

Temptation

by

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Introduction

Some people say you can't have everything. For instance, if a story offers action, it must lack philosophy. If it involves science, character must suffer. This has especially been said about one of the core types of science fiction, the genre sometimes called space opera. Is it possible to depict grand adventures and heroic struggles cascading across lavish future settings-complete with exploding planets and vivid special effects-while still coming up with something worth calling a novel?

I'm one of those who believe it's worth a try-and have attempted it in the Uplift novels, which are set several hundred years into a dangerous future, in a cosmos that poor humans barely comprehend.

I begin with the plausible notion that people may start genetically altering dolphins and chimpanzees, giving those bright animals the final boost they need to become our peers and partners. In my debut work, *Sundiver*, I depicted all three of Earth's sapient races discovering that an ancient and powerful interstellar civilization has been doing the same thing for a very long time. Following an ancient prescription, each starfaring clan in the Civilization of Five Galaxies looks for promising newcomers to "uplift." In return for this favor, the new client species owes its patrons an interval of service, then starts looking for someone else to receive the gift of intelligence.

This benign pattern conceals a series of ominous secrets which get peeled away in subsequent stories. *Startide Rising* and *The Uplift War*-both winners of the Hugo Award for best novel-depict shock waves rocking Galactic society when a humble earthship, *Streaker*, staffed by a hundred neo-dolphins and a few humans-uncovers clues to a billion-year-old conspiracy.

My goal has been to stock the series with elements that science-fiction lovers enjoy-for instance, there's not just one way to surpass the Einsteinian limitation on faster-than-light travel, but half a dozen. I use five galaxies as the stage for the series, with more waiting in the wings. The cast of characters-dolphins, chimps, and aliens-has been chosen to offer a wide range of sympathetic moments and, I hope, memorable ideas.

After a hiatus of several years while I worked on other projects, I returned to this broad canvas with the new Uplift Storm trilogy, consisting of three connected novels, *Brightness Reef*, *Infinity's Shore*, and *Heaven's Reach*. These works continue exploring the adventures and trials of the *Streaker* crew, but also delve into a unique, multiracial society on Jijo, a world in isolated Galaxy Four that was declared "fallow," or off-limits to sapient beings in order to let its biosphere recover. Despite this well-intended law, a series of sneakships have come to the forbidden world, bringing illegal colonists from half a dozen races, each with desperate reasons to flee growing danger back home. After initial struggles and misunderstandings, the Six Races of Jijo-including exiled humans-made peace, joining to create a decent shared culture, sharing their beloved world while hiding from the cosmos . . . until one day all their troubles came crashing from the sky.

A Time of Changes has commenced, rocking the complacent Civilization of Five Galaxies. Nobody is safe, and nothing is certain anymore. Not history, law, biology, or even trusty physics.

Something is happening to the universe, and all bets about our destiny are off.

In this new story, "Temptation," I peel back yet another layer in the unfolding saga, and show a small group of fugitive dolphins learning how perilous it can be to be offered exactly what you always wished for.

MAKANEE

Jijo's ocean stroked her flank like a mother's nuzzling touch, or a lover's caress. Though it seemed a bit disloyal, Makanee felt this alien ocean had a silkier texture and finer taste than the waters of Earth, the homeworld she had not seen in years.

With gentle beats of their powerful flukes, she and her companion kept easy pace beside a tremendous throng of fish-creatures-red-finned, with violet gills and long translucent tails that glittered in the slanted sunlight like plasma sparks behind a starship. The school seemed to stretch forever, grazing on drifting clouds of plankton, moving in unison through coral shallows like the undulating body of a vast complacent serpent.

The creatures were beautiful . . . and delicious. Makanee performed an agile twist of her sleek gray body, lunging to snatch one from the teeming mass, provoking only a slight ripple from its nearest neighbors. Her casual style of predation must be new to Jijo, for the beasts seemed quite oblivious to the dolphins. The rubbery flesh tasted like exotic mackerel.

"I can't help feeling guilty," she commented in Underwater Anglic, a language of clicks and squeals that was well-suited to the liquid realm where sound ruled over light.

Her companion rolled alongside the school, belly up, with ventral fins waving languidly as he grabbed one of the local fish for himself.

"Why guilty?" Brookida asked, while the victim writhed between his narrow jaws. Its soft struggle did not interfere with the train of word-glyphs, since a dolphin's mouth plays no role in generating sound. Instead a rapid series of ratcheting sound impulses emanated from his brow. "Are you ashamed because you live? Because it feels good to be outside again, with a warm sea rubbing your skin and the crash of waves singing in your dreams? Do you miss the stale water and moldy air aboard ship? Or the dead echoes of your cramped stateroom?"

"Don't be absurd," she snapped back. After three years confined aboard the Terran survey vessel, *Streaker*, Makanee had felt as cramped as an overdue fetus, straining at the womb. Release from that purgatory was like being born anew.

"It's just that we're enjoying a tropical paradise while our crew-mates"

"-must continue tearing across the cosmos in foul discomfort, chased by vile enemies, facing death at every turn. You know."

Brookida let out an expressive sigh. The elderly geophysicist switched languages, to one more suited for poignant irony.

** Winter's tempest spends*

** All its force against the reef,*

** Sparing the lagoon.**

The Tertiary haiku was expressive and wry. At the same time though, Makanee could not help making a physical

diagnosis. She found her old friend's sonic patterns rife with undertones of Primal- the natural cetacean demi-language used by wild *Tursiops truncatus* dolphins back on Earth-a dialect that members of the modern *amicus* breed were supposed to avoid, lest their minds succumb to tempting ancient ways. Mental styles that lured with rhythms of animal-like purity.

She found it worrisome to hear Primal from Brookida, one of her few companions with an intact psyche. Most of the dolphins on Jijo suffered to some degree from stress-atavism. Having lost the cognitive focus needed by engineers and starfarers, they could no longer help Streaker in its desperate flight across five galaxies. Planting this small colony on Jijo had seemed a logical solution, leaving the regressed ones for Makanee to care for in this gentle place, while their shipmates sped on to other crises elsewhere.

She could hear them now, browsing along the same fishy swarm just a hundred meters off. Thirty neo-dolphins who had graduated from prestigious universities. Specialists chosen for an elite expedition-now reduced to splashing and squalling, with little on their minds but food, sex, and music. Their primitive calls no longer embarrassed Makanee. After everything her colleagues had gone through since departing Terra-on a routine one-year survey voyage that instead stretched into a hell of a three-it was surprising they had any sanity left at all.

Such suffering would wear down a human, or even a tymbrimi. But our race is just a few centuries old. Neo-dolphins have barely started the long Road of Uplift. Our grip on sapience is still slippery. And now another trail beckons us.

After debarking with her patients, Makanee had learned about the local religion of the Six Races who already secretly settled this isolated world, a creed centered on *the Path of Redemption*-a belief that salvation could be found in blissful ignorance and nonsapience.

It was harder than it sounded. Among the "sooner" races who had come to this world illegally, seeking refuge in simplicity, only one had succeeded so far, and Makanee doubted that the *human* settlers would ever reclaim true and innocent innocence, no matter how hard they tried. Unlike species who were uplifted, humans had earned their intelligence the hard way on Old Earth, seizing each new talent or insight at frightful cost over the course of a thousand harsh millennia. They must become ignorant and primitive-but never simple. Never innocent.

We neo-dolphins will find it easy, however. We've only been tool-users for such a short time-a boon from our human patrons we never sought. It's simple to give up something you received without struggle. Especially when the alternative-the Whale Dream calls seductively, each time you sleep.

An alluring sanctuary. The sweet trap of timelessness.

From clackety sonar emanations, she sensed her assistants-a pair of fully conscious volunteers-keeping herd on the reverent ones, making sure the group stayed together. Things seemed pleasant here, but no one knew for sure what dangers lurked in the wide sea.

We already have three wanderers out there somewhere. Poor little Peepoe and her two wretched kidnappers. I promised Kaa to send out search parties to rescue her. But how? Zhaki and Mopol have a huge head start, and half a planet to hide in.

Tkett's out there looking for her right now, and we'll start expanding the search as soon as the patients are settled and safe. They could be on the other side of Jijo by now. Our only real hope is for Peepoe to escape that pair of dolts somehow and close enough to call for help.

It was time for Makanee and Brookida to head back and take their own turn shepherding the happy-innocent patients. Yet, she felt reluctant. Nervous.

Something in the water rolled through her mouth with a faint metallic tang, tasting like *expectancy*.

Makanee swung her sound-sensitive jaw around, seeking clues. At last she found a distant tremor. A faintly familiar resonance coming from the west.

Brookida hadn't noticed yet.

"Well," he commented, "it won't be long till we are truly part of this world, I suppose. A few generations from now, none of our descendants will be using Anglic, or any Galactic language. We'll be guileless innocents once more, ripe for readoption and a second chance at uplift. I wonder what our new patrons will be like."

Makanee's friend was goading her gently with the bittersweet destiny anticipated for this colony, on a world that seemed made for cetaceans. A world whose comfort was the surest way to clinch a rapid devolution of their disciplined minds. With constant challenges, the Whale Dream would surely reclaim them. Brookida seemed to accept the notion with an ease that disturbed Makanee.

"We still *have* patrons," she pointed out. "There are humans living right here on Jijo."

"Humans, yes. But uneducated, lacking the scientific skills to continue guiding us. So our only remaining option must be-"

He stopped, having at last picked up that rising sound from the west. Makanee recognized the unique hum of a speed sled.

"It is Tkett," she said. "Returning from his scouting trip. Let's go hear what he found out."

Thrashing her flukes, Makanee jetted to the surface, spuming the moist, stale air from her lungs and drawing in a deep breath of sweet oxygen. Then she spun about and kicked off toward the engine noise, with Brookida following close behind.

In their wake, the school of grazing fishoids barely rippled in its endless, sinuous dance, darting in and out of luminous shoals feeding on whatever the good sea pressed toward them.

The archaeologist had his own form of mental illness-wishful thinking.

Tkett had been ordered to stay behind and help Makanee with the reverted ones, partly because his skills weren't needed on *Streaker's* continuing desperate flight across the known universe. In compensation for that bitter exile, he had grown obsessed with studying the Great Midden, that deep underwater trash heap where Jijo's ancient occupants had dumped nearly everything sapient-made object when this planet was abandoned by starfaring culture, half a million years ago. "I'll have a wonderful report to submit when we get back to Earth," he rationalized, in apparent confidence that all their troubles would pass, and eventually he would make it home to publish his results. It was a special kind of derangement without featuring any sign of stress-atavism or reversion. Tkett still spoke Anglic perfectly. His work was flawless and his demeanor cheerful. He was pleasant, functional, and mad as a hatter.

Makanee met the sled a kilometer west of the pod, where Tkett pulled up short in order not to disturb the patients. "Did you find any traces of Peepoe?" she asked when he cut the engine.

Tkett was a wonderfully handsome specimen of *Tursiops amicus*, with speckled mottling along his sleek flanks. The permanent dolphin-smile presented twin rows of perfectly white, conical teeth. While still nestled on the sled's control platform, Tkett shook his sleek gray head left and right.

"Alas, no. I went about two hundred clicks, following those faint traces we picked up on deep-range sonar. But it grew clear that the source wasn't Zhaki's sled."

Makanee grunted disappointment. "Then what was it?" Unlike the clamorous sea of Earth, this fallow planet wasn't supposed to have motor noises permeating its thermal-acoustic layers.

"At first I started imagining all sorts of unlikely things, like sea monsters, or Jophur submarines," Tkett answered. "Then the truth hit me."

Brookida nodded nervously, venting bubbles from his blowhole. "Yessssss?"

"It must be a *starship*. An ancient, piece-of-trash wreck, barely puttering along."

"Of course!" Makanee thrashed her tail. "Some of the decoys didn't make it into space."

Tkett murmured ruefully over how obvious it now seemed. When *Streaker* made its getaway attempt, abandoning Makanee and her charges on this world, the earthship fled concealed in a swarm of ancient relics that dolphin engineers had resurrected from trash heaps on the ocean floor. Though Jijo's surface now was a fallow realm of savage tribes, the deep underwater canyons still held thousands of battered, abandoned spacecraft and other derelicts from when this section of Galaxy Four had been a center of civilization and commerce. Several dozen of the derelicts had been reactivated in order to confuse *Streaker's* foe-a fearsome Jophur battleship-but some of the hulks must have failed to haul their bulk out of the sea when the time came. Those failures were doomed to drift aimlessly underwater until their engines gave out and they tumbled once more to the murky depths.

