he moved towards it the animal skittered away and disappeared into the sand.

If this was a product of imagination then the illusion was well-maintained. Scame wondered how long it

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would take the galactic player to answer his move. After that it would be Dom's turn.

Idly he took a few steps into the desert, feeling the energy draining from him. This was a world dominated by the element fire, arid, inexorable, very nearly lifeless. If something did not happen soon he would have to take steps to leave it.

Suddenly a slab of sand rose up from the floor of the desert on invisible hinges, creating minor cascades of shining grains. From out of the relative dark stepped a scaly-skinned man-sized creature which stood on its hind legs and appraised Scame with no sign of fear.

The native's head was lizard-like, which gave it an air of tough, but wearied, desperation. But its intelligence was unmistakable. Scame recognized its species straight away: he had seen drawings of it in the Legitimacy archeological campsite.

He had gone back in time, to the planet where the randomness machine had been found. Either the climate was to become more temperate in the intervening period, or else he was nearer the equator. In any case, despite the inhospitable environment he was seeing the planet before intelligent life had, quite, become extinct.

The lizard-creature's unclothed hide shimmered like metal, reflecting the glare of the brassy sky. It beckoned to Scame, turning and retreating back beneath the raised slab into the cavity below. After hesitation Scame followed. The slab swung down behind him;

he was in a murky tunnel of rock and iron.

After a few yards they emerged into a chamber, only slightly larger than the tunnel itself, in which stood the very same machine Scame had last seen in the tent of the Legitimacy scientist, Wishom. Now, however, the machine was in its original condition. Its metal casing gleamed, and the crystalline surface sparkled even more vividly than when he had first seen it.

Three lizard-creatures, including Scarne's guide,

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were gathered round it. Scame glanced, in the dimness, at the other equipment which crammed the chamber, and to which the randomness machine was attached. Thick cables led through the walls to elsewhere in the underground warren. Why did the aliens seem so incurious about his presence? He moved closer to the big drum, gazing down into its scintillating depths. It was hard to say just where its surface began-or if it had a surface. He began to feel dizzy, and drew away.

The native who had led him hither spoke in a voice which, though hoarse and full of superfluous clicks, was nevertheless intelligible.

"The hopes your people place in our machine will be disappointed."

Scame looked at him, deciding there was no point in being surprised that the creature spoke Sol Amalgam, the business language of man-inhabited space that would not be developed for millennia yet.

"It is not a randomness control?"

"Only in a negative sense. We had hoped to delay the nova process with it, as you do. But all it can achieve is an increase in destructiveness. It can provoke novae, but not prevent them. Come, I will show you how it works ..."

He nudged Scame forward. Scame smelled the raw, leathery odor of the alien as they leaned together over the flashing drum. Then his senses were caught and trapped. He was falling, falling amid the brilliantly shining motes, and he knew that he had already left the desert planet, left the dominion of fire.

Events he could not see were taking place. Forces were puffing and tugging at him, this way and that. He was being sped through realms he could no more than glimpse.

The bulbous, full globe of a richly endowed planet swam past him, cities shining and sparkling on its surface like immense jewels. They were gambling cities, entirely given over to the pleasures of the game, in-

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habited by people who had long ago left behind any interest in stability.

The planet fell astern of him into the darkness. He hung over a stupendous plane light years in extent, covered with the marks and signs of some gigantic pattern.

Then that, too, vanished. He heard Marguerite Dom's voice again, fighting to overcome whatever it was separated them and sounding fuzzy. The outlines of the domed games room began to impinge on his vision.

"Where in Lady's name have you been, Cheyne! Take a hold of yourself! Play or draw, Cheyne! Play or draw!"

Scame reached over to the dispenser and drew a card, holding it close to his chest. It was The Wheel. The Wheel of Fortune. There was absolutely no doubt that the wheel symbol featured in the galactics' game of Constructions, as well as in the Tarot. This version showed a realistic picture-probably a photograph-of a wheel-shaped galaxy, a freak of nature that apparently really existed somewhere. The rim of the wheel was well-formed, joined by eight only slightly curved arms to a glowing central hub. Surrounding the galaxy were wave-like symbols to indicate the formless nature of space- which in this case served the same symbolic function as water in the Tarot version.

Almost as soon as he looked at the card the room faded again; by this time his propensity for entering into a card was automatic and irresistible. The forces and scenes he had experienced after leaving the desert planet were the result of cards played by the other players sitting at the table, he realized. But now, as when he had played the Ace of Wands, he felt that he was temporarily transcending the game altogether, leaving it because of some force innate to himself.

And yet he recognized, it was not due simply to himself. It was the game that had brought him to this

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point, the point where he could no longer control either himself or his perceptions.

The galactic wheel was rotating, sparkling, flashing, throwing off probabilities in all directions. Then it faded, forming an all-embracing background, and at the same time Scarne's mind cleared.

He could see it now: the game, in all its details. It comprised a mathematical exercise of the highest order. But it was one in which the players were as much tools of the overall scheme as were the cards.

He seemed to be hovering above the card table, looking down on the four players, two of them genuine men and two who seemed so by virtue of visual translation, frozen in attitudes of secrecy and silence.

But the scene, microcosmic though it was, remained localized only briefly. Because the game was larger. Larger than the games room, larger than the preformed asteroid. Larger than the Grand Wheel, larger than its superior counterpart, the Galactic Wheel.

