In memory of Prof. Janusz Szosland Ph.D., D.Sc., Dr h.c. MGAT, Dr h.c. TUL 1925 – 2015

Janusz Szosland, a longtime member of the Scientific Board of Fibres & Textiles in Eastern Europe, passed away on January 1st, 2015. He was a dear friend of ours and an avid promoter of our journal, always willing to offer us his help and support. This is not only a great loss for our journal, but also one for the whole textile community.

Janusz Szosland was born on 16th January 1925, in Łódź. In 1936, he enrolled in a valued secondary school - J. Pilsudski Municipal Gymnasium, in Lodz. However, his education was interrupted by war. Under the German occupation, he first worked in a textile warehouse, and after a year at the Focke-Wulf plant in Łódź. At the same time he took private lessons, which allowed him to pass the maturity exam in 1945 at the M. Kopernik High School in Łódź.



He first studied at the Faculty of Mathematics and Natural Sciences at the University of Lodz, and from October 1945 he began his studies at the Faculty of Mechanical Engineering at the Technical University of Lodz. After two years, fascinated by the prospects of a new faculty, he moved to the newly created Department of Textiles. He graduated with honours in 1952. In 1962 he received his Ph.D. with a dissertation entitled "Methods of testing, controlling and regulating the shuttle throw in a flat loom", in 1966 he received a D.Sc. degree, and in 1973 he was appointed Professor and Full Professor in 1986. For his scientific activity he was granted the title of Doctor Honoris Causa by the Moscow State Textile Academy (1979) and Technical University of Lodz (1996).

Janusz Szosland started his work at the Faculty of Textiles of the Technical University of Lodz in 1950 as a deputy assistant at the Department of Textiles while still a student. Subsequently he associated his whole professional life, 50 consecutive years, with the Technical University of Lodz. He was, among others, Head of the Weaving Department (1967-1970), and Director of the Institute of Textile Mechanical Engineering (1970-1995). For 3 terms (1969-1975) he fulfilled the duties of Dean of the Textile Faculty. He promoted 1080 M.Sc. and Eng. Theses. Under his scientific supervision 21 Ph.D. dissertations were written. Among the Ph.Ds promoted, six of them obtained the degree of D.Sc. and then the title of Professor. In addition, he worked as a lecturer at the

Night-School of Engineering in Łódź (1952-1955), at the School of Engineering in Czestochowa (1952-1955), at the State Higher School of Visual Arts in Lodz (1957-1960), as well as an Assistant (1950-1951) and Scientific Advisor (1958-1959) at the Central Institute of Textiles in Łódź. Professor Szosland is the author and co-author of scientific and teaching books, including "The Basis of the Structure and Technology of Woven Fabrics" (5 editions), and of 6 scientific monographs. He is the author and co-author of 120 original scientific papers published in outstanding textile journals and gave more than 120 conference lectures.

Professor Szosland, a man of extraordinarily wide scientific horizons, was recognised by the Scientific Society as a man who's attention was drawn only by issues which could find implementation in the technical and technological praxis.

Professor Szosland had an extraordinary ability to see and emphasise problems already highlighted but not yet successfully solved. At the beginning of the 1960s the problems of measuring vertical and horizontal displacements of woven fabric edges during weaving and its significance for the loom was one of the greatest discoveries of Professor Szosland.

Moreover a successful achievement of Professor Szosland and his team was the elaboration and further implementation of methods and tools for optimising the conditions of weaving in Polish industry. In everyday industrial practice this led to a considerable increase in the efficiency and quality of fabrics manufactured.

These years were also the beginning of works concerning the analysis of different phenomena related to the weaving of fabric on a loom, as well as those which take place before weaving. The effect was gaining knowledge of the mechanism and phenomena related to the unwinding of a thread from a cross package. Works on the phenomena taking place during the creation of the structure of such packages and the rules of formation of the structure of such windings as well as phenomena related to the splitting of threads during shed formation were conducted. The results of these works found their effects in experiments with looms working without staff, multi-shed looms, with sheds formed wavelike along the width of the loom, with shed-caused weft thickening and weaving without a batten. These works later gave the basis for the conception of a loom with shed formation with the help of disks in order to achieve a weaving machine which could enable a process of formation of woven fabrics without tensioning the threads. All the prototypes worked successfully.