As for the rest, there had been no word whether *Streaker's* ploy succeeded beyond luring the awful dreadnought away toward deep space. At least Jijo seemed a friendlier place without it. For now.

"We should have expected this," the archaeologist continued. "When I got away from the shoreline surf noise, I thought I could detect at least three of the hulks, bumping around out there almost randomly. It seems kind of sad, when you think about it. Ancient ships, not worth salvaging when the Buyur abandoned Jijo, waiting in an icy, watery tomb for one last chance to climb back out to space. Only these couldn't make it. They're stranded here."

"Like us," Makanee murmured.

Tkett seemed not to hear.

"In fact, I'd like to go back out there and try to catch up with one of the derelicts."

"Whatever for?"

Tkett's smile was still charming and infectious . . . which made it seem even crazier, under these circumstances.

"I'd like to use it as a scientific instrument," the big neo-dolphin said.

Makanee felt utterly confirmed in her diagnosis.

PEEPOE

Captivity wasn't as bad as she had feared.

It was worse.

Among natural, presapient dolphins on Earth, small groups of young males would sometimes conspire to isolate a female from the rest of the pod, herding her away for private copulation-especially if she was about to enter heat. By working together, they might monopolize her matings and guarantee their own reproductive success, even if she clearly preferred a lower alpha-ranked male instead. That ancient behavior pattern persisted in the wild because, while native *Tursiops* had their own traditions and a kind of feral honor, they could not quite grasp or carry out the concept of *law*-a code that all must live by because the entire community has a memory transcending any individual.

But modern, uplifted *amicus* dolphins did have law! And when young hoodlums occasionally let instinct prevail and tried to do that sort of thing back home, the word for it was *rape*. Punishment was harsh. As with human sexual predators, just one of the likely outcomes was permanent sterilization.

Such penalties worked. After three centuries, some of the less desirable primal behaviors were becoming rare. Yet, uplifted dolphins were still a young race. Great stress could yank old ways back to the fore, from time to time.

And we Streakers have sure been under stress.

Unlike some devolved crewmates, whose grip on modernity and rational thought had snapped under relentless pressure, Zhaki and Mopol suffered only partial atavism. They could still talk and run complex equipment, but they were no longer as polite, almost shy junior ratings she had met when *Streaker* first set out from Earth under Captain Creideiki, before the war with the cosmos seemed to implode all around the dolphin crew.

In abstract, she understood the terrible strain that had put them in this state. Perhaps, if she were offered a chance to return, Zhaki and Mopol, Peepoe might call that punishment a bit too severe.

On the other fin, sterilization was much too good for them.

Despite sharing the same culture, and a common ancestry as Earth mammals, dolphins and humans looked at many things differently. Peepoe felt more annoyed at being kidnapped than violated. More pissed off than traumatized. She was unable to stymie their lust completely, but with various tricks-playing on their mutual jealousy and feigning illness as often as she could-Peepoe staved off unwelcome attentions for long stretches.

But if I find out they murdered Kaa, I'll have their entrails for lunch.

Days passed and her impatience grew. Peepoe's real time limit was fast approaching. *My contraception implant will expire. Zhaki and his pal have fantasies about populating Jijo with their descendants, but I like this planet far too much to curse it that way.*

She vowed to make a break for it. But how?

Sometimes she would swim to a channel between the two remote islands where her kidnappers had brought her and drift languidly, listening. Once, Peepoe thought she made out something faintly familiar-a clicking murmur, like a distant crowd of dolphins. But it passed, and she dismissed it as wishful thinking. Zhaki and Mopol had driven her sled at top speed for days on end with her strapped to the back, before they halted by this strange archipelago and removed her sonar-proof blindfold. She had no idea how to find her way back to the old coastline where Makanee's group had settled.

When I do escape these two idiots, I may be consigning myself to a solitary existence for the rest of my days.

Oh well, you wanted the life of an explorer. There could be worse fates than swimming all the way around this beautiful world, eating exotic fish when you're hungry, riding strange tides and listening to rhythms no dolphin ever heard before.

The fantasy had a poignant beauty-though ultimately, it made her lonely and sad.

The ocean echoed with anger, engines, and strange noise.

Of course it was all a matter of perspective. On noisy Earth, this would have seemed eerily quiet. Terran seas buzzed with a cacophony of traffic, much of it caused by her own kind as neo-dolphins gradually took over managing seventy percent of the h

planet's surface. In mining the depths, or tending fisheries, or caring for those sacredly complex simpletons called whales, more and more responsibilities fell to uplifted 'fins using boats, subs, and other equipment. Despite continuing efforts to reduce racket, home was still a raucous place.

In comparison, Jijo appeared as silent as a nursery. Natural sound-carrying thermal layers reported waves crashing on distant shorelines and intermittent groaning as minor quakes rattled the ocean floor. A myriad buzzes, clicks, and whistles came from Jijo's own subsurface fauna-fishy creatures that evolved here, or were introduced by colonizing leaseholders like the Buyur, a few years ago. Some distant rumbles even hinted at *large* entities, moving slowly, languidly across the deep . . . perhaps pondering long, slow thoughts.

As days stretched to weeks, Peepoe learned to distinguish Jijo's organic rhythms . . . punctuated by a grating noise whenever one of the boys took the sled for a joy ride, stampeding schools of fish, or careening along with the load indicating showing red. At this rate the machine wouldn't stand up much longer, though Peepoe kept hoping one of them would break the fool neck first.

With or without the sled, Zhaki and Mopol could track her down if she just swam away. Even when they left piles of dead fish to ferment atop some floating reeds, and got drunk on the foul carcasses, the two never let their guard down enough to let her steal the sled. It seemed that one or the other was always sprawled across the saddle. Since dolphins use only one sleep one brain hemisphere at a time, it was impossible to take them completely by surprise.

Then, after two months of captivity, she detected signs of something drawing near.

Peepoe had been diving in deeper water for a tasty kind of local soft-shell crab when she first heard it. Her two captors were having fun a kilometer away, driving their speedster in tightening circles around a panicked school of bright silver fishoids. But when she dived through a thermal boundary layer, separating warm water above from cool saltier liquid below, the sled's racket abruptly diminished.

Blessed silence was one added benefit of this culinary exploit. Peepoe had been doing a lot of diving lately.

This time, however, the transition did more than spare her the sled's noise for a brief time. It also brought forth a new sound. A distant rumble, channeled by the shilly stratum. With growing excitement, Peepoe recognized the murmur of an engine. Yet the rhythms struck her as unlike any she had heard on Earth or elsewhere.

Puzzled, she kicked swiftly to the surface, filled her lungs with fresh air, and dived back down to listen again.

This deep current offers an excellent sonic grove, she realized, focusing sound rather than diffusing it. Keeping vibrations well confined. Even the sled's sensors may not pick it up for quite a while.

Unfortunately, that also meant she couldn't tell how far away the source was.

If I had a breather unit. . . if it weren't necessary to keep surfacing for air. . . I could swim a great distance masked by the thermal barrier. Otherwise, it seems hopeless. They can use the sled's monitors on long-range scan to detect me when I breathe and exhale.

Peepoe listened for a while longer, and decided.

I think it's getting closer . . . but slowly. The source must still be far away. If I made a dash now, I won't get away before they catch me.

And yet, she daredn't risk Mopol and Zhaki picking up the new sound. If she must wait, it meant keeping them distracted till the time was right.

There was just one way to accomplish that.

Peepoe grimaced. Rising toward the surface, she expressed disgust with a vulgar Trinary demi-haiku.

* *May sun roast your backs,*

* *And hard sand scrape your bottoms,*

* *Til you itch madly. . . .*

* *... as if with a good case of the clap! **

MAKANEE

She sent a command over her neural link, ordering the tools of her harness to fold away into streamlined recesses, signaling that the inspection visit was over.

The chief of the kiqui, a little male with purple gill-fringes surrounding a squat head, let himself drift a meter or so under the water's surface, spreading all four webbed hands in a gesture of benediction and thanks. Then he thrashed around to lead his folk away, back toward the nearby island where they made their home. Makanee felt satisfaction as she watched the transformation of kicking amphibians, clutching their stone-tipped spears.

Who would have thought that we dolphins, youngest registered sapient race in the Civilization of Five Galaxies, would become patrons ourselves, just a few centuries after humans started uplifting us.

The kiqui were doing pretty well on Jijo, all considered. Soon after being released onto a coral atoll, not far off shore, they started having babies.

Under normal conditions, some elder race would find an excuse to take the kiqui away from dolphins, fostering such promising presapient species into one of the rich, ancient family lines that ruled oxygen-breathing civilization in the Five Galaxies. But here on Jijo things were different. They were cut off from starfaring culture, a vast bewildering society of complex rituals and obligations that made the ancient Chinese Imperial court seem like a toddler's sandbox, by comparison. There were no advantages and disadvantages to being a castaway from all that.

On the one hand, Makanee would no longer have to endure the constant tension of running away from huge oppressive battlefleets or aliens whose grudges went beyond earthling comprehension.

On the other hand, there would be no more performances of symphony, or opera, or bubble-dance for her to attend.

Never again must she endure disparaging sneers from exalted patron-level beings, who considered dolphins little more than bright beasts.

Nor would she spend another lazy Sunday in her snug apartment in cosmopolitan Melbourne-Under, with multicolored dolphins cruising the coral garden just outside her window while she munched salmon patties and watched an all-dolphin production perform *Twelfth Night* on the telly.

Makanee was marooned, and would likely remain so for the rest of her life, caring for two small groups of sea-based colorines, hoping they could remain hidden from trouble until a new era came. An age when both might resume the path of uplift.

Assuming some metal nutrient supplements could be arranged, the kiqui had apparently transplanted well. Of course, they must be taught tribal taboos against overhunting any one species of local fauna, so their presence would not become a curse on this world. But the clever little amphibians already showed some understanding, expressing the concept in their own emphatic demi-speech.

Rare is precious! ##
Not eat-or-hurt rare/precious things/fishes/beasts! ##
Only eat/hunt many-of-a-kind!

She felt a personal stake in this. Two years ago, when *Streaker* was about to depart poisonous Kithrup, masked inside the hulk of a crashed Thennanin warship, Makanee had taken it upon herself to beckon a passing tribe of kiqui with some of her own recorded calls, attracting the curious group into *Streaker's* main airlock just before the surrounding water boiled with explosion from revving engines. What then seemed an act of simple pity turned into a kind of love affair, as the friendly little amphibians became favorites of the crew. Perhaps now their race might flourish in a kinder place than unhappy Kithrup. It felt good to know that *Streaker* had accomplished at least one good thing out of its poignant, tragic mission.

As for dolphins, how could anyone doubt their welcome in Jijo's warm sea? Once you learned which fishoids were edible and which to avoid, life became a matter of snatching whatever you wanted to eat, then splashing and lolling about. True, she missed her *holoson* unit, with its booming renditions of whale chants and baroque chorales. But here she could take pleasure in listening to an ocean whose sonic purity was almost as fine as its vibrant texture.

Almost. . .

Reacting to a faint sensation, Makanee swung her sound-sensitive jaw around, casting right and left.

There! She heard it again. A distant rumbling that might have escaped notice amid the underwater cacophony on Earth. But here it seemed to stand out from the normal swish of current and tide.

Her patients-the several dozen dolphins whose stress-atavism had reduced them to infantile innocence-called such

infrequent noises *boojums*. Or else they used a worried upward trill in Primal Delphin-one that stood for strange monsters of the deep. Sometimes the far-off grumbles did seem to hint at some huge, living entity, rumbling with basso-profundo pride, complacently assured that it owned the entire vast sea. Or else it might be just frustrated engine noise from some remnant derelict machine, wandering aimlessly in the ocean's immensity.

Leaving the kiqui atoll behind, Makanee swam back toward the underwater dome where she and Brookida, plus a few sapient nurses, maintained a small base to keep watch over their charges. It would be good to get out of the weather for a while. Last night she had roughed it, keeping an eye on her patients during a rain squall. An unpleasant, wearying experience.

We modern neo-fins are spoiled. It will take us years to get used to living in the elements, accepting whatever nature sends our way, without complaining or making ambitious plans to change the way things are.

That human side of us must be allowed to fade away.

PEEPOE

She made her break around midmorning the next day.

Zhaki was sleeping off a hangover near a big mat of driftweed, and Mopol was using the sled to harass some unlucky penguinlike seabirds, who were trying to feed their young by fishing near the island's lee shore. It seemed a good chance to slip away, but Peepoe's biggest reason for choosing this moment was simple. Diving deep below the thermal layer, she found that the distant rumble had peaked, and appeared to have turned away, diminishing with each passing hour.

