

Book Review: How Outer Space Made America: Geography, Organisation and the Cosmic Sublime by Daniel Sage

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This book looks to analyse how and why American space exploration reproduced and transformed American cultural and political imaginations by appealing to, and to an extent organizing, the transcendence of spatial and temporal frontiers. The analysis offered by Daniel Sage is carefully considered, extensive, and interesting, finds Lee Gregory.

How Outer Space Made America: Geography, Organisation and the Cosmic Sublime. Daniel Sage. Ashgate. 2014.

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A book which integrates social science with a discussion of space was always going to be interesting. From the social science perspective this text gives an insight into how policy development and implementation can be infused with a narrative around national identity and destiny, which is an analytical frame often overlooked.

Daniel Sage provides a very comprehensive account of a range of evoked images, texts and practices which have been drawn upon to create the “transcendental state”. This term is drawn upon by Sage to highlight the diverse, overlapping discursive and material practices by which America has assumed cosmic ordering which seeks to further American geo-power. The analysis offered illustrates how the “final frontier” has been drawn upon and integrated into discursive practices to enhance America’s global standing.

The first US satellite in space was Explorer 1, launched in 1958 following the earlier success of the Soviet Union. The space race between the two nations continued with the Soviet Union launching the first man into space in 1961 and six men in 1962, whilst the US in 1961, the US launched its first [suborbital](#) astronaut, the same year as Kennedy’s speech to land a man on the moon. By 1963, the US had successfully achieved 34 Earth orbits and 51 hours in space. The Soviets beat the Americans again by getting the first woman in to space (20 years before the first American woman) but in 1969 Apollo 11 landed on the Moon; achieving Kennedy’s aim. Since then, despite the development of space shuttles and the international space station, space travel has not been so prominent on the national or international stage. Yet as Sage demonstrates in this text, the underpinning drive to achieve space flight has fuelled a particular national identity project which continues to this day.

Chapters 1-3 introduce the reader to the mythology and religiosity which was drawn into the debates in favour of developing the space programme. This starts with a comparative discussion of America’s expansion of its frontiers attached to a Puritanical narrative which is transposed into the focus on Space exploration as part of a continuing narrative of American exceptionalism.

‘The Puritan technique for the inscription of geographical difference through transcendence... was a far less secular notion: the proclaimed spiritual material freedoms of the New World confirm upon its population a unique messianic destiny to lead humanity towards salvation’ (p.13)



The December 21, 1968 launch of Apollo 8 (AS-503) from Cape Kennedy, Fla. was the beginning of a mission designed to test the Apollo system and gain the operational experience necessary to realize President Kennedy's goal of "landing a man on the Moon and returning him safely to Earth." Credit: [NASA's Marshall Space Flight Center](#) CC BY-NC 2.0

Thus throughout the text attention is given to analysing the positioning of American manifest destiny in relation to space policy. Sage examines not only key political speeches such as [Kennedy's moon landing ambition](#) but also an engagement with the work of [artists](#) who invoked images of America in their depictions of Space – where moonscapes were drawn to look similar to US landscapes. Such imagery generates a sense of American destiny, ascendancy and ideological superiority which is only undermined by the launch of Sputnik consequently generating public anxiety about America's geo-political power which made the space race and important battleground for securing supremacy and geo-political power.

'Sputnik appeared to threaten two registers of the image of America as a transcendental state: visual and technological. First, Sputnik looked down and traversed the ground [...] Second, Sputnik's technology transgressed the material limits imposed by Earth's gravity; a threshold which American scientists and engineers had not overcome' (p.37)

Through these chapters, Sage demonstrates how the urge for space travel is wrapped up in two centrifugal narratives. On the one hand there is an overt narrative of exploration, the innate human need to discover, cue the opening to any *Star Trek* episode: to explore strange new worlds, seek out new life, etc. On the other hand there is an implicit narrative of national prestige of the US with regards to their scientific, technological, industrial and military strength.

Here, Sage highlights how declassified policy documents indicate that this psychological impact of American Space activities feeds directly into national prestige – again highlighting how the Russian success with Sputnik was a blow to American status. With global leadership under threat, the moon became the new target ushering new forms of organisation and an enhancement of the mythical and messianic imagery of space exploration and American identity. Quoting the Washington Post article which stated:

'the Soviet union has scored a brilliant victory in the race for scientific progress and for eladership on the ideological sphere' (p.34)

The creation of NASA, Sage explains in chapter 4 (“Technology in the Space Age”), fostered the expansion of technocratic forms of organisation and bureaucracy. Imbued with the need to present America’s identity, these new forms of organisation were adopted as models of addressing complex social problems, not just space exploration. NASA was a means by which technology, scientific and engineering expertise, big business and big government worked together to create efficiency and effectiveness to solve a range of social, economic, moral and environmental problems.

Whilst chapter 4 draws attention to these organisational practices, chapter 5 (“Whose Body for Whose Future”) focuses on the workforce. For Sage, this overlaps with gendered critiques as work practices were encapsulated in hyper-masculine narratives, and there are potential links to be made with domestic technological advancements being “feminized” and rendered invisible, whilst masculine technologies promote human creativity and progress. Sage discusses the narratives around astronauts as rational and emotionally detached, as heroes of American exploration and geopolitical dominance, and it becomes clear to the readers how gender relations were performed through the operation and recruitment of NASA to embed these relations within messianic ideals of the transcendental state.

‘a distinctive extra-terrestrial masculine mythology at work here: once in Space the astronaut embodies this sense of rational control and emotional detachment. At this point the astronaut has overcome the physical hardships of spaceflight, appears rational, controlled and detached, watching over a chaotic and unstable female Nature below’ (p. 83).

In essence, these gender relations were presented as predestined with technocratic forms of organisation being used to maintain discriminatory practices not just against women but also with regards to class and ethnicity.

Thus far the chapters have highlighted the growing support for Space exploration attached to America’s own identity and efforts to promote its superior geopolitical power. Chapter Six (“Was Revolution in the Air?”) however starts to examine the demise of the public support for the Space missions post-Moon landing. The political aspirations of space travel exposed, NASA now seeks to shift towards marketisation and militarisation to maintain support from policy makers. These become the short-term goals within the wider societal goals of exploration. Yet the overarching aims remain the same, as President Obama states, quoted by Sage (p. 98): *‘in fulfilling this task, we will not only extend humanity’s reach in space – we will strengthen America’s leadership here on Earth’.*

Space exploration during this time of public disinterest still seeks to reinforce America’s claimed manifest destiny of global leadership through its superior position in economic, technologic and scientific matters.

In the final chapters, Sage discusses how the establishment of The National Air and Space Museum (NASM) and the Kennedy Space Centre Visitor Complex have been constructed as monuments to American dominance and retell a particular history which reassures visitor of this superiority.

‘By superimposing motifs of the American West onto the origins of the universe, the origins of all human life’ (p.116)

Perhaps one of the most interesting parts of this discussion, however, is Sage’s account of how the narratives presented within the NASM overlook the [Nazi history of rocket design](#) upon which American exploration was built (the use of Nazi scientists and their previous work using labour camp production). In a similar way, Chapter 8 (“Traumatizing Spaceflight”) examines how the telling of disasters such as Apollo 1 and Challenger also work to feed into messianic hope and wider workings of the transcendental state to reinforce the heroic sentiments which seek to bolster America’s global identity.

Whilst in places the writing style can be quite complex which may limit the readership to an audience familiar with geographic theories and concepts, it is a good read for understanding broader themes around how policy making can be influenced by broader international political concerns and the inter-relationship between political motives and organisational practices.

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