

A carefully crafted work of rhetorical art

Book SHROEDER SORENSEN, K., (2017) *COSMOS AND THE RHETORIC OF POPULAR SCIENCE*, LONDON, U.K.: LEXINGTON BOOKS

Reviewed by Erik Stengler

Abstract Shroeder Sorensen analyses in depth the close relationship of the TV-series *Cosmos* [1980] with the popular culture, in its broadest sense, at the time of its release. The novel application of Fantasy-Theme analysis to the rhetorical vision of the series reveals how it is the product of a very careful and successful design. The book also compares the original series with its 2014 reboot *Cosmos: A Spacetime Odyssey* [2014].

Keywords History of public communication of science; Popularization of science and technology; Visual communication

For someone from the “Cosmos generation” of astronomers and science popularisers, the first reaction to the publication of a book about Carl Sagan’s successful series would be that it was about time for an in-depth analysis of his style and rhetoric. Some papers have addressed some aspects extensively [Lessl, 1985; Helsing, 2016], but a phenomenon like *Cosmos* seemed to deserve an even deeper look.

At the same time, all the ideas that one typically toggles with and would naturally expect to be addressed in such a study are swiftly covered in the first page, merely as an introduction, revealing a much more thorough and substantial analysis into all the elements that contributed to the historical and long-lasting success of this series’ mythical legacy.

It is precisely in a journey towards the construction of this *mythos* that Schroeder-Sorensen takes us through the subsequent rungs of the ladder that leads to it. The journey begins with the idea of *kairos*. *Cosmos* was created in a specific time and place, including the socio-economic climate of the 80 in the U.S., cultural trends of the time and elements of science fiction and fantasy that were popular then. The series masterfully rode the wave of all these, capturing a *kairotic* moment — “the realization of perfect timing” — and forming a rhetorical community as a result. With references to numerous films and TV series, and particularly to *Star Wars* [1977], from which Schroeder-Sorensen draws many parallels to *Cosmos*, the book shows how the many coincidences with trends in popular culture are not at all accidental.

Neither are the attributes of the Carl Sagan persona that leads the series, which is revealed as also carefully crafted to achieve the necessary *ethos* to get audiences to follow it in a quasi-religious manner. In this regard, a new explanation is revealed for the tension that arose between Sagan and the scientific establishment of the time. This tension is often attributed to a lack of value put on activities of dissemination and popularization. In Sagan's case, however it seems to be more related to the priestly persona he adopted to pursue this *ethos*: continuing with the Star Wars parallelism, Sagan is presented as Cosmos's Obi Wan Kenobi, the audience's mentor, or even saviour, with a detailed analysis of the opening sequences of the first chapter of the series.

The surroundings and position, physical and emotional, in which a message is shared and from which it is disseminated form the basis of the next element in whose light the careful design of Cosmos is analysed. This is the "rhetorical place" called *éthos*, the forum that in Cosmos is provided in virtual terms by television (*ethos* and *éthos* being two aspects of the one "ethos" of the original Greek expression). Schroeder-Sorensen masterfully describes how television worked in this way as Cosmos's forum, alluding to the term *participation*: audiences are made to feel that they are participating in Cosmos' exploration, rather than just watching and learning. This is a remarkable achievement at a time when the *participation* that social media facilitate around audio-visual production was still an unimagined future. With further comparisons with popular culture and Star Wars, the design of *Cosmos* is also put in relation with the concept of *flow* that is so relevant to science communication: making the experience (e.g. watching a TV show) rewarding in itself, helps create unbroken, focused attention [Nakamura and Csikszentmihalyi, 2014].

As said, all this culminates in the establishment of the popular science *mythos* we all know Cosmos to be. This is a mythos with possibly unconscious influences from Sagan's childhood interest in science fiction, combined with "a carefully crafted work of rhetorical art", as the author puts it. Schroeder-Sorensen looks in particular detail into the parallelisms between Cosmos and Olaf Stapledon's 1937 novel *Star Maker* [1937], which Sagan most likely read as a child. Schroeder-Sorensen analyses and compares the narratives, the music, the visual elements and the genre archetypes — including the means of transportation, which are different in each of them, but share being rather unique in comparison with other works. It must be noted that throughout the whole book, Sagan's choice of his dandelion seed shaped spaceship is very prominent as a major element contributing to the careful crafting of the series.

A final chapter succinctly revisits the same ideas as they apply — or not — to Neil de Grasse Tyson's 2014 reboot *Cosmos: A Spacetime Odyssey*. A careful comparison with the original also shows how heavily the need to appease the potentially negative reception of the reboot by the fandom of the original series weighed in the making of this instalment. This fandom as a telltale sign of popularity at *mythos* level is, in fact, the basis of Schroeder-Sorensen's novel approach of applying to a popular science work a fantasy-theme analysis that has proven so successful in providing, 37 years after its first airing, the key clues to the longevity of this masterpiece of science communication.

The analysis described in this book opens the door to the application of similar approaches to other successful works of science communication and in this regard, can be considered a pioneering piece of research that, like the object of its study, will have a long-lasting life in the science communication literature.

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How to cite

Stengler E. (2017). 'A carefully crafted work of rhetorical art'. *JCOM* 16 (05), R02.



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ISSN 1824-2049. Published by SISSA Medialab. jcom.sissa.it