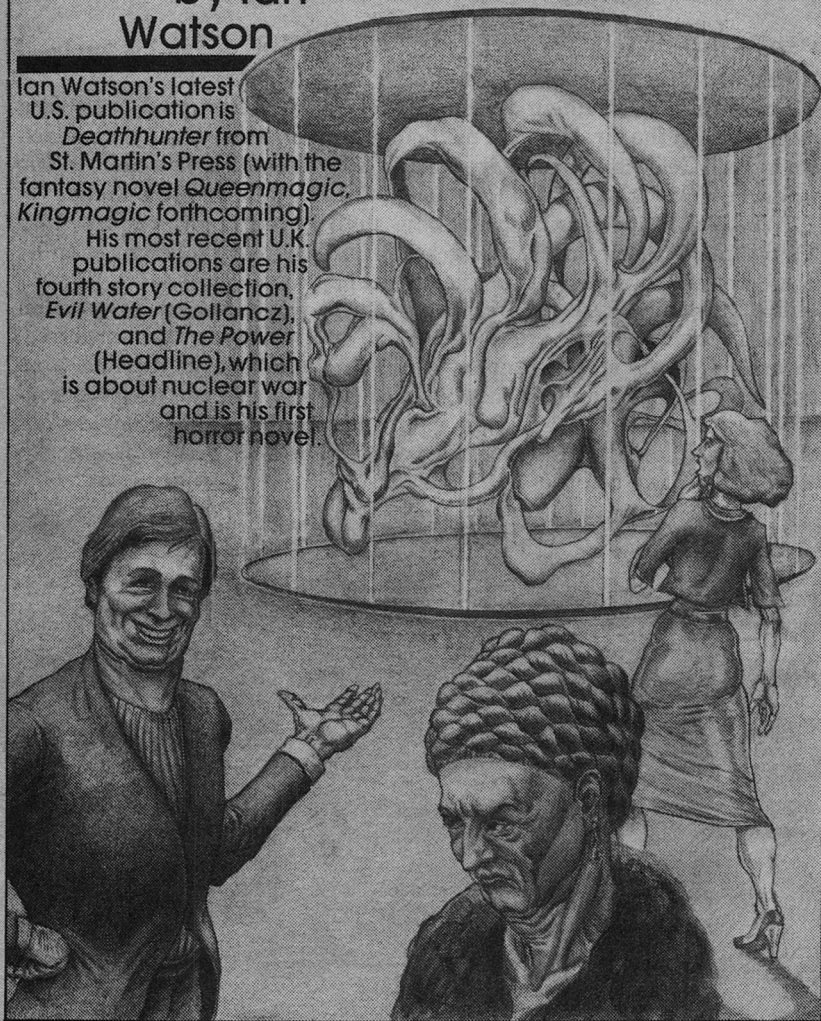


HYPERZOO

by Ian
Watson

Ian Watson's latest U.S. publication is *Deathhunter* from St. Martin's Press (with the fantasy novel *Queenmagic*, *Kingmagic* forthcoming).

His most recent U.K. publications are his fourth story collection, *Evil Water* (Gollancz), and *The Power* (Headline), which is about nuclear war and is his first horror novel.



art: Anthony Bari

"And this," said Zoo Director Riggers, "is a hypertiger. We call it a tiger by analogy with three-dimensional creatures. It's a fierce carnivore. We believe its habits are solitary. It's the tiger of the four-dimensional world."

"Doesn't look much like a tiger to me," drawled Mrs. Tarkington-Svensen, whose late husband's foundation had funded this new wing of the zoo. "In fact it looks like nothing so much as a jumble of gooey orange tubes. Like some stupid bit of modern sculpture."

Harry Svensen's tax-write-off bounty had also endowed the Museum of Contemporary Conceptual Sculpture. Unfortunately the perceptive Mr. Svensen had died of a heart attack just the month before, leaving control of the bulk of his fortune to his recently acquired fifth wife, Adelle Tarkington, about whom he had not nearly been as perceptive. Except externally; she'd been a beauty queen, not recently to be sure, but not in olden days either. She was still a golden-blond, tanned, and well-tended memorial to former glories.

"At least it's orange, Adelle," pointed out Sonya Svensen, teenage daughter of Harry's third marriage who had exercised her child-charter rights by electing to stay on with him through his fourth marriage to an ex-geisha Japanese lady conservationist and designer of avant-garde topological netsuke.

"Tigers are orange, sort of," said Sonya.

"I," proclaimed Mrs. T-S, "smell a rat."