Larger than the chilling stakes that, ostensibly, were its reason d'etre.

Scarne was still through the doorway of the card known as the Wheel. Through the ever-expanding field of his vision there floated billions of blazing suns, billions of planets, circling and wheeling in the dark. He saw primeval planets, newly condensed out of gas and dust, building up into their long geological ages, spewing forth turbulent atmospheres of volcanic fire, sulphur, methane and lightning.

The game was not abstract. In some manner that even Scarne, as a trained mathematician, could not fathom, it was bringing forth wholly practical consequences at an immense remove from here. Out of its strategies, its moves and countermoves, life was being evolved on a distant planet.

It became clear to Scarne that this was nearly always how life originated.

Without it, the universe would be very nearly biologically sterile—the randomness of nature gave the necessary chemical combinations a prohibitively low probability. In almost every

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case it was a mathematical game, played between groups of opposing intelligences, that supplied the missing key—providing not only the initial impetus but also influencing the type of life that eventually would develop. Surprising though it was, this revelation quickly paled into insignificance for Scarne. Because the Wheel card contained even more knowledge. Vaster and vaster became the vista. He saw that there were games and players as far surpassing the Galactic Wheel as it surpassed the Grand Wheel. The game he was engaged on could create a biota; there were other, bigger games. There were games that could trigger the formation of whole galaxies. On a fundamental level, there were games that constructed matter and universes out of the gulf of pure randomness. There was no end to it. On level after level were found the hierarchies of power, merging in an indefinable series into the sea of non-causation. Dom was right—the gods were real. They were the conscious forces that gamed and gambled in the deeper random levels. Scarne wondered if he was really meant to see all this: if it was a legitimate part of the game. He knew that by projecting into the card he had effectively played the card. But he could not avoid the feeling that something had gone wrong and his perceptions had been carried too far.

Then he felt himself falling. There was roaring all around him.

He was there again.

He had dropped out of structured existence and back into the sea of chaos. It roared all around him, generating numbers and dissolving them again.

But he remained there only moments, because the strain on his consciousness was by this time too great, and it failed altogether.

When Scame passed out, the big alien who had set up the game reappeared. He stepped round the table to look down at Scame, who had first slumped onto

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the table then slid to the floor, scattering his cards as he went.

"Your friend has been interfered with," he said to Dom. "I detect foreign agencies in his blood."

Dom rose from the table and walked round to frown down at Scarne. "His enemies injected him with an addictive drug," he said by way of a possible explanation. "But I got my biochemists to cure him."

"They did not entirely succeed, it seems. The rigors of the game have caused a recurrence of its effects. However, I think they will prove to be temporary."

"In view of his condition, it was unwise of him to play so powerful a card," one of the galactic players observed, glancing at The Wheel, now lying face up on the table.

Scame heard these latter words as he regained consciousness. Assisted by Dom, he got unsteadily to his feet.

His first impressions were the same as those he had experienced after receiving the mugger Jackpot on 10. Everything seemed unnaturally vast. The domed room was as big as a solar system. The untranslated alien's face, bent to regard him from its superior height, seemed impossibly foreign and gigantic.

But this time the illusion wore off fairly quickly. Scame stumbled to his chair and sat down, resting his head on his hand.

"Sorry about that," he muttered.

"This game, at any rate, would appear to be null and void," the alien remarked.

"The cards have been revealed." He turned to Dom. "Since your friend would not be advised to continue, perhaps you would care to select another partner. You have the option of calling quits now, of course-though half your holdings would remain in our hands."

"No-we play to the limit," Dom shot back, a degree of passion in his voice. "But a different game."

He looked down at the disarrayed table, then turned to the bulking alien. "I want to stake the whole of my remaining holdings on one more game-double  
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or quits. If I win, we can continue. If not . . ." He shrugged.

The alien paused, reflecting. "And the game?" "One without any skill in it." Dom seemed agitated. He swallowed. "Let's do some real gambling. With stakes as high as they'll go. Any random fifty-fifty game will do it. The toss of a coin-"

Scarne twisted round in his chair and regarded Dom with horror.

No, he was about to shout, let's carry on playing. At least we might have a chance! But then he saw that Dom, by his own lights at any rate, was once again right. A fifty-fifty game was their best chance of coming out of this intact.

They were being out-played by the galactics.

The two alien players were poker-faced as the untranslated galactic considered.

"Are you agreed?" Dom demanded, a harsh note edging into his voice.

"It would be unlike us to refuse a challenge," the galactic murmured. "Even though, on present showing, it removes our current advantage." "Any limit on the bank?" Dom queried. "None."

"Okay." Dom relaxed, his shoulders slumping. He was, Scame realized, tired. "I want to break off first and return to my camp, to freshen up, to-to freshen my luck. È that's all right by you."

"Ah, luck," the alien said, as if amused. "It is astonishing how many gamblers pay homage to the god of luck."

"In our mythology, she's a lady," Dom told him. "A goddess, not a god."

"That is because your species has maternal fixations. We see the gods are more disinterested. Will you return alone?"



"I'd like to bring one other with me. For company."

"You are our guest," the alien said courteously. He turned his head, surveying the scene as if checking for final details. "Then I will bid you goodbye for the  
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present. Before leaving, why not visit our Avenue of Chance? There are many small games there that might entertain you." He held out his arm, elegantly indicating the exit.

