

1. Record Nr.	UNINA9910780822203321
Titolo	Lunar settlements / / editor, Haym Benaroya
Pubbl/distr/stampa	Boca Raton : , : Taylor & Francis, , 2010
ISBN	0-429-15002-4 1-282-49538-0 9786612495380 1-4200-8333-3
Descrizione fisica	1 online resource (804 p.)
Collana	Advances in engineering
Altri autori (Persone)	BenaroyaHaym <1954->
Disciplina	629.45/4
Soggetti	Lunar bases Space industrialization
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	A CRC title.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Front cover; Contents; Preface; Acknowledgments; The Editor; Section I: The Past and Future; Chapter 1. Return to the Moon; Chapter 2. Rutgers 2007 Symposium on Lunar Settlements; Chapter 3. Rutgers 2007 Symposium on Lunar Settlements; Chapter 4. Looking Back at Apollo/Saturn: Planning Activities (1961-1965); Chapter 5. Apollo Knowledge Transfer: Preserving and Transferring the Apollo Legaacy to a New Generation; Chapter 6. Working in Space; Section II: Lunar Development; Chapter 7. Attracting Private Investment for Lunar Commerce: Toward Economically Sustainable Development Chapter 8. The Future Role of Human Resource Management in Non-Terrestrial Settlements: Some Preliminary Thoughts1Chapter 9. Lunar Commercial Logistics Transportation; Chapter 10. Rocks to Robots: Concepts for Initial Robotic Lunar Resource Development*; Chapter 11. Solar Cell Fabrication on the Moon from Lunar Resources; Section III: Outer Space Habitat Design; Chpater 12. Multidisciplinary Approach for User Reliability; Chapter 13. Anthropology: Physical and Cultural Adaptation in Outer Space; Chapter 14. Visual Design: Color and Light for Well Being in Outer Space Chapter 15. Art: Art as a Psychological Support for the Outer Space HabitatChapter 16. Psychology: Natural Elements as a Well-Being

Stimuli in Outer Space; Chapter 17. Perspectives: Multidisciplinary Approach for User Well-Being; Section IV: The Human Condition; Chapter 18. An Analysis of the Interface between Lunar Habitat Conditions and an Acclimatized Human Physiology as Defined by the Digital Astronaut Project; Chapter 19. Mental Health Implications of Working in a Lunar Settlement; Chapter 20. Humans: The Strongest and the Weakest Joint in the Chain

Chapter 21. Here to Stay: Designing for Psychological Well-Being for Long Duration Stays on Moon and Mars

Chapter 22. Indoor-Air Quality Implications of 222RN from Lunar Regolith; Chapter 23. PAC: Protected Antipode Circle at the Center of the Farside of the Moon for the Benefit of All Humankind; Chapter 24. Developing the Moon with Ethics and Reality; Section V: Planning and Analogues; Chapter 25. Lunar Base Living: Beyond the Pioneering Stage; Chapter 26. Assessment of Lunar Exploration Objectives; Chapter 27. A Self-Sufficient Moon-Base Analogue

Chapter 28. Terrestrial Analogs Selection Considerations for Planetary Surface Facility Planning and Operations

Chapter 29. Surface Infrastructure Planning and Design Considerations for Future Lunar and Mars Habitation; Chapter 30. Settlement Site Selection and Exploration through Hierarchical Roving; Chapter 31. Integrated Lunar Transportation System; Section VI: Lunar Bases; Chapter 32. Lunar Base Site Preparation; Chapter 33. A Review of Technical Requirements for Lunar Structures: Present Status

Chapter 34. Bidu Guiday: Design Concept for the First Manned Lunar Base

Chapter 35. Design and Construction of a Modular Lunar Base

Sommario/riassunto

Bringing together some of the most recognized and influential researchers and scientists in various space-related disciplines, *Lunar Settlements* addresses the many issues that surround the permanent human return to the Moon. Numerous international contributors offer their insights into how certain technological, physiological, and psychological challenges must be met to make permanent lunar settlements possible. The book first looks to the past, covering the Apollo and Saturn legacies. In addition, former astronaut and U.S. Senator Harrison H. Schmitt discusses
