## International Astronomical Union – Colloquium 98 General Session

## **Concluding Remarks**

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My habit of visiting bookshops has led to my discovering this morning an example of the major work by the philosopher Helvetius, *De l'esprit* [Concerning the mind]. In chapter IV, "The abuse of words", I found this statement: "Descartes had already said, before Locke, that peripatetic scholars who hid behind the obscurities of words are very similar to blind men, who, in order to make their fight more equal, pull a sighted man into a dark cave. If a man knows," he said "how to give precise ideas to the words that he uses, then his triumph is assured." This is the prime virtue of this discipline that we study and is the cause of the shining example that it presents.

The practical conclusion that emerges from the papers given on the subject of "The history of amateur astronomy" is that this field is a veritable mine of inspiration for historical work of considerable interest. I would add that their scientific usefulness is not diminished by the necessity of having to find, in the past, the correct assessment of factors that actually vary secularly.

Ever since the 17th century, men of science have carefully recorded their observations in tomes that are now gathering dust in the archives. This is an immense field in which we can exercise our curiosity. Who better than astronomers, used to the thousand pitfalls that lie in practical observation, than to decipher ancient tomes and to interpret the observations that they contain?

Although it may be difficult to define what we mean by an amateur astronomer, it may nonetheless be possible to provide a definition that sets some limits on our interpretation. An "amateur" is any lover of astronomy who does not make it their job or their main source of income. We have been given distinguished examples of authentic amateurs of the past, as of the present, who have been converted, in either a permanent or a temporary fashion, into professionals. How many of our colleagues, specialists in one field, are respected amateurs in another? How many young graduates, either having reached the end of their studies or the end of a research grant, find themselves back on the jobs' market and relegated to the role of enlightened amateurs. They bring to societies and clubs the fruits of their knowledge of the most modern technical advances.

On behalf of Professor Etienne Bernard, the current president of the Société Royale Belge d'Astronomie, de Meteorologie et de Physique du globe, and also as an already veteran member of the Société Astronomique de France, allow me to make this grateful tribute to it by its "little Belgian sister".

It is thanks to Camille Flammarion and his Astronomie Populaire that amateur astronomy expanded in Belgium. Our libraries at home also included work by Amédé Guillemin, Charles Nordman, Théophile Moreux, Lucien Rudeau, Pierre Rousseau and Paul Couderc. But the Belgian public's interest in astronomy goes even farther back.

In 1823, Lambert Jacques Adolphe Quetelet, who was the founder and the first director of our Royal Observatory, created a successful "public and free" course of lectures in astronomy, which I have the privilege of continuing today, one hundred and sixty-fours years after it began. In 1827, Quetelet gathered the texts of his lessons into three small volumes entitled Astronomie Populaire, following the example set by the one edited by his friend and colleague, François Arago. The friendship that linked Quetelet, Arago and Alexis Bouvard was deep, and founded on both respect and fellow-feeling. In his Souvenirs de ma jeunesse [Memories of my Childhood], recently published again, Arago describes this with warmth and considerable emotion.

Around 1845, the group around Quetelet were joined by a young amateur from Mons, who was to prove quite extraordinary: Jean Charles Houzeau de Lehaye. He became an astronomical assistant, a workman, an international journalist, an explorer, an adventurer, a free-thinker, an abolitionist, a follower of Fourier<sup>1</sup>, a socialist and a republican. It was he whom King Leopold II chose, disregarding his ministers' reservations, as successor to Quetelet. He was to revitalise the Royal Observatory.

Under the inspired leadership of Houzeau, and with help from collaborators, the journal *Ciel et Terre* was published in 1880, and has continued ever since. *Ciel et Terre* preceds your *Astronomie*, which was born in 1882. The Sociéte Astronomique d'Anvers was founded in 1893 and the Sociéte Belge d'Astronomie itself was set up in 1895.

Currently, there are societies and local clubs, most particularly in the French-speaking part of the country, in Liège, Brussels, Tournai, Dinant, Charleroi, as well as the Apex group. Since 1940, the Vereeniging voor Sterrekunde, Meteorolgie en Geofysica caters for the Flemish-speaking area.

All of us feel that we are descendants of Camille Flammarion.

Where necessity knows no law, amateurs and professionals are perfectly able to work together in complementary ways. In closing the session devoted to the history of amateur astronomy, I praised the people who take part in expeditions to observe solar eclipses and also those who contribute to the sunspot observing network. But there are also the indefatigable variable-star observers, meteor watchers, the talented planetary observers, and all those who discretely infiltrate professional research groups. Others I have not mentioned, but all deserve to be praised for both the vigour and for the seriousness that they display.

Such activities help to bring both the knowledge and the practice of scientific work into everyday life. In this way we are contributing towards the elimination in

<sup>&</sup>lt;sup>1</sup> Fourier, Fançois Marie Charles (1772-1837), a French social reformer, who advocated the abolition of many social conventions and the establishment of communities (or *phalanges*) of 1500 to 1800 persons, with appropriate individual and communal labour. – Eds.

the minds of the public those rather superstitious fears about science and progress that we encounter everywhere, and which are exploited by irresponsible people. This is how we can more effectively fight the resurgence of pseudo-science and ensure, as Goya said, that "the sleep of reason" does not "give birth" to yet more "monsters".