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Science, Technology, and Environmental Policy

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Presentation

“New World/ New Worlds: Parallels in the Evolution of Enterprise-based Exploration Financing from the 16th and 21st Centuries”

European exploration and attempted settlement in eastern North America during the 16th century began as a primarily a government sponsored initiative. But the repeated failures of Spanish, French and English crown supported efforts - failures largely attributable to an insufficient scientific expertise - discouraged future commitments of “public” funds as sources of the long-term capital commitment such ventures entailed. By the close of the 16th century advocates for North America exploration were pivoting from chauvinistic solicitations of crown elites to innovative venture strategies appealing to private investor return expectations.

English courtier and entrepreneur, Sir Walter Raleigh (1552-1618) epitomized this transitioning public/private capitalization approach. Raleigh undertook exploration and settlement attempts in North and South America between 1584 and 1618 in the wake of several unsuccessful French, Spanish and English expeditions that had poisoned the environment for government-backed New World exploration and settlement. Instead Raleigh designed a public/private capitalization strategy combining long-term nationalistic goals with shorter-term financial returns opportunities. His innovative business plan accentuated investor interest by defining a broad portfolio of investment return potentials substantiated by his novel integration of international scientific and technical expertise into his exploration and colonization venture teams.

The paper argues that the evolutionary experience of 16th century European exploration has significant illustrative parallels in the current rapidly changing trajectory of 21st century space exploration. As with early 16th century New World exploration, the age of space exploration opened in the 20th century primarily as a nationalist exercise of proxy militarism and projections of geopolitical hegemonic pre-emption. But in more recent decades, as experience with the complexities and costs of expanding space aspirations solidified realizations of the constraints of prior practice, a consensus emerged emphasizing increased global collaboration and the proactive facilitation and reliance on private commercial space development. The International Space Station (ISS) and its dependence on Russian and commercial resupply capabilities exemplify that transition.

This transition repeats the primary challenge of the “New World” ambitions of Sir Walter Raleigh - are the political and financial capital structures of the 21st century sufficient to the task of sustaining private enterprise-based “New Worlds” exploration and colonization. This question is explored through a comparative examination of the ambitions and experiences of the current generation of entrepreneurial “rocketeers”. Commercial space entrepreneurs such as Elon Musk of SpaceX and Jeff Bezos of Blue Origin, like Raleigh in his goal of colonizing the New World, have invested and risked much of their personal fortunes in launching their ventures. Like Raleigh, they have faced the necessity of securing a combination of public and private support to sustain these efforts toward their ultimate goals. And like Raleigh, they have addressed his challenge by pragmatically intertwining synergistic business models into a commercial portfolio to attract and sustain the financial capital required to pursue grand purposes of New Worlds exploration and settlement. The experience of 16th century New World visionaries such Sir Walter Raleigh provides a compound lens through which to observe and interpret the success or failure of these ongoing audacious endeavors.

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