The Grand Wheel team made a subdued group as they left the domed building and emerged onto the dusty street. Walking with Dom, Scarne paused. To one side, the interstellar travel globe could be seen just over the close horizon. The concourse which he had noticed earlier, and which presumably was the avenue referred to by the galactic, lay a few yards away.

Dom gazed towards it. "What do you think, Scame?"

"It might be interesting," Scame said, his voice still none too steady.

"No harm in taking a look," Dom agreed. As they walked towards the entrance to the avenue, Scame found that his mind was still preoccupied with the Wheel card. He wondered if the glimpses he had received reflected real facts. Or whether they were only the work of the imagination, invoked by the rare combination of an addictive drug, his random training, and the too-evocative symbols of the cards. He had been handling a Tarot pack, he recalled, minutes before he played the mugger on lo.

Probably he would never know the truth of it. "Games theory," he said aloud. Dom shot him a mystified look. "What, Cheyne?" "It's a problem biochemists have never solved. How life manages to emerge from inanimate matter. The odds are all against it, in chemical terms, yet it happens. The biochemists—they should study games theory."

"Is that what you learned while you were out cold on us?" "Yes."

"If you had held that last card and not played it, Cheyne, we might have come out well ahead on that round, despite the fact that you were already losing control. Still, it wasn't really your fault."

"No."

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The Avenue of Chance was, at first sight, a tawdry affair. Built of a material resembling canvas, the booths had a makeshift appearance. The party ventured diffidently into the midway, then stopped as a peculiar animal, or creature, pushed through the front flap of the first booth and stepped out to accost them. When squatting on its hind legs, the creature was about four foot high; it looked somewhat like a cross between a monkey and a hairless dog, with a long tapering snout and narrow eyes which glittered.

"Good day, gentlemen," it began in a soft, gruff voice. "Try your luck at my game of chance. The prize is of incalculable value."

Scarne tried to peer past the folds that hid the interior of the booth, but he failed to see anything in the dimness within. Dom gestured around him. "Was all this set up just for us?" he asked.

"By no means, sir. We tour three galaxies with our little show, visiting all manner of out-of-the-way places. Step within, any of you, and dare the odds!"

"What is the prize?" Scame asked curiously. The animal licked its chops with a pink, pointed tongue. "In this galaxy it is a principle of life that all creatures have but brief life-spans. It is an escape from this law that I offer. Take a spin on my machine, and you may win immortality!" "And if we lose?"

"Then your life-force becomes ours, to use as we wish."

Muller spoke up. "What are the odds?" "A thousand to one against," the creature said smoothly. "Generous figures, in the circumstances. You have but a few decades to lose. But you may win years measured in millions!"

"Come on," Dom ordered abruptly. "Let's get back to the sphere."

"Wait a minute!" Muller looked distraught; he was thinking hard. "I'll take those odds," he said. He rounded on Dom, cutting off his angry remonstrances.

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"We've as good as lost, Chariman!" he protested. "This is the only way we'll get anything. I reckon there isn't much left to lose."

A fateful look came over him as he lumbered towards the booth. The alien rose, held aside the fold of cloth to allow him to enter, then followed. Before the cloth fell, Scarne glimpsed a low table with some sort of apparatus on it. Less than a minute later, the creature reappeared and once more sat on its hind legs. "Who else will dare to enter the presence of the gods and snatch life everlasting?"

It was, Scarne realized, a standard barker pattern to be used on small planet yokels.

"Where's Muller?" Dom demanded, blinking.

"Your friend did not win and so lost his small stake. Come now, don't hesitate! The great prize is still available!"

Dom shook his head in wonderment. "And after all I've taught him! Still we don't need him any more."

"Maybe he was right," another teamster said, evidently much depressed. "Let's see what else they've got here."

"No!" Dom barked. "No more of this—we're going back to the camp. Don't you realize we are in the Cave of Caspar—the luck index is low here." He jerked his thumb. "They don't rely on luck—they've fixed the odds in their favor."

"I hope you manage to find some, sir," someone else said.

Dom smiled, but said nothing as he led them back to the transparent sphere.

Chapter Fifteen

Some order had been put back into the Wheel camp by the time they returned. The burned-out tents had been bulldozed out into the desert and those still serviceable regrouped. Control had been re-established, too, over the camp's twin—the Legitimacy site a couple of miles away.

Dom learned immediately, however, that Hakandra and Shane had both vanished, and could not be found.

He put the matter out of his mind for the moment and made his way directly to one special tent whose interior was completely screened from the outside by a long vestibule.

He was met by Haskand. "Well, are you ready?" Dom asked the scientist sharply.

"Can it be done?" "We're as ready as we are likely to be." "Then let's waste no more time." There were others besides Haskand in the tent: a few members of the mathematical cadre, and some very special technicians. The cause of their presence was the three consoles that occupied the center of the tent: machinery that Dom believed was unique in the galaxy, if not in the universe.

The luck equations had not been obtained easily. They had been derived, after centuries of effort, from the work of the wayward genius Georgius Velikosk.

Unfortunately Velikosk had committed little of his knowledge to record (he had, in fact, killed himself when the Grand Wheel tried to wrest his knowledge from him) and even now Wheel technicians did not understand how the single practical device he had built, the Velikosk roulette machine, functioned. 157

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Nevertheless his original machine formed the basis of the apparatus that now faced Dom—none other had been devised capable of handling the luck equations. Dom sat in the straight-backed chair and let the techs tape leads to the palms of his hands. He was now part of the circuit.

