

# ISSUES AND POLICY

## Space Politics in Historical and Futuristic Perspective

*Why has man rooted himself  
thus firmly in the earth, but  
that he may rise in the same  
proportion into the heavens  
above?*

— Henry David Thoreau

ALAN K. HENRIKSON

*All* politics has, in one form or another, been “space politics.” The common function of political power is to allow a central authority to exercise its influence over a scattered, usually expanding population. Generally speaking, the greater the distances involved, the greater the difficulty in accomplishing this.<sup>1</sup>

The exploration of outer space is part of a historic continuum extending from the beginning of mankind into the future. If we think of the exploration of space in this sense, we learn something not simply about human history but about human nature itself. In other words, one of the principal intellectual and practical benefits of projecting new realms into space — legal, political, military, economic, or intellectual — is that it enables us to gain a better

Alan K. Henrikson is Associate Professor of Diplomatic History at The Fletcher School of Law and Diplomacy, Tufts University, and an Associate of the Center for International Affairs, Harvard University. This article is based on remarks by the author during a panel discussion on the topic, “The Growing Importance of Outer Space,” at the Alumni/ae Day, The Fletcher School of Law and Diplomacy, October 4, 1980. Professor Henrikson also works closely with a new undertaking of the Fletcher School, The Space Politics Project.

1. The usual formulation of this relationship — often called the “gravity” model — is that a nation exerts a political influence proportionally to its population and inversely with distance. This simplification is obviously subject to varying local space conditions. See, e.g., Nigel Calder, *Spaceships of the Mind*, New York: The Viking Press, 1978, Ch. 9, “Spheres of Influence,” especially pp. 106-107.

understanding of those earthly conditions which are the very basis of human society — conditions not previously considered because they have seemed unchanging parameters of our existence. However, these taken-for-granted factors — terrestrial gravity for example — have over time determined man's character as a species.

Man has always been an overreaching animal. Traditionally acting from a variety of impulses, bold leaders — Alexander the Great, Henry the Navigator, Napoleon Bonaparte — have all reached beyond the limited realms allotted to them. Sometimes they moved for military reasons — to outflank others or to prevent themselves from being outflanked. Sometimes the impetus was gain — the desire for gold or commerce. Columbus, for instance, wanted to find a "short," transoceanic route to the Orient — to the riches of Cathay — in order to circumvent the Portugese who by the end of the fifteenth century had come to dominate the passage around the Cape of Good Hope.

Most of the great missions of exploration, conquest, or commerce in the past have been the endeavors of individuals, or companies of individuals. Often the initiative was strictly private. The role of the private sector in the exploitation of mankind's new outer zones remains a central one. The Communications Satellite Corporation (COMSAT), authorized by an act of Congress in 1962, is owned by a combination of communications companies and public investors. Through the International Telecommunications Satellite Consortium (INTELSAT), the executives of COMSAT as U.S. "representatives" manage a worldwide joint venture. If viewed in a historical framework, COMSAT is a successor to great joint-stock companies of the age of overseas empire such as the British East India Company.

This spatial expansion of man's activity has been permitted, even prompted, by the continuous progress of science. Mention of certain influential advances serves to illustrate this. There was the improvement of the sailing ship, the new *caravella*, which enabled the Portugese and Columbus to sail on the high seas rather than skirt nearby coasts. Then came the invention of a diverse range of navigational equipment. During the nineteenth century the steamship revolutionized transport, making it not only more rapid but also far more dependable. During the same period, the railroad shrank the continents. The ascent into aerial space, beginning with the lighter-than-air balloon, has also proceeded with the upward march of technology. The airplane, rocket, and orbital satellite have subsequently reached successively higher plateaus.

Not only have these developments facilitated physical flight, they have stimulated the imagination. Heralding the promise of the young U.S. space program, John F. Kennedy declared: "This is a new ocean, and I believe the United States must sail upon it." Kennedy's use of the term "ocean" was deliberate. It was intended to make the point that the U.S. space program was

essentially no different from previous American assaults on new frontiers.<sup>2</sup> The Apollo Project, a unique representation of the Kennedy Administration's domestic and foreign policies, thus fell squarely within the American tradition of far-reaching achievement. Perhaps more than that of any other country, the story of the United States has been one of progressive spatial conquest.

In the process of expansion, governments have often tried to impose political and legal forms which, by and large, have stemmed from small geographic areas. With the theme of "space politics" ever in mind, let us briefly analyze some of these terrestrial forms, considering their possible relevance to the far more vast area of extraterrestrial space.