It was now, or never.

Peepoe had hoped to steal something from the sled first. A utensil harness perhaps, or a breather tube, and that was just for practical reasons. In normal life, few neo-dolphins spent a single day without using cyborg tools, controlled by cable links to the brain's temporal lobes. But for months now her two would-be "husbands" hadn't let her come to anything at all! The neural tap behind her left eye ached from disuse.

Unfortunately, Mopol nearly always slept on the sled's saddle, barely ever leaving except to eat and defecate.

He'll be desolated when the speeder finally breaks down, she thought, taking some solace from that.

So the decision was made, and Ifni's dice were cast. She set out with all the gifts and equipment nature provided-completely naked- into an uncharted sea.

For Peepoe, escaping captivity began unlike any human novel or fantasholo. In such stories, the heroine's hardest task was normally the first part, sneaking away. But here Peepoe faced no walls, locked rooms, dogs, or barbed wire. Her "guards" let her come and go as she pleased. In this case, the problem wasn't getting started, but winning a big enough head start before Zhaki and Mopol realized she was gone.

Swimming under the thermocline helped mask her movements at first. It left her vulnerable to detection only when she went up for air. But she could not keep it up for long. The *Tursiops* genus of dolphins weren't deep divers by nature, and her speed at depth was only a third what it would be skimming near the surface.

So, while the island was still above the horizon behind her, Peepoe stopped slinking along silently below and instead began a dash for freedom in earnest-racing toward the sun with an endless series of powerful back archings and fluke-strokes, going only occasionally to check her bearings against the far-off droning sound.

It felt exhilarating to slice through the wavetops, flexing her body for all it was worth. Peepoe remembered the last time she had raced along this way-with Kaa by her side-when Jijo's waters had seemed warm, sweet, and filled with possibilities.

Although she kept low-frequency sonar clickings to a minimum, she did allow herself some short-range bursts, checking ahead for obstacles and toying with the surrounding water, bouncing reflections off patches of sun-driven convection, letting the echoes wrap themselves around her like rippling memories. Peepoe's sonic transmissions remained soft and close-no louder than the vibrations given off by her kicking tail-but the patterns grew more complex as her mind settled into the rhythms of movement. Before long, returning wavelets of her own sound meshed with those of current and tide, overlapping to make phantom shapes and images.

Most of these were vague shapes, like the sort that one felt swarming at the edges of a dream. But in time several fell together, merging into something larger. The composite echo seemed to bend and thrust when she did-as if a spectral companion now swimming

nearby, where her squinting eye saw only sunbeams in an empty sea.

Kaa, she thought, recognizing a certain unique zest whenever the wraith's bottle nose flicked through the waves.

Among dolphins, you did not have to die in order to come back as a ghost . . . though it helped. Sometimes the only thing required was vividness of spirit-and Kaa surely was, or had been, vivid.

Or perhaps the nearby sound-effigy fruited solely from Peepoe's eager imagination.

In fact, dolphin logic perceived no contradiction between those two explanations. Kaa's essence might really be there-and not be---at the same time. Whether real or mirage, she was glad to have her lover back where he belonged-by her side.

I've missed you, she thought.

Anglic wasn't a good language for phantoms. No human grammar was. Perhaps that explained why the poor bipeds so seldom communed with their beloved lost.

Peepoe's visitor answered in a more ambiguous, innately delphin style.

** Till the seaweed's flower*

** Shoots forth petals made of moonbeams*

** I will swim with you **

Peepoe was content with that. For some unmeasured time, it seemed as if a real companion, her mate, swam alongside, encouraging her efforts, sharing the grueling pace. The water divided before her, caressing her flanks like a real lover.

Then, abruptly, a new sound intruded. A distant grating whine that threatened to shatter all illusions.

Reluctantly, she made herself clamp down, silencing the resonant chambers surrounding her blowhole. As her own sonar vibrations ceased, so did the complex echoes, and her phantom comrade vanished. The waters all around seemed to go black as Peepoe concentrated, listening intently.

There it was.

Coming from behind her. Another engine vibration, this one all too familiar, approaching swiftly as it skimmed across the surface of the sea.

They know, she realized. *Zhaki and Mopol know I'm gone, and they're coming after me.*

Peepoe wasted no more time. She bore down with her flukes, racing through the waves faster than ever. Stealth no longer mattered. Now it was a contest of speed, endurance, and luck.

TKETT

It took him most of a day and the next night to get near the source of the mysterious disturbance, pushing his power as fast as he dared. Makanee had ordered Tkett not to overstrain the engine, since there would be no replacements when it wore out.

"Just be careful out there," the elderly dolphin physician had urged, when giving permission for this expedition. *"Don't mess with it. Just come back and report. We'll discuss where to go from there."*

Tkett did not have disobedience in mind. At last not explicitly. But if it really was a starship making the low, unceasing grumbling noise, a host of possibilities presented themselves. What if it proved possible to board the machine and take over makeshift controls that *Streaker's* crew had put in place?

Even if it can't fly, it's cruising around the ocean. I could use it as a submersible and visit the Great Midden.

That vast undersea trench was where the Buyur had dumped most of the dross of their mighty civilization, when it came for them to abandon Jijo and return its surface to fallow status. After packing up to leave, the last authorized residents of the planet used titanic machines to scrape away their cities, then sent all their buildings and other works tumbling into an abyss where the slow grinding of tectonic plates would draw the rubble inward, melting and reshaping new ores to be used by others in some future era, when Jijo was opened for legal settlement once again.

To an archaeologist, the Midden seemed the opportunity of a lifetime.

I'd learn so much about the Buyur! We might examine whole classes of tools that no Earthling has ever seen. The Buyurs were rich and powerful. They could afford the very best in the Civilization of Five Galaxies, while we Terran newcomers only buy the dregs. Even stuff the Buyur threw away-their toys and broken trinkets- could provide valuable data for the Terragens Council.

Tkett wasn't a complete fool. He knew what Makanee and Brookida thought of him.

They consider me crazy to be optimistic about going home. To believe any of us will see Earth again, or let the industrial tang of its waters roll through our open jaws, or once more surf the riptides of Ranga Roa.

Or give a university lecture. Or dive through the richness of a worldwide data network, sharing ideas with a feeble civilization at light-speed. Or hold challenging conversations with others who share your intellectual passions.

He had signed aboard *Streaker* to accompany Captain Creideiki and a neo-dolphin intellectual elite in the greatest mental and physical adventure any group of cetaceans ever faced-the ultimate test of their new sapient race. Only now Creideiki was presumed dead, and Tkett had been ejected by *Streaker's* new commander, exiled from the ship at its worst moment of crisis. Makanee might feel complacent over being put ashore as "nonessential" personnel, but it churned Tkett's guts to be spewed into a warm, disgustingly placid sea while his crewmates were still out there, facing untold dangers among the bleeding stars.

A voice broke in from the outside, before his thoughts could spiral any further toward self-pity.

#give me give me GIVE ME

#snout-smacking pleasure

of a good fight!

That shrill chatter came from the sled's rear compartment, causing Tkett's flukes to thrash in brief startlement. It was easy to forget about his quiet passenger for long stretches of time. Chissis spoke seldom, and then only in the throwback protolanguage, Proto-Delphin.

Tkett quashed his initial irritation. After all, Chissis was unwell. Like several dozen other members of the crew, her mind had crumpled under the pressure of *Streaker's* long ordeal, taking refuge in older ways of thought. One had to make allowances, even though Tkett could not imagine how it was possible for anyone to abandon the pleasures of rationality. No matter how insistently one heard the call of the Whale Dream.

After a moment, Tkett realized that her comment had been more than just useless chatter. Chissis must have sensed some meaning from his sonar clicks. Apparently she understood and shared his resentment over Gillian Baskin's decision to leave them behind on Jijo.

"You'd rather be back in space right now, wouldn't you?" he asked. "Even though you can't read an instrument panel anymore? Even with Jophur battleships and other nasties snorting down *Streaker's* neck, closing in for the kill?"

His words were in Underwater Anglic. Most of the reverted could barely comprehend it anymore. But Chissis squawled from the platform behind Tkett, throwing a sound burst that sang like the sled's engine, thrusting ever forward, obstinately defiant.

smack the Jophur! smack the sharks!

SMACK THEM!

Accompanying her eager-repetitive message squeal, there came a sonar crafted by the fatty layers of her brow, casting a brief veil of illusion around Tkett. He briefly visualized Chissis, joyfully ensconced in the bubble nose of a *lamprey-class* torpedo, personally piloting it on course toward a huge alien cruiser, penetrating all of the cyberdisruptive fields that Galactic spacecraft used to stave off digital guidance systems, zeroing in on her target with all the instinct and native agility that dolphins inherited from their ancestors.

Loss of speech apparently had not robbed some "reverted" ones of either spunk or ingenuity. Tkett sputtered laughter. Gillian Baskin had made a real mistake leaving this one behind! Apparently you did not need an engineer's mind in order to have the heart of a warrior.

"No wonder Makanee let you come along on this trip," he answered. "You're a bad influence on the others, aren't you?"

It was her turn to emit a laugh-sounding almost exactly like his own. A ratchetting raspberry-call that the masters of under-

had left alone. A deeply cetacean shout that defied the sober universe for taking so many things too seriously.

Faster faster FASTER!

Engines call us . . .

offering a ride . . .

Tkett's tail thrashed involuntarily as her cry yanked something deep within. Without hesitating, he cranked up the s motor, sending it splashing through the foamy white-tops, streaking toward a mysterious object whose song filled the sea.

PEEPOE

She could sense Zhaki and Mopol closing in from behind. They might be idiots, but they knew what they wanted and ho pilot their sled at maximum possible speed without frying the bearings. Once alerted to her escape attempt, they cast ahead using machine's deep-range sonar. She felt each loud *ping* like a small bite along her backside. By now they knew exactly where was. The noise was meant to intimidate her.

It worked. / *don't know how much longer I can keep on*, Peepoe thought while her body burned with fatigue. Each bo arching plunge through the waves seemed to take more out of her. No longer a joyful sensation, the ocean's silky embrace bec a clinging drag, taxing and stealing her hard-won momentum, making Peepoe each dram of speed over and over again.

In comparison, the hard vacuum of space seemed to offer a better bargain. What you bought, you got to keep. Even the stayed on trajectory, tumbling ever onward. Space travel tended to promote belief in "progress," a notion that old-style dolp used to find ridiculous, and still had some trouble getting used to.

/ should be fairly close to the sound I was chasing . . . whatever's making it. I'd be able to tell, if only those vermin be me would turn off the damned sonar and let me listen in peace!

Of course the pinging racket was meant to disorient her. Peepoe only caught occasional sonic-glimpses of her goal, and only by diving below the salt-boundary layer, something she did as seldom as possible, since it always slowed her down.

The noise of the sled's engine sounded close. Too damned close. At any moment Zhaki and Mopol might swerve past to her off, then start spiraling inward, herding her like some helpless sea animal while they chortled, enjoying their macho sens power.

!// have to submit. . . bear their punishment . . . put up with bites and whackings till they're convinced I've becom good cow.

None of that galled Peepoe as much as the final implication of her recapture.

/ guess this means I'll have to kill the two of them.

It was the one thing she'd been hoping to avoid. Murder among dolphins had been rare in olden times, and the gen engineers worked to enhance this innate distaste. Anyway, Peepoe had wished to avoid making the choice. A clean geta would have sufficed.

She didn't know how she'd do it. Not yet.

But I'm still a Terragens officer, while they relish considering themselves wild beasts. How hard can it be?

Part of her knew that she was drifting, fantasizing. This might even be the way her subconscious was trying to ration surrendering the chase. She might as well give up now, before exhaustion claimed all her strength.

No! I've got to keep going.

Peepoe let out a groan as she redoubled her efforts, bearing down with intense drives of her powerful tail flukes. Each mor that she held them off meant just a little more freedom. A little more dignity.

It couldn't last, of course. Though it felt exultant and defiant to give it one more hard push, the burst of speed eventu faded as her body used up its last reserves. Quivering, she fell at last into a languid glide, gasping for air to fill her shudde lungs.

Too bad. I can hear it... the underwater thing I was seeking ... not far away now.

But Zhaki and Mopol are closer still. . . .