He nodded, giving the signal to go ahead, and relaxed. He was aware that the procedure was not entirely safe. There was even a small risk that the Velikosk part of the equipment would inadvertently perform the only other use the Wheel

had ever found for it, and dissipate his being, drawing him down into the region of pure randomness.

In silence the apparatus went into operation. A ghostly nimbus, the same that had raced round the table from man to man at the last Wheel council meeting on Luna, surrounded Dom. It seemed to everyone that an awesome, numinous power entered the tent;

even the most hardened scientists among them were able to interpret it only one way: it was the presence of Lady.

The nimbus faded as the apparatus switched itself off. The leads were detached from Dom's hands. He rose. He had been aware of no special sensation but he, too, had felt that presence. He was satisfied that the goddess had entered into him.

Haskand spoke deferentially. "You understand, sir, that no charge of this strength has ever been administered before? It cannot be compared with any of our practice shots."

Dom looked at him in supercilious, amused fashion, the way a favorite of the gods might look at a mere mortal. "All is clear," he murmured.

Scarne had never been told what lay within the specially guarded tent, but after visiting his own quarters he had been watching curiously for Dom to come out. The Wheel leader walked straight towards him.

"I want you to accompany me back up to the asteroid, Cheyne," he said. "I'd like you to be in on the final act. But first let's take a little trip."

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Someone emerged from the tent where was kept the narrowbeam equipment that had been commandeered from the Legit archeologists. He hurried up to Dom. "We've been getting news in the past hour, sir. The Hadranics are massing at the far end of the Cave. It looks like their big push."

Dom raised his eyebrows. "Then this place may not be too safe shortly," he remarked casually. "But no matter, we should be away from here before anything drastic happens."

He pointed to the edge of the camp, ushering Scame in that direction, and beyond the pattern of tents climbed into one of the ground cars parked there. As Scarne joined him he took the controls and, raising the car a few yards above ground level, sent it shooting out into the desert.

Soon the camp was out of sight. Dom crisscrossed the terrain in wide sweeps. Half an hour later he settled the car down on the desert and brought it to a stop. For a while the two men sat staring in silence out over the wilderness. Then Dom twisted round in his seat to look directly at Scarne.

"Why don't you do it now, Cheyne?" "Huh?" Scame looked back at him with an expression half blank, half of fright.

"Come come, Cheyne, I know, or at least I am almost sure, that you have once again decided to kill me, this time without giving me an honorable chance, before I am able to play the last game. Is it not true that you have a weapon of some sort secreted about your person?"

There was a long pause before Scame could bring himself to reply. "Yes," he said then, thickly. "At least we'd be left with half..."

"Well, go ahead," Dom invited. "Try to kill me." Why not? thought Cheyne.

Wonderingly he brought forth the handgun he had picked up earlier. It was a small-aperture Borges beamer, an ideal gun for close quarters and more commonly a woman's weapon. "It's obvious you had a reason for returning here

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before continuing the game," he said, holding the Borges uncertainly. "What were you doing in that tent?"

Dom did not answer, but continued smiling while Scarne raised the beamer and pressed the stud.

Nothing happened.

Scame turned the gun over and opened the inspection plate. "The charge failed," he announced, peering in. "It's burned out."

"What are you going to do now, Cheyne? You could try strangling me, I suppose. You'd probably fall over and break your neck."

Now Scarne's suspicions were confirmed. "Luck," he said. "You've given yourself artificial luck."

"You asked me why we came back here. You knew already, unless you're a fool."

"I thought you said the technique hadn't been developed enough to be reliable?"

"We've taken it to the point where we can risk using it in an emergency. It would have been better," he added affably, "if matters had gone otherwise, of course."

"I reckon you've already badly miscalculated once, over the galactics' gamesmanship. Now you're using the luck equations, when you had already decided not to use them. What if it goes wrong somehow?"

"One must estimate the likely outcomes. It raises an interesting conundrum. Can one be invested with luck and be unlucky enough to lose it?"

Scame sighed. "You've certainly got nerve, I'll say that. Did you bring me out here just for this little demonstration?"

"No." Dom's eyes scanned the horizon. "I'm looking for Shane. He's got to be out here somewhere. That Legitimacy fellow Hakandra is hiding him somewhere.

Probably underground."

"And you can find him where others couldn't?"

"I'm lucky."

He put the car in motion again and drove it on its wheels for about a mile, apparently in a direction

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chosen at random. Then he stopped and pointed to a rise in the ground some distance away.

"See that bank—a sort of hillock? That could hide something."

"It's far from being a unique feature." "Just the same I think I'll get somebody to fly over that hillock and take a heat reading," Dom said thoughtfully.

He seemed satisfied. He turned the car round and took it off the ground again.

They went skimming over the terrain back towards the camp.

"I think I'll soon have him back again," he exclaimed gladly. "The dear boy."

"What for?" Scame asked in a sudden passion. "To make him as corrupt and evil as yourself? Why don't you leave him alone and give him a chance to live decently?"

"What's this, my dear fellow?" said Dom, affecting surprise. "Jealousy?"

"Jealousy? No ..."

"No, it's real hatred, real disgust, I can see that. And all based on a misconception, too! All because you think I've been gambling away Sol civilization. Putting up humankind as a stake in the game!" "Well, haven't you?"

