

# Studies by Dr. Bruin Make Reconstruction Of Ancient Astronomy Instruments Possible

Dr. Frans Bruin, professor of physics and director of the AUB observatory since 1958, has been invited to Europe to lecture on his research in the field of the history of astronomy.

For the past seven years Dr. Bruin has been conducting research on ancient observational astronomy and its techniques of the era before clock and telescope. The study is now nearing its completion.

By translating and studying old manuscripts the ancient instruments were reconstructed in their original form in the machine shop of the Department of Physics, and were then used in actual observation.

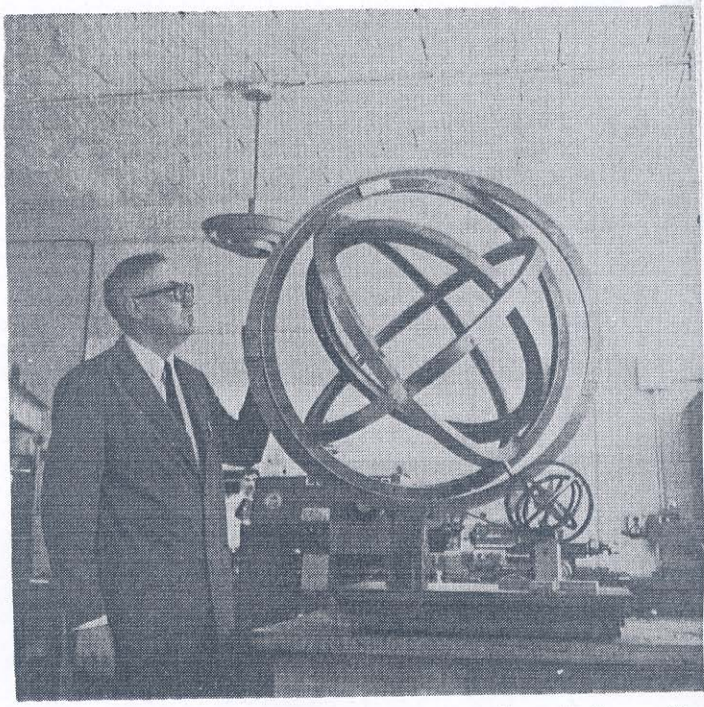
It is the first time that systematic investigations of this kind have been carried out, and the instruments are the only set of this kind in the world today. They range from a large masonry sextant, of four meters radius, to small portable astrolabes and celestial globes.

A replica of the equator ring of Hipparchos (150 B.C.) can be seen on an observation platform on the Physics roof, when looking up from the entrance of the Chemistry building. This instrument is used at the time of the equinoxes.

The treatises describing these early instruments and their use were written in Greek, Syriac, Latin, Persian, Arabic, etc. and were gradually translated with the help of many AUB students. All important material pertaining to the subject has now been put into English. Over the years these translations, the results of observations, and related material, have been issued in the form of "Biruni-Newsletters" at a rate of about six per year, and about thirty pages per issue.

A study was also made of the ancient observatories in the Middle East, and Dr. Bruin visited the sites of most of these. An observatory of medieval Arab type was built in the Lebanese mountains (Kasruwan) and the large fixed instruments of it were used for a series of observations of historical interest.

The major part of this program will be completed this summer. In



Dr. Bruin with one of his instruments, a replica of the armillary astrolabe of Ptolemy (150 AD). At the right a small model that was made first as a prototype.

early May Dr. Bruin hopes to travel to Germany and Switzerland where he will present lectures

on his work at the universities of Frankfurt, Munich, Basel and Zurich.

## Dr. Saghir Attends Conference On Weed Control in Rotterdam

Dr. Abdur-Rahman Saghir, associate professor of agronomy, participated in the Second International Meeting on Selective Weed Control in Beet Crops which was held in Rotterdam, the Netherlands on March 12 and 13, 1970. He presented a paper entitled "The Effects on Herbicides on Yield and Nutritional Quality of Sugar Beets in Lebanon" which was co-authored by Mr. Mahmud Duwayri.

The meetings were attended by 350 participants from 21 different countries. Dr. Saghir was the only participant from the Middle East. After the meetings, he visited the

Department for Vegetation & Weed Research (I.B.S.), the Plant Protection Institute and the Department of Field Crops and Grassland Husbandry at the Agricultural University, Wageningen.

On his way home, Dr. Saghir was invited by BASF to visit their research facilities at Limburgerhof, Germany. After that he visited laboratories of Dr. W. Koch at the University of Hohenheim. Dr. Koch is his colleague on the European Weed Research Council (E.W.R.C.). Dr. Saghir's trip was financed by the Lebanese National Research Council.