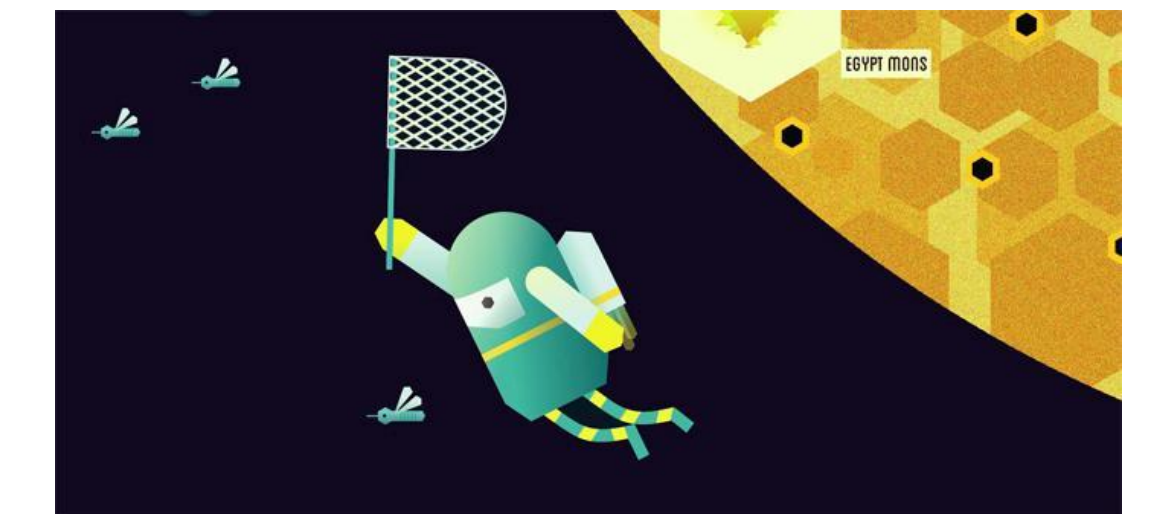


Planetary Map Series for Children

H Hargitai¹, M Gede², J Zimelman³, Cs Kőszeghy⁴, D Sirály⁵, L Marinangeli⁶, T Barata⁷, I López⁸, A Szakács⁹, K Dębniak¹⁰, T Feuillet¹¹

¹ NASA Ames Research Center, Moffett Field, CA, henrik.i.hargitai@nasa.gov, ² Department of Cartography and Geoinformatics, Eötvös Loránd University, Budapest, Hungary, saman@map.elte.hu, ³ CEPS MRC 315, National Air and Space Museum, Smithsonian Institution, Washington, DC, 20013-7012, USA; zimelmanj@si.edu, ⁴ 1147 Budapest Fűrés u 16/A, Hungary, csillesz@gmail.com, ⁵ Panorama 73 Eü. Szolg. Kft., Kincsesbánya 8044 József Attila u. 13. Hungary, www.siralydesign.hu, ⁶ TeleLab-DISPUTer, Università' G. d'Annunzio, via Vestini 31, Chieti, I, lucia.marinangeli@unich.it, ⁷ CITEUC - Centre for Earth and Space Research of University of Coimbra, Sta Clara, Coimbra, Portugal, mtbarata@gmail.com, ⁸ Universidad Rey Juan Carlos. 28933 Móstoles. Madrid, ivan.lopez@urjc.es, ⁹ Sapientia University, Matei Corvin St., 4, RO400112 Cluj-Napoca, Romania, ¹⁰ WROONA Group, Institute of Geological Sciences, Polish Academy of Sciences, Research Centre in Wrocław, Poland, debniak.krzys@gmail.com, ¹¹ Institut de Géographie et d'Aménagement Régional de l'Université de Nantes, Campus du Tertre, BP 81 227, 44312 Nantes cedex 3, Thierry.Feuillet@univ-nantes.fr



Highlights:

- We designed a series of planetary maps for children (8-12 yrs).
- The map sheets are a result of collaboration between planetary scientists and graphic artists. The work was carried out in Hungary.
- The goal was to produce maps that are attractive and easy-to-remember for children.
- We limited the number of labels to about a dozen
- Physical and orbital data can be read visually from various devices on a control board
- Photomosaics and data-derived maps may be interesting for us, but there is no visible story behind them for children.
- We decided to use manually drawn maps and add a narrative (story) that the children can discover.
- The narrative elements interact with the surface features.
- We modified the maps after showing them to a test audience and added further explanations on our website.
- The narrative elements are necessarily living creatures and this created a controversy in the amateur astronomer community as misleading.



We speak your language

Translation to the native language of this age group is essential. The final marginal text from the explanations to the legend was translated into 11 languages spoken in Europe (English, French, Hungarian, German, Italian, Polish, Portuguese, Romani, Romanian, Spanish, and Russian). The translation was made by earth and planetary scientists to ensure scientific accuracy. The most unique language version is Romani (Gipsy), which is spoken in several Central European countries, and for which version several new words had to be created.

