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Steve Arvedson, Vice-Pres.

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NEXT MEETING: Wed 7:30 PM, June 2, '71. At the Statio, Howard and S. Parkway (rear).

Your scribe is about the slow but fascinating process of reviewing the book Other Worlds Than Ours, by C. Maxwell Cade. Copyrighted in 1966, Dr Cade was counting on "Operation Mohole" to yield a great deal on Earth's five aeons, especially on the last aeon (billion years) or two. We have endured the disappointment of seeing Mohole abandoned, and have been now inured to the prospect of abandonment of Moon's exploration, begun since Dr Cade's book was issued...all a profile of the almost desperate tug-of-war between politics and the needs of science. Certainly Moon is more portentous than Mohole. But we have other alternatives, and here is one I cannot forget.

The Antarctic Ice Cap probably holds the best uncontaminated record of this planet's recent doings than any other place. We might be "too poor" to go on with immediate moon or ocean-floor development, but it would not cost such great sums to begin a tunnel complex under Antarctica via the available mountain ranges, financing the project in part by development of the deposits of minerals encountered. Many lesser industries could become important. For instance, government grain-storage vaults, under the aegis of perpetual refrigeration, rent and plunder free, could channel many millions into the project - out of the hands of a horde of percentage-merchants of the Billie Sol Estes genre.

The largesse to science would erupt as tunnels were driven upward through the oldest layers above the lithosphere, from the security of laboratories below instead of downward from the difficult and dangerous surface, as at present. We can anticipate a testing of history at least to the 10th power of what we have tested it through the study of tree-rings. Those ice-rings would have samples of meteoric dust and iron mixed with the contemporary condition of the atmosphere, with here and there a determinable age for some cataclysm that jolted the planet.

If, as it is suspected, the poles were once suddenly shifted, the record of the event could be read with accuracy. The surface of earth under the accumulating weight of ice, too cold to move and erode in many places, would afford a region as attractive mediaevally as the moonsurface is anciently. The lithosphere itself, there under the heavy blanket, would certainly be relatively undisturbed for millenia - or maybe aeons. By relating the debris of the eruption of Krakatoa to be found in the upper snow layers, the size and duration, and probably the location of prehistoric eruptions could be studied. Earth might once have had a Great Red Spot, the nature of which could be read in those pages of ice, helping to solve the riddle of the Jovian Spot. Earth might have had rings like Saturn's, which successively decayed as the planet cooled. This has been very well proposed - the ice-library down south could make it particularly proved.

Here at last we could determine almost exactly the time, if not the nature of the catastrophe that set the "Riddle of the Frozen Mammoths" so teasingly in Siberia. The Deluge of Noah could be examined, with fact displacing much of the legend, both sacred and profane, which shrouds this astronomically-resolvable event. Such fact might fetch the focus which would give as much resolution between Manna and Dogma, so to speak, as the Hale telescope gave to the resolution of the components of Castor. A new perspective. Certainly a new Reformation and Renaissance of religion is due.

The science of Cryonics might be greatly expanded and brought to bear on life forms that have long been extinct. . Some of them might be revived - with great potential to the welfare of man. These would need be more strictly quarantined than our quarantines have been against extra-terrestrial organisms - lest they get out of control.

In short, ladies and gentlemen of SAAAA, with Antarctica at our doorstep, who needs the Moon anyway - for a few years at least. Instead of at last gaining Dominion over our deserts and oceans by technologies learned on the Moon, we might more easily make a "habitable" out of Moon by technologies yet to be developed at Home. Can we do anything about this? How about writing somebody, like a Senator.

See you at Statio?

STARBEAMS AND HELIOWINDS

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Nov 1, 1971

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I here quote from "Where Is Astronomical Education Headed?" - a report in the 11-71 Sky & Tel on a 9-1-71 symposium of scientists meeting at the NYC American Museum Of Natural History: "To teach astronomy successfully in...high schools," (Dr Benjamin Perry, Univ of Indiana) said, "the humanistic and philosophical side of the subject must be reintroduced...."

On the other hand, Evry Schatzman (U of Paris) urged that astronomy be more widely taught "to combat the antiscientific attitudes gaining favor in western nations." (These anti-scientific attitudes include astrology, no doubt.) This meet in New York will prove to be of great import - for good if acted upon, for bad if ignored. To chop and chew at something on the humanistic and philosophical side, if not to dabble in something neo-superstitious, is your eager-beaver scribe's delight in S&H Journal, so please allow me to put forth a delta of ideas from my discourse to SAAAA at our last clubmeet, 10-20-71.

Referring back to my mention of Isaac N. Vail's books on the evolution of planets, I think his theories fit a lot of observations. While Saturn still has rings, as well as a quite distinct canopy, as vestiges of the earlier proto-shape as a pinwheel gas cloud with heavier elements for a core, we perceive that the rings of Jupiter, Venus and Earth have decayed into canopies. As the rings were drawn in, the material spread from an equatorial band toward the poles where there was less centrifugal force of rotation transmitted by the proto-atmosphere. All we have left of Earth rings is a band of dust that gives us the Zodiacal Light, and which probably donates, in its slow decay, an infrequent noctilucent cloud. I told you that some scholars think the noctilucent clouds were much more frequent, or even omni-present, for Stone-Age man, and account for some of the superstitions evident in ancient rites, and structures such as Stonehenge.