Scame asked, puzzled. "Why, no, of course not!" Dom, in high spirits, was laughing at him. "Allow me to destroy your delusions, Cheyne. I admit I did

nothing to discourage them, but after all I wanted you to have an incentive to play. But did I ever actually say I was putting civilization at risk? The real

truth is, I would have done it without a qualm—the higher the stakes, the more we stood to win. But the galactics wouldn't accept anything we didn't actually

own. We would have had to be in possession of the Legitimacy, and that was something we couldn't obtain. So it would have been like passing a dud check.

The galactics don't let you get away with that."

"Then what are the stakes we put up?" Scame wanted to know.

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"The Grand Wheel. All our tangible assets, and all our influence. The galactics regard it as a pitch which we operate. Should we lose, it will become theirs."

"They will run the Grand Wheel?" "Yes. Or do whatever it is they aim to do with it." There was silence for a while, except for the rush of air past the speeding

car. "You're just as bad as I said," Scarne said eventually. "You would have done it if you could."

"Face facts. We are going to win. I have luck, Cheyne! The goddess' rays are blazing down on me. Instead of heaping recriminations on me, you should be feeling relief that your fears were groundless."

But Scarne felt himself too confused to feel such relief. He no longer knew whether he could trust anything Dom said.

The Chairman did not drive back to the camp but instead put the car down near to the glassy travel-globe, which was still waiting for them. Scame held back when Dom left the car and made for it. "Why are you taking me along?" In comradely fashion Dom put a hand on his shoulder. "You are my favorite, Cheyne, You've gone through the whole thing with me. I want your moral support." Then he took his hand away and sighed. "But you may stay behind if that's what you want."

"No," Scame decided, "I'll come." Fearfully, he walked towards the majestically shimmering sphere.

"Has it occurred to you that this planetoid is a bit tatty?" Scarne asked Dom as the sphere descended towards the coldly glowing surface. "It seems to me we're not too important a customer."

"They're handling deals like this all the time," Dom agreed. "They're big. Very big."

"Doesn't that make you feel insignificant?"

"No. It's our way in, that's all. The first rung of the ladder. Once inside we'll have immortality, power, knowledge-but you know something about gaining

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knowledge already, don't you, eh, Cheyne?" He shot Scame an enquiring glance.

"Maybe I'll try a shot of that drug of yours myself."

With the odd, disconcerting effect that caused them to brace themselves needlessly, the sphere embedded itself in the earth. This time they had not come down near the games village. The small landscape was empty except for what appeared to be a hut just short of the horizon. Dom and Scame trudged towards it over the cinder-like ground, reaching it in five minutes or so.

The hut had a crude makeshift appearance. It was constructed of planks of a fibrous material resembling wood and was windowless. After looking it over, Dom knocked on the door.

Immediately the door swung open. Within, the hut looked more comfortable but by no means luxurious. There was a table, and two chairs, one of them large and peculiar-looking, built for something other than human.

That something beckoned them in from the opposite side of the table. Only by a considerable stretching of definitions could it have been described as humanoid.

It stood on two legs, but these were hinged partway up a sloping body, which balanced its weight by means of a thick tail as in some dinosaurs. The head, however, lacked any kind of snout. It was skull-like, covered with homy grey skin and looking upon them with staring, deep-set eyes.

They entered, Scame closing the door behind them. The air of the hut was close and stuffy, with a dog-like odor which Scarne found unpleasant. The alien took the larger chair, seating himself in it with a flick of his tail, which rested on a curved groove, and with a surprisingly long and slender arm motioned Dom to do likewise. There apparently being nowhere for Scame to sit, he remained standing to one side.

The alien's head turned to regard him. "I am sorry," he said in well-modulated, civilized-sounding tones which Scarne guessed came from an artificial voice-box, "you will wish to sit."

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He made a motion with a long, multi-jointed hand. Some mechanism apparently responded to the signal, for a part of the wall came adrift and folded itself into a serviceable straight-backed chair which crept across the floor to Scarne.

"Thank you." Scarne sat down.

The galactic player turned his attention to Dom. He placed a deck of cards on the table.

"Our proposal is this. This deck is of the same type that was used in the earlier games. No two cards have the same value, as you are aware. We will cut for a card, and play three times. Two winning cards out of three wins all."

"Highest takes it?"

"Correct. I need hardly add that these cards are specially treated against any kind of legerdemain, which is superfluous in any case since they will be machine-shuffled. If there are to be subsequent games we can proceed by gentlemen's agreement."

"What about change-cards?"

"For this game, all cards are immutable," the alien answered in a slightly surprised tone, as though the point was obvious.

Dom nodded slowly. Scarne found himself wondering, not for the first time, why Dom seemed to trust the galactics when they were in a position to perpetrate all kinds of trickery on him. But suddenly the answer came to him. For decades Dom had managed the Grand Wheel, and he knew the ethics and habits by which such organizations operated. The Galactic Wheel would not cheat him-or so he believed. It could, Scarne told himself, be another case of occupational delusion.

Ever since the incident with the failed gun, Scarne had been feeling unwell. Now his head began to ache;

he felt as if he was stifling in the hot atmosphere of the hut.

Hot? It had not seemed hot when he entered a few minutes ago. He put his hand to his brow. He was feverish.

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The skull-headed galactic took the deck from the shuffling machine, laid it on the table and invited Dom to cut.

As Dom reached for the cards a choking pain seized Scarne in the chest. He fell off his chair, clutching the region of his heart, and then passed out.