Actually there was no smell to speak of in this particular animal house apart from a crackle of ozone produced by the glow-bars of the enormous cages. Did Mrs. T-S imagine that Riggers was mounting some equally enormous lucrative hoax and had in fact borrowed some mobile pneumatic conceptual art to stick in these beast pens?

"I do not believe these objects are animals from this fanciful Fourworld the university domeheads say they have dreamed up." (She wasn't very respectful about scientists.) "I think this thing is hollow. Yes, hollow, that's it."

"Hollow?" Riggers looked puzzled. "Obviously there'll be a certain amount of hollowness, else how could the hypertiger eat and excrete?"

Mrs. T-S wrinkled her nose disapprovingly at his mention of excretion. She considered herself a fine lady, and high society tended to agree.

"Analogically, that's to say," Riggers hastened to add. "I mean, no 3-D animal is solid all the way through."

"Are you deliberately misunderstanding me, Dr. Riggers? Are you trying to make a fool of me?"

"Adelle means it's a *holo-graph*," whispered Sonya. "I think."

Nothing wrong with Mrs. T-S's hearing. "That's what I said: a hollow."

"If she could, well, poke a stick through the bars and, er, nudge it,

she'd know it was for real." Sonya hesitated. "Or would she need to use a 4-D stick to make any impact?"

"You oughtn't to poke sticks through the bars," I said. "Who knows but the hyperfield could short out, and then we'd lose our specimen?"

"Oh I hardly think so," Riggers said hastily to me. "And a security guard isn't exactly qualified to pronounce!"

I *had* taken a quickie course about the Fourworld at the university, but in fact Riggers was right. The subject was still pretty much a mystery to me. Indeed, until the could-be never-never-time when the aforesaid domeheads should discover a method to four-dimensionalize a human being and translate the bold volunteer into the Fourworld, I supposed that domain must remain, of its very essence, a total mystery to almost everyone.

I wondered whether the Profs and Ph.D.s had merely been babbling when they hinted at inserting a person into the Fourworld? What a voyage of exploration, what a safari that would be—through a hyperlandscape where hyperbeasts roamed! The most suitable candidate for explorer might well be a raving nut-case, a certified lunatic whose rapport with our own Threeworld was already totally out of synch.

"In any case nobody should poke captive animals with sticks," said Sonya, changing her tune. "That's medieval, like bear-baiting." She was trying to be helpful, to ensure that her Daddy's pet projects were carried on.

"Quite," agreed Riggers. He sounded relieved. Plainly he was under a strain. Not inconceivably Mrs. T-S could lean on Harry's foundation to withdraw its support. Rumor had it that her lawyers had found some loophole. The hyperfields soaked up a hell of a lot of costly energy, never mind all the other maintenance costs. It was no secret that Mrs T-S nursed a passionate whim to fund the sending of handsome young astronauts, beholden to her, out to the unexplored frontiers of Threespace. Since spaceflight was all Earth-orbit, battle station stuff, those frontiers weren't too far away. If NASA was to be revived, it would take a private sponsor. Mrs. T-S was positive there was life on Mars and Venus and the moons of Jupiter, and couldn't understand why there shouldn't be any four-armed barbarian warriors and green-skinned princesses. She could see herself at a society ball arm in arm with her own doughty spacefaring heroes.

Even I could see that the Fourworld was more exciting—potentially—than Threespace, which simply spread out and out for zillions of miles full of vacuum, bits of rock, and balls of gas.

Potentially. The trouble was that the hyperanimals which the zoo had trapped, whilst utterly weird, didn't exactly turn the populace on as more than a seven-day wonder. How could they, when by definition you

couldn't see more than a bitty part of any of them? Visiting this section of the zoo wasn't as grabbing an experience as goggling at the last few rhino alive in captivity (and alive nowhere else—score a point for pathos). But equally, if our Threeworld's livestock was diving helter-skelter down the drain in the great man-made mass extinction, undoubtedly the ecology of the Fourworld was still bursting at the seams by comparison. So far we had only netted a tiny sample, by no means enough to start talking confidently in terms of species and family trees and 4-D evolution; though Dr. Riggers sometimes pretended so for public relations purposes. This had to be the zoo of the future—if only we could get a better idea of the beasts. At the moment, and perhaps forever, visiting here was like trying to admire some giant Renaissance canvas by peeping through a keyhole which only showed you inches at a time. (Cancel Renaissance. A giant abstract canvas. Jackson Pollock or some such.)

Just then the mass of orange tubes inside the cage began to twitch and pulse, and expand and shift.

"See, it's woken up," said Riggers with forced cheerfulness. "It was resting before. Now it's active."

