



Jóef Ádám

Erik W. Grafarend and Hungary

Greeting address of the Budapest University of Technology and Economics (BME) and the Earth Sciences Section of the Hungarian Academy of Sciences (HAS) in the Scientific Colloquium organized by the Leibniz Society of Sciences at Berlin in February 13, 2015 in Berlin on the occasion of the 75th birthday of Professor Erik W. Grafarend.

Dear Mr. Chairman, Colleagues, Ladies and Gentlemen!

On behalf of the Hungarian geodesists, and representing the BME and HAS I would like to congratulate Professor Erik W. Grafarend, *Doctor honoris causa* (Dr. h.c.) of our Technical University (BME) and *Honorary Member* of our Academy of Sciences (HAS) to his 75th birthday. He is well-known and held in great respect among geodetic community of my country.

Professor Grafarend is world-wide respected for his outstanding effective activities *a)* in geodetic sciences, *b)* in the international scientific life (in particular in the field of IAG), as well as *c)* in his personal relations and connections. His scientific work presented in his well-known books, publications, papers and lectures as well, has basically contributed to the recent development of the geodetic sciences. His scientific achievements, impacts and influences will be emphasized in this Colloquium in a multi-coloured way today.

Beside his scientific achievements we highly appreciate his intensive and long-standing cooperation with Hungarian scientific institutions and scientists. We may state without exaggeration that Professor Erik W. Grafarend is a permanent guest in Budapest and Sopron since around the turn of 1960/1970's. Therefore, furthermore I'll deal with his close connection to Hungary.

Firstly he came in close contact with *Ferenc (Frédi) Halmos* at the Geodetic and Geophysical Reserch Institute (GGRI) of the HAS in Sopron at the end of 1960's. Erik wrote his PhD Thesis in gyroscopes around 1966 and that time Ferenc Halmos carried out intensive investigations in the field of gyroscopic theodolites (he was also an expert in this field). On the basis of this common professional interest they became good friends and realized many topic meetings both in Bonn and Sopron. Unfortunately, due to the early death of Professor Ferenc Halmos (*05.09.1931 - †21.10.1980) this contact was broken off. However, later a new contact started end of 1980's at the GGRI with *Péter Varga* which became a cordial friendship and fruitful scientific cooperation between them until now.

Professor Grafarend's next early contact in Hungary was with *Ákos Detrekői* at the TU Budapest (BME) started at the beginning of 1970's. Ákos was his first Alexander von Humboldt (AvH) Foundation guest from my country at Bonn University in 1974/1975. They visited each other for numerous events. Last visit of Professor Ákos Detrekői as AvH-Fellow in Stuttgart was in 2011, just one year before his sudden death. An other contact at BME is related to myself where I'm working since early of 1990's. However we met first at the 3rd International Symposium on the „Geodesy and Physics of the Earth”, Weimar, former GDR, October 25-31, 1976 since Erik usually attended the „Geodesy and Physics of the Earth” Symposiums (Karl-Marx-Stadt (now Chemnitz), 1980; Magdeburg, 1984 and Potsdam, 1988) organized by the former ZIPE headed by Professor Heinz Kautzleben as well as the „Intercosmos Scientific Conferences” (e.g. in Budapest, 1977) organized in the so-called „Eastern Europe”.

After graduation at the BME, where I studied geodesy and surveying, I was working as a research associate at the Satellite Geodetic Observatory (at station Penc) of the Hungarian Geodetic Survey between 1974 and 1992. Results of my research and scientific investigations were presented at the mentioned international symposiums as well as e.g. at the VIIIth Hotine Symposium on Mathematical Geodesy (Como, Italy, 9-11 September, 1981; my first trip to a western country as a „scientific tourist”, a great privilege for an eastern European young fellow that time) where I met a few times with Professor Erik W. Grafarend. In the meantime he invited me to stay for a research work in his Institute at the Stuttgart University by a support of the AvH Foundation. My application to the AvH Foundation was successful and I could spend only a half year (between May 1 and October 30 in 1985, appr. 30 years ago!) at the famous Geodetic Institute of Stuttgart University with Professor Erik W. Grafarend as my host. For a shorter-longer overlapping eight (!) Humboldt Fellows (*J. Ádám, F. Crosilla, P.A. Cross, K. Eren, M.K. Fujimoto, P. Holota, A. Leick and L. Svensson*), further *Bernhard Heck* with Heisenberg-fellowship, top scientists (Professors *N. Grossmann, B. Schaffrin, P. Vanicek and D.E. Wells*) and PhD students from Germany stayed in Stuttgart during my half year stay there. It was a great possibility for me as a young research fellow to meet scientists from different countries and from different field of geodetic sciences. I will never forget this period of my life which was efficient and successful for my further carrier.

In all Professor Erik W. Grafarend kindly received for common researches in his Institutes and hosted three AvH-Fellows from Hungary; namely *Ákos Detrekői* (in 1974/2011), myself in 1985 and *Péter Varga* (in 1988 and several times). Here I would like to mention that an other Hungarian scientists, namely Professor *Ivan I. Mueller* from USA (*Iván István Müller* emigrated from Hungary in 1956) had been one year with him in Munich in 1976 when Erik was working for the FAF University. Professor Mueller was also supported by the AvH Foundation by a special Award.