He must have been unconscious for only moments, because when he came round Dom and the alien were both helping him back onto his chair. He realized he had suffered a minor heart attack. He sat breathing in gasps, the pain subsiding.

The two players returned to their places. Dom had already drawn a trump card: The Wheel, one of the most powerful in the pack. Now the galactic cut: the Six of Planets.

Blearily gazing at Marguerite Dom in the first moments of his triumph, Scarne was reminded of the Wheel Chairman as he had first met him. There was the same insouciance, the charm, the overpowering presence, the fastidiousness as to dress; but within it all, hidden from the casual eye, there was the reptilian coldness. Dom was a predator on a large scale, a suave intellectual giant empty of shame or any sense of guilt

Deftly the galactic inserted the deck in the shuffling machine again. Scarne became aware of tingling pains in various parts of his body. He put his hand to his neck, the site of one of these pains. A large nodule had suddenly formed there. He was sprouting instant cancers. The air of the hut was suffocating him. He sensed that he was dying, rapidly and inexplicably. He forced himself to his feet. "Excuse me," he mumbled. "I ... need some fresh air."

Dom glanced up to him. "I wouldn't go outside if I were you. There's a lot of interstellar debris in the Cave."

"What... do you mean by that?" Dom shrugged. Scarne staggered to the door, pushed it open, and stepped outside. He walked a few steps away from the hut, feeling

giddy and looked towards the horizon which was so close this might have been a toy planet. Then he looked up at the sky, and if he had not done so at that moment he might never have seen it.

In fact he was never quite sure afterwards, that he had. It was no more than a glimmer, a faint flash as the meteor whizzed through the planetoid's shallow atmosphere.

The odds against it must have been billions to one. The meteor fell down from space and sheared off Scarne's left arm.

He stood staring stupidly at the blood-spouting stump. Then, as he felt his knees buckling, he turned to the door and fell back into the hut. The alien rose calmly and came over to him, reaching out to him with his long arms and lifting him into his chair. He inspected the stump; Scarne felt him tie something on the flesh.

"The bleeding has stopped," the galactic announced. In a thoughtful tone he added: "You are very unlucky."

"Yes," said a dazed Scame.

In his shock his thoughts were calm, piecing it all together. He could see clearly now exactly how-and why-Dom was using him.

Luck was not probability, but it acted through probability. It was, so to speak, quantities of probability, a quantitative average throughout the universe. And, like any other fixed quantity, it could only be concentrated or increased at the cost of a diminution elsewhere.

For someone to be made lucky, someone else had to be made unlucky. Dom was using him as the 'negative pole' of the process of attracting luck.

So I end up as a dupe, Scame thought dismally. And Dom, charming, ambitious Dom, wins.

It was the second round: the galactic cut first. The Star Blaze, a reasonably good card, a member of the Minor Superior Set.

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Dom cut. The Neutron Ring, a lower card in the same set. Dom frowned, clearly taken aback.

And Scame suddenly began to feel physically better. He looked at his severed stump. The blood was coagulating with unusual rapidity, sealing off the stump. Soon he would be able, if he wished, to remove the alien's tourniquet.

"We cut once more," the galactic said to the nonplussed Dom.

He shuffled the cards in the machine. Scame noticed that his cancers had undergone spontaneous remission: the lumps had disappeared. A sense of well-being was flowing through him. He looked at Dom, and saw that he had become unnaturally pale.

Dom's gaze flickered around the hut, resting ferally for a moment on Scame. Hastily he cut, but did not show or look at his card, motioning instead for the alien to cut for his card.

The galactic cut, and with no outward reaction displayed his card. It was The Dissolver, a card whose surface was made up of a close-grained tracery, or hatchwork in which images formed according to how it was held. And it was the highest card in the entire deck.

Dom's face became rigid as he saw the card. He bent to look at his own, then let it drop to the table from limp fingers. It was a card called The Trivia, showing a single drooping flower. It belonged to no set, suit or grouping, and was the lowest card of the deck, being assigned no positive value.

Something bad was happening to Dom. He tried to rise from his chair but could not, as if his abdomen had congested and seized up. His flesh was almost bubbling as the rogue cells of cancer attacked his body at ferocious speed. His skin began to rot. He was falling apart before their eyes.

Rising, Scame stared down at him, feeling pity but also indignation. "You tricked me," he accused the dying man. "Tried to sacrifice my life for your own ends."

From his doubled-up position Dom peered up at him. "But your life is mine, Cheyne," he groaned. "You owe it to me. Don't you remember? A debt is a debt. I told you I would remind you of it."

Remembering the duel, Scarne stepped back, debating within himself whether Dom was merely trying cynically to cover up for his treachery, or whether he really did believe in such a system of morality.

The debate was cut off short. Dom gave a great groan of agony and fell from his chair. Neither Scame nor the alien went to his assistance, and while they watched his body began to disintegrate, to dissolve. In a few seconds not a trace of it remained.

"He has been drawn into pure randomness," the galactic told Scame. "It is sometimes a consequence of the process he was using."

"You knew about it?"

The alien rose, put away the cards, and moved the table to one side. "It quickly became evident. Were we generous, we might have warned him of the dangers of trying to force luck. If it is manipulated, then it is no longer luck in the proper sense; it becomes a physical force, involving, like all physical forces, action and reaction. The swing of the pendulum can come swiftly."

