The Scientific Legacy of Guido Horn d'Arturo

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FOREWORD

In 2017 we celebrated the fiftieth anniversary of the death of Guid Horn d'Arturo, a Jewish astronomer from Trieste, and a victim of the infamous racist laws of 1939.

Among his very many important achievements, it is certainly worth singling out his ingenious invention of the "segmented telescope." After having constructed a 1-meter diameter prototype at the start of the 1930s, in 1952 he brought to a successful conclusion the construction of a 1.8 meter diameter telescope, consisting of 61 hexagonal mirrors, each able to be flexed to supply the necessary curvature and deliver the sum of the single images to the telescope's focal plane. With this telescope, at the time the largest in Italy, observations produced over 17,000 photographic plates over a five year period, discovering about a dozen variable stars in the process.

Horn d'Arturo's segmented-telescope may doubtless be considered the forerunner of the large, modern telescopes of our day, the *multi-mirror telescopes* with active optics. His invention has remained practically unknown to most, even in the world of professional astronomers. Only Luigi Jacchia, on the occasion of the inauguration of the MMT in Arizone in 1978, memorialized in *Sky & Telescope* Horn d'Arturo as the father of this invention.

In order to render the long overdue homage to this Italian astronomer, the Italian Astronomical Society (SAIt) has decided to act as the Italian national astronomical community's advocate, along with the Italian National Institute of Astrophysics (INAF), for the perpetuation of the memory of Guido Horn d'Arturo by the naming of an important Italian technological enterprise currently underway, the ASTRI prototype at the Serra la Nave Observatory on Mt. Etna, one of the telescopes proposed for the CTA project (which, we recall, has its offices in Bologna, where Horn d'Arturo spent his working life).

We consider it proper to maintain a written record of this occurrence, with the collection of the speeches and the celebratory material used for the inauguration ceremony of the exhibition on Horn d'Arturo's life and scientific progress, at the conclusion of a scientific meeting on the progress of the CTA project, followed by the naming of the ASTRI telescope at Serra la Nave - today the Horn d'Arturo telescope. We are also pleased that on this occasion his original work will be translated in english and republished, almost ninety years after its first publication.

Many thanks are due to the Director of the Memorie, Piercarlo Bonifacio, and to the whole staff: this issue would not have been published without their valuable contribution.

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