

The Regional Planetary Image Facility (RPIF) at the Lunar and Planetary Institute (LPI) was one of the first in the network, and its holdings and practices contributed to the standard for RPIF community service in subsequent years. As part of the RPIF Network and the mission of LPI, we have an open-access policy for all users. We will maintain our standards of service and expand in new directions to better serve both the planetary science community and the public at large.

Curation

The LPI holds a unique role in the RPIF network as the facility most closely associated with the NASA Johnson Space Center and its associated human spaceflight programs, from Project Mercury through the current International Space Station expeditions. The LPI holds special expertise with regard to the Moon and the collection of lunar data from robotic and human missions, including information on the lunar sample collection which makes up the bulk of our unique collections. In addition to the actual lunar mission data, we maintain a large collection of supporting information and studies, including Apollo experiment reports, mission plans, transcripts, debriefs, and advanced studies to support future human and robotic exploration of the Moon. We also serve as a primary reference site for a wide variety of other planetary science and exploration data and reports.



We have completed a separately funded project to digitize and make available through the RPIF the Apollo Lunar Surface Experiments Package (ALSEP) instrument support data, including ~700 documents with ~40,000 pages of instrument descriptions and operating history. This collection is available online (www.lpi.usra.edu/lunar/ALSEP/), and more documents will be added as processed. With the follow-on grant currently in place, we will be moving to a new database with improved search capabilities, and new documents from the archives will be included.



A new digital repository with improved search capabilities is under development. This project is on track for release by the summer of 2016 and will eventually house the ALSEP documents and a wide variety of other materials from our collection.

Support and Training

The LPI RPIF hosts and provides services to the LPI Summer Planetary Science Interns and the Solar System Exploration Research Virtual Institute (SSERVI) Exploration Science Summer Interns, students from local institutions, and visitors from around the world. One unique program is a partnership with the Lund University's School of Architecture and School of Industrial Design. Students and their professors attend lectures, interact with engineers and scientists, research materials in the LPI RPIF and Library, and develop concepts and designs for possible application on future space missions to meet the challenges of human spaceflight and spacecraft and mission design. Results from the students' work are presented at the NASA Johnson Space Center and later displayed in the LPI RPIF.



The Clementine Mapping Project is an interactive data tool that has proven to be both enormously popular and useful to the planetary science community. This tool allows maps of surface spectral reflectance and composition to be easily specified and made with a few clicks and an internet connection. We plan to expand this tool into a more general mapping tool to take advantage of the newer, high-resolution lunar data sets provided by Chandrayaan, Kaguya, and Lunar Reconnaissance Orbiter missions. In addition, new types of supporting geochemical and geophysical data, including currently difficult-to-access gamma-ray data from Lunar Prospector, will also be included in the expansion of this mapping tool. These additions would allow the overlay of multiple data sets, such as elemental content and gravity, to the existing mapping capability for images and topography.

Training

Leveraging both our in-house and network resources, LPI provides training on the use of ArcGIS. We are developing both workshop and self-paced training methods to provide maximum flexibility.



Engagement

The LPI RPIF contains numerous educational books, wall charts, pictures, models, videos, and activities to support the education and public engagement efforts of the Institute and the local community. Local educators can borrow materials from our collection for teaching purposes, and students from the nearby University of Houston-Clear Lake use our planetary science resources for classroom assignments.



The LPI RPIF serves as the host for the RPIF Network website, event calendar, and resources pages. We were instrumental in establishing the RPIF and LPI Facebook pages and have established a presence on several other social media networks.

New media

Social media extends our engagement far beyond our walls and time zone. Currently we have ~16,000 LPI Facebook followers and over 1.2 million views of our Flickr site. Although the majority of social media followers are from the United States and other RPIF countries, we also have followers from many other nations, including Vietnam, Argentina, Poland, and the Philippines. Below are some of our active social media sites.

- Facebook www.facebook.com/LunarandPlanetaryInstitute
- Flickr www.flickr.com/lunarandplanetaryinstitute/
- Google+ plus.google.com/+LPIUSRA
- Pinterest pinterest.com/LPILibrary/
- Twitter twitter.com/LPI_Library
- Yahoo <https://www.youtube.com/user/LPIUSRA>
- What's New in the Library www.lpi.usra.edu/library/n_n.cfm

Recently we have partnered with the New Media Consortium to review and evaluate our social networking efforts and to identify pathways to expand dissemination of planetary imagery and discoveries.

The LPI RPIF has a long tradition of communication, education, and public outreach efforts, and we will continue these initiatives.

Website

Providing access to collections beyond the walls of the facility, LPI has been engaged in preparing analog materials for a digital world. The online collection is used by authors, publishers, film producers, students, and researchers alike. The current LPI website (www.lpi.usra.edu) contains an abundance of Apollo mission studies and planning documents, including strategic exploration studies and plans.



Recently we have worked with a film producer from Paramount Pictures, provided images for wine labels, assisted with a display at the Hasselblad Foundation, and supplied resources to a variety of artists, journals, TV producers, authors, and publishers. We have also assisted students with National History Day projects, helped museums with displays, located data for researchers, and identified mystery objects in images for public queries. Below is a table with some of the page views from our website.

	2011	2012	2013	2014	2015	2016 (6 months)
Apollo	2,329,022	2,874,757	3,207,168	3,977,193	4,683,181	2,054,416
Lunar Samples	541,251	2,334,200	2,860,343	1,046,181	2,556,329	1,295,880
Lunar Orbiter	711,026	836,269	918,392	731,332	857,382	350,070
Map Catalogs	314,918	372,130	346,710	251,361	358,381	137,188
Ranger	170,280	118,037	149,445	154,485	158,455	64,516
ALSEP	n/a	n/a	n/a	222,151	276,287	136,440
Online Books	n/a	n/a	n/a	3,427,541	2,818,449	1,016,112
Clementine	598	302	407	308	355	n/a