"His good luck turned to bad, in like proportion," Scame observed.

"That is why we never use any luck-manipulating process." While he spoke, the alien seemed to be tidying up the hut, as if were preparing to leave. "Luck is perhaps the most powerful force that exists, and for that reason the most dangerous. It is in fact the basic force, or glue, that forms entities out of the preternatural randomness. Probability came later."

"What happens now?" Scame asked.

"Your master lost; therefore all holdings known as the Grand Wheel become ours. All your gaming operations, and what accrues therefrom. We shall use them, naturally, for our own benefit."

"Will people be aware of it?"

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"I can't say."

The galactic opened the door and went outside. Scame followed him.

His arm should be hurting more, he thought. He was scarcely aware of the ache.

Turning to him, the galactic spoke again. "You seem to have come out of all this rather well," he said. "All the good luck which Marguerite Dom had concentrated on himself now passes to you. Luck is magic; practically anything can be achieved with it, simply by wishing."

Scame gestured back to the hut. "Is that going to happen to me, too?"

"I would think not. You didn't initiate the sequence; the charge will simply seep from you gradually. Goodbye, then. Use your good fortune well."

With a loping gait the galactic left him and set off towards the horizon. Scame closed his eyes.

Simply by wishing.

Chapter Sixteen

There had been changes made at the campsite when the travel globe set him down on the desert again. The Disk of Hyke had returned, accompanied by a Legitimacy battlecruiser. Legitimacy troops patrolled both camps; all Wheel personnel were under armed guard.

As soon as he made his appearance Scame was picked up. He found himself facing Hakandra, Shane's stem-faced guardian.

"What happened to your arm?" the official asked, glancing at the stump which now had solidified as effi-

ciently as if it had been cauterized. Scarne still felt no more than a dull ache from it.



"I had an accident. I'll get a new one grafted on as soon as there's time."

Hakandra nodded. "I'll get someone to attend to it. Where's Dom?"

"He's dead. Probably."

"Probably? What do you mean by that?"

"He's dead," Scame said with finality.

"I see . . . well, we'll take a full statement from you later. We already know something of why the Wheel came to the Cave. Illicit contacts with an alien race. Were you a party to that?"

"Not really. Dom kept it to himself. It's over now, anyway." Scame wanted, if possible, to extricate himself from the whole question of galactic involvement. Otherwise he would never be free of the Legitimacy.

The SIS would want a report out of him, too. He would have to try to convince them that the luck equations didn't work. Dom's demise was probably a chilling enough lesson.

Hakandra was speaking again. "You've heard the latest news? We're going to have to leave here. There have been major losses in the big battle at the far end of the Cave. The positions we've set up won't hold the Hadranics back now. They'll sweep through the Cave and into our star arm." He looked grave and distraught. Pityingly he looked at Shane, who sat in the corner of the tent; the two were hardly ever separated. "All our work here has been for nothing."

"What about the randomness machine?"

"We'll take it with us. But it can't be of any use to us now."

"It can help you. Make another test run with it."

The Legitimacy official looked at him closely. "What do you know about it?"

"I know something. You haven't discovered the right settings for it, that's all. How to control it." He hesitated. "I met the people who built it when I was up on-where we went."

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"You're talking nonsense." Scame shrugged.

Hakandra turned to Shane. "What are they doing with the machine now?"

"I don't know."

On a sudden decision Hakandra marched over to the laboratory tent. Within, there was the desultory air of a project that has failed but is still officially operational. Scame saw Haskand, the Wheel scientist, talking to Wishom, his Legitimacy counterpart.

"What are these settings?" Wishom asked him when Hakandra had made representations for him.

But Scame didn't know. In a technical sense, he understood nothing of the machine and the equipment the research team was using on it.

He walked up to the control rig, and beckoned Shane to him. "Put the power through," he told the technicians. "I'll make the adjustments."

"It's not safe!" Hakandra snapped.

Wishom waved his hand. "Why not? We've been working in the dark. He can't do anything more risky than we did. If he does something silly, I'll simply cut off the power." He nodded to Scame. "I expect you're a lunatic, but... what do you think, Haskand?"

"Where is the Chairman?" Haskand demanded sharply of Scame.

Scame gave him a hard look. "I have what you gave him," he said quietly.

It took a moment for Haskand to absorb that. Then he nodded thoughtfully. "It's his field, in a sense . . . let's see what happens."

Scame drew Shane close to him. "I want you to help me," he said softly. "Tell me when it feels right . . . you know what I mean."

"No I don't. Why are you so vague? You have to use hard data."

Scame ignored the Legitimacy jargon. As the generator began to hum he held his intended image clearly in mind and manipulated the controls at random:

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power-level, waveform ... a web of energy flowed into the alien machine. Shane neither moaned, screamed or doubled up, as was his wont during these experiments. "That feels different from before," he informed wonderingly. "Sort of ... smooth. It's flowing."

"Flowing where, Shane?"

"Flowing out-out there." Shane waved his hands over his head, unsure of what he meant.

Scarne sent his fingers over the switches again. Shane frowned, then gave a grimace of pain. "No, that's all wrong, that won't work," he complained.

"Well, let's see-" Scarne once more amended the controls, with a glimmering of an idea what to aim for this time.

And then it struck home to him, too. He knew he had hit it, and Lady was hovering over him, smiling down on him, her hand on his shoulder.

He closed his eyes. "Thank you, Lady," he whispered.

