
**Background:** Our earliest work suggesting that the Martian subsurface could be the last best place to look for life on Mars [1], has been followed up by 28 additional years of considering all aspects of the potential occurrence of cavities on other Solar System bodies [2], their potential for astrobiological significance [3], as repositories for other types of geological, volatile, and atmospheric indicators, and as potential human habitats on the moon and Mars [5]. It is time to revisit earlier deliberations and conclusions in light of large amounts of new data from Mars, the Moon, and many other Solar System bodies [e.g. 6, 7].

**Speleogenetic Matrix:** In 2004, I first published a systematic treatment of the potential mechanisms of cave formation in a wide variety of planetary/small body environment types [2]. It has been updated twice for presentations and is now nearing its third major update for presentation at this conference. Figure 1 shows the last version prior to the work currently ongoing but to be completed and shown at the present meeting.

**Online Bibliography:** To support the goals of producing a highly interdisciplinary picture of the likely occurrence of planetary/small body cavity occurrences, their utility for astrobiological studies, and easily accessible information for mission concept planners and engineers, I have compiled a comprehensive cross-indexed bibliography of relevant work between the speleological, planetary, and astrobiological communities. It will be unveiled at the present meeting.

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**References:**


Figure 1. The cave classification scheme from the revised 2012 version [8].