Sovereignty on Mars: Pragmatic Solutions, Idealistic Models, and Historical Analogs

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Abstract:
Several government and commercial space agencies have begun to develop human missions to Mars, which includes plans for long-term settlement. The technological capabilities to develop a space economy and eventually inhabit space are already raising challenges to terrestrial models of governance. The only limit on sovereign expansion in space recognized under conventional international law is the non-appropriation principle from Article II the Outer Space Treaty, which disallows sovereign claims or other appropriation of celestial bodies. But some legislative bodies have already authorized asteroid mining, which challenges the interpretation of Article II. The Moon Agreement recently entered into force but has not been ratified by any major spacefaring states, so its effect on regulating the emerging space economy remains uncertain. Historical examples of cooperative sovereignty provide other potential models of sovereignty that could apply to space, such as the Convention on the Law of the Sea and the Antarctic Treaty System. Other historical and contemporary examples of shared sovereignty or sovereignty conflicts on Earth also provide analogs for exploring possible models of, or limitations to, future governance on Mars. It can be valuable to consider both idealistic and pragmatic models of martian governance, as the topic of space settlement provides a robust framework for thought experiments in ethics. But any models for sovereignty in space should be evaluated based on technical viability, political feasibility, and long-term sustainability, as the physical impositions of the space environment will demand such hard constraints.