"It's there," Shane murmured. His eyes were withdrawn, concentrating on the feeling inside him. "That's it. It's beautiful. It works."

"It works?" Wishom queried in a cracked voice, rushing up to them. "What works? What's happening?"

"You'll find out in a few hours," Scame said. He saw no point in explaining it; it sounded too fantastic.

Even he would eagerly await the reports, to make sure he hadn't simply imagined the picture that had blazed in his mind when the machine hit its resonant level. Suns exploding, thousands of suns.

Every single sun at the far end of the Cave had gone nova. With luck, a good part of the assembled Hadranic forces would be caught in the holocaust. At any rate, the Hadranics would now regard the Cave as too dangerous to operate in, and therefore it was effectively impassable.

Eventually they would overcome their caution, or else find another attack route, but the Legitimacy now had a valuable breathing space. Later, perhaps he

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would explode more suns, perhaps all the suns in the Cave.

If, that was, he had not already used up all his luck in such a titanic act. He exulted. It was like being a god oneself! Then he checked himself, remembering the hubris that had brought about the downfall of Marguerite Dom, Chairman of the Grand Wheel which was now under new management.

Lady had dealt mankind a new hand, he reflected. He wondered what difference it was going to make to civilization now that the Galactic Wheel held all its gambling concessions.

And it came into his mind that the people who really knew about the luck deity did not see it as a smiling woman, but as a male figure, stem and retributive. That could make a difference, too.

He turned to Hakandra. "There's another kind of machine in one of the Wheel tents," he said. "I don't suppose you'll take any notice, but if I were you I'd have it destroyed."

"Oh? Why is that?"

Scame smiled. "There's too much luck attached to it."

Chapter Seventeen

Marguerite Dom's sojourn in the gulf of randomness was not an eternity of chaos, as it turned out.

Like everything else, he kept bubbling to the surface of it, re-forming, melting and dissolving again;

finding himself in little regions of stability, finding himself to be a wandering ghost in the fog-like limbo, a mote in the foaming sea of nullity, or something incomprehensible in some other of its aspects.

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He never felt as if he had been there long, not even when someone plucked at his sleeve and he turned to come face to face with an old colleague.

"We're not really here, you know," Pawarce told him, looking round himself shiftily. "Nobody exists here-except ghosts, like us."

"How long have you been here?" Dom asked.

"There isn't any time here. A million years, maybe." His face was ugly as he looked at Dom. "I'm glad you ended up here too. It serves you damned well right."

Dom moved away but Pawarce followed him, hanging onto his arm and leaning close. He pointed. "See that. Marguerite? Over there?"

Dom followed his finger. In the mist, so faint he wasn't sure if he saw it or not, was an arch, like a faded rainbow.

"What is it?"

"Up there, where real things exist, people play games. Well, not people, exactly. Beings, cleverer than us. Sometimes when they play, new worlds and universes are formed. Sometimes you can walk into them. I've been waiting a long time to see if that one would form. Now it's ready. But we have to go now or it will separate. Do you see it. Marguerite? A new world, a chance to start over somewhere else! To exist again!"

Dom hung back. "What will it be like?"

Pawarce pulled a face. "Who knows, till we get there?"

"That's right, who knows?"

Together they walked towards the dimly shining arch.

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#### Chapter Eighteen

It was only a small mugger in a cheap bar. Cheyne Scarne was thumbing in coins and winning, winning, winning.

His luck was draining away by weeks, days, hours, but still it was fun. He smiled wryly as the sparks came up and the tokens came tinkling out of the pay slot.

A small, dapper man came up to him. "Say, how do you do that?" "Luck."

He turned away from the machine, unwilling to get into conversation, and sat down at a table near the bar. Curiously, he never won jackpots. Jackpots weren't really good luck; they changed the recipient's life, not always for the better. It amused him, too, to think that his winnings were paid out by the Galactic Wheel now; were the subject, probably, of accounts at the center of the galaxy. So far, though, there had been no outward sign of the galactics' takeover. And he had been unable to prise anything out of the Wheel men he knew.

What would happen, he asked himself, if the Ha-dranics should break through the Legitimacy's newly constituted defence line? Would the Galactic Wheel move to prevent the invasion so as to protect its pitch? He suspected not. They were more subtle, more practical. They would simply make sure that their property remained profitable in the new set-up. They might even encourage an invasion, if it meant more business. Contemplating the possibility brought Scarne a sense of unreality. Sometimes he had the feeling that the 175

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whole sequence of events he had suffered, beginning with his first being picked up by the SIS, was the result of a game being played elsewhere in the universe. It was better not to think about it.

Every so often Scarne glanced at the door, in expectation of yet one more piece of luck.

Why not? It should happen, he told himself. At first he had been expecting, and now he was only hoping, that his luck would rub off enough so that Cadence Mellors would somehow find her way out of that work camp and back to him.

According to his luck, he should see her walking through a door somewhere, someday. That was why he spent so much of his time in bars.

He took a swallow of his drink, and then looked up again. A girl had just entered the bar, and for a moment he thought it was Cadence. At a glance the resemblance was remarkable, and it was not just a matter of physiognomy. Like Cadence, she was no longer very young; a little faded, more than a little jaded by life. But it was not Cadence.

He continued staring at her, feeling familiar pangs.

She smiled. He smiled.

His luck was running out. But it was still working for him. Within limits.

She was not Cadence.

But she would do.