# OPUNTIA

# 317

**Early August 2015**

**Opuntia** is published by Dale Speirs, Calgary, Alberta. It is posted on www.efanzines.com and www.fanac.org. My e-mail address is: opuntia57@hotmail.com When sending me an emailed letter of comment, please include your name and town in the message.

**THE RED DEER RIVER BADLANDS**
photos by Dale Speirs

Instead of going west into the Rocky Mountains, I decided on a change of pace and made the two-hour drive east across the flatlands to Drumheller. The Red Deer River valley badlands are the richest source of Late Cretaceous dinosaur fossils in the world. It is impossible to drive through Drumheller without noticing that dinosaurs are very popular there.

The big fella at right is in central Drumheller. For a small fee, one can enter its right foot and climb the stairs up into the gaping maw for a scenic view of downtown Drumheller. Sorry, no elevators, so if you have a heart condition or are in a wheelchair, you'll have to admire it from the ground. Don't fret though. Drumheller used to be a coal-mining town, and the shopping plazas, used-car lots, and abandoned mine tipples aren't that interesting of a view. Dinosaur tourism is what keeps the place going now.


INFORMATION

Dinosaur art is absolutely everywhere in Drumheller.



Above and left: Small dinosaurs for the kiddies to climb upon and pose for Mom's camera.

Top right: Stampasaurus at the main post office.

Bottom right: Yet another T. Rex, this one at a spray pool in a public park.

Horseshoe Canyon, just west of Drumheller.  The black strata are coal seams.

Hoodoos south of Drumheller, along the Red Deer River. The tilting is natural, not because my camera was tilted.

Red Deer River at Drumheller.

Downstream of Drumheller is a very scary suspension bridge across the Red Deer River. It is higher above the river than it looks and when it sways the only way to walk across it is to stay on the centre line. It is a relic from coal mining days when miners walked across to the mine from a village behind the camera.

The view on the other side.  Below is what is left of the main road to the mine.
At the top of the hill is the skeleton of a coal tipple.

**CALGARY DINOSAUR ART ON UTILITY BOXES**
photos by Dale Speirs

Calgary is built on Palaeocene bedrock, formed just after the dinosaurs became extinct, but that doesn't stop utility box artists.

This page and the previous are views of electrical boxes on 16 Avenue NW.

The utility companies pay artists to paint the boxes and thereby eliminate graffiti, as well as beautifying the streets.

This box was by the same artist but in south Calgary on Elbow Drive SW.

**BOTANICAL FICTION: PART 2**
by Dale Speirs

A bibliography of forests and big trees as a topic of fiction could make a book in itself. I only choose a few. There is a distinct tendency to make forests and trees mystical. Some authors get dewy-eyed about how the woodcutter is evil and the druid princess is one with nature, but most of those stories are the formulaic fantasy novels that can be identified at once by the blurbs and safely avoided. One doubts that the authors of these stories ever thought about how many trees were pulped to produce the paper these ten-volume trilogies were printed on.

**The Word For Forest Is Forest (Sorry About That, Ursula).**

It is a common plot in forest stories about how planets are to be stripped for wood, but I can't see how lumber could ever be hauled out by spaceship at a profit. Wood could never be that valuable to pay for the delta vector needed to lift it out of a planet's gravity well. Any spacefaring civilization could just as easily and more cheaply synthesize cellulose and lignin, then spin it into better and stronger wood than nature could ever provide. These stories are just pulp fiction plots about an evil landlord forcing the handsome lumberjack off his land, rewritten for space instead of mundane Earth.

James H. Schmitz's "Balanced Ecology" (1965 March, ANALOG) is set on a planet with diamondwood forests, which are mobile, collectively sentient trees. Outlanders come to the planet to try and take over forests from present owners and clearcut the forests to supply the demand for wood. The trees are used to attack outlanders and rout them. One can see the plot coming a few pages ahead of time. Some foresters with better luck appear in "A Planet Like Heaven" by Murray Leinster (1966 January, WORLDS OF IF). Valuable trees on an alien planet have carnivorous motile roots. They are harvested using elephants.

Another story by James H. Schmitz is "Compulsion" (1970 June, ANALOG), about three planets with trees called Sirens or Hana. They appear to induce other species to become dependent on them using psionic powers, then alter their genetics and devolve them into primitive species, thus preventing any evolutionary competition. Eventually it is discovered that the Hana are left over from an ancient galactic war, and don't understand that humans are not the enemy. The heroine decides that everyone should sit down to tea and cakes, or at least the psychic equivalent, and we can all just get along.