"How convenient." Mrs T-S sniffed disdainfully, her own vision no doubt locked on a valiant cadet in space armor, bulging muscles of brass, blasting an attacking Jovian crystal-lizard to smithereens.

"I'm sure these supposed creatures can't possibly be pulled here from Mars," she went on. "Mars can't possess creatures like this. It must have, well—"

"Thoats and Zitidars," supplied Sonya. "No, Adelle, Burroughs made those up."

"Or if they are from Mars, the process warps them out of all recognition. Only lets poor bits of them squeeze through. That's why we should explore Mars the proper way. By rocket."

Riggers looked perplexed. "Mars, dear lady?"

"Yes, Mars. Mars is the fourth world. Every child knows that. Earth is the third world."

"Ah . . . Perhaps a slight case of cross purposes here? When we speak about the Threeworld and the Fourworld we're referring in the first case to the world of three dimensions which we inhabit: namely length and breadth and height. 'Fourworld' doesn't refer to the fourth planet. Mars is just another threeworld, part of the threeworld universe."

"Just another?"

"A very special and exciting planet, to be sure! But even so. The Fourworld has an extra dimension, diagonal to those other three we know and love."

"It's like this, Adelle." Sonya waggled her fingers, trying to stick them all out at right angles to each other, but quickly gave up.

Since everyone else was giving lessons to Mrs. T-S, and Riggers now looked distraught, I decided to join in.

I pointed to the nearest glow-bar. "The hyperfield casts a four-dimensional net into the Fourworld, Mrs. Tarkington-Svensen. It snares a fourbeast and pins it down for us, so it can't escape from the cage, though of course the fourbeast isn't all here."

"Are *you*?" she enquired. "Are you all here?"

I laughed politely at her wit. "Most of the fourbeast is still in the Fourworld, which is how it can feed itself, since we can't provide any fourfood and threefood would be no use. That would be like us trying to eat a picture of a meal on a magazine page."

"Why, that's cruel! The poor things could starve!"

All this while, the hypertiger had been expanding and changing configuration. By now it was the size of a real Bengal tiger—apart from the fact that real Bengal tigers went extinct a couple of years previous—and it resembled a spherical rug armed with teeth or claws. This started to roll back and forth, "pacing" the cage. A long pink tentacle or tube appeared near the ball and presently joined up with it. An intestine? What might have been a fourleg put in an appearance, then changed its mind.

It was, of course, hard to be sure of the exact anatomy of a hyperbeast even when you'd seen and filmed all sorts of aspects of it. You couldn't simply stick all your pictures together or even digitize them and feed them into a computer, and bingo. A hypertiger wasn't merely lots more tiger superimposed upon tiger. Like a stack of film transparencies shot from different angles. The beast would have its own unique four-anatomy, evolved by the struggle to survive and breed amidst a whole hyperecology. However, we had once seen what we decided were aspects of its fourjaws, chewing hyperprey to pieces, and another time we had witnessed part of its fourface and foureyes, burning bright. "Tiger" seemed to fit the bill. Approximately. Analogically.

"I mean to say," continued Mrs. T-S, "it's stuck in a trap."

"Ah, but only 3-D slices of it are hampered. It can still hunt in the Fourworld," I assured her. "The geometry's different there. More complicated than here."

Riggers had revived. "Thank you, Jake," he said to me. He turned quickly to Mrs. T-S. "Naturally, we have observed hypercreatures impinging on our own world in the past. At the time we didn't realize what they were. If people glimpse a meaningless shape their brains tend to impose a plausible pattern, to make sense of what they're seeing. All those tales of mythical creatures, dragons, monsters, demons, and UFO phenomena immediately make sense when we realize that people were witnessing an aspect of a hyperanimal intersecting with our own Three-

world as it went about its 4-D business. A UFO would be a hyperbird, or whatever. And now we can genuinely cage this fantastic menagerie! Isn't it wonderful? To be able to see with our own eyes the actual source of basilisks and behemoths, minotaurs and griffins, flying saucers and Bigfeet and abominable snowmen, angels and devils! Isn't that more wonderful than . . ."

Than Jovian crystal-lizards. Than Thoats and Zitidars. But he tailed off, wary of pulling any rugs out too brusquely from under Mrs. T-S's cherished and fanciful dreams. He gestured grandly down the air-conditioned hall paid for by Harry, and which was large enough to house a modest spacefleet under construction, destination Jupiter.

"Let's move along and see what we call a hyperpig, shall we?" He chuckled awkwardly. "Can't have all our cages full of tigers! Big fierce animals are rare, eh?"

