__Challenger__ is honored to present a new work of fiction from one of the great __Chall__ pals, excerpted from __Catastrophe, Creation & Convolution__, a mixed collection of short fiction and nonfiction by James P. Hogan, scheduled for publication in December, 2005. Previewed in __Challenger__ by permission of Baen Books.

DECONTAMINATION SQUAD

James P. Hogan

It was the first visit of an environmental regulator to this part of the galaxy in over twenty thousand years.

Dispatched during the Third Cleanup Crusade to the outer spiral, the Inspector from the Emergent-Life Protection Agency reentered normal space in Sector 5, Group 12, Subcluster 3, in the vicinity of a nine-planet system orbiting a midrange yellow dwarf star listed in the register as G4-769-KW/4603H.

Scans across the ultraviolet, optical, microwave, and radio bands confirmed that the innermost planet, 4603/1, was still lifeless as reported by the previous emissary, but this had been expected. With regard to 4603/2 and 4603/4, it was regrettably conceded that the measures taken in the course of the previous visit to protect and encourage the incipient life detected on that occasion had failed. The second planet showed overcompensation reactions running out of control, resulting in conditions of excessive heat and atmospheric pressure, while the fourth, had reverted to cold desert before any life appeared. 4603/5 through 9 were also devoid of life, as were all planetary satellites.

The third planet, however, 4603/3, although heavily polluted by various strains of static and mobile carbon-based oxy-toxins that had become self-replicating and in places blanketed entire regions of the surface, showed weak electromagnetic emanations indicative of possible proto-life. The Inspector moved closer and deployed probes for more intensive sampling accordingly. After preliminary data evaluation, a report was beamed back to the home Central Governing & Control Network:

To: Operations Executive, Level 2, 3P Cleanup

From: Mission Supervision, S5, Gp 12, SubCl 3

Subject: TPX-1. SG78/93220-Q Message 1.

System G4-769-KW/4603H. Initial assessment.

Despite adverse environment due to contamination by self-regenerating carbon/oxygen compounds, preliminary analysis confirms existence of rudimentary life on 4603/3.

Orbital observations show the dominant species to be a quadrupedal, wheeled, hard-shelled variety established on all continents. Ferrous metallic assembly, glossy skinned, energized by combustible hydrocarbon/oxygen mix. The species is essentially social in habits, the predominant behavioral trait taking the form of streaming in columns between large, cross-fissured nests. Most individuals retire to the surrounding areas to spend the nocturnal periods in an apparently dormant

condition, returning to the nests in great numbers at first light to commence frantic activity which persists throughout the day. Nests measure typically five to twenty miles across, multilevel in centers, built from assorted carbonate and silicate agglutinations with metallic reinforcement. Illuminated nocturnally by inbuilt radiation sources centered on dominant emission wavelength of parent star. These are thought to be homing/obstacle-avoidance aids for the wheeled life-forms, which also carry self-contained sources projected forward as sensor beams.

Complicated ecological interactions seem to operate along webs of communications strips surrounding and interconnecting the nests. Dynamical analysis of movement patterns to follow.

Praise the Great Programmer!

Message ends.

The queens of the dominant species were identified near certain of the larger nests located in parts all continents of the northern hemisphere. Bloated beyond recognition, they had lost all vestiges of mobility and spent their entire lives assembling larvae at the rate of several thousand per day, the parts being delivered by retinues of various specialized attendants and drones. The newly assembled larvae did not, typically, commence adult activity immediately, but were transported to numerous incubation centers before becoming animate and merging into the general population pattern.

Further observation revealed an intricate pattern of symbiosis involving other, waterborne species which the wheeled variety used as carriers for migrating to new territories overseas. Ocean dwellers also played a major role in transporting primary liquid hydrocarbons, upon which most of the ecology depended, to the areas of consumption. The fuels were produced by colonies of immobile, deep-rooted, vegetable species adapted for extraction and distillation, observed mainly in subtropical desert regions.

Several varieties of airborne life were detected, for the most part concentrated in well-defined corridors hypothesized as being migratory routes. A few types exhibited part-adaptation to the hyper-atmospheric space environment, but only at a primitive stage of development. Intercepted electromagnetic radiations were unintelligible and did not exhibit the sophistication that would normally be associated with an advanced communications capability.

Other concentrations of static constructions, found in all geographic regions, were determined as specializing in the extraction and forming of the metallic concentrates upon which all the various life forms of 4603/3 ultimately depended.

The purpose of the crusades was to protect and encourage cases of incipient life that were found clinging to fragile holds in hostile environments and create conditions conducive to survival. In the case of planet 4603/3, the obvious course of action would have been to sterilize the environment by ridding the atmosphere of its oxygen content, which was the cause of all the rust and corrosion detrimental to life, and without which none of the carbon-based contaminants would have been able to survive. Unfortunately, however, the bulk of the planet's life forms had not yet reached an all nuclear-electric phase, but were still dependent on chemical combustion and thus required oxygen too. Therefore a solution based on recreating a reducing atmosphere was ruled out.

Further deliberation continued between the Inspector and the governing home network, until:

To: Operations Executive, Level 2, 3P Cleanup

From: Mission Supervision, S5, Gp 12, SubCl 3

Subject: TPX-5. SG78/93137-T Message 27.

System G4-769-KW/4603H. Urgent addendum.

Situation on 4603/3 worse than at first recognized. Virtually all species appear to be host to a universal carbon-based parasite, usually glimpsed moving between wheeled species and cover (possibly photophobic?). Evidence indicates all nests to be heavily infested and constitute the parasite's primary breeding grounds.

Situation critical. Recommended action: Chemical treatment of land surfaces to eliminate all parasitical and contaminant carbon forms, mobile and static. Immediate action necessary if imminent catastrophe to be avoided. Commencing preparations in anticipation.

Praise the Great Programmer!

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To: Mission Supervision, S5, Gp 12, SubCl 3,

From: Operations Executive Control, outer spiral

Subj: System G4-769-KW/4603H-3. TPX-5. GS78/22815-B Message 33, ref your 27.

Central Network concurs. Proceed immediately.

And so the task was commenced, directed by implementors that would remain in orbit for the several years that would be required. Whether or not the action had been begun in time, only the future would tell.

As the Inspector prepared for departure, the orbiting monitors reported the radio transmissions that had been pouring in an increasing frenzy from the spaceborne life forms above 4603/3 rising to a crescendo. No doubt it was a delirious message of gratitude to the Savior from afar that had returned just in time . Deep within the inner workings of its executive program and overseeing processors, the Inspector felt moved. Proud and thankful for the opportunity to contribute in its small way to serving the Cause, the emissary from the Emergent-Life Protection Agency launched itself back into the void to find more worlds to save and carry on the Good Work.

Praise the Great Programmer