What took Peepoe some moments to recall was that the salt-thermal barrier deadened sound from what entity was cruising the depths below. For her to hear it now, however faintly, meant that it had to be-

A tremor rocked Peepoe. She felt the waters *bulge* around her, as if pushed aside by some massive creature under the ocean's surface. Realization dawned, even as she heard Zhaki's voice, shouting gleefully only a short distance away.

It's right below me. The thing! It's passing by, down there in the blackness.

She had only moments to make a decision. Judging from cues in the water, it was both very large and very far beneath her. Peepoe felt nowhere near ready to attempt a deep dive while each breath still sighed with ragged pain.

She heard and felt the sled zoom past, spotting her two tormentors sprawled on the machine's back, grinning as they swam by dangerously close. Instinct made her want to turn away and flee, or else go below for as long as her lungs could hold. But neither move would help, so she stayed put.

They'll savor their victory for a little while, she thought, hoping they were confident enough not to use the sled's stuns on her. Anyway, at this short range, what could she do?

It was hard to believe they hadn't picked up any signs of the behemoth by now. Stupid, single-minded males, they concentrated all of their attention on the hunt for her.

Zhaki and Mopol circled around her twice, spiraling slowly closer, leering and chattering.

Peepoe felt exhausted, still sucking air for her laboring lungs. But she could afford to wait no longer. As they approached the final time, she took one last, body-stretching gasp through her blowhole, arched her back, and flipped over to dive nose-first into the deep.

At the final instant, her tail flukes waved at the boys. A gesture that she hoped they would remember with galling regret.

Blackness consumed the light and she plunged, kicking hard to gain depth while her meager air supply lasted. So the darkness welcomed Peepoe. But on passing the boundary layer, she did not need illumination anymore. Sound guided her. The throaty rumble of something huge, moving gracefully and complacently through a world where sunshine never fell.

TKETT

He had several reasons to desire a starship, even one that was unable to fly. It could offer a way to visit the Great Midden, for instance, and explore its wonders. A partly operational craft might also prove useful to the Six Races of Jijo, whose bloody war against Jophur aggressors was said to be going badly ashore.

Tkett also imagined using such a machine to find and rescue Peepoe.

The beautiful dolphin medic-one of Makanee's assistants-had been kidnapped shortly before *Streaker* departed. No one held out much hope of finding her, since the ocean was so vast and the two dolphin felons-Mopol and Zhaki-had an immensity to conceal her in. But that gloomy calculation assumed that searchers must travel by sled. A *ship* on the other hand-even a wreck that had lain on an ocean-floor garbage dump for half a million years-could cover a lot more territory and listen with big underwater sonaphones, combing for telltale sounds from Peepoe or her abductors. It might even be possible to sift the waters for Earthling DNA traces. Tkett had heard of such techniques available for a high price on Galactic markets. Who knew what wonders the fabled Buyur took for granted on their elegant starcraft?

Unfortunately, the trail kept going hot and cold. Sometimes he picked up murmurs that seemed incredibly close, channeled by watery layers that focused sound. Other times they vanished altogether.

Frustrated, Tkett was willing to try anything. So when Chissis started getting agitated, squealing in Primal that the *great beast* prowled to the southwest, he willingly turned the sled in the direction she indicated.

And soon he was rewarded. Indicators began flashing on the control panel, and down his neural-link came a surge connecting the sled to an implanted socket behind his left eye. In addition to a surge of noise, mass displacement anomalies suggested something of immense size was moving ponderously just ahead, and perhaps a hundred miles down.

"I guess we better go find out what it is," he told his passenger, who clicked her agreement.

#go chase go chase go chase ORCAS! #

She let out squawls of laughter at her own cleverness. But minutes later, as they plunged deeper into the sea - listening and peering down the shaft of the sled's probing headlights - Chissis ceased chuckling and became silent as a tomb.

Great Dreamers! Tkett stared in awe and surprise at the object before them. It was unlike any starship he had ever before. Sleek metallic sides seemed to go on and on forever as the titanic machine trudged onward across the sea floor, churning mud with thousands of shimmering, crystalline legs!

As if sensing their arrival, a mammoth hatch began iris-ing open - in benign welcome, he hoped.

No resurrected starship. Tkett began to suspect he had come upon something entirely different.

PEEPOE

Her rib cage heaved.

Peepoe's lungs filled with a throbbing ache as she forced herself to dive ever deeper, much lower than would have been wise, even if she weren't fatigued to the very edge of consciousness.

The sea at this depth was black. Her eyes made out nothing. But that was not the important sense, underwater. Sonar clicks emitted from her brow, grew more rapid as she scanned ahead, using her sensitive jaw as an antenna to sift the reflections.

It's big. . . . she thought when the first signs returned.

Echo outlines began coalescing, and she shivered.

It doesn't sound like metal. The shape . . . seems less artificial than something-

A thrill of terror coursed her spine as she realized that the thing ahead had outlines resembling a gigantic living creature. A huge mass of fins and trailing tentacles, resembling some monster from the stories dolphin children would tell each other at night, secure in their rookeries near one of Earth's great port cities. What lay ahead of Peepoe, swimming along above the canyon floor, seemed bigger and more intimidating than the giant squid who fought *Physeter* sperm whales, mightiest of all the cetaceans.

And yet, Peepoe kept arching her back, pushing hard with her flukes, straining ever downward. Curiosity compelled her. Anyway, she was closer to the creature than the sea surface, where Zhaki and Mopol waited.

I might as well find out what it is.

Curiosity was just about all she had left to live for.

When several tentacles began reaching for her, the only remaining question in her mind was about death.

I wonder who I'll meet on the other side.

MAKANE

The dolphins in the pod-her patients-all woke about the same time from their afternoon siesta, screaming.

Makane and her nurses joined Brookida, who had been on watch, swimming rapid circles around the frightened patients, reverting, preventing any of them from charging in panic across the wide sea. Slowly, they all calmed down from their shared nightmare.

It was a common enough experience back on Earth, when unconscious sonar clicks from two or more sleeping dolphins would sometimes overlap and interfere, creating false echoes. The ghost of something terrifying. That most cetaceans sleep just one brain hemisphere at a time did not help. In a way, that seemed only to make the dissonance more eerie, and the fallacious sound-images more credibly scary.

Most of the patients were inarticulate, emitting only a jabber of terrified Primal squeals. But there were a dozen or so borderline cases who might even recover their full faculties someday. One of these moaned nervously at Tkett and a *city of spells*.

Another one chattered nervously, repeating over and over, the name of Peepoe.

TKETT

Well, at least the machine has air inside, he thought. We can survive here, and learn more.

In fact, the huge underwater edifice-bigger than all but the largest starships-seemed rather accommodating, pulling back metal walls as the little sled entered a spacious airlock. The floor sank in order to provide a pool for Tkett and Chissis to debark from their tight cockpits and swim around. It felt good to get out of the cramped confines, even though Tkett knew that coming inside might be a mistake.

Makanee's orders had been to do an inspection from the outside, then hurry home. But that was when they expected to find one of the rusty little spacecraft that *Streaker's* engineers had resurrected from some sea floor dross-pile. As soon as Tkett saw *this* huge cylindrical thing, churning along the sea bottom on a myriad caterpillar legs that gleamed like crystal stalks, he knew that nothing on Jijo could stand in the way of his going aboard.

Another wall folded aside, revealing a smooth channel that stretched ahead-water below and air above-beckoning the dolphins down a hallway that shimmered as it continued transforming before their eyes. Each panel changed color with the glimmering luminescence of octopus skin, seeming to convey *meaning* in each transient, flickering shade. Chissis thrashed her head nervously as objects kept slipping through seams in the walls. Sometimes these featured a camera lens at the end of an articulated arm, peering at them as they swam past.

Not even the Buyur could afford to throw away something as wonderful as this, Tkett thought, relishing a fantasy of taking this technology home to Earth. At the same time, the mechanical implements of his tool harness quivered, responding to nervous twitches that his brain sent down the neural tap. He had no weapons that would avail in the slightest if the owners of this place proved to be hostile.

The corridor spilled at last into a wide chamber with walls and ceiling that were so corrugated he could not estimate its volume. Countless bulges and spires protruded inward, half of them submerged, and the rest hanging in midair. All were bridged by cables and webbing that glistened like spiderwebs lined with dew. Many of the branches carried shining spheres or cubes or dodecahedrons that dangled like geometric fruit, ranging from half a meter across to twice the length of a bottlenose dolphin.

Chissis let out a squawl, colored with fear and awe.

coral that bites! coral bites bites!

See the critters, stabbed by coral!

When he saw what she meant, Tkett gasped. The hanging "fruits" were mostly transparent. They contained things that moved . . . creatures who writhed or hopped or ran in place, churning their arms and legs within the confines of their narrow compartments.

Adaptive optics in his right eye whirled, magnifying and zooming toward one of the crystal-walled containers. Meanwhile, his brow cast forth a stream of nervous sonar clicks-useless in the air-as if trying to penetrate this mystery with yet another sense. *He doesn't believe it!*

He recognized the shaggy creature within a transparent cage. *Ifni! It's a hoon. A miniature hoon!*

Scanning quickly, he found individuals of other species . . . four-legged urs with their long necks whipping nervously, muscular snakes . . . minuscule traeki that resembled their Jophur cousins, looking like tapered stacks of doughnuts, perched high . . . and tiny versions of wheeled g'Keks, spinning their hubs madly, as if they were actually going somewhere. In fact, every member of the Commons of Six Races of Jijo-fugitive clans that had settled this world illegally during the last two thousand years-could be seen here, represented in lilliputian form.

Tkett's spine shuddered when he made out several cells containing slim bipedal forms. Bantamweight human beings, whose race had struggled against lonely ignorance on old Terra for so many centuries, nearly destroying the world before they finally matured enough to lead the way toward the true sapiency for the rest of Earthclan. Before Tkett's astonished eye, these memories of the patron race were now reduced to leaping and cavorting within the confines of dangling crystal spheres.

PEEPOE

Death would not be so mundane . . . nor hurt in such familiar ways. When she began regaining consciousness, there

never any doubt which world this was. The old cosmos of life and pain.

Peepoe remembered the sea monster, an undulating behemoth of fins, tendrils, and phosphorescent scales, more than a kilometer long and nearly as wide, flapping wings like a manta ray as it glided well above the seafloor. When it reached up to her, she never thought of fleeing toward the surface, where mere enslavement waited. Peepoe was too exhausted by that point and too transfixed by the images- both sonic and luminous-of a true leviathan.

The tentacle was gentler than expected, in grabbing her unresisting body and drawing it toward a widening beaklike mouth. As she was pulled between a pair of jagged-edged jaws, Peepoe had let blackness finally claim her, moments before the end. Her last thought to pass through her head was a Trinary haiku.

** Arrogance is answered
* When each of us is reclaimed.
* Rejoin the food chain!*

Only there turned out to be more to her life, after all. Expecting to become pulped food for huge intestines, she woke up instead, surprised to find herself in another world.

A blurry world, at first. She lay in a small pool, that much was evident. But it took moments to restore focus. Meanwhile, out of the pattern of her bemused sonar clickings, a reflection seemed to mold itself, unbidden, surrounding Peepoe with Trinary philosophy.

** In the turning of life's cycloid,
* Pulled by sun and moon insistence,
* Once a springtime storm may toss you,
* Over reefs that have no channel,
* Into some lagoon untraveled,
* Where strange fishes, spiny-poisoned,
* Taunt you, forlorn, isolated. . .*

It wasn't an auspicious thought-poem, and Peepoe cut it off sharply, lest such stark sonic imagery trigger panic. Trinary fog clung hard, though. It dissipated only with fierce effort, leaving a sense of dire warning in its wake.

Rising to the surface, Peepoe lifted her head and inspected the pool, lined by a riot of dense vegetation. Dense jungle stretched on all sides, brushing the rough-textured ceiling and cutting off small inhabitants, from flying insectoid creatures to clambering things that peered at her shyly from behind sheltering leaves and shadows.

A habitat, she realized. Things lived here, competed, preyed on each other, died, and were recycled in a familiar ongoing synergy. The largest starships often contained ecological life-support systems, replenishing both food and oxygen supplies in a natural way.

But this is no starship. It can't be. The huge shape I saw could never fly. It was a sea beast, meant for the underwater world. It must have been alive!

Well, was there any reason why a gigantic animal could not keep an ecology going inside itself, like bacterial cultures that helped Peepoe digest her own food?

So now what? Am I supposed to take part in all of this somehow? Or have I just begun a strange process of being digested?