If the tree is an alien, that might touch off an interplanetary war. Ronald Cain considers such a problem in his story "Weed Killers" (1973 December, ANALOG). An alien species of sapient plants arrives in orbit around Earth and begin exploration. They assume the trees are the dominant sentient species of the planet but are unable to communicate with them. The aliens eventually realize that the bipeds are the planet's rulers. Before deciding whether to destroy them and gene-engineer the trees into sentience, they send an envoy down. The envoy is chainsawed by a lumberjack.

Another variation is "Sequoia Dreams" by Sheila Finch (1990 July, AMAZING) where aliens arrive on Earth and start bonding with redwoods. They do some bioengineering and tell humans that if they don't learn to communicate with trees, the aliens will come back and it will not be pleasant. There is some handwaving gibberish about how humans are supposed to communicate by thinking images rather than using words. The first half of the story wasn't bad but then it degenerates into mystic nonsense.

A converse story "Saint Julie And The Visgi" by Robert F. Young (1955 January, WORLDS OF IF) is about an alien race that destroys trees because they are not found on their home planet.

"The Trees" by John Charles Baker (1977 November, ANALOG) is about oilmen drilling in former redwood forests where all the trees were cut down. They find a starship buried in Miocene strata 12 megayears old. On exposing the machine, it sends a message to the stars. Scientists notice that redwoods were only found in strata above the starship and realize the trees were introduced by aliens. Aliens who might get angry when they return and find their trees extinct.

Well! This story is bad science and an unusual lapse for ANALOG. Redwoods (*Sequoia, Metasequoia*) are abundant in the fossil record back to the Cretaceous era when dinosaurs roamed Earth, long before the Miocene. My mother Betty was a field palaeontologist who collected thousands of redwood fossils from Palaeocene (63 megayears old) strata in the Red Deer district of central Alberta where I grew up. I took several palaeobotany courses when I was in university and did my own fossil collecting in my younger days, so I happen to know about these things.

*At right are Metasequoia cones and leaves collected by Betty Speirs from the banks of the Red Deer River.*

The rush to be green includes planting trees for publicity purposes or just because it seems like the environmentally correct thing to do. "The Token Pole" by Jack Woodhams (1990 February, ANALOG) is about a world that has over-reacted by planting so many trees in so many deserts that the planet's climate is changing for the worst. Forests alter the humidity and water balance and too many trees change moisture distribution, robbing someplace else of its water. Most deserts in the world are natural, not the result of human activity, so if they are converted into forests, fragile ecosystems are replaced by woody monocultures. But tree planting is a good thing, right?

**Trees: Larry Niven**

Before I get to the trees, let me explain this. Larry Niven is, in my opinion, the best SF writer when it comes to constructing new worlds. The vast majority of writers, especially in fantasy, consider world building to be a matter of drawing a map with mountains, oceans, plains, and other topography. Niven invented several stellar systems that demonstrated his ability, such as the Ringworld, and for this review, the Smoke Ring. Not just map drawing, but carefully thought out physics and other hard sciences required to make a plausible setting.

THE INTEGRAL TREE and its sequel THE SMOKE RING are set in a gas torus orbiting a planet just inside the Roche limit of a neutron star. The smoke ring is a million kilometres thick and supports numerous life forms who live in the free-fall environment. There are giant trees in orbit in the gas torus, aligned perpendicular with the planet by tidal forces. The tips of the free-floating rootless trees are bent in opposite directions by differential speeds between the outer and inner limit of the gas torus. This makes them look like the mathematical sign for an integral, hence the name of the trees.

The integral trees are not stable. If they drift too far to the edge of the gas torus, they dry out and gravitational stresses break them apart. Woe to the humans on the parts of the trees that drift out into the vacuum of open space. There are giant blobs of water floating in the smoke ring which occasionally collide with a tree and wet it down in a sudden flood. There are also formless patches of vegetation floating about, called jungles.

The integral trees have no roots but do have a sort of mouth at each end. The branches of the tree form a thick tangle that traps animals and moisture. Over a long period of time, the branches slowly migrate out to the tree mouth and descend into it with whatever is trapped in them. The tree mouth then digests the intake. Humans use the tree mouths for funerals, disposing bodies back to the tree. The integral trees are 100 km long and support various types of life. The gas torus also has its own fauna who live in weightlessness and visit the trees but do not actually live on them.

Humans arrived several centuries ago and colonized the trees but have degenerated into primitive tribes. The tree leaves are sugary and provide food energy but are not suitable as a long-term diet. Humans therefore go hunting for meat, if not on the tree, then by trying to snag bird-like creatures sailing by. They also have domesticated turkeys, kept in cages because it is very easy to go floating off the tree into the gas torus.

