

derstand the scale of both the solar system and the planets. This will be done by using the old technique of creating a concrete model on a human scale. The scale for this model of the solar system was chosen to relate, in a memorable way, familiar objects with familiar places — fruits and vegetables with local landmarks. With 1 A.U. equal to 1 kilometer, and the sun at The Adler Planetarium, the Earth is the size of an apple atop the Sears tower and the other planets can be located at other famous landmarks. This model will be presented as a slide show for visitors to The Adler.

### 3. Conclusion

There are dangers inherent in the journalistic approach implied by these strategies. If misused it can lead to an emphasis or a simplification that misrepresents science.

Used properly, however, these techniques can help the public comprehend the exciting astronomical discoveries of our age. And if this approach is ignored, the danger is that the public will believe that astronomical knowledge is arcane and only for the elite — a message no one wants to send.

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## THE POPULARIZATION OF ASTRONOMY IN MEXICO

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Mexican professional astronomers have a great task ahead if they want to popularize astronomy. We are very few and the country has great educational needs, with 4 years of elementary school being the average educational level.

In order to overcome this challenge, the Institute of Astronomy of the National University has popularized astronomy using the following resources: 1) publications, 2) public lectures, 3) advice to museums and planetariums, 4) radio and television interviews, and 5) courses.

### 1. Publications

a) *Books*: A few years ago, Mexican astronomers started writing books in Spanish, from astrophysics for college students to general themes intended for the layman, and children's books. The number of books now published in Spanish is 25, and several more are being written.

b) *Yearbook*: The Institute of Astronomy has been publishing a yearbook for the past 50 years. It includes ephemerides, positions of cities, lists of Messier objects, and important astronomical events.

c) *Periodicals*: The Institute of Astronomy publishes a monthly newsletter, *Orion*, that is distributed to newspapers, planetariums, and several magazines (which may reproduce freely the material therein). It is only a few pages long, and includes at least three astronomical developments, a book review, astronomical predictions for the coming months, an astronomical cartoon, and a poem.

## 2. Public Lectures

We have found that one of the most effective ways to popularize astronomy is through public lectures. The Institute of Astronomy staff gives some 200 lectures per year to people of all age levels and all over the country. This is very time consuming, considering there are only 40 professional astronomers in the country.

## 3. Counselling

The Institute of Astronomy has helped small museums with their astronomy exhibits, by updating them, remodeling, *etc.* At present, it is active in setting up temporary science exhibits at a subway station where 200,000 people commute daily. The Institute also checks the programs written by the planetariums whenever this is requested.

UNESCO has an office in Mexico that produces audiovisual material for schools. The Institute also checks their material and proposes alternative ones. (After being at the Williamstown Colloquium (these *Proceedings*), which was so stimulating, we proposed the construction of several new projects).

## 4. Radio and Television

The Institute of Astronomy gives periodic interviews to several radio and television stations. Our National University radio and television systems have a monthly interview program on astronomy. Once in a while, the Institute of Astronomy organizes special events like night observing through a telescope or a week of astronomy that includes the construction of sundials, Alka-Seltzer rockets, or simulations of the Big Dipper. Part of the staff has even written a puppet play on Comet Halley.

## 5. Courses

We regularly teach astronomy to high-school teachers. (See article by Herrera elsewhere in these *Proceedings*).

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