Bodies mapped and graphic artists:

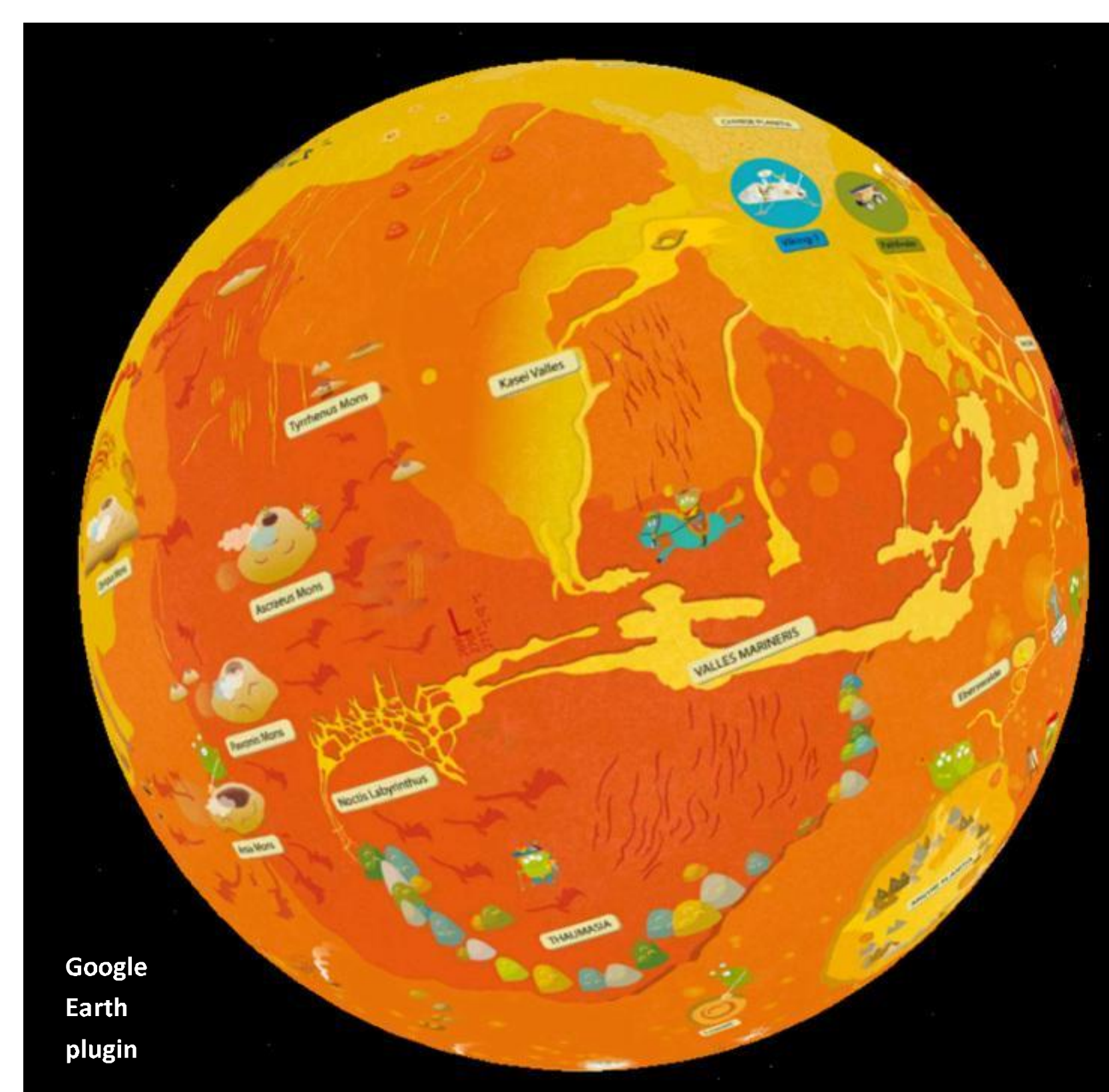
András Baranyai (Venus),
Csilla Gévai (Europa),
László Herbst (the Moon),
Csilla Kőszeghy (Mars),
Panka Pásztóhy (Titan) and
Dóri Sirály (Io).

The base maps are based on the latest data (for Mars: CTX/HiRISE) and interpretation. The Mars base map combines topographical and geological information; and mixes perspective and orthographic representations. All maps are in Lambert Azimuthal Equal Area Projection.

About the narrative

It was the illustrator's responsibility to create a *unique narrative* for the map, which was a specific requirement for this target audience. We have used several themes to populate the lifeless surfaces with life. The children can browse on the map on-line, finding out the stories behind the features represented on each map. The commemorative and mythological names of the IAU nomenclature provided abundant opportunities for the map narratives.

Another theme was the research history of the body, i.e. older theories about its surface and other cultural associations. These themes made the maps emotionally charged.



We would like to hear your opinion about...

- The geological background image
- The presence of Martians in the map
- The role of visually translated zoo (spiders, mice)
- Animals (mice, cats) or children as main characters
- Alternative themes for the narrative
- Future directions

Please send your comments to henrik.i.hargitai@nasa.gov



The project is online at <https://childrensmaps.wordpress.com/>