Preface

Hundred years ago M. T. Huber published his fundamental paper "Specific work of strain as a measure of material effort", forming the basis of modern theory of plasticity and of the related branches of mechanics of materials and structures. The paper, written in Cracow, was published in Polish in the journal "Czasopismo Techniczne", Lwów 1904, and was scarcely accessible to a broader circle of scientists. The early dissemination of his ideas is mainly due to quotation in A. and L. Föppl's book "Drang und Zwang", München 1920, and to a discussion between Huber, Mises, and Hencky during the First Congress of Mechanics in Delft 1924. Full English translation of the paper has been published just recently in Archives of Mechanics **56**, 3, 173–190, 2004.

In order to commemorate the centenary of Huber's paper, Akademia Górniczo-Hutnicza (University of Science and Technology, Cracow), and Politechnika Krakowska (Cracow University of Technology) decided to organize an International Symposium "Developments in Plasticity and Fracture", Cracow, 12–14 August 2004. The rectors of both universities, Ryszard Tadeusiewicz and Marcin Chrzanowski, not only initiated the Symposium, but ensured the best conditions for debates and accommodation in Cracow. The Symposium Chairman was Zbigniew Engel (AGH), the Chairman of the Scientific Committee – Michał Życzkowski (PK), and the Scientific Secretary – Stanisław Wolny (AGH).

The Symposium gathered 60 participants from 20 countries, namely 30 from abroad (Germany 6, Russia 5, United Kingdom, Austria and Canada 2, USA, Japan, China, Israel and 9 other European countries 1) and 30 from 9 Polish Universities and Research Institutes. A particularly interesting historical lecture was given by Zbigniew Olesiak, Huber's assistant in the Gdańsk period 1946–1948, who included many personal impressions.

The present special issue of Archives of Mechanics contains just a small part of the selected papers, mainly general lectures. It is supposed that most of the remaining papers will be published separately. Each participant obtained the English translation of Huber's original paper, the discussions were warm and interesting, and the Symposium gave an essential contribution to broader dissemination of Huber's ideas.

Michał Życzkowski