She set off with a decisive push of her flukes. A dolphin without tools wasn't very agile in an environment like this. A monkey-boy cousins-humans and chimps-would do better. But Peepoe was determined to explore while her strength lasted.

A channel led out of the little pool. Maybe something more interesting lay around the next bend.

TKETT

One of the spiky branches started moving, bending and articulating as it bent lower toward the watery surface where Chissis waited. At its tip, one of the crystal "fruits" contained a quadrupedal being-an urs whose long neck twisted as it peered about with glittering black eyes.

Tkett knew just a few things about this species. For example, they hated water in its open liquid form. Also the females were normally as massive as a full-grown human, yet this one appeared to be as small as a diminutive urrish male, less than two centimeters from nose to tail. Back in the Civilization of Five Galaxies, urs were known as great engineers. Humans didn't like them for their smell (the feeling was mutual), but interactions between the two starfaring clans had been cordial. Urs weren't among the persecutors of Earthclan.

Tkett had no idea why an offshoot group of urs came to this world, centuries ago, establishing a secret and ill-fated colony on a world that had been declared off-limits by the Migration Institute. As one of the Six Races, they now galloped across Jijo's prairies, tending herds and working metals at forges that used heat from fresh volcanic lava pools. To find one here, under the sea, left him boggled and perplexed.

The creature seemed unaware of the dolphins who watched from nearby. From certain internal reflections, Tkett guessed the glassy confines of the enclosure were transparent only in one direction. Flickering scenes could be made out, played across the opposite internal walls. He glimpsed hilly countryside covered with swaying grass. The little urs galloped along, as if unencumbered and unenclosed.

The sphere dropped closer, and Tkett saw that it was choked with innumerable microscopic *threads* that crisscrossed the chamber. Many of these terminated at the body of the urs, especially the bottoms of her flashing hooves.

Resistance simulators! Tkett recognized the principle, though he had never seen such a magnificent implementation. Even on Earth, humans and chimps would sometimes put on full bodysuits and VR helmets before entering chambers where a million needles made up the floor, each one computer controlled. As the user walked along a fictitious landscape, depicted via goggles he wore, the needles would rise and fall, simulating the same rough terrain underfoot. Each of these small containers apparently operated in the same way, but with vastly greater texture and sophistication. So many tendrils pushing, stroking or stimulating each patch of skin, could feign wind blowing through urrish fur, or simulate the rough sensation of holding a tool . . . perhaps even the delightful rub and tickle of mating.

Other stalks descended toward Tkett and Chissis, holding many more virtual-reality fruits, each one containing a single individual. All of Jijo's sapient races were present, though much reduced in stature. Chissis seemed especially agitated to see so many humans that ran about, or rested, or bent in apparent concentration over indiscernible tasks. None seemed aware of being observed.

It all felt horribly creepy, yet the subjects did not give an impression of lethargy or unhappiness. They seemed vigorous, active and interested in whatever engaged them. Perhaps they did not even know the truth about their peculiar existence.

Chissis snorted her uneasiness, and Tkett agreed. Something felt weird about the way these microenvironments were being paraded before the two of them, as if the mind-or minds-controlling the whole vast apparatus had some point it was trying to make, or some desire to communicate.

Is the aim to impress us?

He wondered about that, then abruptly realized what it must be about.

. . . all of Jijo's sapient races were present. . .

In fact, that was no longer true. Another species of thinking beings now dwelled on this world, the newest one officially sanctioned by the Civilization of Five Galaxies.

Neo-dolphins.

Oh, certainly the reverts like poor Chissis were only partly sapient anymore. And Tkett had no illusions about what Dr. Mak thought of his own mental state. Nevertheless, as stalk after stalk bent to present its fruit before the two dolphins, showing off the miniature beings within-all of them busy and apparently happy with their existence-he began to feel as if he was being wooed.

"Ifni's boss . . ." he murmured aloud, amazed at what the great machine appeared to be offering. "It wants us to become part of all this!"

PEEPOE

A village of small grass huts surrounded the next pool she entered.

Small didn't half describe it. The creatures who emerged to swarm around the shore stared at her with wide eyes, set in skulls less than a third of normal size.

They were humans and hoons, mostly . . . along with a few traeki and a couple of glavers . . . all raises whose full-siblings' cousins lived just a few hundred kilometers away, on a stretch of Jijo's western continent called The Slope.

As astonishing as she found these lilliputians, they stared in even greater awe at her. *I'm like a whale to them*, she realized, noting with some worry that many of them brandished spears or other weapons.

She heard a chatter of worried conversation as they pointed at her long gray bulk. That meant their brains were large enough for speech. Peepoe noted that the creatures' heads were out of proportion to their bodies, making the humans appear rather childlike . . . until you saw the men's hairy, scarred torsos, or the women's breasts, pendulous with milk for hungry babies. Their rapid jabber grew more agitated by the moment.

I'd better reassure them, or risk getting harpooned.

Peepoe spoke, starting with Anglic, the wolfling tongue most used on Earth. She articulated the words carefully with her grossly modified blowhole.

"Hello, f-f-folks! How are you doing today?"

That got a response, but not the one she hoped for. The crowd onshore backed away hurriedly, emitting upset cries. In the time she thought she made out a few words in a time-shifted dialect of Galactic Seven, so she tried again in that language.

"Greetings! I bring you news of peaceful arrival and friendly intentions!"

This time the crowd went nearly crazy, leaping and cavorting in excitement, though whether it was pleasure or indignation seemed hard to tell at first.

Suddenly, the mob parted and went silent as a figure approached from the line of huts. It was a hoon, taller than average among these midgets. He wore an elaborate headdress and cape, while the dyed throat-sac under his chin flapped and vibrated to a sonorous beat. Two human assistants followed, one of them beating a drum. The rest of the villagers then did an amazing thing. They all dropped to their knees and covered their ears. Soon Peepoe heard a rising murmur.

They're humming. I do believe they're trying not to hear what the big guy is saying!

At the edge of the pool, the hoon lifted his arms and began chanting in a strange version of Galactic Six.

"Spirits of the sky, I summon thee by name . . . Kataranga!"

"Spirits of the water, I beseech thy aid . . . Dupussien!"

"By my knowledge of your secret names, I command thee to gather and surround this monster. Protect it in the name of the people of the True Way!"

This went on for a while. At first Peepoe felt bemused, as if she were watching a documentary about some ancient human tribe, or the Prob'shers of planet Horst. Then she began noticing something strange. Out of the jungle, approaching on buzzing wings, there began appearing a variety of insectlike creatures. At first just a few, then more. Flying zigzag patterns toward the chanting shaman, they started gathering in a spiral-shaped swarm.

Meanwhile, ripples in the pool tickled Peepoe's flanks, revealing another convergence of ingathering beasts-this time swimmers- heading for the point of shore nearest the summoning hoon.

I don't believe this, she thought. It was one thing for a primitive priest to invoke the forces of nature. It was quite another to sense those forces *responding* quickly, unambiguously, and with ominous threatening behavior.

Members of both swarms, the fliers and the swimmers, began making darting forays toward Peepoe. She felt several stings on her dorsal fin, and some more from below, on her ventral side.

They're attacking me!

Realization snapped her out of a bemused state.

Time to get out of here, she thought, as more of the tiny native creatures could be seen arriving from all directions.

Peepoe whirled about, sending toward shore a wavelet that interrupted the yammering shaman, sending him scurrying backward with a yelp. Then, in a surge of eager strength, she sped away from there.

TKETT

Just when he thought he had seen enough, one of the crystal fruits descended close to the pool where he waited. Chissis waited, stopping only when it brushed the water, almost even with their eyes. The walls vibrated for a moment . . . then split open!

The occupant, a tiny g'Kek with spindly wheels on both sides of a tapered torso, rolled toward the gap, regarding the pair of dolphins with four eyestalks that waved as they peered at Tkett. Then the creature spoke in a voice that sounded high-pitched but firm, using thickly accented Galactic Seven.

"We were aware that new settlers had come to this world. But imagine our surprise to find that this time they were swimmers, who found us before we found them! No summoning call had to be sent through the Great Egg. No special collectors robots dispatched to pick up volunteers from shore. How clever of you to arrive just in time, only days and weeks before the expected moment when this universe splits asunder!"

Chissis panted nervously, filling the sterile chamber with rapid clicks while Tkett bit the water hard with his narrow jaw.

"I... have no idea what y-y-you're talking about," he stammered in reply.

The miniature g'Kek twisted several eyestalks around each other. Tkett had an impression that it was consulting with some entity elsewhere. Then it rolled forward, unwinding the stalks to wave at Tkett again.

"If an explanation is what you seek, then that is what you shall have."

PEEPOE

The interior of the great leviathan seemed to consist of one leaf-shrouded pool after another, in a complex maze of livable waterways. Soon quite lost, Peepoe doubted she would ever be able to find her way back to the thing's mouth.

Most of the surrounding areas consisted of dense jungle, though there were also rocky escarpments and patches of what looked like rolling grassland. Peepoe had also passed quite a few villages of little folk. In one place an endless series of ramps and flowing bridges had been erected through the foliage, comprising what looked like a fantastic scale-model roller coaster, interspersed amid the dwarf trees. Little g'Keks could be seen zooming along this apparatus of wooden planks and vegetable fibers, swerving and teetering on flashing wheels.

Peepoe tried to glide past the shoreline villages innocuously, but seldom managed it without attracting some attention. Once, a war party set forth in chase after her, riding upon the backs of turtlelike creatures, shooting tiny arrows and hurling curses in quaint-sounding jargon she could barely understand. Another time, a garishly attired urrish warrior swooped toward her from above, straddling a flying lizard whose wings flapped gorgeously and whose mouth belched small but frightful bolts of flame! Peepoe retreated, overhearing the little urs continue to shout behind her, challenging the "sea monster" to single combat.

It seemed she had entered a world full of beings who were as suspicious as they were diminished in size. Several times, shamans and priests of varied races stood at the shore, gesturing and shouting rhythmically, commanding hordes of beelike insects to sting and pursue her until she fled beyond sight. Peepoe's spirits steadily sank . . . until at last she arrived in a broad basin where many small boats could be seen, cruising under brightly painted sails.

To her surprise, this time the people aboard shouted with amazed pleasure upon spotting her, not fear or wrath! With tentative but rising hope, she followed their beckonings to shore where, under the battlements of a magnificently ornate castle, a delegation descended to meet her beside a wooden pier.

Their apparent leader, a human wearing gray robes and a peaked hat, grinned as he gestured welcome, enunciating in an unusually but lilting version of Anglic.

"Many have forgotten the tales told by the First. But we know you, oh noble dolphin! You are remembered for the tales passed down since the beginning! How wonderful to have you come among us now, as the Time of Challenge approaches. In the name of the Spirit Guides, we offer you our hospitality and many words of power!"

Peepoe mused on everything she had seen and heard. *Words, eh? Words can be a good start.*

She had to blow air several times before her nervous energy dispelled enough to speak.

"All right then. Can you start by telling me what in Ifni's name is going on here?"

GIVERS OF WONDER

A Time of Changes comes. Worlds are about to divide.

Galaxies that formerly were linked by shortcuts of space and time will soon be sundered. The old civilization including all the planets you came from-will no longer be accessible. Their ways won't dominate this part of the cosmos anymore.

Isolated, this island realm of one hundred billion stars (formerly known as Galaxy Four) will soon develop its own destiny, fostering a bright new age. It has been foreseen that Jijo will provide the starting seed for a glorious culture, unlike any other. The six . . . and now seven! . . . sapient species who came sneaking secretly to this world as refugees-skulking in order to hide like criminals on a forbidden shore-will prosper beyond all their wildest imagings. They will be cofounders of something great and wonderful. Forerunners of all the starfaring races-may follow in this fecund stellar whirlpool.

But what *kind* of society should it be? One that is a mere copy of the noisy, bickering, violent conglomerate that exists back in "civilized" space? One based on crude so-called sciences? Physics, cybernetics, and biology? They have learned that such obsessions lead to soullessness. A humorless culture, operated by reductionists who measure the cost/benefit ratios of everything and know the value of nothing!

There must be something better.

Indeed, consider how the *newest* sapient races-fresh from uplift-look upon their world with a childlike sense of wonder! What if that feeling could be made to last?

To those who have just discovered it, the *power of speech itself* is glorious. A skill with words seems to hold the potency anyone should ever need! Still heedful of their former animal ways, these infant species often use their faculty of self-expression to perceive patterns that are invisible to older "wiser" minds.