At one end of the spectrum, Greece provides a model of the independent city-state, the *polis*. An ideal community, as Plato's *Laws* describe it, would be limited in population and "settled inland, away from the seashore." That is to say, it would be both self-sufficient and insulated. A Hellenistic variant of the concept of an ideal community, favored by Alexander the Great, was that of a wider network of cities consisting of great seaports situated near the mouths of rivers. These brilliant centers ("Alexandrias"), though basically autonomous, would be linked by commerce and common culture.<sup>3</sup> Today, perhaps the closest analogues of the Greek cities and leagues are the continentally based microstates like Liechtenstein, Andorra, or Sikkim, and the numerous islands and island groups of the Pacific Ocean.<sup>4</sup> It is not impossible to imagine that space colonies, located at the fifth Lagrangian point (L-5)<sup>5</sup> and other gravitationally stable locations among heavenly bodies more distant than the Moon, might in some ways resemble the Platonic or Alexandrine conceptions of the Greek *polis*.

At the opposite end of the spectrum, Rome provides a model of a unitary, universal empire. The *orbis Romanum* was theoretically all-inclusive. Although the moderation of the Emperor Augustus halted further territorial conquest, the Roman name, as Gibbon records, was "revered among the most remote nations of the earth."<sup>6</sup> Roman international law, the *jus gentium*, was applicable

2. Cf. Norman Mailer, *Of a Fire on the Moon*, New York: Signet, 1971, pp. 338, 339.
3. See Jean Gottmann, Chapter 12, "Organizing and Reorganizing Space," in Jean Gottmann, ed., *Centre and Periphery: Spatial Variation in Politics*, Beverly Hills: SAGE Publications, 1980, pp. 220-221.
4. See Lewis M. Alexander, Chapter 7, "Centre and Periphery: The Case of Island Systems," in Gottmann, *ibid.*, pp. 135-147.
5. The French mathematician, J. L. Lagrange (1736-1813), showed that there were five stable points (libration points) at which a third body could be placed within the gravitational field of two massive bodies such that the relative positions of the three bodies would remain fixed. The point "L-5" forms an equilateral triangle with Earth and the Moon. Objects placed there will stay in the vicinity of the point, and will revolve around Earth in the same period of time as does the Moon. See Iain Nicolson, *The Road to the Stars*, New York: William Morrow and Company, Inc., 1978, p. 88.
6. Edward Gibbon, *The Decline and Fall of the Roman Empire*, Vol. 1, 180 A.D.-395 A.D., New York: The Modern Library, n.d., p. 8.

anywhere and everywhere. It seemed conformable to Reason itself. Because of this universalist presumption, as well as Rome's preponderant power, disputes between distant peoples were referred to the capital for adjudication. This tradition of centralism was perpetuated over time through the Holy Roman Empire, and even into the present, through the Roman Catholic Church. How relevant might the Roman style be to the space age? Particularly if nations on Earth should one day accept a World Government, they might realize that they have formed the basis of a World Capital vis-à-vis other, extraterrestrial communities. These spatially distant, alien ("barbarian") societies could be subordinate to the global New Rome.

A more realistic scheme for space politics, perhaps, is one that lies somewhere between the Greek and Roman models — such as the pluralistic European system of nation-states, wherein a number of Great Powers, roughly equal in strength, counterbalance each another and, in so doing, preserve the stability (if not invariably the peace) of the whole. Some European Powers, particularly those along the Atlantic, also had overseas empires. These distant spheres — outer space colonies of a kind — were strictly controlled by means of Navigation Acts and other such regulations. In mercantilist theory, the colonial realm was of supreme importance. It was an indispensable source of wealth to the mother country. Some European leaders believed that developments there could eventually tip the power scales in Europe itself. For example, the Duc de Choiseul, France's foreign minister, wrote in 1758 to the heir apparent of the Spanish throne: "The King [Louis XV] believes, Monsieur, that it is possessions in America that will in the future form the balance of power in Europe, and that, if the English invade that part of the world, as it appears they have the intention of doing, it will result therefrom that England will usurp the commerce of the nations. . . ." France and Spain will become "second-rate powers." <sup>7</sup> By the twentieth century, Europeans came to fear that Europe as a whole was in danger of being eclipsed by the non-European new world.

