# LETTERS FROM THE PUBLIC: A PORTRAIT OF POPULAR ASTRONOMY IN MEXICO (1918–1947)

## S. Biro<sup>1</sup>

### RESUMEN

Las cartas que recibió Joaquín Gallo en el periodo en que fue director del Observatorio Astronómico Nacional (OAN) nos muestran atisbos de la astronomía presente en la cultura mexicana en la primera mitad del siglo XX. Una revisión de los intereses y motivaciones de los autores de estas cartas produce un retrato de los mexicanos interesados en la astronomía.

#### ABSTRACT

The letters that Joaquín Gallo received while he was director of the National Astronomical Observatory (OAN) allow us glimpses of astronomy in Mexican popular culture in the first half of the 20th century. An examination of the interests and motivations of the authors of these letters produces a portrait of the Mexicans interested in astronomy.

Key Words: history and philosophy of astronomy

#### 1. INTRODUCTION

In previous essays (Biro 2010; Biro & Mateos 2011) we reported studies of the history of the Mexican National Astronomical Observatory (OAN) from the point of view of the communication of science (Secord 2004). We concentrated on the period from 1915 to 1946, when the geographical engineer Joaquín Gallo was director, and found that Gallo undertook a wide variety of popularization such as giving conferences, writing articles and receiving people at the OAN for observations. In several documents he wrote that his motivation for this activity was to instruct the people and thus aid in the nation's progress. After analyzing the situation of the Observatory and its context in that period, we concluded that another very important motivation was obtaining validation and eventually support for the OAN from different parts of society.

In this essay I will concentrate on popular astronomy. I will start out with a very simple definition of popular culture as that which does not arise within the community of experts (Kaplan 1984); in this case, professional astronomers. My objective is to find out more about the Mexican public that communicated with Gallo; to know their interests and motivations.

In his dealings with the public, Gallo responded to numerous letters. Unlike his other popularization activities, in this case it was the public who initiated the communication, and thus the letters reflect their point of view. I have used the 400 letters that Gallo received between 1918 and 1947 which have been preserved in the Fondo Observatorio Astronómico Nacional. I discarded 230 letters because they are requests for very specific data from geographical engineers or printers making calendars. By paying close attention to the authors of the remaining letters, I find that these can be binned into three groups: amateurs (129 letters), poachers (23) and representatives of folk knowledge (18). Interesting portraits of them emerge by asking three questions of each group: what do they know, what do they want, and what is their attitude.

## 2. POPULAR ASTRONOMY

The authors of the first group of letters are amateur astronomers (Chapman 1998; Lankford 1981). In their brief and concise letters they say they have read some information in newspapers and books and obtained more by observing the sky at night. They frequently state that they want to own a telescope, know how to use it, and get information about the heavenly bodies. In general they are very receptive to Gallo's comments and suggestions. It seems that they want to imitate him, and perhaps to participate in the production of astronomical knowledge.

I have used the term poachers for the authors of the second group following Michel de Certeau (2002). The term is not meant to be derogatory, but simply to highlight the fact that they snatch bits of information from a wide variety of sources and paste them together into theories about the cosmos. In their

<sup>&</sup>lt;sup>1</sup>Direccin General de Divulgación de la Ciencia, Universidad Nacional Autónoma de México, mexico (sbiro@unam.mx).

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usually longwinded letters, they tell us they have obtained information from books, newspapers, magazines and –very importantly– their own imagination. They are very independent and creative, consider themselves Gallo's equals, and want to debate their theories with him. The authors of this group typically wrote to Gallo more than once. The extreme case is that of Emilio Nolte, who corresponded with the director of the Observatory for more than thirteen years. They exchanged more than thirty letters in this period.

The authors of the third group of letters, which I refer to as representatives of folklore, have obtained their knowledge from close contact with nature, through received tradition, or from what we would call superstition. Generally speaking, they want to know what effect the heavenly bodies have on their daily life, such as the relation between eclipses and their health or the moon and their crops. Given the source of their knowledge, it is puzzling that they should ask an astronomer.

#### 3. CONCLUSIONS

As we can see from this very brief review, the people who wrote Gallo were not simply passive receivers of his "high" knowledge (Sheets-Pyenson 1985). Not only did they initiate the communication, but they all had previous conceptions of the subject of their queries. Even in the case of amateurs, who seem to want to imitate astronomers, they do it in order to participate. Although many of their sources are actually "high" science, the poachers have constructed their own visions of the universe by creatively combining very disparate information. The representatives of folklore bring with them the empirical or traditional knowledge of their cultures. Thus, following Chartier (1984), we must accept that popular astronomy itself, and its relationship with professional astronomy are complex. The members of the three sub-cultures detected are quite different and can best be described as appropriating, and not simply receiving knowledge from professional astron-

Because we are looking at a communicative event, it is interesting at this point to ask whether Gallo

and the Mexican public actually communicated and if each one obtained their goals. Since the amateurs asked specific questions, and they shared some knowledge and vocabulary with Gallo, it is probably safe to say that this group did communicate with him and he was able satisfy their requests. In many cases, however, the poachers and those with folk knowledge went away empty-handed; because the things that each side knew and wanted were too different, they did not actually communicate. A better understanding to this problem can probably be extracted by a detailed study of the case of the long term correspondence between Nolte and Gallo.

Despite the time that separates us from Gallo and his audiences, the same interests and attitudes exist today. Understanding the identity, goals, and motivation of his audiences can help to improve communication today.

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