

Contents

1 Is the Moon for Sale?	1
1.1 Introduction	1
1.2 The Trivial Issue: “Extraterrestrial Real Estate”	2
1.3 Arguments For Invalidating the “Extraterrestrial Real Estate” Claims	10
1.3.1 The Non-Appropriation Principle	11
1.3.2 Claiming Does Not Mean Owning	12
1.3.3 Prior Claims	15
1.3.4 Qui Tacet Negat: Silence of Authorities is Not Acquiescence	16
1.3.5 Jocandi Causa	19
1.4 Conclusion	20
2 The Sources of Landed Property Rights in Outer Space	23
2.1 Introduction	23
2.2 Real Property Rights Implications of Space Activities	24
2.3 The Material Sources of Landed Property Law in Outer Space	25
2.3.1 Technical Progress as a Material Source	26
2.3.2 Nature as a Material Source	29
2.3.3 Actors as a Material Source	31
2.4 The Formal Sources of Landed Property Law in Outer Space	34
2.4.1 International Conventions	36
2.4.2 International Custom	38
2.4.3 The General Principles of Law	39
2.4.4 Judicial Decisions	40
2.4.5 The Teachings of Publicists	43
2.4.6 The Completeness of International Law	44
2.5 Conclusion	45
3 The Object of Landed Property Rights in Outer Space	47
3.1 Introduction	47
3.2 The Concept of “Res” in International Space Law	48
3.3 Territorial Resources vs. Material Resources, Immovables vs. Movables	49

3.4	The Different Approaches in Defining Celestial Bodies	51
3.4.1	The Spatialist Approach	51
3.4.2	The Control Approach	53
3.4.3	The Functionalist Approach	55
3.4.4	The “Space Object” Approach	55
3.4.5	The Iceberg Analogy	57
3.5	Conclusion	58
4	The Relationship Between Property and Sovereignty in Outer Space ...	59
4.1	Introduction	59
4.2	The Prohibition of National Appropriation in Outer Space	59
4.3	What Is Property?	61
4.4	The Impact of the Non-Appropriation Principle Over Property Rights	62
4.4.1	First Viewpoint: Outer Space Treaty Allows Private Appropriation	63
4.4.2	Second Viewpoint: Outer Space Treaty Prohibits Private Appropriation	64
4.4.3	Third Viewpoint: Private Appropriation Is Not Legally Enforceable	66
4.4.4	Fourth Viewpoint: Private Appropriation Can Occur Under Individual Sovereignty	69
4.4.5	Fifth Viewpoint: Private Appropriation May Occur Under International Sovereignty	71
4.5	Conclusion	72
5	The Commons Regime: Everybody’s and Nobody’s	73
5.1	Introduction	73
5.2	The Extraterrestrial Realms as a Commons	73
5.3	The Celestial Bodies as <i>Res Communis</i>	75
5.3.1	Attributes of <i>Res Communis</i>	75
5.3.2	Conflict of Users vs Conflict of Uses	77
5.3.3	De Jure and De Facto Appropriation	81
5.3.4	Property Status of Planetary Structures	83
5.4	<i>Res Publica</i> and the Public Trust Doctrine	86
5.4.1	The Municipal Dimension of the Public Trust Doctrine	86
5.4.2	The Extraterrestrial Dimension of the Public Trust Doctrine ..	88
5.4.3	The United Nations and the Public Trust	91
5.5	Arguments for the Commons Paradigm	95
5.6	Arguments Against the Commons Paradigm	96
5.7	Conclusion	97
6	Homesteading the Final Frontier	99
6.1	Introduction	99

6.2	The High Frontier Thesis	100
6.2.1	The Frontier Spirit	101
6.2.2	Partitioning the Common Heritage	103
6.2.3	Homesteading Prior the Non-Appropriation Principle	104
6.2.4	Coelum Clausum: Abrogation of the Non-Appropriation Principle	106
6.2.5	Private Appropriation Under an Independent Regime	111
6.3	The Acquisition of Ownership in Outer Space	112
6.4	Arguments for the Frontier Paradigm	115
6.5	Arguments Against the Frontier Paradigm	118
6.6	Conclusion	119
7	The Common Heritage of Mankind: Reaping Without Sowing	121
7.1	Introduction	121
7.2	The Genesis of the CHM Concept	122
7.3	The Contents of the Common Heritage of Mankind	124
7.3.1	The Prohibition of Private Landed Property	126
7.3.2	The “Equitable” Sharing of <i>Jus Fruendi</i>	127
7.4	Arguments for the Common Heritage of Mankind	129
7.5	Arguments Against the Common Heritage of Mankind	131
7.6	Conclusion	133
8	Property Status of Extraterrestrial Samples and Extracted Resources .	135
8.1	Introduction	135
8.2	Appropriation of Extraterrestrial Material Under the Outer Space Treaty	136
8.2.1	First Viewpoint: Outer Space Treaty Prohibits Appropriation of Extraterrestrial Material	136
8.2.2	Second Viewpoint: Outer Space Treaty Allows Appropriation of Limited Quantities of Extraterrestrial Material	137
8.2.3	Third Viewpoint: Outer Space Treaty Allows Appropriation of Extraterrestrial Material	138
8.3	Appropriation of Extraterrestrial Material Under the Moon Agreement	142
8.3.1	Appropriation of Extraterrestrial Material for Scientific Investigation	143
8.3.2	Appropriation of Extraterrestrial Material for Support of Scientific Missions	145
8.3.3	Appropriation of Extraterrestrial Material for Commercial Purposes	146
8.4	The Property Regime of Meteorites	148
8.5	Conclusion	150

9 Conclusion 153

Bibliography 157

 Table of Cases 170

Index 173