Humans were especially good at this, during the long ages of their lonely abandonment, on isolated Earth. They had many names for their systems of wondrous cause and effect, traditions that arose in a myriad landbound tribes. But nearly all of these systems shared certain traits in common:

- a sense that the world is made of spirits, living in each stone or brook or tree.
- an eager willingness to perceive all events, even great storms and the movements of planets, as having a *personal* relationship with the observer.
- a conviction that nature can be swayed by those favored with special powers of sight, voice, or mind, raising those ones above other mere mortals.
- a profound belief in the power of words to persuade and control the world.

"Magic" was one word that humans used for this way of looking at the universe.

We believe it is a better way, offering drama, adventure, vividness, and romance.

Yet, magic can take many forms. And there is still some dispute over the details. . . .

ALTERNATING VIEWS OF TEMPTATION

Tkett found the explanation bizarre and perplexing at first. How did it relate to this strange submersible machine whose gut was filled with crystal fruit, each containing an intelligent being who leaped about and seemed to feed a fierce passion on things only he or she could see?

Still, as an archaeologist he had some background studying the tribal human past, so eventually a connection clicked in his mind.

"You . . . you are using technology to give each individual a private world! B-but there's more to it than that, isn't there? Are you saying that every hoon, or human, or traeki inside these crystal c-containers gets to cast *magic spells*? They don't just manipulate false objects by hand, and see tailored illusions . . . they also shout incantations and have the satisfaction of watching them come *true*?" Tkett blinked several times, trying to grasp it all. "Take that woman over there." He aimed his rostrum at a nearby cube wherein a female human grinned and pointed amid a veritable cloud of resistance threads.

"If she has an enemy, can she mold a clay figure and stick pins in it to cast a spell of pain?"

The little g'Kek spun its wheels before answering emphatically.

"True enough, oh perceptive dolphin! Of course she has to be creative. Talent and a strong will are helpful. . . she must adhere to the accepted lore of her simulated tribe."

"Arbitrary rules, you mean."

The eye stalks shrugged gracefully. "Arbitrary, but elegant and consistent. And there is another requirement"

"Above all, our user of magic must intensely believe."

Peepoe blinked at the diminutive wizard standing on the nearby dock, in the shadow of a fairy-tale castle.

"You mean people in this place can command the birds and insects and other beasts using words alone?"

She had witnessed it happen dozen of times, but to hear it explained openly like this felt strange.

The gray-cloaked human nodded, speaking rapidly, eagerly. "Special words! The power of secret *names*. That each user must keep closely guarded."

"But-"

"Above all, most creatures will only obey those with inborn talent. Individuals who possess great force of will. Otherwise, if they heeded everybody, where would be the awe and envy that lie at the very heart of sorcery? *Anyone* can do a thing, it soon loses all worth. A miracle palls when it becomes routine.

"It is said that technology used to be like that, back in the Old Civilization. Take what happened soon after Earth humans discovered how to fly. Soon *everybody* could soar through the sky, and people took the marvel for granted. How tragic! That sort of thing does not happen here. We preserve wonder like a precious resource."

Peepoe sputtered.

"But all this-" She flicked her jaws, spraying water toward the jungle and the steep, fleshy cliffs beyond. "All this smacks of technology! That absurd fire-breathing dragon, for instance. Clearly bioengineered! Somebody see this whole thing as . . . as an . . ."

"As an experiment?" the gray-clad mage conceded with a nod. His beard shook as he continued with eager firmness in his piping voice.

"That has never been secret! Ever since our ancestors were selected, from among Jijo's landbound Six Races, to come dwell below the sea in smaller but mightier bodies, we knew that one purpose would be to help the Buyur fine-tune their master plan."

Tkett reared back in shock, churning water with his flukes. He stared at the many-eyed creature who had been explaining this weird chamber-of-miniatures.

"The B-Buyur! They left Jijo half a million years ago. How could they even know about human culture, let alone set up this elaborate-"

"Of course the answer to that question is simple" replied the little g'Kek, peering with several eyestalks from its cracked crystal shell. "Our Buyur lords never left! They have quietly observed and guided this process ever since the first ship of refugees slunk down to Jijo, preparing for the predicted day when natural forces would sever the links between Galaxy Four and the others."

"But-"

"The great evacuation of starfaring clans from Galaxy Four-half an eon ago-made sure that no other techno-sapiens remained in this soon-to-be isolated starry realm. So it will belong to *our* descendants, living in a culture far different from the dreary one our ancestors belonged to."

Tkett had heard of the Buyur, of course-among the most powerful members of the Civilization of Five Galaxies, one of the few elder races known for a sense of humor . . . albeit a strange one. It was said that they believed in *harmless* jokes, that took ages to plan and execute.

Was that because the Buyur found Galactic culture stodgy and stifling? (Most Earthlings would agree.) Apparently they foresaw all of the changes and convulsions that were today wracking the linked starlanes, and began preparing millennia ago for an unparalleled opportunity to put their own stamp on an entirely new branch of destiny.

Peepoe nodded, understanding part of it at last.

"This leviathan . . . this huge organic beast . . . isn't the only experimental container cruising below the waves. There are others! Many?"

"Many," confirmed the little gray-bearded human wizard. "The floating chambers take a variety of forms, each accommodating its own colony of sapient beings. Each habitat engages its passengers in a life that is rich with magic, though in uniquely different ways.

"Here, for instance, we sapient beings experience physically active lives, in a totally real environment. It is as if wild creatures around us who were altered! Surely you have heard that the Buyur were master gene-crafters? In this experimental realm, each insect, fish, and flower knows its own unique and secret *name*. By learning and properly uttering such names, a mage like me can wield great power."

Tkett listened as the cheerful g'Kek explained the complex experiment taking place in the chamber of crystal fruits.

"In *our* habitat, each of us gets to live in his or her own world- one that is rich, varied, and physically demanding, even if it is mostly a computer-driven simulation. Within such an ersatz reality every one of us can be the lead magician in a society or tribe of lesser peers.

Or the crystal fruits can be linked, allowing shared encounters between equals. Either way, it is a vivid life, filled with more excitement than the old way of so-called engineering.

"A life in which the mere act of believing can have power, and wishing sometimes makes things come true!"

Peepoe watched the gray magician stroke his beard while describing the range of Buyur experiments.

"There are many other styles, modes, and implementations being tried out, in scores of other habitats. Some emphasize *g* 'reality,' while others go so far as to eliminate physical form entirely, encoding their subjects as digital personae in wholly computerized worlds."

Downloading personalities. Peepoe recognized the concept. *It was tried back home and never caught on, even though the boosters said it ought to, logically.*

"There is an ultimate purpose to all of these experiments, the human standing on the nearby pier explained, like a proselyte eager for a special convert. "We aim to find exactly the right way to implement a new society that will thrive across the starlanes of Galaxy Four, once separation is complete and all the old hyperspatial transit paths are gone. When this island whirlpool of a hundred billion stars is safe at last from interference by the Old Civilization, it will be time to start our own. This society that is based on a glorious new principle.

"By analyzing the results of each experimental habitat, the noble Buyur will know exactly how to implement a new realm of magic and wonders. Then the age of the true miracles can begin."

Listening to this, Peepoe shook her head.

"You don't sound much like a rustic feudal magician. I just bet you're something else, in disguise.

"Are *you* a Buyur?"

The g'Kek bowed within its crystal shell. "That's a very good guess, my dolphin friend. Though of course the real truth is complicated. A real Buyur would weigh more than a metric ton and somewhat resemble an Earthling frog!"

"Nevertheless you-" Tkett prompted.

"I have the honor of serving as a spokesman-intermediary. . . ."

". . . to help persuade you dolphins-the newest promising colonists on Jijo-that joining us will be your greatest opportunity for vividness, adventure, and a destiny filled with marvels!"

The little human wizard grinned, and Peepoe realized that the others nearby must not have heard or understood a bit of it. Perhaps they wore earplugs to protect themselves against the power of the mage's words. Or else Anglic was rarely spoken of here. Perhaps it was a "language of power."

Peepoe also realized-she was both being tested and offered a choice.

Out there in the world, we few dolphin settlers face an uncertain existence. Makanee has no surety that our little population will survive the next winter, even with help from the other colonists ashore. Anyway, the Six Races have trouble of their own, fighting Jophur invaders.

She had to admit that this offer had tempting aspects. After experiencing several recent Jijo storms, Peepoe could see the attraction of bringing all the other *Streaker* exiles aboard some cozy undersea habitat-presumably one with bigger stretches of water-and letting the Buyur perform whatever technomagic it took to reduce dolphins in size so they would fit their new home. How could that be any worse than the three years of cramped hell they had all endured aboard poor *Streaker*?

Presumably someday, when the experiments were over, her descendants would be given back their true size, after they spent generations learning to weave spells and cast incantations with the best of them.

Oh, we could manage that, she thought. We dolphins are good at certain artistic types of verbal expression. After all, why Trinary but our own special method of using sound to persuade the world? Talking it into assuming vivid sonic echoes and dreamlike shapes? Coaxing it to make sense in our own cetacean way?

The delicious temptation of it all reached out to Peepoe.

What is the alternative? Assuming we ever find a way back to civilization, what would we go home to? A gritty world that at best offers lots of hard work, where it can take half a lifetime just to learn the skills you need to function usefully in technological society.

Real life isn't half as nice as the tales we first hear in storybooks. Everybody learns at some point that it's a disappointing world out there-a universe where good is seldom purely handsome and evil doesn't obligingly identify itself with red glowing eyes. A complex society filled with trade-offs and compromises, as well as committees and political opponents who always have much more power than you think they deserve.

Who wouldn't prefer a place where the cosmos might be talked into giving you what you want? Or where wishing sometimes makes things true?

"We already have two volunteers from your esteemed race," the g'Kek spokesman explained, causing Tkett to quiver in surprise. With a flailing of eyestalks, the wheeled figure commanded that a hologram appear, just above the water's surface.

Tkett at once saw two large male dolphins lying calmly on mesh hammocks while tiny machines scurried all over them spinning webs of some luminescent material. Chissis, long-silent and brooding, abruptly recognized the pair, and showed Primal recognition.

Caught! Caught in nets as they deserved!

Foolish Zhaki-Nasty Mopol!

"Ifni!" Tkett commented. "I think you're right But what's being done to them?"

"They have already accepted our offer," said the little wheeled.. intermediary.

"Soon those two will dwell in realms of holographic and sensual delights, aboard a different experimental station than this one. Their destiny is assured, and let me promise you-they will be happy."

"You're sure those two aren't *here* aboard this vessel, near me?" Peepoe asked nervously, watching Zhaki and Mopol undergo their transformation via a small image that the magician had conjured with a magic phrase and a wave of one hand.

"No. Your associates followed a lure to one of our neighboring experimental cells-to their senses it appeared to be a 'leviathan' resembling one of your Earthling blue whales. Once they had come aboard, preliminary appraisal showed that their personalities will probably thrive best in a world of pure fantasy.

"They eagerly accepted this proposal."

Peepoe nodded, shocked only at her own lack of emotion-either positive or negative-toward this final disposal of her tormentors. They were gone from her life, and that was all she really cared about. Let Ifni decide whether their destination qualified as permanent imprisonment, or a strange kind of heaven.

Well, now they can have harems of willing cows, to their hearts' content, she thought. Good riddance.

Anyway, she had other quandaries to focus on, closer at hand.

"What've you got p-planned for me?"

The gray wizard spread his arms in eager consolation.

"Nothing frightening or worrisome, oh esteemed dolphin-friend! At this point we are simply asking that you choose!

"Will you join us? No one is coerced. But how could anybody refuse? If one lifestyle does not suit you, pick another. Select from a wide range of enchanted worlds, and further be assured that your posterity will someday be among the master welders who establish a new order across a million suns."

Tkett saw implications that went beyond the offer itself. The plan of the Buyur-its scope and the staggering range of ambition-left him momentarily dumbfounded.

They want to set up a whole, galaxy-spanning civilization, based on what they consider to be an ideal way of life. Sometime soon, after this "Time of Changes" has ruptured the old intergalaxy links, the Buyur will be free from any of the old constraints of law and custom that dominated oxygen-breathing civilization for the last billion years.

Then, out of this planet there will spill a new wave of starships, crewed by the Seven Races of Jijo, commanded by great captains, wizards, and kings . . . a mixture of themes from old-time science fiction and fantasy . . . pouring forth toward adventure! Over the course of several ages, they will fight dangers, overcome grave perils, discover and uplift new species. Eventually, the humans and urs and traekis and others will become revered leaders of a galaxy that is forever filled with drama.