Demographic and technological growth, together with the disasters of two World Wars, have impressed upon many European statesmen the wisdom of working together in their major external ventures. These now include the exploration of outer space. In 1972, the governments of Western Europe combined their space organizations to form the European Space Agency (ESA), under whose auspices Europe's first test satellite was launched on Christmas Eve in 1979. However, the European spirit of nationalist competition persists.<sup>8</sup> This

7. Quoted in Max Savelle, "The American Balance of Power and European Diplomacy, 1713-78," in Richard B. Morris, ed., *The Era of the American Revolution: Studies Inscribed to Everts Boutell Greene*, New York: Columbia University Press, 1939, pp. 160-161.

8. On European space efforts, see Walter A. McDougall, "The Scramble For Space," *The Wilson Quarterly: A National Review of Ideas and Information*, Vol. IV, No. 4, Autumn 1980, pp. 71-82.

impulse, combined with both Europe's historic sense of primacy and its power rivalry with the United States, the Soviet Union, and increasingly Japan and China, is likely to preserve a pluralistic pattern in the international space field.

So while the European system might be adapted to space colonization, the American federal system, because of its peculiar suitability for large-scale organization, might eventually prove to be the most suitable pattern for space politics. The particular genius of federalism lies in its balance between center and periphery — overall order and local spontaneity. Until the success of the American experiment, political theorists had assumed that a republic — a government of and by the people — could survive only if it were small, like Athens or Switzerland. Experience contradicted this hypothesis. During the debate over the Louisiana Purchase (1803), Senator John Breckenridge of Kentucky argued: "So far from believing in the doctrine that a Republic ought to be confined within narrow limits, I believe, on the contrary, that the more extensive its dominion the more safe and durable it will be."<sup>9</sup> The same logic can be, and has often been, applied to international relations. As the British statesman, Lord Lothian, said in 1938: "The importance of the Federalist papers is that they expose, from experience and with unanswerable argument, why sovereignty is an insuperable obstacle to the organization of peace, and why the federal principle is the only way forward."<sup>10</sup> Today, idealists like the United World Federalists carry on the tradition of Hamilton, Madison, and Jay. In principle, the federal scheme of organization could be broadened from its earthly conception of federated units to include any number of additional "states" or "provinces" in outer space.

Until this point, we have looked at space politics mainly from the point of view of the colonizers. Now let us turn to the colonized peoples themselves. The spatial views from the center and the periphery are different both logically and psychologically. If these opposing outlooks are linked to divergent concrete interests, they may eventually become incompatible. The chances of this happening are particularly great when vast distances, conceived of in terms of time or economic cost, prevent effective communication and easy transfer of personnel and materials. The result may be a tendency toward separatism.

The classic historical case of the political separation of a periphery from a center is the breakaway of Europe's colonies in the Western Hemisphere in the eighteenth and nineteenth centuries. This developed gradually. One of the earliest incidents of separatist sentiment is the attitude of the inhabitants of the Caribbean island of St. Christopher's, or St. Kitts, in the seventeenth century.

9. Quoted in William Appleman Williams, ed., *The Shaping of American Diplomacy: Readings and Documents in American Foreign Relations*, Vol. 1, 1750-1900, Chicago: Rand McNally Company, 1956, p. 99.

10. Quoted in Clarence K. Streit, *Union Now: A Proposal for a Federal Union of the Democracies of the North Atlantic*, New York: Harper and Brothers, Publishers, 1938, p. 65.

(One might think of this island, 18 miles long and 6 miles wide, as equivalent to a station in outer space). The settlers there were mostly British and French. Annoyed that the frequent military and naval struggles between Britain and France upset their island's local affairs, they finally decided to declare their neutrality. They agreed among themselves that, if Britain and France were to go to war in Europe, they themselves would not fight unless ordered to do so by their sovereigns. In 1678 the St. Christopher's arrangement was extended, by the Treaty of Sandy Point, to the British Leeward Islands and French Antilles as a whole. This agreement was not actually ratified by the British and French kings but it governed the islands' behavior nonetheless. Eventually, the idea of "colonial peace" was adopted by the mother countries themselves. The Treaty of Whitehall (1686), also called the Treaty of American Neutrality, stated that there should be "peace beyond the line." If the planetary powers of Europe were to clash, their satellites abroad could remain in harmonious orbit.<sup>11</sup> The tradition of the Treaty of Whitehall is an intellectual inheritance from Europe. More fundamentally, however, the doctrine of "two spheres" is a product of the logic of the physically remote American situation itself.

The problem of extending Old World political forms to the New World; and by analogy earthly standards to outer space, is not so much that the conventional patterns do not reach far enough. A structure like the Roman Empire or even the American Constitution could be expanded, in a spatial sense, almost indefinitely. A more fundamental reason why such models cannot be effectively transferred outside their originating regions is that they tend to be perceived by the "space" settlers as inappropriate to their particular needs. They just do not "fit" their situations.