Professor Grafarend participated at numerous scientific meetings in Budapest and Sopron. Just to mention a few ones: *a)* International Symposium on Satellite Geodesy, Budapest, June 28-July 1, 1977 (see *photo 1*); *b)* International Symposium on Optimization of Design and Computation of Control Networks, Sopron, July 4-10, 1977; *c)* Winter Seminar on Geodynamics, Sopron, 1989 (see *photo 2*); *d)* Second Continental Workshop on the Geoid in Europe, Budapest, March 10-14, 1998 and *e)* IAG2001 Scientific Assembly on „Vistas for Geodesy in the New Millennium”, Budapest, September 2-7, 2001 (see *photo 3*). He made a great assistance and contribution (as invited speaker, lecturer, section chairman, member of the LOC’s scientific committee, etc) for the success of these meetings.

Beside international scientific symposiums Professor Erik W. Grafarend visited our academic institutions (BME and HAS) numerous occasions and naturally presented invited lectures at the HAS (e.g. „Der Einfluss des Schwerefeldes auf hochgenaue geodatische Netze” in April 8, 1987) as well as at the BME (e.g. „The Geodetic Cosmos” in October 3, 2014).

Professor E.W. Grafarend wrote a scientific book together with Hungarian co-authors, namely *Professor Béla Paláncz* and *Dr. Piroska Zaletnyik* (*Awange, J.L.-Grafarend, E.W.-Paláncz B.-Zaletnyik P.: Algebraic Geodesy and Geoinformatics (2nd ed.). Springer, 2010.*) and an other one with *Loránt Földváry* as well. Moreover numerous scientific publications (papers, lectures) with *Professor Péter Varga* demonstrate the results of common research programs.

He accepted and hosted BME’s colleagues of my Department (*Piroska Zaletnyik* and *Loránt Földváry*) with different Fellowships in his Institute of Stuttgart University during past few years.

In order to express our honour and gratitude in appreciation of Professor Grafarend’s scientific activities as well as his cooperation with Hungarian institutes and scientists he was awarded with the *Doctor honoris causa* (Dr. h.c.) of the Budapest University of Technology and Economics (BME) in 1998. The corresponding diploma was handed over to him in the frame of an official BME’s Senat meeting in March 30, 1998 (see *photo 4, 5 and 6*). *Mr. Árpád Göncz*, President of the State of Hungary, a famous writer and translator (awarded by Doctor honoris causa of the Ohio State University) attended this meeting officially.

Professor Grafarend was also awarded with the „*Hungarian Humboldt-Prize 2009*” by the Humboldt Society of Hungary. This award was handed over to Erik in the frame of the general assembly of

our Humboldt Society in Budapest in June 13, 2009 and after this official celebration he presented an invited scientific lecture under the title „Loránd Eötvös und die moderne Schweregradiometrie”.

Furthermore he was elected as *Honorary Member* of the Hungarian Academy of Sciences in 2010 and kindly asked to present an inaugural address. This expectation gave him a good chance to visit again us in Budapest, Hungary. His scientific presentation (inaugural lecture) was delivered at the famous headquarter of the HAS under the title „From Eötvös to the Satellite Mission GOCE: Satellite Gradiometry” in September 21, 2010.

All in all his active connection with the HAS’ GGRI as well as with the BME’s Department of Geodesy and Surveying has been fruitful for many decades. The well-deserved high acknowledgement is expressed by a common greeting letter of the leaders of two academic institutions that is the BME and the Earth Sciences Section of HAS (see *attachment*). Dear Erik we thank you most cordially for all what you have done for us. Finally special thanks should go to Ulrike to keep Erik in good shape and condition (see *photo 7*). May we wish both of you happiness, good luck and in particular good health for many years to come.



Abbildung 1: Photo At the opening plenary meeting of the International Symposium on Satellite Geodesy. First row (from right to left): Mrs. Tóth, Ivan I. Mueller, Erik W. Grafarend, Ferenc (Frédi) Halmos, Ákos Detrekői, András Szentesi (chairman of the LOC) and József Ádám.



Abbildung 2: Photo Group photo of the participants of the Winter Seminar on Geodynamics at Sopron in 1989.



Abbildung 3: Photo Group photo made from a part of the participants of the IAG2001 Scientific Assembly in Budapest in September 1-7, 2001. In the middle is Professor Erik W. Grafarend among his friends.



Abbildung 4: Photo Erik W. Grafarend receiving his Doctor honoris causa (Dr. h.c.) award from Ákos Detrekői, Rector Magnificus of the BME in March 30, 1998.



Abbildung 5: Photo Erik W. Grafarend during his acceptance speech.



Abbildung 6: Photo Erik W. Grafarend shaking hands with Mr. Árpád Göncz, President of the State of Hungary.



Abbildung 7: Photo Erik and Ulrike during a discussion meeting at the Kövesligethy Seismological Observatory of the HAS' GGRI in Budapest in September, 2010 (photo by Péter Varga).

Adresse des Verfassers:

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