Mem. S.A.It. Suppl. Vol. 19, 410

Memorie della
Supplementi

Azeglio Bemporad and the Astronomical Popularization between Naples and Catania During the First Forty Years of the XX Century

M.T. Fulco and E. Olostro Cirella

Istituto Nazionale di Astrofisica – Osservatorio Astronomico di Capodimonte, Via Moiariello 16, I-80131 Napoli, Italy

e-mail: mtfulco@oacn.inaf.it

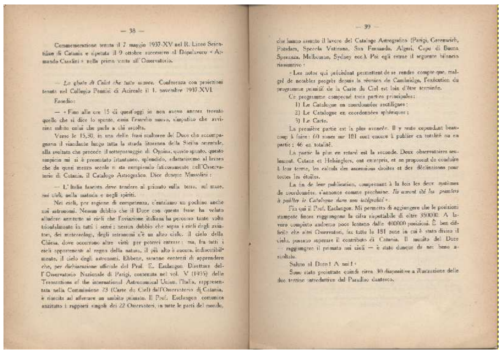
Abstract. The scientific popularization is an important activity in the Research Institutes. In particular, at Capodimonte Astronomical Observatory and at Catania Astrophysical Observatory where in the first half of the XX century the astronomical communication reached its highest expression.

Key words. astronomical Diorama – scientific popularization – communicating science

1. Introduction

The scientific popularization is the communicative activity addressed to the wide public in order to disseminate the scientific culture and to improve and increase the perception of the importance of the science. It has no educative aim and it is not an instructive lesson. On the contrary, it is the primary instrument to make science discoveries known to everyone. During the centuries, it has also promoted the cultural, economic and social development founded on the knowledge. The scientific popularization is commonly considered a contemporary social phenomenon because it is connected to the birth of the practice of new professions, like the scientific popularizer and/ or the scientific journalist, who have been coming into the limelight thanks to the great power of the mass media and in particular thanks to the television. Nevertheless, this view seems restrictive, in fact the scientific popularization has very far off root since the ancient time when the figure of the scientist (philosopher) corresponded with the popularizer one. In the field of astronomy, Galileo Galilei and Bernard de Fontenelle represent two meaningful models of scientists-popularizers. Their works, respectively *Dialogo sui Massimi Sistemi* and *Entretiens sur la pluralité des mondes* are the breaking point in the academical relationships among scientists becouse they allows the circulation of the new ideas through the use of the vernacular language. In Naples, astronomers placed the scientific research side by side a full public outreach activity since the beginning of the XIX century, age of the foundation of Capodimonte Astronomical Observatory, today research institution of the National Institute for Astrophysics (INAF-OAC). In particular, two directors, Ernesto

Send offprint requests to: M.T. Fulco



— 38 —

Commemorazione tenuta il 7 maggio 1937-XV nel R. Liceo Scientifico di Catania e ripetuta il 9 ottobre successivo al Dopolavoro « Armando Casalini » nella prima visita all'Osservatorio.

— *La gloria di Colui che tutto muove.* Conferenza con proiezioni tenuta nel Collegio Pennisi di Acireale il 1. novembre 1937-XVI.

Esordio:

— « Fino alle ore 15 di quest'oggi io non avevo ancora trovato quello che si dice lo spunto, ossia l'esordio nuovo, simpatico che avvicina subito colui che parla a chi ascolta.

Verso le 15,30, in una delle frasi scultoree del Duce che accompagnano il viandante lungo tutta la strada litoranea della Sicilia orientale, alla svoltata che precede il sottopassaggio di Ognina, questo spunto, questo auspicio mi si è presentato istantaneo, splendido, adattatissimo al lavoro che da quasi mezzo secolo si sta compiendo faticosamente nell'Osservatorio di Catania, il Catalogo Astrografico. Dice dunque Mussolini:

— L'Italia fascista deve tendere al primato sulla terra, sul mare, *nei cieli*, nella materia e negli spiriti.