It was a fair walk to the next cage. We had to position hyperfields a safe distance apart, which accounted for the great size of the hall. This was a further disincentive to streams of eager visitors, once the first honeymoon rapture was over. Most people like to flip quickly from channel to channel as regards experiences.

While we were walking, Sonya said, "Dr. Riggers? Were angels and abominable snowmen some sort of hyperape? So will there be hyperpeople in the Fourworld too? I mean, we have animals in our own world but we got people as well. Might we see bits of fourpeople as ghosts—appearing then vanishing?"

"I'm *inclined* to doubt that, Miz Svensen." Riggers did his best not to sound patronizing. "You see, the complexities of Fourspace must be such that I doubt you'd get any sort of gratuitous free-ranging speculative intelligence having a look-in evolutionarily. The fourbrain must be pretty fully occupied simply processing the, uh, complexities. Anyway, in our own case the evolution of intelligence was such a set of long-shot random chances that I doubt you'd get any repetition of the process. The odds are way against. Did you know that the eye evolved as an organ independently forty times—but intelligence only evolved *once*? Once! So: hypercreatures, sure. But not hyperhumans. Your ghosts and whatnot are glimpses of hyperbeasts which our minds try to rationalize. Except now we can pin 'em down. Here's our Fourpig."

I guess the ugliest type of pig hitherto known to the human race had got to be the Vietnamese black pig, of which two gross specimens lolled elsewhere in the zoo. However, this 3-D slice of 4-D bacon had the Vietnamese b.p. left at the starting line. Today it was a wallowing cluster of greasy grey hairy sacs. Embedded in the mess was what might have been a giant fly's compound eye, squinting out. Oink.

"Isn't there anything *beautiful* in your zoo?" complained Mrs. T-S.

"Ah well, yes . . . we have what I call the hyperpeacock yonder. Let's go see if it's displaying, hmm?"

Riggers hustled her away diplomatically from the four-oink.

"Er, but Doctor," persisted Sonya, "if you get fourpigs paralleling three-pigs, and so on, why can't you have fourpeople paralleling threepeople?"

"Because those names are just analogies. We don't know enough yet. We need the funding to be able to *four-D* a person to go and take a look. If that's possible. Most things are possible with big enough funding. And then just imagine the possibilities! When the first atom was split people thought it could have no practical applications. Were they wrong! Well hell—if you'll pardon my French, Mrs. Tarkington-Svensen—we already have the core of a 4-D zoo. Maybe in the Four-universe it's easier to travel from planet to planet. Maybe a fourperson in a fourrocket could reach Mars or Jupiter much faster and easier. I mean, the analogies of Mars and Jupiter, so long as those exist. Then you'd switch off the hyperfield, become 3-D again, and land. Never mind Jupiter, we might get to the stars. It all depends on the topology of fourspace, if you'll forgive my being technical—the way it's connected together. Oh yes," he rhapsodized, "I can see hypernauts one day. Hyperastronauts."

"Ah," said Mrs. T-S. "Ah!"

"With enough funding."

The hyperpeacock was a fluttering, waxing and waning mandala of shades of blue. Cobalt, ultramarine, robin's egg, and electric blue. Some streaks of violet, almost ultraviolet. "Eyes" of green. You could easily see how someone spotting that in our sky could think they were watching a UFO.

Whether Mrs. T-S's exclamation of delight related to the visible segment of fourbird, or to the prospect of hyperastronauts stepping out on to one of the larger moons of Jupiter, I never determined. At that moment Sonya—who had been lagging—screamed shrilly.

My gun was in my hand a moment later, though I didn't yet thumb the safety off.

Sonya was staring back at the fourpig pen. Something very large was hovering over the topmost glow-bars, something analogous to a free-floating furry octopus equipped with fat stubby tentacles. Or vaguely analogous to a hairy hand. Which was pulling at the glow-bars, bending them outward, opening a rather large gap.

A second monstrous hyperhand—or aspect thereof—was drifting towards us.

"Something's escaped!" shrilled Mrs. T-S. "Shoot at it! Protect me."

"I don't have fourbullets," I told her.

"I don't care how many you have! Why didn't you load your gun up

properly? You don't have to shoot at each finger." Oh, so she too could see the analogy.

"Let's just *run!*" cried Sonya. Suiting her actions to her words, she scampered away towards the distant exit. "Come *on*, Adelle!" she called back.

Surely nothing had escaped; though the fourpig looked likely to, soon. In which case something had *arrived*—to open our cages.

"Discretion is the better part of—" said Riggers. He caught Mrs. T-S's arm and began urging her along as fast as he could. I paced fast alongside, keeping an eye on the hyperhand behind us; but this seemed to be shrinking, thank goodness.

