

OAD project
“Astro Tourism in South West Asia”

Interim Report
March - July 2016

So far, “Development of Astro Tourism in South West Asia” project has been run during 5 months, March-July 2016.

Project Executing Team:

Dr. Areg Mickaelian, Project Manager
Sona Farmanyanyan, Project Coordinator
Dr. Robert Minasyan, Rector, Project Advisor
Gor Mikayelyan, Web Administrator, IAU SWCA ROAD team member
Dr. Susanna Hakopian, IAU SWCA ROAD team member
Anush Mikayelyan, Program Coordinator
Naira Nalbandyan, Program Coordinator

Involved organizations:

IAU South West and Central Asian (SWCA) ROAD
Byurakan Astrophysical Observatory (BAO)
Armenian Astronomical Society (ArAS)
National Academy of Sciences of the Republic of Armenia (NAS RA)
Armenian Institute of Tourism (AIT), Chair of Scientific Tourism

Activities:

- Study of Astro Tourism in the world and in South West Asia,
- Study visits of Astro Tourism sites,
- Visits of pupils, students and amateurs to BAO for acquaintance and observations,
- Visits of representatives of travel agencies and guides to Astro Tourism sites,
- Public lectures in schools, universities and other organizations,
- Webpage,
- Using astronomical heritage for promotion of astronomy,
- Publication and production of promotional materials (books, brochures, booklets, CD/DVDs, maps, calendars, posters, postcards, astronomical souvenirs),
- Webpages of Astro Tourism in South West Asia and BAO as scientific tourism centre.

Study of Astro Tourism in the world and in South West Asia

We have studied the situation with Astronomical Tourism in the world to extend it to our area with perspective of its development. Astro Tourism is part of the Scientific Tourism. There are many forms of Astro Tourism, including visits, active tours, outdoor observations, astro festivals, etc. The astronomical include:

- ancient astronomical sites: observatories, rock art, etc.

- astronomical observatories
- astronomical institutes and laboratories
- space museums
- astronomy related museums
- planetariums
- other astronomical educational centres
- astronomical visitors centres

It is especially important to promote UNESCO Heritage sites and investigate and propose new astronomical sites for UNESCO lists.

Study Visits to Astro Tourism Centres by Project Team

In March-June 2016, a number of visits by the Project team to study the Regional Astro Tourism sites were organized. Here we describe two main visits:

- 27.03-02.04.2016, **Astro Tourism Group mission to Tbilisi and Abastumani, Georgia** for seminars, discussion of collaborations and visiting astro tourism sites. The first part of the mission was spent in Tbilisi and the second part in Abastumani. A two-day workshop was organized at Ilia State University. Maya Todua, the Director of Abastumani Astrophysical Observatory (AbAO) gave a review of astronomy in Georgia, including its astro tourism sites. Areg Mickaelian, the Director of IAU SWA ROAD, represented IAU South West Asian ROAD activities, including our Astro Tourism project. Sona Farmanyan, Task Force 3 “Astronomy for the Public” Coordinator, gave a talk on the role of Archaeoastronomy and Astronomy in Culture in activities related to astronomy for development in South West Asia, especially emphasizing astronomical heritage sites. Another workshop was organized in Abastumani on March 31 – April 1. Visits to AbAO facilities (Meniscus telescope, AZT-14, big coronagraph, the Observatory museum, etc.), cognitive tours, and other AstroTourism activities were organized.
- 23-24.04.2016, **Astro Tourism Group mission to Armenian Vayots Dzor and Syunik Provinces**: 23.04 – Gladzor (medieval university with studies also related to astronomy) and Zorats Karer (ancient observatory), 24.04 – Tatev Monastery (having a column connected with calendar based on the position and orientation of Orion constellation mentioning the beginning of the year on 11 August). The mission aimed at investigating the above mentioned sites, evaluating the degree of presentation properness of each site, identifying any issues concerning organization of scientific tourism in each site and finding solutions to them, collection of information for presentations from the point of view of scientific tourism for each site, recording materials for the film about Armenia as a Land of Science.
- Study Visits to **Metzamor archaeological site** (including the ancient observatory), **Space Museum, Science and Technology Museum** (including exposures related to astronomical investigations), **Yerevan Physics Institute** (Alikhanyan National Laboratory having Cosmology research group), **Ancient rock-art** (with astronomical content), etc.

Visits to Astro Tourism Centres

A number of Visits to Scientific Tourism Centres (Ancient science sites, medieval universities, Research Institutions, Science museums and others) were organized (most important ones are mentioned):

- 25.03.2016, Byurakan Astrophysical Observatory (BAO), Byurakan. Visit of Viktor Ambartsumian School Pupils.
- 26.03.2016, Space Museum, Yerevan. Visit of representatives of travel agencies and guides.
- 22.04.2016, BAO, Byurakan. Visit of Armenian National Science and Educational Fund (ANSEF) grant winners.
- 28.04.2016, BAO, Byurakan. Seminar for journalists interested in Scientific Tourism.
- 26.05.2016, BAO, Byurakan. Visit of representatives of travel agencies and guides.
- 28.05.2016, Metzamor. Visit of representatives of travel agencies and guides.
- 01.06.2016, Ancient rock-art and other archaeological sites, Oshakan, Voskevaz, Agarak. Visit of representatives of travel agencies and guides.
- 05.06.2016, Zorats Karer and Gladzor, Vayots Dzor Province. Visit of representatives of travel agencies and guides.
- 11-12.06.2016, BAO. Visit of Armenian Youth Aerospace Society (AYAS) club pupils.
- 22.06.2016, Metzamor. Visit of participants of the Young Scientists Conference “*Cultural Astronomy in Armenian Highland*”.
- 23.06.2016, BAO. Visit of participants of the Young Scientists Conference “*Cultural Astronomy in Armenian Highland*”

