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"MIRANDO AL CIELO", ORGANIZATION OF PUBLIC EVENTS FOR SKY OBSERVATIONS

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RESUMEN

Los eventos llamados "Mirando al Cielo", son actividades donde se reunen actividades académicas, culturales y comerciales, promoviendo el conocimiento y la economía del lugar. Las actividades académicas son realizadas por estudiantes y profesores de la región y han sido organizadas por la UNAM. Las actividades culturales y comerciales son seleccionadas entre las actividades típicas del lugar y son realizadas bajo la dirección de las autoridades del lugar, con la participación de su población.

ABSTRACT

The events called "Mirando al cielo" encompass academic, cultural and economic activities with the purpose of promoting the knowledge and furthering the economy of the place where they are held. The academic activities are carried out by students and teachers of the region, and have been organized by UNAM. The cultural and commercial activities are selected among those typical of each place and carried out under the direction of local authorities, with the participation of their inhabitants.

Key Words: miscellaneous

Since 2008 to date, we have carried out several "Mirando al cielo" events for which we have developed strategies permitting us to improve the way in which they are carried out. In the following we present what we consider to be the most important issues in the planning previous to the event, such as: selecting the date of the event, the place where it could be held, the activities to be carried out and their distribution at the chosen site, planning the movement of the persons in the different work areas, and training of teachers and students.

These types of activities, where we bring together people for describing to them the sky so they can admire it with their own eyes and with the telescope, are marvelous. We help the people to discover by themselves the details of the Moon or of the planets which they would not be able to see otherwise. They may have heard of them or seen their pictures, but now they are revealed to them in real life. The main difference of these events is that jointly with the academic activities, we promote the realization of cultural and commercial activities in order to propitiate the cultural and economic development of the place.

A key part of the event is: when should it take place? I recommend that whenever possible, the selected date should be that of the waning or the waxing of the Moon. For the observation of the Moon, assign the smallest telescopes to the students less experienced in handling them. With the selected date, the planets and Messier objects should be located at the celestial maps as well as possible observation of stars showers. In the working plan, it is suggested to include information about luminous contamination and give some examples of it. The higher the contamination, less stars can be seen, so it is important to make the visitors conscious about this problem.

Where it should be carried out? Once the date is selected, the next step is the site. It may be already pre-established or you will have to select it yourself. Keep in mind that the place should have enough space for areas of sky observation, telescopes, workshops, cultural events, food and handicraft stalls, didactic materials, and public services such as bathrooms and emergency stations. It is important to visit the place suggested to you for the event. Verify that the observation zone does not have architectonic obstacles, is free of luminous contamination and of obstacles that would impede the observation of the sky. The site of location of the telescopes should be even and wide enough so that there would be a minimal distance of eight meters between each one of them. Inspect the luminaries and see which can be covered or turned off during the event; designate a person responsible for acquiring the necessary material to cover them up, and who will see that they are covered or turned off on the day of the event.

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Make sure that passing vehicles would not illuminate directly either the zone of telescopes or that of the observation of the sky. If the established site has high luminous contamination it will be possible to observe only the Moon; in that case, make sure that the selected date for the event will permit it. At the area, establish a movement circuit for the visitors in such a way that the entrance flow of people would not cross that of the exit in any point. Therefore, make sure that the access and exit areas are separated. At the food zone, leave an emergency path free and separated from the access of the visitors. Remember that gas installations are frequently used there. As a recommendation, do not select any plaza that is usually employed for political or religious events. Sports areas are excellent for the set up of our events. The next step after selecting the zone is to obtain from the municipal authorities a written permit for the event. Invite them to participate by being responsible for all the commercial, safety and service activities of the selected zone and for all the expenses these shall generate.

Which activities shall we include? Make a list of all the academic, cultural and commercial activities that can form part of the event. As academic activities you can include history and drawings of the constellations, telescope workshop, photographs and videos of the sky, lottery and memorama games with images of the universe, biographies of great astronomers, astronomy workshops with, for example, H-R diagram, drawings of images of the universe, astronomical exhibits, workshops where visitors can talk to an astronomer, information about the law of the sky and the light contamination. Cultural activities may comprise dancing and theater, typical of the region. See that these are carried out in covered spaces.

Prepare tents containing maps of all the activities, the work program and the areas in order to facilitate the circulation between all zones. Identify each work area at the selected place and distribute them making sure that they contain all the logotypes of the participants and the sponsors. Do not distribute any information material in paper form as this only generates a lot of garbage. Identify the collaborators by a piece of clothing of the same color or by a badge. Inquire on the weather forecast at the selected place and advice the visitors and the work equipment on how they should dress.

I wish to share our experience with the events of "Mirando al Cielo" that have been organized at Otumba and Juchitepec. There the workshops and the handling of the telescopes were in charge of the local high school teachers and students, previously trained. This reduced the costs of the event and gave a sense of achievement to the local youths. Staff of Museo de la Luz and Universum museum helped us with the execution of the workshops. They trained the teachers and conducted the workshops at these events.

For the training and carrying out the academic activities we have asked the high school of each place to designate five teachers that would be responsible for the activities. Two of those teachers selected two students for the handling of each one of the telescopes. Another two teachers formed the student teams in charge of describing the sky. There were two students per laser pointer. When selecting this team, our advice is to select the tallest students because when they point the laser, the light shall pass over the heads of the visitors. One of the teachers was designated responsible of all the academic workshops, and formed the teams in charge of them. There were five students per each workshop. Once the workshop teams were formed, we have made a list of all the necessary material and gave it to the responsible of buying it. Before the event, we have verified that we had all the material which was then distributed to those responsible of each workshop.

The cultural and commercial activities were left completely in the hands and under the responsibility of the municipality. We only identified those responsible of each one of these activities, knew their program and established how these activities were going to be connected with the astronomical ones. The complete responsibility for civil protection and public safety were always left in hands of the municipality. We have tried for the whole community to take part in the event, making sure to respect their organization and traditions during the activities we brought to them. An efficient planning beforehand has permitted us to conduct our work in a natural way, thus minimizing the inconveniences during the event.

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