Thursday, March 20, 2003
POSTER SESSION II
7:00 p.m. Fitness Center

Mars Wet And Wild

Palmero A. Sasaki S. Kuzmin R. O. Greeley R.
Formation and Sources of the Shalbatana Valley System **[#1062]**
It is proposed that water release from an extensive underground caverns system also took place in excavation of the Shalbatana Valley System.

Collier M. L. Stepinski T. F. Clifford S. M. McGovern P. J.
Martian Geomorphology from Statistics of Drainage Networks **[#1642]**
Statistical analysis of 386 drainage networks on Mars is used to pick out different types of terrains. It could be used to measure the degree of surface cratering, and in some cases, to set apart geological units. No global trends have been found.

Stepinski T. F. Vilalta R. Achari M. McGovern P. J.
Algorithmic Classification of Drainage Networks on Mars and its Relation to Martian Geological Units **[#1653]**
Drainage networks on Mars are classified algorithmically into nine groups on the basis of topography. This partition does not correlate with existing geological units, instead, it reflects hydrological aspects of Martian landscape morphology.

Burr D. M.
Temporary Ponding of Floodwater in Athabasca Vallis, Mars **[#1066]**
Examination of MOC and MOLA data from the Athabasca Vallis outflow channel, Mars, shows similar elevations for two disparate paleo-flood height indicators. This is best explained by temporary ponding of water behind an impact crater in the channel.

Craddock R. A. Presley M. A.
Thermal Conductivity Studies of Sedimentary Materials from Central Australia and the Implications for Mars **[#1612]**
A set of criteria for recognizing fluvial deposits from remote sensing data must be established to "follow the water." We are analyzing the thermal characteristics of sedimentary materials from Australia. The fieldwork will be described with a report of the preliminary laboratory analyses.

Grant J. A. Fortezzo C.
Hypsometric Analyses of Martian Basins **[#1123]**
Hypsometric analyses of Martian and lunar basins confirm HI values comparable to fluvially-eroded terrestrial basins and suggest the relief in basins created by impact vs. tectonics requires minimal fluvial modification for efficient drainage.

Salamuniccar G.
Surface Age Computations for Mars: A Step Toward the Formal Proof of Martian Ocean Recession, Timing and Probability **[#1421]**
Crater statistics based surface age computations for 1/32° MOLA data and two different craters data-sets and comparison with basic Martian period classification on Noachian, Hesperian and Amazonian, indicating ocean influence on crater distribution.

Miyamoto H. Baker V. R. Komatsu G.
Semi-three Dimensional Computer Simulations of Large-scale Cataclysmic Flooding: A Model and Parameter Sensitivities **[#1724]**
We developed a new semi-three dimensional flood simulation code, which is capable of calculating time-slices of flow distribution over a real topography. Using this code, we discuss the relevance of each parameter for the areal spreading of the water.

Kraal E. R. Asphaug E. I. Lorenz R. L.
Wave Energy on Mars and Earth: Considering Lacustrine Erosion **[#1725]**
We adapt terrestrial empirical wind wave equations to examine wave energy on Mars. Under certain circumstances, wave energy on Mars could be comparable to terrestrial wave energy. This has implications for the formation of lacustrine features.

Maxwell T. A. Campbell B. A. Grant J. A. Irwin R. III Bourke M. Johnston A.
Erasure of First-order Tributaries Via Climate Change: Lessons for Mars from Earth **[#2049]**
Terrestrial analogs of the headwaters of martian channels indicate that climate change can obliterate traces of small tributaries in a variety of ways.

Lorenz R. D.
Thermodynamics with a Pinch of Salt : Martian Landscape Energetics **[#1248]**
Melting ice on Mars
Carries salt to northern seas
Needs much energy

Leverington D. W. Ghent R. R. Irwin R. P. III Craddock R. A. Maxwell T. A.
Possible Hydroisostatic Influences on the Collective Geometry of Strandline Features Formed in Association with Ancient Martian Oceans **[#1282]**
Hydroisostatic processes alone may be sufficient to cause ancient Martian oceanic shorelines of common age to vary in elevation by hundreds of meters.