

SELMA,
protagonist in
the 2016 televised
advent calendar.



The Santa scientist

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From 1 December to Christmas Eve 2016, children, parents and other Christmas nerds sat in front of the television to watch the year's advent calendar from public service broadcaster Sveriges Television: *Selmas saga* [Selma's Saga], written and directed by Per Simonsson and Stefan Roos. It was presented as a "magical Christmas adventure", with an episode that lasted almost 15 minutes being broadcast every morning. The story takes place around 1900, during the era of great discoveries. At the centre of events are eight-year-old Selma Traskvist and a grey-haired scientist and inventor, Efraim von Trippelhatt. Together, they leave in a balloon for a journey filled with danger and hardship, looking for Santa's kingdom somewhere north of Svalbard. Nothing less than the Academy of Sciences plays a central, but not as heroic, role.

Selmas saga is one part of knowledge's medial circulation. Different genres and styles are mixed in a playful manner, and references to earlier books and films with similar themes are ten-a-penny. Viewers are particularly reminded of *Northern Lights*, the first part of Philip Pullman's fantasy trilogy *His Dark Materials*, published in 1995 and filmed under the direction of Chris Weitz as *The Golden Compass* in 2007. The scriptwriters have also researched famous historical journeys of discovery, and Per Simonsson particularly names literature about Fridtjof Nansen's expeditions as a source of inspiration. ("By Nansen's moustaches" is one of the expletives that the eccentric von Trippelhatt strews about.) However, they have not searched for more information about the Academy of Sciences, but instead based their presentation on what they previously knew about the organisation and its purpose. Elements of the history of science are used primarily as a resource for narrative technique and no claim is made for historical accuracy. Nevertheless, a specific historical image or stereotype, with which the viewers are expected to be familiar, is mediated.

It is to the (fictional) Academy of Sciences that von Trippelhatt goes to find financial support for his journey to the North Pole. Even the monumental entrance to the building that is the site of the members' meetings – different to the real one in Frescati – indicates a seat of real power. The average age of the formally dressed members is high and morals are low; it is not only franking privileges and almanac monopolies that have filled the Academy's coffers. Equipped with a projector and slides, von Trippelhatt tries to convince his listeners that Santa really does exist. His rejection is not based on a lack of resources, but in unreasonable Santa nihilism. The members are furious and march out of the room as they taunt him: "The Academy does not give money to such madness!", "You're a fool, von Trippelhatt!", "A shame on the sciences!" But when a rival expedition, funded by the greedy toymaker Hermelin (with a hair colour and comb-over reminiscent of the USA's current president) later succeeds in presenting evidence for Santa's existence, more than one person in the assembly takes a different stance; now the members queue to buy shares in the company that will exploit the North Pole and build a gigantic theme park. Greed and genius in a disturbing union.

When the Nobel prize and Nobel laureates have appeared in slightly older Swedish films and TV series, they have been treated with respect and national pride. No such expectations are fulfilled in *Selmas saga*. One of the scenes shows the girl at the home of her new expedition colleague, looking at two large portraits in gold frames. These depict his deceased parents: the two Nobel laureates, Eskil and Margot von Trippelhatt. The portraits are a kind of pastiche, or perhaps a playful parody, of the many portraits of intellectual and administrative elites that are collected at museums and scientific institutions. The Academy of Sciences' portrait collection has more than 350 works depicting members and other people linked to the Academy. The majority are located in the main building in Frescati, but are also found at research institutions. Unlike these portraits, which are largely produced as oil on canvas, von Trippelhatt's parents have been immortalised in nostalgically sepia-toned photographs. They have been captured from below and both have critical, haughty facial expressions which, in this scene, are accentuated by the small figure of the girl. In the background it is possible to glimpse rows of paintings hanging on the wall, reminiscent of the portraits in the Academy's Session Hall, and the overall impression is overwhelming, even crushing. The viewers are provided with the explanation for von Trippelhatt's fixation on proving Santa's existence: his strict parents had forbidden the celebration of Christmas, so as not to encourage superstition in their son – a childhood trauma as good as any.

Overall, the stuff of the history of science in *Selmas saga* is presented in a conventional manner. But one aspect is dealt with differently: the representation of women is significantly greater than in conventional history.

Science has been marked (and still is) by a gender order in which the majority of scientific practitioners have been men, while the women, like Svante Arrhenius' wife Maja Arrhenius, have often played a hidden but nonetheless important role in maintaining the cultural stability of scientific life. Efraim von Trippelhatt's mother is a Nobel laureate (it is unclear in which field) and half of the fictional members of the Academy of Sciences are women. Among the female characters are a dastardly adventurer with the mellifluous name of Margareta Nordenstjerne, a roving reporter on site in Svalbard, and the stubborn "Santa's elf" who finally helps Selma and Efraim find the way to Santa's kingdom. Norm criticism, an aspect focused on by Sveriges Television and other public cultural institutions, can also be seen in the deliberate choice of racialised actors in roles as the Academy of Sciences' members and as Nordenstjerne's sidekicks.

