

The Moon as the best object for public engagement in planetary science - from SELENE (Kaguya) experience

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Abstract

The Moon is the nearest celestial body of the Earth. We can see the Moon as the most striking object in the night sky. The investigation of the Moon is necessary to know the Moon itself, but also other celestial bodies including the Earth. We could say "the Moon is one of the best objects for Public Engagement in Planetary Science. We, Japan, launched a lunar orbiter, SElenological ENgineering Explorer (SELENE, nicknamed Kaguya) with 15 scientific instruments in 2007 to acquire scientific knowledge of the Moon and to investigate the possibility of the Moon to be used in future. The SELENE explorers successfully acquired numerous data of the Moon in 1.5 years operation. The data have been opened to Japanese and international science communities [1] and also public [2]. In order to use the data easily, a 3D viewer of the SELENE data were developed [3]. Lots of significant scientific achievements have been deduced from the SELENE data. The public, particularly planetariums, used the data for education, in Japan. The SELENE mission appears to have contributed to public engagement in planetary science, in a level. However, the SELENE could have supplied more interests onto the public. In 2010, a Japanese explorer to an asteroid, Hayabusa, came back to the Earth after its 7 years travel filled with lots of almost fatal troubles. The hardship story of the travel impressed the public in Japan into admiring the achievements of Hayabusa and often made people to say "we've got courage from Hayabusa!". Hayabusa mission is probably more famous than SELENE mission in Japan. Hayabusa was certainly great. The returned samples are of extraordinary significance. However, the scientific achievements of the SELENE are equally great or greater. What makes the difference of public interest on these two missions? How should we have introduced SELENE mission to the public? How should we have made efforts for public to use the data? What were our successes and mistakes? In this

presentation, I will talk and discuss how the Moon is and should be the best object for public engagement in planetary science from my SELENE experience.

Link

- [1] SELENE (Kaguya) data archive page:
<https://www.soac.selene.isas.jaxa.jp/archive/index.html.en>
- [2] SELENE (Kaguya) Image Gallery:
http://wms.selene.jaxa.jp/selene_viewer/index_e.html
- [3] SELENE (Kaguya) 3D GIS page:
http://wms.selene.jaxa.jp/3dmoon_e/index_e.html