Incidentally, the canopy concept modifies and satisfies some of our amazements at the "oblateness" of Jupiter, and the shiftings of its Red Spot and the variable character of its bands. We even can reckon Sol as being hidden from us under gaseous canopy, its equatorial portion dragged along by the spinning Reality beneath at greater speed than the stuff we see at higher latitudes.

Granting that Genesis, of the Bible, is Revelation from the Superior Civilization that colonized this planet, I never tire of exploring the differing ranges of meanings to be adduced from those pristine synonyms for "earth" and "habitation" such as are listed in works like Young's Concordance. We reflect that once-habitable places, for example Ancient Babylon, are now wildernesses, while once-howling wildernesses are now densely populated. We must view the "have dominion" grant to man as including that which can be made habitable. We now come to dimly compass in that land-grant the possibilities of Moon, Mars, and other bodies just as "adamah" - solid, established, soil-endowed - as the Earth is "adamah."

A letter from a favorite nephew, Bill Scarborough, enclosed a clipping from a California paper about the Mariner 9 project, which is to have its consummation this month. Bill had a part in work on the improved camera on Mariner 9 which will map a greater part of the Martian surface. Mars is now at the apogee in public interest, but it must be that our sister planet, Venus, is the one which will attract the most activity in the future, for certainly it has the greater potential.

Another bit in current Sky & Tel prophesies that the CO₂ man spews into the air is much less consequential than the dust we raise. The thought suggests itself that we contrive means of propelling our gaseous and particulate wastes into another outer ring, where it can flap in the solar wind for an aeon or so till it is fit to take off the clothesline and back to earth in a "nightsoil" less obnoxious. Devices to accomplish this could then be adapted, improved, and installed in automatic units to throw off the surplus atmosphere of Venus into rings and a higher, beneficially protective canopy, where man, much wiser by then, can proceed to "have dominion" over expanded habitats.

JOY TO THE WORLD!

NEXT MEETING: Wed, Nov 3, 7:30 PM, at the Statio, Howard and South Parkway. Members, 'member that November is time to renew Member Ship. \$8 this year - sorry 'bout that, but subscription to Sky & Tel went up, and that's what our "cost of living" gears to.

STARBEAMS AND HELIOWINDS
Supplement in Poetry; Nov 1, 1971

Astronomical League's REFLECTOR has a poetry section; it is an enjoyable feature of the League organ. The scribe of the San Angelo Amateur Astronomy Association is also a poet, and undertakes this page of astronomy poetry without risk of anyone's copyright wrath, for all these are by Vernon Payne, with credit lines where first published.

GULF CRUISE

Cruising through the welter of the wind:
Liquefaction bending
In immemorial blending
To the unrelenting sending of the wind;
Fowl immune to weather
Immaculate of feather
Adventuring together on the wind;
A permeating rustle
Everywhere a hustle
Immeasurable the muscle of the wind!
Honing through the wind, stellar wind:
Mariner outbound
In the solar cyclotron
Will never be becalmed on the wind;
Enterprise, angelic -
Babe of Earth, pathetic -
Failing voice, magnetic on the wind;
A permeating rustle
Everywhere a hustle
Immeasurable the muscle of the wind!

(Quoin Quarterly)

THIRD DAUGHTER OF JUPITER

(Since this poem was written, it has been determined that Ganymede, once thought to be moon-like and forever facing Jupiter, does rotate).

Gem-stone land of the cosmic bold!
Pleasure atoll in the sky!
Ganymede.

Venturers could love the moon-side,
Shadowless, where the Sisters course
Through the Phoenix-fires of the universe,
Warmed by the Great-Moon, chosen high,
Where the week is the day, the month and the
Year - And the clock is the calendar!

Leisure land of the sometime old,
Lotus-heads may dream on the sun-side
With the star-hung days and the steel blue nights
Washed by the Milky Way;

Or dwell at a spa and turn to youth
On the broad equator that curves through the poles,
Where the picture-windows face to the Great-Moon,
Fluorescent, with Jovian lightning limned
And fixed as a distal mountain.

There shall the hare of fantasy
Scout for the tortoise of truth!
(Cyclotron, cover)

TO KNOW

From Polaris to Canopus
I explore the Milky Way;
Through the window of Andromeda
I savor every ray;
For eye alone can hear the choirs
Infinites away!
I have scaled the scarp's asperities
And searched in cavern murk
Tracing spoor of darkling tumbler
In its elemental quirk;
But ear alone can see the Sculptor
At abyssal chisel work.
Of Arch-Instructor, first I ask
The orient armor of the wise;
Felicities of comprehension,
Especially the whys;
For only God Omniscient limns
The mind behind these eyes!

(The Minds Create, Anthology)

RIME OF THE MODERN MARINER

Away is the Modern Mariner
Which will not "stop for thee"
For neither albatross nor curse
Can follow on his sea:

Bright mote of earth, pathetic
In titanic enterprise,
Antenna ears attuned to Home;
To Sol your sensor eyes,

Your moment in the sun will turn
To an eternity
When from Venusian rendezvous
We turn, resignedly.

May coffined wonders of your parts
Bear, in a glyph of space
A mindless testimony to
This fading, mindless race!

(Lincoln County News)

FAREWELL ORION!

... Adios! ... A ... Dios! ...
Sweet Sirius, Rigel, Castor
and Pollux,
Parading away
with our feathered flocks
To the sunny side
of the equinox!