It is essential to realize that a new "America," as we may call any unexplored but humanly attractive habitat, is more than a location or a set of geometric coordinates. It is a physical frame of reference and a psychological field of action; in short, a total ecology. The first Europeans to inhabit the Western wilderness were subtly transformed by it. "What then is the American, this new man?" J. Hector St. John de Crèvecoeur asked in his *Letters From an American Farmer* (1782). He reasoned both literally and figuratively when he responded: "Men are like plants; the goodness and flavour of the fruit proceeds from the peculiar soil and exposition in which they grow. We are nothing but what we derive from the air we breathe, the climate we inhabit. . . . A European, when he first arrives, seems limited in his intentions; but he very suddenly alters his scale; two hundred miles formerly appeared a very great distance but it is now but a trifle; he no sooner breathes our air than he forms schemes,

11. Max Savelle, *The Origins of American Diplomacy: The International History of Angloamerica, 1492-1763*, New York: The Macmillan Company, 1967, pp. 186-190.

and embarks in designs he never would have thought of in his own country. . . . Thus Europeans become Americans."<sup>12</sup>

The attentive reader of Crèvecoeur and of other European travelers in America will appreciate the altered perspectives and behavioral patterns fostered by life in the New World. Those who arrived were induced to *think* differently, to *act* differently, and, finally, to *be* different. These essential changes that occur with spatial "transplantation" suggest that Sir William Stapleton and the Comte de Blénac in the Treaty of Sandy Point, George Washington with his Farewell Address, James Monroe in stating the Monroe Doctrine — and most American officials to the present day — have realized that America has "primary concerns" fundamentally different from those of Europe.

I am suggesting nothing less than a comprehensive re-examination of the way international politics relies upon particular physical environments. This is not geographical or environmental determinism. Although environments shape the range of the possible and sometimes even the probable, they cannot drive, or strictly determine, an actual sequence of events — that is, history.

The importance of environmental variation for politics in our own time may be illustrated by a situation that is, in some aspects, midway between the history of overseas colonization and the future of space exploration. This is the situation found in Antarctica. Scientists and others who have resided there for long periods have tested — if only partially — the scope of human adaptability.<sup>13</sup> Extreme physical and social conditions — sub-zero temperatures, blinding ultraviolet light, long stretches of night and day, cramped physical quarters, and isolation — have caused physiological, psychological, and even philosophical stress. The natural Circadian rhythm — the 24-hour biological cycle — is often out of kilter with the living and working environment. The negative effects have included sleep disturbance, reappearance of chronic diseases, hypokinesia, and general lassitude. These symptoms can complicate not only the internal administration of the Antarctic stations, but also their relations with sponsoring organizations and supervising governments.

At the same time, the Antarctic situation can engender positive changes in human behavior. Although the region is still subject to competing national territorial and other claims, temporarily put "on ice" by the Antarctica Treaty

12. J. Hector St. John de Crèvecoeur, *Letters From an American Farmer: Describing Certain Provincial Situations, Manners, and Customs, Not Generally Known; and Conveying Some Idea of The Late and Present Interior Circumstances of the British Colonies in North America*, New York: E. P. Dutton, 1957, pp. 39, 40, 54.

13. For a review of the presumed similarities between life at an Antarctic station and long-term space flight, see Kirmach Natani, Ch. 2, "Future Directions for Selecting Personnel," in T. Stephen Cheston and David L. Winter, eds., *Human Factors of Outer Space Production*, Boulder, Colo.: Westview Press, 1980, pp. 25-63.

(1959), its very inhospitality has produced rare gestures of human cooperation and goodwill. For example, American researchers in Antarctica use their radios to play chess with Russian counterparts and darts with British counterparts.<sup>14</sup> On a larger scale, the 1957-1958 International Geophysical Year (IGY) enlisted the research efforts of some twelve nations, including the Soviet Union — at the height of the Cold War.

