

## Erik W. Grafarend and Finland

Greeting speech of the FGI and the Finnish Academy of Science and Letters in the occasion of Prof. Erik W. Grafarend 75th Anniversary Colloquium, 13.2.2015, Leibniz Society, Berlin

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Dear Prof. Grafarend, ladies and gentlemen,

I will bring greetings from Finland to this 75th anniversary celebration Colloquium from two organizations: the Finnish Geodetic Institute, FGI – or nowadays FGI, the Finnish Geospatial Research Institute, and the Finnish Academy of Science and Letters. There will be no science in this speech but I will deal with Erik Grafarend's long-lasting relationship to Finland. Personally, it is a great pleasure to be here in this occasion, because we have known each other for a long time, but your relation to Finland and Finnish Geodetic Institute is even much longer.

Visiting us every summer, giving a lecture at Masala and discussions with people at FGI has brought more than one generation of Finish geodesist familiar to you and your research. I remember many inspiring discussions but also casual meetings with you and Ulrike. Lucky to us, you return every summer to Finland, in earlier years spending long periods at the lake area in Central Finland, or trips to Lapland (see the photo on a remarkable rendezvous there), but recently more and more concentrating the Helsinki Festival in August.

Equally well I remember my trips to Stuttgart, visiting the University but also your home enjoying the hospitality and warm atmosphere. These kind of personal contacts are important for young people to get familiar with top scientist and top science. This is something one cannot get from books or Internet. Personal contacts are essential in science.

FGI wants to remember you on your anniversary by a special medal. FGI, together with Tuorla observatory of Turku University, has established the Yrjö Väisälä medal, which is presented on special occasions. In the related diploma, we already sent to you on your actual birthday, we state that "FGI presents the Yrjö Väisälä medal to Professor Erik W. Grafarend for his long-standing co-operation with the Finnish Geodetic Institute".

Academician Yrjö Väisälä was a diverse and distinguished person in Finnish science. He started his scientific career in the FGI and later became a professor of physics in Turku University. He developed instruments and techniques which belong both in geodesy and astronomy. One of his inventions, still in use in FGI, is the measurement of long distances using white light interference. The famous Nummela standard baseline, the most precise geodetic baseline in the world is still regularly measured with this technique. Väisälä method is even today more accurate than any electronic distance measurement instrument over distances of several hundred meters.

Other inventions of Väisälä were e.g. the Schmidt-Väisälä type telescope, well before Schmidt published his version, development of stellar triangulation technique with balloons and flashlight for long-distance triangulation and discovery of numerous asteroids in our Solar System. During the years of Second World War, Väisälä discovered more asteroids than the entire world together.

Väisälä was keener to develop new ideas and new instruments than writing publications. A good example is his telescope invention: documents can be found only in the lecture notes to his students – and of course the telescope which he built by himself like all other instruments as well. With that telescope he made most of his asteroids discoveries.

I believe that the Väisälä medal also very well describes the original and pioneering work Erik Grafarend has been doing in his multitude fields of research.

The other affiliation I represent here is the Finnish Academy of Science and Letters. It is the largest scientific and academic learned society in Finland covering the full range of academic disciplines. Its membership is limited and it selects its new members on their academic and scientific merits. Ordinary membership is granted to meritorious Finnish scholars, by invitation only. The Academy has also had the custom since 1924 of appointing foreign members. An additional criterion is good and long-lasting connection to Finnish science. As earlier described, there was no doubt on close connection to Finland when Erik Grafarend was invited as a foreign member in 2010.

The Finnish Academy of Science and Letters and its Secretary General, Prof. Olli Martio, want to congratulate you on your anniversary, and present a special memorandum from the Academy, a special memorial coin which was published to celebrate the scientific achievements in Finland.

With these words, Director General of FGI, Professor Jarkko Koskinen, former director, your long-lasting colleague and friend, professor emeritus Juhani Kakkuri, staff of the FGI, and myself want to congratulate you and wish all the best for coming years and welcome you to visit us also in the future.



Rendezvous with Santa Claus at his summer place near the City of Rovaniemi at the Arctic Circle. Professor emeritus Juhani Kakkuri, former Director General of the FGI guided the expedition to Lapland. Photo: Ulrike Grafarend.