Professor Szosland was invited to leading scientific centres in Europe for presentation of the results of research works directed by him.

It was to the great surprise of specialists working with the Professor to recognise during world exhibitions in the 1980s to see a presentation of textile machines with the effects of works performed and directed by the professor which were visible in the structure of the latest models of modern looms.

These years were the beginning of a technical-technological revolution in weaving and today no one can recognise the great amount of setting and regulation problems which were necessary to manage by weavers in everyday practice.

In the 1960s, with the implementation of shuttleless looms in industry, the problem of skew-weft stripes appeared while manufacturing woven fabrics from chemical fibres. This problem was solved thanks to changes in the manufacturing of chemical filaments. Similarly the problem of irregularity of warp thread tension was solved by the inserting of an unwinding and tensioning station between the creeling frame and warping machine.

A problem which took the attention of Professor Szosland during long periods of his activity was the structure of woven fabrics, especially the shape of inter-thread channels.

The evidence of only four different modules was highlighted by the Professor and his followers in many works. Special interest was awoken by the metrology and dynamic behaviour, especially on tension barriers, of linear textile products, the precursors of not only woven fabrics but of all textile structures.

A fundamental activity of Professor Szosland was the creation in the 1990s of a totally new branch of textile science - the "architecture of textiles". Contrary to the notion of "textile architecture", which means building structures with the use of textiles, the "architecture of textiles" expresses the idea that a textile object from fibres to composites and from yarns to clothes is constructed from plenty of smaller modules and structures, similarly to buildings, bridges, walls etc. which are build from a variety of elements. This new way of thinking resulted in creating, firstly, the Department of Architecture of Textiles, which was later developed to an Institute and has existed up to the present at the Textile Faculty of Lodz University of Technology.

Two great associations were the domain of Professor Szosland's activity. First and foremost, the Polish Textile Association should be mentioned, and the secondly the Academy of Engineering in Poland.

Professor Szosland became a member of the Polish Textile Association in 1960, from 1960 to 1974 Vice-President., President from 1974 to 1999, and Honorary President form 1999. Professor Szosland was also the initiator of many national and international conferences and scientific meetings of the PTA. He actively participated in the life of this organization till his last days. He was also one of the creators of the Academy of Engineering in Poland and for many years he was Chairman of the Committee of Membership Board.

Professor Szosland was a member of the Polish Academy of Sciences (1987-2001), as well as a member of the Lodz Branch of the Polish Academy of Sciences (1978-2012). For 3 terms (1982-1990) he was Chairman of the Central Council of the Polish Federation of Engineering Associations - NOT. He was also the initiator of the Scientific Textile Centre in Łódź (1995), whose basic objective was the promotion of research and development in fibres and textiles.

From 1978 he was active in the Lodz Scientific Society. He was a member of the Advisory Board to the Chairman of the Polish Council of State, the Economic and Social Council at the Parliament. Moreover he was a member of the Group of Experts of the Minister of National Education and the Central Commission for Academic Degrees and Titles working for the Prime Minister. He was also Chairman of The Scientific Board of the Institute of Security Technologies - MORATEX.

Professor Szosland was the initiator and creator of the sport event Textilcross – a running event through Łagiewnicki Forest.

Great sorrow dominated the activity of Professor Szosland in the late 1990s. The first was the fall of the great textile enterprises of Łódź and the negative change of the trends of governmental authorities. This directly led to a decrease, year by year, in the number of students of the Textile Faculty. Many actions were initiated by Professor Szosland in order to positively change the attitude towards the textile industry, increase interest in textile studies, and above all to restore the belief that Textile Łódź had not disappeared and that the notion of "Łódź - the Manchester of Poland" should return. And indeed, year by year, the situation changed in an optimistic direction.

Professor Szosland was awarded the Polonia Restituta Crosses of Cavalry, Officer, Commander and Commander with Star, the Medal of the Polish National Education Commission, the Narutowicz Honorary Medal, The Gold Star with Diamond of the Interprom, the Honourable Order of the City of Łódź and the Gold Order of the Polish Textile Association.

A truly inspiring and wonderful man has passed away. He will be greatly missed.

Sugaren Mac

Bogdan Mac