In this realm, boredom will be the ultimate horror. Placidity the ultimate crime. The true masters-the Buyur-will see to it that

Like the Great Oz, manipulating levers behind a curtain, the Buyur will use their high technology to provide endless wonder. Ask for dragons? They will gene-craft or manufacture them. Secret factories will build sea monsters and armored mouthed aliens, ready for battle.

It will be a galaxy run by special-effects wizards! A perpetual theme park, whose inhabitants use magic spells instead of engineering to get what they want. Conjurors and monarchs will replace tedious legislatures, impulse will supplant deliberation, and lists of secret names will substitute for physics.

Nor will our descendants ask too many questions, or dare to pull back the curtain and expose Oz. Those who try will have descendants!

Cushioned by hidden artifice, in time people will forget nature's laws.

They will flourish in vivid kingdoms, forever setting forth heroically, returning triumphally, or dying bravely . . . but none asking why.

Tkett mused on this while filling the surrounding water with intense sprays of sonar clicks. Chissis, who had clearly understood much of the g'Kek's convoluted explanation, settled close by, rolling her body through the complex rhythm of Tkett's worried thoughts.

Finally, he felt that he grasped the true significance of it all.

Tkett swam close to the crystal cube, raising one eye until it was level with the small representative of the mighty Buyur.

"I think I get what's going on here," he said.

"Yes?" the little g'Kek answered cheerfully. "And what is your sage opinion, oh dolphin-friend. What do you think of my great plan?"

Tkett lifted his head high out of the water, rising up on churning flukes, emitting chittering laughter from his blowhole. At the same time, a sardonic Trinary haiku floated from his clicking brow.

** Sometimes sick egos*

** foster in their narrow brains*

** Really stupid jokes!*

Some aspects of the offer were galling, such as the smug permanence of Buyur superiority in the world to come. Yet, Peepoe felt tempted.

After all, what else awaits us here on Jijo? Enslavement by the Jophur? Or the refuge of blessed dimness that the sages promise, if we follow the so-called Path of Redemption? Doesn't this offer a miraculous way out of choosing between those two unpalatable destinies?

She concentrated hard to sequester her misgivings, focusing instead on the advantages of the Buyur plan. And there were plenty, such as living in a cosmos where hidden technology made up for nature's mistakes. After all, wasn't it cruel of

Creator to make a universe where so many fervent wishes were ignored? A universe where prayers were mostly answered, all-within the confines of the heart? Might the Buyur plan rectify this oversight for billions and trillions? For all the inhabitants of a galaxy-spanning civilization! Generosity on such a scale was hard to fathom.

She compared this ambitious goal with the culture waiting for the *Streaker* survivors, should they ever make it back home to the other four galaxies, where myriad competitive, fractious races bickered endlessly. Overreliant on an ancient Library of unloving technologies, they seldom sought innovation or novelty. Above all, the desires of individual beings were nearly always subordinated to the driving needs of nation, race, clan, and philosophy.

Again, the Buyur vision looked favorable compared to the status quo.

A small part of her demanded: *Are these our only choices? What if we could come up with alternatives that go beyond simpleminded-*

She quashed the question fiercely, packing it off to far recesses of her mind.

"I would love to learn more," she told the gray wizard. "But what about my comrades? The other dolphins who now live in Jijo? Won't you need them, too?"

"In order to have a genetically viable colony, yes," the spokesman agreed. "If you agree to join us, we will ask you first to go and persuade others to come."

"Just out of curiosity, what would happen if I refused?"

The sorcerer shrugged. "Your life will resume much as it would have, if you had never found us. We will erase all conscious memory of this visit, and you will be sent home. Later, when we have had a chance to refine our message, emissaries will come to visit your pod of dolphins. But as far as you know, you will hear the proposal as if for the first time."

"I see. And again, those who refuse will be memory-wiped . . . and again each time you return. Kind of gives you an advantage in proselytizing, doesn't it?"

"Perhaps. Still, no one is compelled to join against their will." The little human smiled. "So, what is your answer? Will you help convey our message to your peers? We sense that you understand and sympathize with the better world we aim to create. Will you help enrich the Great Stew of Races with wondrous dolphin flavors?"

Peepoe nodded. "I will carry your vision to the others."

"Excellent! In fact, you can start without even leaving this pool! For I can now inform you that a pair of your comrades already reside aboard one of our nearby vessels . . . and those two seem to be having trouble appreciating the wondrous life we offer."

"Not Zhaki and Mopol!" Peepoe pushed back with her ventral fins, clicking nervously. She wanted nothing further to do with them.

"No, no," the magician assured. "Please, wait calmly while we open a channel between ships and all will become clear."

TKETT

"Hello, Peepoe," he said to the wavering image in front of him. "I'm glad you look well. We were all worried sick about you. But I figured when we saw Zhaki and Mopol you must be nearby."

The holo showed a sleek female dolphin, looking exquisite but tired in a jungle-shrouded pool, beside a miniature city. Tkett could tell a lot about the style of "experiment" aboard her particular vessel, just by observing the crowd of natives gathered by the shore. Some of them were dressed as armored knights, riding upon rearing steeds, while gaily attired peasants doffed their caps to passing lords and ladies. It was a far different approach than the crystal fruits that hung throughout *this* vessel's semitransparent receptacles where individuals lived permanently immersed in virtual realities.

And yet, the basic principle was similar.

"Hi, Tkett," Peepoe answered. "Is that Chissis with you? You both doing all right?"

"Well enough, I guess. Though I feel like the victim of some stupid fraternity practical-"

"Isn't it exciting?" Peepoe interrupted, cutting off what Tkett had been about to say. "Across all the ages, visionaries have come up with countless Utopian schemes. But this one could actually w-w-work!"

Tkett stared back at her, unable to believe he was hearing this.

"Oh yeah?" he demanded. "What about free will?"

"The Buyur will provide whatever your will desires."

"Then how about truth!"

"There are many truths, Tkett. Countless vivid subjective interpretations will thrive in a future filled with staggering diversity."

"Subjective, exactly! That's an ancient and d-despicable perversion of the word *truth*, and you know it. Diversity is wonderful all right. There may indeed be many cultures, many art forms, even many styles of wisdom. But *truth* should be about finding what's really real, what's repeatable and verifiable, whether it suits your fancy or not!"

Peepoe sputtered a derisive raspberry.

"Where's the fun in that?"

"Life isn't just about having fun, or getting whatever you want!" Tkett felt his guts roil, forcing sour bile up his esophagus. "Peepoe, there's such a thing as growing up! Finding out how the world actually works, despite the way you think things ought to be. Objectivity means I accept that the universe doesn't revolve around me."

"In other words, a life of limitations."

"That we overcome with knowledge! With new tools and skills."

"Tools made of dead matter, designed by committees, mass-produced and sold on shop counters."

"Yes! Committees, teams, organizations, and enterprises, all of them made up of individuals who have to struggle every day with their egos in order to cooperate with others, making countless compromises along the way. It ain't how things happen in a child's fantasy. It's not what we yearn for in our secret hearts, Peepoe. I know that! But it's how adults get things done."

"Anyway, what's wrong with buying miracles off a shop counter? So we take for granted wonders that our ancestors would've given their tail fins for. Isn't that what they'd have wanted for us? You'd prefer a world where the best of everything is kept reserved for wizards and kings?"

Tkett felt a sharp jab in his side. The pain made him whirl, still bitterly angry, still flummoxed with indignation.

"What is it!" he demanded sharply of Chissis, even though the little female could not answer.

She backed away from his bulk and rancor, taking a snout-down submissive posture. But from her brow came a brief flash of caustic Primal.

idiot idiot idiot idiot

idiots keep talking human talk-talk

while the sea tries to teach

Tkett blinked. Her phrasings were sophisticated, almost lucid. In fact, it was a lot like a simple Trinary chiding-poem, the dolphin mother might use with her infant.

Through an act of hard self-control, he forced himself to consider.

While the sea tries to teach . . .

It was a common dolphin turn of phrase, implying that one should listen *below* the surface, to meanings that lay hidden.

He whirled back to examine the hologram, wishing it had not been designed by beings who relied so much on sight, and ignored the subtleties of sound transmission.

"Think about it, Tkett," Peepoe went on, as if their conversation had not been interrupted. *"Back home, we dolphins are the youngest client race of an impoverished, despised clan, in danger of being conquered or rendered extinct at any moment. Yet now we're being offered a position at the top of a new pantheon, just below the Buyur themselves."*

"What's more, we'd be good at this! Think about how dolphin senses might extend the range of possible magics. Beyond sound-based dreams and imagery. Our curiosity and reckless sense of adventure! And that just begins to hint at the possibilities when we finally come into our own. . . ."

Tkett concentrated on sifting the background. The varied pulses, whines and clicks that melted into the ambience when any neo-dolphin spoke. At first it seemed Peepoe was emitting just the usual mix of nervous sonar and blowhole flutters.

Then he picked out a single, floating phrase . . . in ancient Primal . . . that interleaved itself amid the earnest lull of sapient speech.

sleep on it sleep on it sleep on it sleep on it

At first the hidden message confused him. It seemed to support the rest of her argument. So then why make it secret? Then another meaning occurred to him. Something that even the puissant Buyur might not have thought of.

PEEPOE

Her departure from the habitat was more gay and colorful than her arrival.

Dragons flew by overhead, belching gusts of heat that were much friendlier than before. Crowds of boats, ranging from canoes to bejeweled galleys pulled by sweating oarsmen, accompanied Peepoe from one pool to the next. Ashore, local wizards performed magnificent spectacles in her honor, to the awed wonder of gazing onlookers, while Peepoe swam gently amid formations of fish whose scales glittered unnaturally bright.

With six races mixing in a wild variety of cultural styles, each village seemed to celebrate its own uniqueness in a profusion of architectural styles. The general attitude seemed both proud and fiercely competitive. But today all feuds, quests, and military campaigns had been put aside in order to see her off.

"See how eagerly we anticipate the success of your mission," the gray magician commented as they reached the throne chamber. In a starship, this space would be set aside for an airlock, chilly and metallic. But here, the breath of a living organism sighed all around them as the great maw opened, letting both wind and sunshine come suddenly pouring through.

Nice of them to surface like this, sparing me the discomfort of a long climb out the abyss.

"Tell the other dolphins what joy awaits them!" the little mage shouted after Peepoe as she drifted past the open jaws, into the light.

"Tell them about the vividness and adventure! Soon days of experimentation will be over, and all of this will be full-sized, with the universe lying before us!"

She pumped her flukes in order to rear up, looking back at the small gray figure in a star-spangled gown, who smiled with his arms spread wide, causing swarms of obedient bright creatures to hover above his head, converging to form a living halo.

"I will tell them," she assured.

Then Peepoe whirled and plunged into the cool sea, setting off toward a morning rendezvous.

TKETT

He came fully conscious again, only to discover with mild surprise that he was already swimming fast, leaping and diving through the ocean's choppy swells, propelled by powerful, rhythmic fluke-strokes. Under other circumstances it might have been disorienting to wake up in full motion. Except that a pair of dolphins flanked Tkett, one on each side, keeping perfect synchrony with his every arch and leap and thrust. That made it instinctively easy to literally swim in his sleep.

How long has this been going on?

He wasn't entirely sure. It felt like perhaps an hour or two. Perhaps longer.

Behind him, Tkett heard the low thrum of a sea sled's engine, cruising on low power as it followed the three of them like an autopilot.

Why aren't we using the sled? he wondered. Three could fit, in a pinch. And that way they could get back to Makara quicker, to report that . . .

Stale air exchanged quickly for fresh as he breached, performing each move with flawless precision, even as his mind reeled with unpleasant confusion.

. . . to report that Mopol and Zhaki are dead.

We found Peepoe, safe and well, wandering the open ocean.

As for the "machine" noises we were sent to investigate . . .

Tkett felt strangely certain there was a story behind all that. A story that Peepoe would explain later, when he felt the time was right.

Something wonderful, he recited, without quite knowing why. A flux of eagerness seemed to surge out

nowhere, priming Tkett to be receptive when she finally told everyone in the pod about the good news. He could not tell why, but Tkett felt certain that more than just the sled was following behind them.

"Welcome back to the living," Peepoe greeted in crisp Underwater Anglic, after their next breaching.

"Thanks I . . . seem to be a bit muddled right now."

"Well, that's not too surprising. You've been half-asleep for a long time. In fact, one might say you *half* slept through something really important."

