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Obituary Baron Paul Melchior

On the 15th of September 2004, Baron Paul Melchior passed away. He was 78 years old. Recently, he had hip replacement surgery and died painfully from complications.

Paul Melchior was an exceptional person. He contributed immensely to the development of geophysics not only as an outstanding scientist but also as a great leader. From 1973 to 1991, he served as Secretary General of International Union of Geodesy and Geophysics (IUGG), and was the Honorary Secretary General of IUGG until his death. His tenure lasted so long because he had an extraordinary ability to meet the expectations of his colleagues, and it was difficult to find someone who was willing to follow in his footsteps to manage such a demanding position. One of his successes as Secretary General was the adhesion of China as member of IUGG, for which he showed all his skill in diplomatic matters.

During his long and fruitful scientific career, Paul Melchior had been :

Director of the International Center for Earth Tides (1958-1995), President of the Commission of Earth Rotation of the International Astronomical Union (1967-1970), and President of CODATA (1974-1978).

Paul Melchior studied mathematics at the Free University of Brussels. His Doctorate in Mathematical Sciences was earned at the same University in 1951. His professional career started as assistant at the Royal Observatory of Belgium in 1949. He became the Director in 1981 and served in that capacity until his retirement in 1990. Paul Melchior had a profound attachment to the Observatory. His contributions to the development of geophysics and geodesy at the Observatory are countless and brought great renown to his grateful Institute. For his dedication for science and his international reputation, in 1993 King Baudouin bestowed upon him the title of Baron. Paul Melchior valued this mark of honour above all. He was very attached to his country and its monarchy.

Paul Melchior began his career as an astronomer. Between 1950-1957, he spent long nights observing at the Askania Great Meridian Circle in Uccle. After compiling the data, he published the most precise star catalogue of that time. Soon, he was interested in the Earth's rotation. He then developed the complete theory of the motions of the Earth's rotational axis and its link to Earth's tides. This became his main subject of research. He began measuring Earth tides in 1957 with the Verbaandert-Melchior quartz tiltmeters. In 1958, he was the first to analyze Earth tide observations using an electronic computer, the famous IBM 650. In 1968, Paul Melchior founded, with Johnny Flick, the Underground Laboratory of Walferdange in Luxembourg. In 1969, with Prof. Manfred Bonatz, they installed tiltmeters, gravimeters and a satellite camera in Spitzbergen (Norway). Thanks to his growing scientific reputation, the US Navy supported him to set up the first permanent Transit Satellite Doppler recording station in Europe, which operated until 1993. In 1973, his skillful and accurate interpretation of Earth tide gravity observations led the US Air Force to entrust his team to carry out Trans World Tidal Gravity Profiles. A total of 127 stations were observed worldwide for at least 6 months. This exceptional data set was used to assess the precision of the oceanic tidal models derived from Topex-

Poseidon a few years ago. Always looking for more precise observations in gravimetry, Paul Melchior succeeded in raising funds to install the first superconducting gravimeter in Europe in Uccle.

Paul Melchior was also a Professor at the Catholic University of Louvain. His lectures were gripping due to his tremendous experience and expertise. He directed several Ph. D. students who considered themselves lucky to have him as an advisor. Being absorbed by his scientific and administrative life, he chose to trust his students instead of directing their theses on a daily basis. His door was open at any time to discuss science and he always gave advice without imposing direction. Paul Melchior succeeded in hiring some of his students at the Royal Observatory of Belgium, and helped and supported the others to get positions in academic institutes. In his last years, he was deeply involved in the development of the European Center for Geodynamics and Seismology (ECGS) in Luxembourg. Paul Melchior, one of the founders of the ECGS, was the most active member of the scientific committee.

Although Paul Melchior was very busy, he found the time to write about 300 scientific papers as well as two books published by Pergamon Press. The first one, published a few decades ago, was devoted to Earth Tides. It is still the only one on the subject. He will be remembered as "the Father of Earth tides," and was bestowed during his lifetime with numerous international honours and distinctions. Notable among these (in addition to the title of Baron awarded by the King of Belgium) are his election to the title of "Fellow" of the American Geophysical Union in 1978; his nomination as honorary Professor of the Institute of Geodesy and Geophysics of the Sinica Academy in China; and his nominations as foreign member to various scientific academies in Finland, the Netherlands, Spain, and Romania.

Paul Melchior had an extremely rich personality. In addition to his scientific career, he was a humanist passionate about history and literature. He also enjoyed national and international politics, which were favourite subjects of discussion. Anyone who had the chance to have dinner

with Paul Melchior will never forget an enjoyable time listening to his incredible stories so well told. He is remembered for his taste for good foods, especially Italian cooking.

As a friend, Paul Melchior was trusting and loyal. He enjoyed writing to his friends and his correspondence could easily fill the entire library of the Royal Observatory. Being a stamp collector, one suspected that each time he sent a letter, he was anxious to get a nice stamp on the returning letter.

A man of his calibre could count on a wife of exception. Madame Melchior was literally at the service of the career of her husband. She prepared dinner for so many visiting scientists. She also learned Russian to translate the huge Russian bibliography on Earth Tides for her husband but also for all the readers of the Bulletin d'Informations des Marées Terrestres.

Paul Melchior will be missed not only by his family and friends, but also by his many colleagues, worldwide. His motto was: "In Omnibus Terris Amicus".

Prepared by V. Dehant and O. Francis