



The Institute of Textile Science

Incorporated, Canada 1956

CITATION IN HONOUR OF

DR KEITH SLATER FOR THE INSTITUTE OF TEXTILE SCIENCE AWARD

Keith Slater lived his early years in England, attending the University of Leeds where he obtained a Bachelor's degree in Chemistry followed by an MSc in Textiles and PhD in Textile Engineering. After teaching and lecturing for several years in the north of England, in 1966 he relocated to Canada, accepting a position as Assistant Professor of Textiles at the University of Guelph in southern Ontario. This relationship continues to this day, with Keith having spent time as Associate Professor, Professor for 25 years (1975 - 2000), and now as Professor Emeritus.

Keith's academic career has been diverse, where his areas of interest and research include textile engineering, human comfort, environmental concerns, and protective clothing. He has investigated many aspects of yarn formation and production, particularly with respect to hairiness and unevenness. He has extensively studied effects of moisture in textiles from the perspective of processing and its control, then later the effect of moisture transmission on comfort. Research has included the study of noise in textile production, on workers, and on means to control such noise by studying the acoustic behaviour of carpets and other fabrics. Work across several areas including moisture in textiles, noise reduction, thickness, density, and abrasion, led to studies in textile design and a more holistic approach to the assessment of textile performance and to the assessment of comfort. Study into moisture in textiles pioneered the development of an apparatus to measure the resistance of textiles to water vapour diffusion, as well as investigation into process control. Yarn studies resulted in the development of an apparatus for improved measurement of unevenness and faults in yarns, and later to a digital signal processing technique for the analysis of yarn unevenness. He developed techniques for measuring the moisture content of textiles during the drying process, equations for automatic control in tentering, methodology for studying acoustic behaviour and the effects of textile parameters on sound transmission loss, and apparatus for the detection and measurement of carbon monoxide gas. Dr. Slater holds 6 patents for different aspects of his work.

Complimentary research has been extensive study into the progressive deterioration of textile materials, and attempts to simulate wear degradation in the laboratory, the effects of wear on comfort, and the effects of weathering on both textile deterioration and comfort.

Keith's work on the medical uses of textiles led to protective clothing for operating room protection and comfort. During his sabbatical year at Cambridge in 1983 he developed surgical gowns which were later adopted by the National Health Service in the UK. More recent protective clothing study has considered the need for and means to protect agricultural workers.

Keith has taken a keen interest in the relationship between textiles, textile production, and the environment, as he studied environmental hazards in textile research, the production and use of disposable



The Institute of Textile Science

Incorporated, Canada 1956

textiles, geo-structures for controlling water movement, environmental considerations in new textile development, noise in textile production and worker protection, as well as environmental costs in textile production.

Dr. Slater has certainly influenced textile education in this country having taught for nearly 35 years at the University of Guelph, supervised 15 graduate student theses, and continues today as research advisor to an Australian doctoral student. There are few in the industry today in Canada who are untouched by his work. This expertise has been shared publicly through numerous broadcast interviews, including a "University of the Air" 5- program TV series.

Keith has been an active volunteer in university life, both administrative and social. He has coordinated the Guelph study abroad program, served on the Senate, President's, Faculty Association, Student Rights and Responsibilities, and university Judicial Committees, and acted as Convenor of a Textile Science Advisory Committee with experts from Industry, Government, and Academia to advise on the program at Guelph. Keith is still involved in the study abroad program and is an independent consultant for industry, the EU, and the Textile Institute.

As can be imagined, with this diverse experience, Keith is the author of over 100 scientific papers which have been published in both refereed and non-refereed journals and has presented papers at conferences around the world, in at least a dozen countries. He has also authored 9 books on textiles for the Textile Institute, amongst others. He has contributed chapters to 2 textile books, "Progress in Textiles: Science and Technology, Vol 1: Testing and Quality Management", 1999; and, "Handbook of Technical Textiles - Textiles and the Environment", in 2000.