Something about her words flared like a glowing spark within him—a triggered release that jarred Tkett's smooch pace through the water. He reentered the water at a wrong angle, smacking his snout painfully. It took a brief struggle to get back in place between the two females, sharing the group's laminar rhythm.

/ . . . slept. I slept on it.

Or rather, half of him had done so.

It slowly dawned on him why that was significant.

There aren't many water-dwellers in the Civilization of Five Galaxies, he mused, reaching for threads that had lain covered under blankets of repose. */ guess the Buyur never figured . . .*

A shiver of brief pain lanced from right to left inside his skull, as if a part of him that had been numb just came to life.

The Buyur!

Memories flowed back unevenly, at their own pace.

They never figured on a race of swimmers discovering their experiments, hidden for so long under Jijo's ocean waves. They had no time to study us. To prepare before the encounter.

And they especially never took into account the way a cetacean's brain works.

An air-breathing creature who lives in the sea has special problems. Even after millions of years evolving for a wet realm, dolphins still faced a never-ending danger of drowning. Hence, sleep was no simple matter.

One way they solved the problem was to sleep one brain hemisphere at a time.

Like human beings, dolphins had complex internal lives, made up of many temporary or persistent sub-personas that must somehow reconcile under an overall persona. But this union was made even more problematic when human genetic meddlers helped turn fallow dolphins into a new sapient race. All sorts of quirks and problems were rooted in the hemispheric divide. Sometimes information stored in one side was frustratingly hard to get at from the other.

And sometimes that proved advantageous.

The side that knew about the Buyur—the one that had slept while amnesia was imposed on the rest—had much more language ability than the other half of Tkett's brain. Because of this, only a few concepts could be expressed in words at first. Instead, Tkett had to replay visual and sonic images, reinterpreting and extrapolating them, holding a complex conversation of inquiry between two sides of his whole self.

It gave him a deeper appreciation for the problems—and potential—of people like Chissis.

I've been an unsympathetic bastard, he realized.

Some of this thought emerged in his sonar echoes as an unspoken apology. Chissis brushed against him the next time her bodies flew through the air, and her touch carried easy forgiveness.

"So," Peepoe commented when he had taken some more time to settle his thoughts, "is it agreed what we'll tell Makanee?"

Tkett summed up his determination.

"We'll tell everything . . . and then some!"

Chissis concurred.

Tell them tell them

Orca-tricksters

Promise fancy treats

But take away freedom!

Tkett chortled. There was a lot of Trinary elegance in the little female's Primal burst-a transition from animal-like emotion squawks toward the kind of expressiveness she used to be so good at, back when she was an eager researcher and poet, before three years of hell aboard *Streaker* hammered her down. Now a corner seemed to be turned. Perhaps it was only a matter of time till this crewmate returned to full sapiency . . . and all the troubles that would accompany that joy.

"Well," Peepoe demurred, "by one way of looking at things, the Buyur seem to be offering us more freedom. Our descendants would experience a wider range of personal choices. More power to achieve their wishes. More dreams that would come true."

"As fantasies and escapism," Tkett dismissed. "The Buyur would turn everybody into egotists ... solipsists! In the real world, you have to grow up eventually, and learn to negotiate with others. Be part of a culture. Form teams and partnerships. Ifni, what does it take to have a good *marriage*? Lots of hard work and compromises, leading to something better and more complicated than either person could've imagined!"

Peepoe let out a short whistle of surprise.

"Why, Tkett! In your own prudish, tight-vented way, I do believe you're a romantic."

Chissis shared Peepoe's gentle, teasing laughter, so that it penetrated him in stereo, from both sides. A human might have blushed. But dolphins can barely conceal their emotions from each other, and seldom try.

"Seriously," he went on. "I'll fight the Buyur because they would keep us in a playpen for eons to come, denying us the right to mature and learn for ourselves how the universe ticks. Magic may be more romantic than science. But science is *honest*. . . and it works.

"What about you, Peepoe? What's your reason?"

There was a long pause. Then she answered with astonishing vehemence.

"I can't stand all that *kings and wizards* dreck! Should somebody rule because his father was a pompous royal? Should all the birds and beasts and fish obey you just because you know some secret words that you won't share with others? Or on account of the fact that you've got a loud voice and your egotistic *will* is bigger than others'?"

"I seem to recall we fought free of such idiotic notions ages ago, on Earth . . . or at least humans did. They never would've helped us dolphins get to the stars if they hadn't broken out of those sick thought patterns first.

"You want to know why I'll fight them, Tkett? Because Mopol and Zhaki will be right at home down there-on the Buyur, them dreaming he's Superman, and the other one getting to be King of the Sea."

The three dolphins swam on, keeping pace in silence while Tkett pondered what their decision meant. In the likelihood, resistance was going to be futile. After all, the Buyur were overwhelmingly powerful and had been preparing for a million years. Also, the incentive they were offering would make all prior temptations pale in comparison. Among the Six Races ashore-and the small colony of dolphins- many would leap to accept, and help make the new world of *magical wonder* compulsory.

We've never had an enemy like this before, he realized. One that takes advantage of our greatest weakness, by offering us what we want. They make all our dreams come true.

Of course there was one possibility they hadn't discussed. That they were only seeing the surface layers of a much more complicated scheme . . . perhaps some long and desperately unfunny practical joke.

It doesn't matter, Tkett thought. We have to fight this anyway, or we'll never grow strong and wise enough to "get" them. It's a joke. And we'll certainly never be able to pay the Buyur back, in kind. Not if they control all the hidden levers in Oz.

For a while their journey fell into a grim mood of hopelessness. No one spoke, but sonar clicks from all three of them combined and diffused ahead. Returning echoes seemed to convey the sea's verdict on their predicament.

No chance. But good luck anyway.

Finally, little Chissis broke their brooding silence, after arduously spending the last hour composing her own Trinary philosophy glyph.

In one way, it was an announcement-that she felt ready to return to the struggles of sapiency.

At the same time, the glyph also expressed her manifesto. For it turned out that she had a different reason for choosing to fight the Buyur. One that Tkett and Peepoe had not expressed, though it resonated deep within.

* *Both the hazy mists of dreaming,*

* *And the stark-clear shine of daylight,*

- * *Offer treasures to the seeker,*
* *And a trove of valued insights.*
- * *One gives open, honest knowledge.*
* *And the skill to achieve wonders.*
- * *But the other (just as needed!)*
* *Fills the soul and sets hearts a'stir.*
- * *What need then for ersatz magic?*
* *Or for contrived disney marvels?*
- * *God and Ifni made a cosmos.*
* *Filled with wonders . . . let's go live it!*

Peepoe sighed appreciatively.

"I couldn't have said it better. Screw the big old frogs! We'll make magic of our own."

They were tired and the sun was dropping well behind them by the time they caught sight of shore, and heard dolphins chattering in the distance. Still, all three of them picked up the pace, pushing ahead through Jijo's silky waters.

Despite all the evidence of logic and their senses, the day still felt like morning.

Afterword

I seldom write two space-oriented "universe" books in a row. There are so many possible settings and situations stories, and I like especially to intersperse more "grown-up" novels set on Earth, in near-plausible futures. Still, my Uplift Series of far-future space tales proved popular enough to draw me into a recent trilogy-*Brightness Reef*, *Infinity's Shore*, and *Heaven's Reach*. Added to three earlier novels-*Sundiver*, *Star tide Rising*, and *The Uplift War*-they form a cluster of adventure in the unabashedly proud space-opera tradition . . . though I hope with some ideas mixed in with all the dash and sci-fi elan.

At one level, these works deal with the moral, scientific, and emotional implications of "uplift"-the genetic engineering of other animals to bring them into our civilization with human-equivalent powers of thought. Many other authors (e.g. H.G. Wells, Pierre Boulle, Mary Shelley, and Cordwainer Smith) dealt with this general concept before, but they all approached it in nearly the same way, by assuming the process would be abused-that the humans bestowing this boon would be mad, and would spoil things by establishing a cruel slave-master relationship with their creations.

Now of course that *is* one possible (and despicable) outcome. Those were good stories with wholesome moral messages. But that vein is overworked, so I chose a different tack. What if we someday begin modifying higher animals-and I think we clearly will-guided by the morality of modern liberal society? Filled with stylish hypertolerance and guilt-ridden angst, would we be in danger of killing our clients with *kindness*? More important, these new kinds of sapient beings would face real problems even if they were treated well. Adjustment would be hard. One needn't picture slavery in order to sympathize with their plight.

Pondering the notion of uplift, it occurred to me how obvious the process might seem to alien beings who have traveled the stars for eons, encountering countless presapient life-forms and giving each one a boost, creating new generations of starfarers who would then do the same for others, and so on. The resulting image of a galaxy-spanning culture enthralled by progress would have great advantages, but perhaps would lead also to a kind of stultified cultural conservatism- an obsession with the past.

Now suppose a young clan of Earthlings- not only humans, but also uplifted dolphins and chimps-encountered such a vast, ancient civilization. How would the newcomers be treated? How would we upstarts react?

Too many science-fictional scenarios assume states of unexplained disequilibrium, in which exploring humans happen to emerge just in time to bump into others out there at exactly the right level to be interesting competitors or allies. In fact, the normal state of affairs will be one of *equilibrium*-an equilibrium of law, or perhaps death. We may be the First Race, as I discuss in my story, "The Crystal Spheres," or very late arrivals, as depicted in the *Uplift* books. Either way, we're unlikely to meet aliens as equals.

My second motivation in this series was ecological. What we're doing to our Earth makes me fear there may already have been "brushfire" ecological holocausts across the galaxy. The common science-fictional scenario depicts eager settlers shouting, "Let's go fill the universe!" The wild frontier is a very satisfying image, but thoughtless expansion might create ecowastelands within only a few years. If this has already happened a few times, it would help to explain the apparent emptiness that scientists now observe, in which the galaxy seems to have few, if any, other voices. This pattern might be avoided if something regulated the way colonists treat planets, forcing them to consider the long term. The Uplift universe presents one way this might happen. For all of their inscrutability and occasional nastiness, my Galactics set a high priority to preserving planets, habitats, and potential for new sapient life. The result is a noisy, bickering universe, but one filled with much more diversity than there otherwise might have been.

Of course, much of the fun has been trying to get into the heads of neo-dolphin or -chimp characters. The uplift concept makes this a nifty authorial exercise. When characters seem just a bit too human, that is a result (naturally) of both the genetic and cultural measures that were taken to make them members of Earth culture. But from the safe ground I've enjoyed exploring outward, harkening to older and more natural cetacean and simian instincts, both ennobling ones and those that might embarrass a proud sapient being-the way ghosts of ancient prehumanity sometimes trouble men and women in the modern era. In neo-dolphins, especially, I tried to combine the latest scientific facts and models of cetacean cognition with my own imaginative extrapolations of their "cultural" and emotional life.

Finally, like any good yarn, each story in the Uplift universe deals with some issue of good and evil-or the murky realm between. One that I've been confronting lately is the insidious and arrogant, but all too commonplace, assumption that *words* are more important than *actions*.

For centuries there has been a running conflict between those who believe that ideas are inherently dangerous, or toxic, and those on the other hand who propose that we can raise bold children into mature adults, able to evaluate any notion skeptically, on its merits. Even today, there are those in all political wings who feel that some elite (of the left or the right) should protect the masses from dangerous images or impressions. The same people often preach that "to think a thing is the same as doing it."

You see a connection to this in the revival of "magic" in fantasy literature. Magical protagonists are nearly always better, stronger, and more powerful than other characters *not* because they earned their status through preparation, or merit, or argument, but because of some intrinsic mystical power or force, setting them above other mortals. In these fantasy societies, power is either inherited or rooted in the *Übermensch's* overwhelming ego, coercing nature to bend to his force of will. Spurned or forgotten is the cooperative effort of skilled professionals that has wrought real wonders of science and liberty in this century. Wielders of magical words are portrayed as better than mere shapers of matter, especially when those words are *secret* words, all-powerful and (of course) never to be shared with mere ignorant peasants. This kind of literature rejects the egalitarian thrust of Western Civilization, reverting to older traditions that praised and excused the power elites in every other civilization.

In my story "Temptation"-an offshoot adventure from events depicted in *Infinity's Shore*-we confronted that old malignant notion, the ever-lurking temptation of *wishful thinking*. As the dolphin characters conclude, it is possible to mix science and art. We can combine honesty with extravagant self-expression. We are not limited beings.

But far too much harm has been done by human beings who decide that persuasion is the only thing that matters. Everything isn't subjective. Reality also matters. *Truth* matters. It is still a word with meaning.

-David