Oh well, we reached the exit and got out into the ordinary part of the zoo. More modest animal houses, compounds, restaurant, popcorn stall, cityscape beyond with office blocks, university hill to our right. Parties of visiting schoolkids—and ourselves a moment later—were all staring at the shape that bestrode the city.

How to describe it? Can't. There's no good analogy.

I guess in the Fourworld intelligence indeed developed, but in a different class of creatures: more like walking hairy squids, with ever-branching tentacles and frogspawn eyes—though *that* was only an aspect.

Maybe more important: a 4-D world is a hell of a lot larger than a 3-D world. It packs in a whole lot more, and if you could sort of *unfold* it alongside ours—which you can't—it would occupy a far vaster amount of space. The scale's different, quite different.

So the big boys of the Fourworld are noticeably bigger than any human being. Or rhino. Or whale.

What Riggers had in his zoo, I realized, wasn't hypertigers and hyperpigs. The captive creatures had to be bits of, well, 4-D shrews or dormice or dinky little hummingbirds. Nature's miniatures. Maybe as humble as bugs.

Compared to the masters of the Fourworld, us Threepeople led a very superficial life. To a 4-D eye we were flat and paper-thin. But more than that, we were also pretty tiny. Easy to miss noticing. Until we built ourselves a hyperfield, on which the Fourthings could at last stub a toe. Until we made a 4-D intrusion which stuck out like a sore thumb.

Shortly after, the ripping began. The city kind of screeched like parcel tape being torn free. I don't mean that the world bent up in the air or that buildings toppled or anything. Everything stayed put. Yet at the same time it was being . . . parted from the rest of 3-D country, shifted, moved over somewhere else.

* * *

These days there's a blank at the city limits. And nothing beyond. Absolutely nothing.

Up in the sunless, though bright, sky there are large things like clouds of frogspawn that seem to look at us.

The power's off, so we can't play any more hypergames, and provisioning the population is going to be a swine before long. We're still feeding the normal zoo animals, but we'll have to kill them and eat them all, even if we do have the last rhinos in existence. That should spin out food stocks for about one extra day. Come to the great zoo barbecue! Hippoburger. Loin of lion. Parrot kebabs. Buckets of blood to make sausages.

As if we didn't have enough problems, the 4-D mob play games with our Threeworld, stretching bits of it out so that a hundred yard walk takes an hour, interposing barriers in our way, and making loose scenery and people disappear then putting them back into the Threeworld somewhere else, as often as not in mirror image so that a truck will suddenly have its steering wheel on the right and a mole on your right cheek will now be on your left cheek. Seeing what'll happen. How it'll affect us. Stirring the ants' nest up a little.

Though to my own senses I'm solid and three-dimensional the same as everything else around, I can't help feeling convinced that I'm flat—and that other people are flat, and the whole of the city is flat. I feel that I'm part of a photograph. It's an action-photograph, as it were; a living photograph. People can move around, climb stairs, enter rooms; no problem. But the photo has edges beyond which no one can stray. And compared with whatever 4-D intelligence is examining this photograph, I'm just a flat picture.

If we're flat, how do we go inside a building? How does our frogspawn spy us inside a room? Well, our inside and our outside don't make a scrap of difference to the masters of the Fourworld. It's all the same flat surface to them. Er, by analogy. Always by analogy.

I've been snatched and reversed left to right and put back in a different place once already. This happens without

any warning

a sudden dizzying rush, though it seems to last longer this time

taking me to

the brown bear compound. Oops, I'm inside it. Grass and bushes and funlogs, a dirty pool, and the tall wall sloping inward so that no Bruin can claw its way up and out.

Maybe they think people with clothes on look pretty much like bears, especially when the three bears are up on their hind legs like now, sniffing the air and squinting at me.

Up on their hind legs, before dropping back on all fours to lumber towards me.

What happens if you put a spider in an ant's nest, or stick an ant in a spider's web? Hey, let's see.

Good thing I'm an armed security guard. Bad thing for the bears. No choice, really. We would have had to shoot them soon.

Out with the gun, off with the safety.

Click.

Click.

Click.

Oh my God, something has taken the cartridges from inside of the clip. A 4-D creature can reach inside a shut-up room, a locked box, with no bother at all. Or reach inside a gun and empty it. Bit fiddly on this scale, but they must have used some tiny 4-D tools. Or grown extra tiny branch-tentacles. Micro-fingers. No bother.

Click.

"Help me!"

There's a clump of frogspawn overhead, watching. ●

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