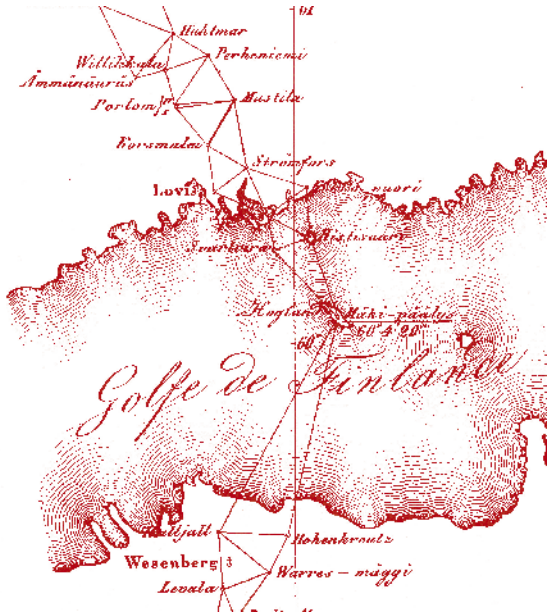
Number of the preserved points in

Norway	*4*	*Sweden*	*4*
Finland	*6*	*Russia*	*2*
Estonia	*3*	*Latvia*	*2*
Lithuania	*3*	*Belarus*	*5*
Moldova	*1*	*Ukraine*	*4*



Further information:

National Land Survey of Finland
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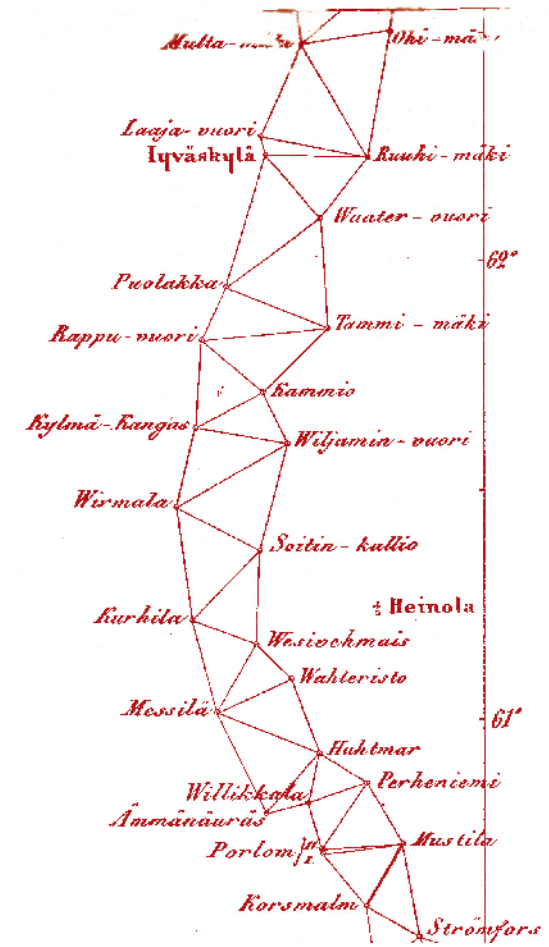
National Mapping Agencies and
National Agencies for Antiquities
in the ten countries
of the Struve Geodetic Arc



The Struve Geodetic Arc

Arc Measurement

has been defined as a method for determining the size and shape of the Earth by measurement of the length of the arc of triangulation and the astronomic coordinates of the ends of the arc. An arc of meridian is a line that runs in the true North-South direction.

Theoretically, a degree of latitude is a constant and would have the same value at the equator as at the pole. But already Isaac Newton believed that the Earth was slightly flattened at the poles. This question of the shape and size of the Earth inspired the astronomer Friedrich George Wilhelm Struve to come up with his famous Meridian Arc measurement.

Universalinstrument, similar used within the arc measurements.

The Struve Geodetic Arc

is a chain of triangulation survey stretching more or less down the 26° E line of longitude from near Hammerfest in northern Norway over 2,820 km south to near Izmail on the Black Sea. This survey was carried out between 1816 and 1855 under the guidance of F.G.W. Struve.

The scheme included 258 main triangles with 265 main and over 60 subsidiary station points. In today's geography, the Arc passes through ten countries, viz. Norway, Sweden, Finland, the Russian Federation, Estonia, Latvia, Lithuania, Belarus, the Republic of Moldova and Ukraine.

The Preservation of the Struve Geodetic Arc

The ten countries through which the Arc passes have co-operated since 1994 for the recovery, verification and monumentation of the survey sites of the Arc.

The selection of points involves a total of 34 sites of the Struve Geodetic Arc. They are located in the countries referred to above. The number of points in each country varies from one to six depending on the original number of points and whether the points have survived to the present day.

In each country, only the most prominent sites have been selected, for example, the Tartu Observatory in Estonia and Alatornio Church in Finland. These two are the only buildings that were used for observation, and both have remained unchanged since the measurements. Also both terminals, i.e. Fuglenaes at the Arctic Ocean and Staro-Nekrassowka near the Black Sea, are included.

The 34 sites selected will together represent the Struve Geodetic Arc. Other preserved sites of the Arc have, however, been protected nationally.

Nomination of the Arc for Inscription on the World Heritage List

The ten countries concerned have also contributed to the preparation of the documentation with a view to nominating the Struve Geodetic Arc for inscription on the World Heritage List. The Nomination was submitted to the World Heritage Committee at the end of January 2004.

The Struve Arc is one of the foremost scientific and technical achievements of its time, and it has a truly universal significance. For almost 200 years the Arc has connected countries from the Black Sea to the Arctic Ocean and will continue connect also in the future.

The Tartu Observatory, Estonia. The Arc passes through the observation tower at the Tartu Meridian 26°43' E