Still, *Selmas saga* was criticised because girls and women had only around one-third of the programme's speaking time. The survey was conducted by consultants at GenderTimer, a company that works with equality in the workplace and has developed an app for measuring speaking time by gender. The advent calendar's position on their blacklist created fierce debate in social media, with the initiators of the survey being called Grinches (after the monster in the film *How the Grinch Stole Christmas* from 2000) by irate individuals. GenderTimer was accused of destroying the spirit of Christmas for the Swedish people.

Alongside magical things such as amulets and fairy rings, technology has a given place in *Selmas saga*. There is an unmistakable aura of steampunk in the environments and costumes, not least Efraim von Trippelhatt's uniform. The most impressive piece of technology of them all is *Valborg II*, a home-constructed balloon driven by special gas that cost Efraim's entire family fortune to produce. This vessel is invaluable in transporting Efraim and Selma to their destination, but can also be seen as a gesture to the long history of technologies for observing the world from above. Like Sven Hedin's composite panorama of the Tibetan landscape, balloons and aeroplanes provided access to an elevated position from where the world could be viewed, described and controlled. Accordingly, maps are of central importance in *Selmas saga*, but science needs the help of magic for the invisible writing on the route description to see the light of day.

The many incidents during the Trippelhattian expedition, and the balloon crash after being shot down by Nordenstjerne's zeppelin, inevitably bring to mind Jan Troell's film *Flight of the Eagle* from 1982, about Andrée's expedition

A FICTITIONAL ACADEMY OF SCIENCES played a leading role in Sveriges Television's advent calendar in 2016, *Selmas saga*. Actors: Ester Vuori (Selma) and Johan Ulveson (von Trippelhatt).



over the Arctic at the end of the 19th century. What should have been a triumph, a prestigious Swedish achievement, ended in catastrophe and death for Andrée and his crew. Things work out better in the advent calendar, at least for the good guys. The crew on board the *Valborg II* are saved by the elf and a group of Christmas hippies who have retreated from civilisation to a chilly village above hot springs, after each having helped a Santa to the throne. (In the true spirit of democracy, Santa turns out to be an official position and not something one is born to.) Nordenstjerne, who is anticipating a statue being erected in her honour as a reward for annexing Santa's kingdom, is instead turned to ice and explodes into a thousand pieces. The zeppelin with the remaining members appears to have suffered the same fate as Hindenburg.

Is the Academy of Sciences doomed to be presented as an aged villain in the media's fictional universe? The perception of scientific academies as an elite comprised of elderly men and, to some extent, women, with a narrow view of knowledge and dubious history, appears to be cemented, at least in the *Selmas saga* advent calendar. Thus far, it has been of little help that the Academy of Sciences, perhaps as a strategic countermeasure, has created the Young Academy of Sweden, an interdisciplinary forum for outstanding young researchers, which works with outreach activities and current research policy issues. But in a time when there is increasing worry about the extent of disregard for expertise, fact-resistance and filter bubbles, it is not impossible that we will see a more visible Academy of Sciences, one that takes a more active role in social debate. The question is whether it will create the right atmosphere in the advent calendar.

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Selmas saga was Sveriges Television's advent calendar in 2016. It was written and directed by Per Simonsson and Stefan Roos and produced by Nordisk Film TV. Details about the production were sent in an email to the author by Simonsson on 29 December 2016. For relevant discussions on the presentation of science on television, see Marcel C. LaFollette, *Science on American Television: A History* (Chicago, 2013), and the themed issue "Science on television", Clara Florensa, Oliver Hochadel & Carlos Taberner (eds.), *Actes d'Història de la Ciència i de la Tècnica*, vol. 7, 2014. Media images of scientists and engineers have been covered by, among others, Thomas Kaiserfeld, "Om kärlek och pengar ... och snille: Historiska ingenjörer som berättar resurs i svensk spelfilm", Staffan Bergwik, Michael Godhe, Anders Houlitz & Magnus Rodell (eds.), *Svensk snillrikhet? Nationella föreställningar om entreprenörer och teknisk begåvning 1800–2000* (Lund, 2014). For a historical discussion of genre, a catalogue of and further details about individual portraits in the Academy of Sciences' collection, see Görel Cavalli-Björkman & Karl Grandin (eds.), *Kungl. Vetenskapsakademins porträttsamling* (Stockholm, 2015). GenderTimer's speaking time survey of *Selmas saga* and the subsequent debate are presented on se.gendertimer.com/sv/.