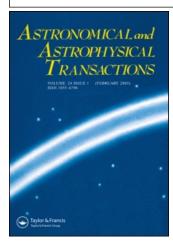
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### INTERNATIONAL CONFERENCE 'STRUVE ARC 150'

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## **INTERNATIONAL CONFERENCE 'STRUVE ARC 150'**

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(Received 28 October 2002)

Nearly 150 years ago, trigonometric measurements for the determination of the meridian arc conducted between the Arctic Ocean and the Danube river under supervision of W. Struve and C. Tenner were completed. In this way a unique triangulation chain was created which passed through the territories of Norway, Sweden, Finland, Russia, Estonia, Latvia, Lithuania, Byelorussia, Ukraine and Moldova with a length of more than 25°.

To commemorate this historical event and to obtain an overview of the current state and preservation of the sites of the Struve geodetic arc, it was decided to hold International Conference 'Struve Arc 150' in Tallinn and Tartu on September 25-28, 2002. The Conference was convened jointly by the Estonian Land Board, the Association of Estonian Surveyors, the Estonian Agricultural University and Tartu University (the chairman of the Scientific Organizing Committee was J. Randjärv, Estonian Agricultural University).

Nearly 30 participants from European states, whose territories were covered by the Struve triangulation points (excluding Moldova), and two scientists from the UK and Belgium attended the Conference and submitted their contributions. The conveners of the Conference issued a special volume of publications entitled Struve Arc 150 consisting of 13 articles dedicated both to the various aspects of the history of the measurements and to the present state of trigonometric points on the territory of specific states. Some of the articles also dealt with the scientific biography of W. Struve (T. Viik, Tartu Observatory, Estonia), his pedagogical career in Tartu University (J. Randjärv), his astronomical legacy (I. Pustylnik, Tartu Observatory, Estonia) and a review of the history of the manuscripts related to the Struve and Tenner Arc measurements (V. Kaptüg, Pulkovo Observatory, Russia). Although the scientific agenda of the Conference was intense, the convenors organized several excursions for the attendees: to the scientific library of Tartu University, to the old Observatory of Tartu University where W. Struve worked for more than half a century, to the Historical Museum of Tartu University and to the Exhibition displayed on the occasion of the 370th anniversary of Tartu University. During the excursion to the Old Tartu Observatory a ceremony of opening the memorial tablet commemorating the 150th anniversary from the completion of the measurements of the Struve Meridian Arc took place.

In an introductory review report (International Institution for the History of Surveying and Measurement, UK), J. Smith summarized various aspects of the project to preserve a selection of points from the Struve geodetic arc as a World Heritage Monument under UNESCO.

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It was mentioned that the idea was first voiced in 1993 during the memorial conference in Tartu dedicated to the bicentennial anniversary of the birthday of two famous nineteenth-century astronomers, W. Struve and J. Mädler, and the centennial anniversary of the birthday of the twentieth-century astrophysicist of Estonian origin E. J. Öpik. Unfortunately, despite the serious efforts of astronomers and surveyors, who took this issue to both the International Astronomical Union and the International Association of Geodesy, for various reasons up to now the original plans have not materialized. Therefore, according to J. Smith, the further aims of the project should now be:

- (1) Complete the choice, recovery, demarcation and documentation of a selection of points in each country.
- (2) Submit a detailed dossier to UNESCO.
- (3) If successful, then a GPS project be organized to incorporate all the selected points (40–45 in total), in a single scheme.
- (4) That the idea of preservation be extended south of Izmail, across the Mediterranian Sea and down the 30th Arc of the Meridian of East Africa to its southern end in S.Africa.
- (5) That the archive of the Struve Arc material, which is to be found in several locations, be indexed for the benefit of future scholars and researchers.
- (6) That the Struve volumes relating to the Arc be scanned and recorded on CD and made available to researchers and libraries.

(Smith J. (2002) In: Struve Arc 150, Reports of the International Scientific Conference, Tallinn and Tartu, Estonia, 2002, p. 4).

To this end, participants of the International Conference 'Struve Arc 150' adopted two resolutions. In Resolution 1 they 'urge the authorities in the 10 countries through which the Struve arc passes, to complete the preservation of the arc of meridian and the documentation in their countries as soon as possible, so that in their turn the national representatives to UNESCO may be urged to put them on their national provisional list of World Heritage Monuments'. Finally, in Resolution 2 participants agreed 'on the proposition of the Belarus delegation to hold a preparatory meeting in 2003 in Belarus as to complete the documentation and to prepare and solve technical problems and as to present them to the UNESCO representatives'. The International Conference 'Struve Arc 150' greatly contributed to an ultimate implementation of the project aimed at preservation of both the points of Struve meridian arc and the relevant documentation for at least two obvious reasons: firstly, representatives from specific states established during the Conference good working contacts with their colleagues; secondly, materials published in the volume include many useful data, starting from the maps of individual triangulation points, their geographical coordinates and ending with a rich variety of historical records, which should considerably facilitate systematization and preparation of future documents to be submitted finally to UNESCO.