Keith's professional and personal lives have enjoyed similar dedication and zeal. Indeed, his need to write and his knowledge of textile engineering, chemistry, and the environment have lead to several articles, papers, and presentations which discuss philosophical topics such as the social costs of scientific progress, global quality in a safer environment, and social consequences of technological or environmental abuse. Presentations with these titles have been made to guilds, student bodies, the Great Lakes Research Consortium, and in the scholarship@sea programme found on Princess Cruises.

If Keith had not found satisfaction in his academic and teaching career, he may well have earned his living in the thespian world. He began his theatrical life, on stage, in 1976 at the Guelph Little Theatre, followed by more than 60 appearances at Cambridge, the University of Guelph, Galt and Kitchener-Waterloo Little Theatres, and Theatre in the Trees, as an amateur. Semi-professional roles see him annually in the "Spirit Walk" for Woodlawn Cemetery, including a portrayal of former Ontario Premier George Drew, and in a few forays into film and television. He participated in the gala opening of the wonderful River Run Centre in Guelph, has performed with the Guatemala Drama Society, and has even taken a turn at narration with the Guelph Symphony. Indeed, the stage provided him a wonderful opportunity to take a direct dig at royalty in one performance attended by Prince Edward.

It seems inevitable that he would also need to take a hand at directing, which he began to do in 1981 and now boasts some 20 plays credited to his direction, together with awards won for both performance and direction. Keith's obvious enjoyment of writing has caused him to write 21 stage or radio plays, 3 books of short stories, 5 novels, and about 30 short stories for magazines. Most have been published and/or



The Institute of Textile Science

Incorporated, Canada 1956

performed. With such a keen interest in writing and the theatre, he has taught workshops on writing, acting, auditions, directing, and play polishing for guilds, schools, and scholarship@sea.

Keith has lent his skills and expertise to various organizations beyond the university and theatre: he served on the Board of Directors of ITS for several years and was elected a Fellow in 1977. He has served TTFC, contributed to metric conversion planning, participated in NATO working groups, served as external examiner for PhD candidates, has been on the editorial board for the Journal of the Textile Institute and the Iranian Textile Journal, has worked as a technical committee member for international conferences, and refereed papers for the Journal of the Textile Institute and the Textile Research Journal. He is a Fellow of the Textile Institute and has served as Vice-President and on its governing council and professional status committees. In his other life, Keith has been President of the Canadian Author's Association of Kitchener-Waterloo, was an editorial contributor to the World Book Encyclopedia, was Director of the Guelph Little Theatre, and served as Chair of Judges, Canadian Author's Association National Playwriting Competition. He was elected to life membership in the Canadian Author's Association in 1993. He has published many plays by new Canadian playwrights.

Beyond his academic and theatre interests, Keith has participated in the university's faculty/student exercise class since his arrival, leading it now for about 20 years. Having built a small dinghy, he has sailed the Trent system. Leisure activities include travelling and walking, usually combined trips where he organizes walking holidays for groups of friends to locations where good walking may be found: the Rhein Valley, Burgundy, Alsace, the Austrian Alps, and Provence with Tuscany, Majorca, or the Dordogne next on the planning sheet. His wife Rosalind shares these trips enthusiastically. This particular love began when, as a student, he led tours in Austria, Germany, and Switzerland necessitating a very rapid learning curve in the German language. Many walking trips throughout the UK, Spain and Portugal have made excellent holidays with his wife or family.

Keith's proudest achievements personally are his 47 year marriage to an extremely supportive woman, Rosalind, his 3 children and 8 grandchildren. Professionally, being awarded the Warner Memorial Medal of the Textile Institute in 1997 was very much a highlight, and he has achieved great satisfaction from his service in so many varied textile administrative positions.

It is an honour for the Institute of Textile Science to present the Science Award to Dr Keith Slater for his extensive contribution to textile education, research, and administration.

Presented in Mississauga, Ontario, August 28th, 2006