Unlike the circumstances of Antarctica, the living conditions of outer space will need to be almost completely synthetic. Some earthly conditions may be difficult, if not impossible, to reproduce. For instance, in the spacecraft that have been lofted so far, there has been nothing comparable to earthly gravity. Over a long period, it is believed, weightlessness will be very destructive to the human organism and to the basic human sense of orientation (i.e., awareness of up and down). Space vessels of the future, therefore, might have the shape of a great rotating wheel or cylinder. The revolution of these structures will generate centrifugal force and permit a feeling of “*terra firma*.”<sup>15</sup> This might make it possible for crewmen to “walk” on the inside of the outer walls of the craft, but it is unlikely that a normal feeling of human weight can thereby be recreated. Food presents another challenge. For long-term flight into deep space, food cannot be sent from Earth. It would have to be produced in artificial ecosystems. The product may be quite different from the nourishment to which we on Earth have become accustomed, not only in taste but, more importantly, in nutritional value. Trace elements, for example, may be lacking. The effects of these deficiencies on the human body and psyche are impossible to predict.

Far-thinking planners, such as Smithsonian Institution lawyer-biologist George S. Robinson, have speculated that man’s mode of functioning in space may be so fundamentally altered that we may no longer be able to apply, let alone enforce, traditional earthly norms of human behavior. Anticipating this future, Robinson proposes a new name, *Homo spatialis*, for our space cousins.<sup>16</sup> At what point, he leads us to ask, might we on Earth be forced to decide that a new sub-species, or even species, of Mankind has evolved? Would our laws and political controls apply to Spacekind?

Imagine a hypothetical case — similar to that in *Mutiny on the Bounty* — wherein the crew of a spacecraft decides it must change its commander in order

14. Peter X. Harding, a MALD candidate at The Fletcher School of Law and Diplomacy and, during 1976 to 1980, manager of the Siple and Palmer stations, provides this vivid example of Antarctic international camaraderie.

15. See Nicolson, *ibid.*, pp. 42, 86-92, 197-200, and Calder, *ibid.*, Ch. 3, “The Princeton Prospectus,” and also pp. 122, 124.

16. George S. Robinson, “*Homo spatialis*: A Space Law Dilemma,” 30th Congress, International Astronautical Federation, Munich, September 17-22, 1979. See also George S. Robinson, *Living in Outer Space*, Washington, D.C.: Public Affairs Press, 1975.



to survive. How could these men be judged? How could we on Earth possibly know what their situation was and whether the men were thinking and acting "normally?" Immediately legal problems arise.

The 1967 Outer Space Treaty declares that the country launching a spacecraft retains jurisdiction over both the vehicle and its personnel (Article 8). So, in theory, a court, say, in Middlesex County, Massachusetts, would determine whether a U.S. crewman had committed mutiny. What rules would apply should there be a mishap involving citizens of two states, as during an international space venture such as the 1975 Apollo-Soyuz mission? Would the offense be a domestic crime or an act of aggression against another state — or neither? Could it not conceivably be an action justifiable under new ad hoc or legislated rules of survival of an emergent space community — perhaps a Free City or *polis* of Lagrangia?<sup>17</sup>

The value of such speculation about a future human role in outer space lies partly, as suggested at the outset of this essay, in the mirror it provides for a clearer view of man's terrestrial policies and history. Our conception of human nature has inevitably been Earthbound. Thinking about man's future existence somewhere else under the Sun (or some other sun) makes us better appreciate the accidental quality of our existence on the globe, or Spacechip Earth. Human nature has never been constant. It continues to adapt to changing circumstances. Understanding this may sensitize us to the possibility that our present expectations of ourselves and our laws and other norms should be more precisely accommodated to the varying realities under which we live. Influences governing the lives of those earlier peoples who lived in agrarian societies differ dramatically from those regulating life in today's urban agglomerations. These conditions differ from one another, perhaps as dramatically, as the current environment would from the living conditions of outer space. We simply do not know how the many innovations of the modern environment affect us, partly because we have not thought about it. Speculation about space life — ourselves as *Homo spatialis* — helps us to do this.

I end with the proposition that thinking about outer space, quite apart from the practical conquest of it or the development and defense of future interests in it, enables us to form a much more complex picture of Man, of his setting, and of his history. "Things do not change," Thoreau said; "We change."<sup>18</sup>

17. For an interesting discussion of the possible applicability to space politics of the international "free city" model, based on the actual history of the Free City of Danzig (established after World War I) and the Free Territory of Trieste (established after World War II), see J. Henry Glazer, "Domicile and Industry in Outer Space," *Columbia Journal of Transnational Law*, Vol. 17, No. 1 (1978), pp. 76-117.
18. Henry Thoreau, *The Illustrated Walden*, with photographs from the Gleason Collection, text edited by J. Lyndon Shanley, Princeton, N.J.: Princeton University Press, 1973, p. 328. The Thoreau quotation at the beginning of the article is found on p. 15.