Nei cieli, per ragione di competenza, c'entriamo un pochino anche noi astronomi. Nessun dubbio che il Duce con questa frase ha voluto alludere anzitutto ai cieli che l'aviazione italiana ha percorso tante volte trionfalmente in tutti i sensi; nessun dubbio che sopra i cieli degli aviatori, dei meteorologi, degli astronomi c'è un altro cielo, il cielo della Chiesa, dove occorrono altre virtù per poterci entrare; ma, fra tutti i cieli appartenenti al regno della natura, il più alto è ancora, indiscutibilmente, il cielo degli astronomi. Ebbene, saranno contenti di apprendere che, per dichiarazione ufficiale del Prof. E. Esclangon Direttore dell'Osservatorio Nazionale di Parigi, contenuta nel vol. V (1935) delle Transactions of the international Astronomical Union, l'Italia, rappresentata nella Commissione 23 (Carte du Ciel) dall'Osservatorio di Catania, è riuscita ad afferrare un ambito primato. Il Prof. Esclangon comunica anzitutto i rapporti singoli dei 22 Osservatori, in tutte le parti del mondo,

— 39 —

che hanno assunto il lavoro del Catalogo Astrografico (Parigi, Greenwich, Potsdam, Specola Vaticana, San Fernando, Algeri, Capo di Buona Speranza, Melbourne, Sydney ecc.). Poi egli estrae il seguente bilancio riassuntivo:

« Les notes qui précèdent permettent de se rendre compte que, malgré de notables progrès depuis la réunion de Cambridge, l'exécution du programme primitif de la Carte du Ciel est loin d'être terminée.

Ce programme comprend trois parties principales:

1) Le Catalogue en coordonnées rectilignes;
2) Le Catalogue en coordonnées sphériques;
3) La Carte.

La première partie est la plus avancée. Il y reste cependant beaucoup à faire: 60 zones sur 181 sont encore à publier en totalité ou en partie; 46 en totalité.

La partie la plus en retard est la seconde. Deux observatoires seulement, Catane et Helsingfors, ont entrepris, et se proposent de conduire à leur terme, les calculs des ascensions droites et des déclinaisons pour toutes les étoiles.

La fin de leur publication, comprenant à la fois les deux systèmes de coordonnées, s'annonce comme prochaine. *Ils auront été les premiers à publier le Catalogue dans son intégralité* ».

Fin qui il Prof. Esclangon. Mi permetto di aggiungere che le posizioni stampate finora raggiungono la cifra rispettabile di oltre 350000. A lavoro compiuto andremo poco lontano dalle 400000 posizioni. È ben difficile che altri Osservatori, fra tutte le 181 zone in cui è stato diviso il cielo, possano superare il contributo di Catania. Il monito del Duce — raggiungere il primato nei cieli — è stato dunque da noi bene ascoltato.

Saluto al Duce! A noi! »

Sono state proiettate quindi circa 30 diapositive a illustrazione delle due terzine introduttive del Paradiso dantesco.

Fig. 1. Lecture pubblished in the "Annuario", Real Astrophysical Observatory, Catania (1938).

Capocci during the XIX century and Azeglio Bemporad during the XX century, devoted themselves to the circulation of astronomy among lay people who were no aware about it (Fulco and Olostro 2003).

2. Bemporad and his scientific researches

Azeglio Bemporad (Siena 1875-Catania 1945), director of Capodimonte Astronomical Observatory (1912-1932) and Astrophysical Observatory of Catania (1933-1938 and 1943-1945), was one of the most famous Italian astronomers, well known to have realized the International Astrophotographic Catalogue, an ambitious task promoted by the International Astronomical Union in 1887. The Catalogue was made of 64 volumes and it recorded the position of millions of stars till the eleventh or twelfth magnitude. The writing out of the Catalogue involved twenty Observatories distributed in the two hemispheres, and Bemporad realized 33 volumes, acquiring 4000 photographic plates and recording the position of 175.000 stars observed in the part of the celestial sphere between +45° and +55° of declination. This work absorbed completely about thirty years of his life, counted him many national and international awards (Capaccioli, et al. 2009). Even his devotion to science, he dealt with public outreach and education, revealing his character of cultivated man and spontaneous and pleasant poet.

