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Cosmological thinking: cultural heritage and challenge

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The limitations of current technology do not allow one to foresee the expansion of the humankind beyond our planet for at least a few decades. Furthermore, the laws of physics, as for as they are known, preclude any form of traveling beyond the speed of light, as well as any viable and stable space-time shortcuts (wormholes, warp-drives, etc) that would facilitate cosmic traveling. Given the vastness of the Universe these are insurmountable obstacles for any {\it in situ} exploration of the cosmos beyond our most immediate cosmic neighbourhood. Nevertheless, the Universe is transparent and contains countless sources of visible light. Actually, in the last decades, technological developments have made possible to observe the cosmos throughout most of the electromagnetic spectrum as well as to perform dynamical studies that allow perceiving the presence of invisible components such as black holes, dark matter and dark energy. In this respect, humankind has then been given the opportunity to unravel the inner workings of the cosmos and through this process be part of the cosmic habitat. In this contribution various forms of cosmological thinking will be discussed, from some myths of creation till some of the latest scientific discoveries.

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