The storylines of these two novels are about the trials and tribulations of tribes living on integral trees, especially after one tree breaks apart. The starship that brought the humans to the smoke ring still orbits outside, its artificial intelligence constantly monitoring the gas torus and the trees, and unsuccessfully trying to re-establish connections with the humans. Niven is excellent at world-building and these two novels are highly recommended.

**Trees: The Others.**

Checking back in my logbooks just before I retired, I estimated that during my career I pruned at least 31,000 trees. Several hundred of those were removals because of storm damage, disease, or death. Which brings me to Lord Dunsany's 1934 story "The Walk To Lingham" (in his collection IN THE LAND OF TIME AND OTHER FANTASY TALES). A man who cheers a crew cutting down trees is later chased by a poplar tree with motile roots. Fortunately I never had any problems like that when I was wielding a chainsaw.

There are lots of stories about trees as individuals or the few, rather than forests. Keith Laumer's story "Hybrid" (1961 November, MAGAZINE OF FANTASY AND SCIENCE FICTION) is about alien trees that are mobile when young and then root into one place at maturity. They reproduce by infecting their spores into animals, and, in this story, into a dying human.

A reverse form of parasitism appears in "Tree Of Life" by Phyllis Eisenstein (1975 March, GALAXY). An alien which parasitizes advanced life forms crashes on Earth and loses its host. It cannot transfer to a new host until the present one dies. The alien jumps to a mulberry tree as a temporary expedient. It is aware that the homeowner is trying to kill the mulberry because of its

weedy growth, and hopes that if the homeowner succeeds then it can jump to him. The tree is chainsawed to a stump, but then the stump is hauled to a landfill. The stump re-sprouts in the completed landfill and the alien is trapped indefinitely. A nice concept.

Those of us of a certain age will remember the Ace Double paperbacks, two novellas or novels (which were shorter in the days before word processors) bound back-to-back. Ace Double # F-265 contained two stories by Jack Vance about big trees. "Son Of The Tree" (1951) was about a giant tree, and "The Houses Of Ism" (1954) was about houses within living trees. The former novel is about a giant tree five miles in diameter and twelve miles high on the planet Kuril. It is worshiped, as so many giant trees seem to be, by a Druid priesthood with whom the hero is in conflict. More about politics and religion than the tree.

The latter story is about a planet which has giant trees that are living houses with all needs supplied by the tree. The natives only export enough trees to keep prices reasonably high, and do not allow female trees off world. A human botanist arrives with intent to sneak out a female tree (a sapling of course) and break the monopoly.

"The Leaves Of October" by Don Sabers (1983 August, ANALOG) is about the world of the Hlutrs, sapient trees who communicate by two methods, line-of-sight with colour-changing bark and leaves, and by rustling their leaves. Humans arrive, unaware of the true nature of the trees, and take one, the narrator of the story, back to Earth. Eventually they discover the sapience of the trees and stop destroying them. The story is an extended mood piece with slow pacing, much like the slow thought processes of the trees.

Christopher Johnstone's "Orchids" (2009 Winter, ON SPEC MAGAZINE) is about a medieval scholar who finds a female dryad, a semi-sentient humanoid that grows attached to a tree. She has a short lifespan and dies after a few weeks, leaving seeds which the scholar plants for the next generation.

On Earth, redwoods are protected, so climbing them as one would a mountain is prohibited. Therefore you have to go to an alien planet, as William E. Cochrane did in his story "Class Six Climb" (serialized in 1979 June, July, and August, ANALOG). A tourist group on the planet Kyle Murre climb a giant tree 4.2 km high with its own ecosystem, with various critters and epiphytic plant life. A military spy from Procyon is also there, trying to trigger an incident so they can annex Kyle Murre. He makes a solo climb, the tourists go up as a group, and there is all sorts of trouble and strife. The spy gets his and the tree retains its honour. The infodumps about rope climbing tend to get in the way, but the worst thing was that female military personnel are referred to as fem-lieutenants. I would have thought that sort of thing was gone by the late 1970s.

## ZINE LISTINGS

[I only list zines I receive from the Papernet. If the zine is posted on www.efanzines.com or www.fanac.org, then I don't mention it since you can read them directly.]

[The Usual means $5 cash ($6 overseas) or trade for your zine. Americans: please don't send cheques for small amounts to Canada or overseas (the bank fee to cash them is usually more than the amount) or mint USA stamps (which are not valid for postage outside USA). US$ banknotes are still acceptable around the world.]

[SF means science fiction. An apazine is a zine for an amateur press association distro, a perzine is a personal zine, and a genzine is a general zine with writings by several authors.]

LAB FINDINGS #4 (The Usual from Kobb Labs, Box 30231, Pensacola, Florida 32503) Some natterings about hunting in thrift stores for books and videos, problems with corresponding with prisoners, and the beach police in Pensacola.