3. Bemporad and his activity at Capodimonte Astronomical Observatory, Naples

Bemporad won an open competition for the direction in 1912. When he arrived in Naples, he suggested new research subjects to the Neapolitan astronomers such as the photometry of novae and variable stars but he found those astronomical surroundings particularly hostile to accept any kind of scientific innovations. On the contrary he had a very great success in the public outreach activities. Infact he inaugurated a new way of disseminating the scientific culture writing popular papers for dailies and magazines. Moreover as a lecturer, he always looked for finding winning and original hints to start his lectures in order to attract the lay public's attention. He was the first Neapolitan director who promoted the opening of the Observatory to the school-children in the morning and to the common people at night. In 1924, he constituted, together with the astronomers of Capodimonte, the "Urania Society" following the example of the most advanced European and Anglo-Saxon Academies. Its Statute foresaw the payment of a membership fee used to support the studies and the didactic of the Observatory. The Activities of Urania realized by the Capodimonte astronomers had the aim of getting the Neapolitan Observatory in touch with the whole town through lectures illustrated by slides, visits and publications of popular scientific papers. For that time, Bemporad had a particular sensibility for social affairs; in fact he considered the scientific spreading a public utility offered to that people who pay public taxes which are fundamental support for the development of the science, yesterday such as today. Bemporad was also a deep connoisseur of Fine Arts and he was fond of the German writer J. W. Goethe. In 1932, in order to celebrate the centenary of Goethe's death, Bemporad successfully delivered a lecture at the "Illusi" Society in Naples. On that occasion, he read the short poem *ERMANNO E DOROTEA* that he translated into Italian hendecasyllable verse.

Fig. 2. Diorama in the dome of the equatorial telescope Mertz - Astophysical Observatory, Catania (1934).

4. Bemporad and his activity at the Astrophysical Observatory of Catania

When Bemporad arrived at Catania, he found fertile ground to arrange the popular activity into a well organized programme. In fact he gave new strength to the so-called "Propaganda of Astronomy" that was already practised at Catania Observatory. In 1934 he set up an astronomical diorama (Annuario 1935) in the dome where the equatorial telescope Merz was placed. The diorama was a permanent exhibition of 115 photographic slides illustrating astronomical subject: an amazing support for didactic and public outreach, that Bemporad used during the visits at the Observatory. These extraordinary slides were partly taken at Catania Observatory and partly donated by famous foreign Observatories such as those of Paris, Greenwich and Mount Wilson (USA). So, Bemporad soon proved his quality of brilliant speaker and capable communicator; as Luigi Taffara (Taffara 1945), director of Catania Observatory in 1945, said during the commemoration for Bemporad's death:"His way of speaking was spontaneous, agreable, persuasive and the learned people regularly attended his lectures which were alternated between funny stories and amusing verse winning estimation and popularity".

With no doubt, he was a pioneer of the scientific popularization. He used innovative methods and techniques to gain the attention of the general public. As an example, it is worthy of being mentioned the opening words of his lecture *The glory of Him who moves everything*: "Up to 3 in the afternoon I didn't yet find what it is said the inspiration, the new and agreeable opening that immediately brings the person who speaks to the person who listens..." (Bemporad 1938). These words are evidence of the great intuition that Bemporad had to communicate science. For this reason, we can consider him an ahead of his time communicator.

Acknowledgements. The authors are grateful to A. Mangano for having provided them with the copies of the ancient documents of the Astrophysical Observatory of Catania.

References

Annuario Real Osservatorio Astrofisico di Catania 1935

Bemporad, A. 1938, Annuario Real Osservatorio Astrofisico di Catania, 38

Capaccioli, M., Longo, G., Olostro Cirella, E. 2009, *L'astronomia a Napoli dal Settecento ai giorni nostri. Storia di un'altra occasione perduta*, 235, Ed. Guida

Fulco, M.T., Olostro Cirella, E. 2003, Atti del *XXII Congresso Nazionale di Storia della Fisica e dell'Astronomia*, 450

Taffara, L. 1945, Annuario del Real Osservatorio Astrofisico di Catania, 27