Events related to the project

A number of events related to the project have been accomplished. It is noteworthy to mention about **two conferences** have been organized related to the Project:

16.03.2016, Armenian Institute of Tourism (AIT), Yerevan, Conference “Scientific Tourism in the South West Asian Region”



The conference brought together the most active representatives of tourism and science communities. It was a kind of starting point for tight collaboration between science and tourism, i.e. research institutions and individual scientists on one hand, and travel agencies and experts in tourism on the other hand. Areg Mickaelian, Head of Scientific Tourism Chair at AIT, talked on the role of scientific tourism in strengthening of regional and international rating of Armenia. A number of other presentations were given. Sona Farmanyan, the Coordinator of the Project, represented the whole project, its tasks and future activities. An active discussion was held at the end of the Conference, which aimed at identifying and evaluating the demand for scientific tourism of foreign and local visitors, discovering the scientific tourism potential and resources of Armenia, finding key issues and

problems of organization and realization of scientific tourism in the above mentioned sites and finding solutions to them. Scientific principles and directions of organizing tourism were discussed and new ideas were suggested for promoting the region through scientific tourism.

Webpage: <http://www.aras.am/Meetings/SciTourism/index.html>

20-23.06.2016, National Academy of Sciences of the Republic of Armenia (NAS RA), Yerevan, Young Scientists Conference “Cultural Astronomy in Armenian Highland”



The meeting contributed on Astronomical heritage of Armenia, Ancient astronomy, Astronomy in the Middle Ages, Astronomy in ancient cultures, Ethnoastronomy, Astronomical bases of Philosophy, Religion and Astronomy, The problem of Extraterrestrial Intelligence, Astronomy and Astrology, Astronomy in Folklore and Poetry, Astronomy in Arts, Astronomy in Fashion, Astrolinguistics, Astroheraldry, Scientific Tourism, Scientific Journalism, Amateur Astronomy, Astronomical Education, Popular Astronomy, and other fields, most of which have tight relation to Astro Tourism, one of the most important contributors to Scientific Tourism, as Cultural Astronomy plays an important role in the development of scientific tourism. NAS RA President, Vice-President, and other academicians, heads of the creative unions (unions of Artists, Composers, Architects, and Publishers) and many other guests were present. Some 30 talks were given by astronomers, historians, archaeologists, linguists, representatives of arts, tourism, journalists, and others. The Proceedings of the meeting will be published by NAS RA Publishing House.

Webpage: <http://www.aras.am/Meetings/AAC/>

Publication of BAO photobooklet

As an example for other Astro Tourism sites, we have prepared and published Byurakan Astrophysical Observatory (BAO) photobooklet for touristic purposes. Such booklets are aimed at making the Astro Tourism sites or institutes widely known and attractive in order to encourage visits of many people, as well as serve as a source of information for tour packages for travel agencies and individual guides. The booklet contains the photos of Byurakan Astrophysical Observatory: main building, telescopes (2.6m telescope, 1m Schmidt telescope, 50cm and 40cm reflectors), guest house, Viktor Ambartsumian museum, laboratory building, conference hall, territory, and sky objects. This booklet may be used as a visiting card for the Observatory.

Webpage “Astro Tourism in South West Asia”

A dedicated Webpage “Astro Tourism in South West Asia” is being prepared with full information related to the project. It will contain:

- Astro Tourism centers in South West Asia with full information on each,
- The map of South West Asia with Astro Tourism centers,
- tour packages,
- list of travel agencies, which organize Astro tours,
- contacts of guides, which are engaged in Astro Tourism, etc.

Although the webpage will have a number of menus, still it will remain easily navigable, attractive for both tourism experts and tourists, and catchy enough to retain visitors. The webpage will have relevant design to its content.

Webpage “Byurakan as Scientific Tourism Center”

BAO as scientific tourism center webpage was built as an example for all Scientific Tourism sites. The webpage consists of the following menus and submenus: **Home, Attractions & Facilities** (*Visitors Centre, Ambartsumian Museum, Ambartsumian Office, 2.6m Telescope, 1m Schmidt Telescope, Small Telescopes, Photographic Plate Archive, Conference Hall, Architectural Ensemble, Botanic Garden, Guest House, Café & Restaurant, Souvenir Shop*), **Byurakan & Around, Tours, Lectures, Films, Books & Souvenirs, Application, Contacts**

Such webpages will serve as working environment between the travel agencies and these sites for development of tour packages and organizing tours.

Webpage: <http://www.aras.am/SciTourism/eng/index.php>

Financial report

The project budget for the period March-July was used as follows:

- EUR 1306 for local transportation (ground travel),
- EUR 295 for subsistence (accommodation and meals),
- EUR 1400 for salaries (hours of work).



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