

British Society for Strain Measurement—The Facts

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Although our two societies, SEM and BSSM, have been in close co-operation for a number of years now and a valued joint-membership facility has been established, it was realized recently that 'the facts about BSSM' may not be well known to many SEM members. Accordingly this informal outline article is presented to help rectify the situation.

Origins of BSSM

Compared with SEM, BSSM is of relatively recent origin, having been conceived in the early sixties in the minds of a number of people who were trying to establish a common line of communication for those engaged in strain measurement in different engineering disciplines. One group so engaged was the Strain Gauge Division of Saunders-Roe Ltd., aircraft manufacturers on the Isle of Wight—the company which, in 1952, developed and patented the first foil strain gage. The company began holding strain-measurement-related conferences in 1962 and 1963. A small committee, constituted from conference participants, arranged a

further conference at Brunel University, London in May 1964 and discussed the need for a society of strain measurement. Delegates voted overwhelmingly in favor of forming such a society and elected an organizing committee. After frequent committee meetings the British Society for Strain Measurement was formed in September 1964. The first issue of *Strain*, the Society's quarterly journal, was published in January 1965. The committee wrote and passed a Memorandum and Articles of Association on June 17, 1965 and the Society was incorporated under the Companies Act 1948 as a 'limited company' on September 9, 1965.

Many people assisted in developing the Society, too numerous to mention by name, but credit for a lot of work must be given to Geoff Chalmers, then manager of Saunders-Roe Strain Gauge Division, now with the international operations of Measurements Group, Inc., and president of BSSM. Instructor-Commander D.J. Male of the Royal Naval College, Greenwich, chaired all the early committees; Vince Lewis of Brunel University was the Society's first secretary and

treasurer; and G.S. Holister, then of University College, Swansea, was first editor of *Strain*, and indeed personally typed and set up the first issue. Leo McCalvey, now BSSM's professional secretary, was also a prominent hard worker in laying the Society's foundations.

Through Commander Male, the first Annual Conference of the officially constituted Society was held on September 20-21, 1965, amid the elegance and splendor of the Royal Naval College, Greenwich, a building designed by Sir Christopher Wren and situated on the south bank of the Thames on the site of the palace in which Queen Elizabeth the First was born. This conference is still memorable in the minds of those fortunate enough to have attended, not only for the technical content and discussion, the friendliness and stimulation among delegates but also, of course, for the magnificence of the surroundings.

After this substantial 'shot in the arm' for the infant Society, it grew rapidly. A vigorous regional organization was established throughout the land with local committees in the south, southwest and Wales, Midlands, northeast, northwest and Scotland. Late in 1966 Leo McCalvey took over as hon. secretary. 1967 marked another milestone. Chris McCalvey, Leo's 'better half,' was appointed administration officer and 281 Heaton Road, Newcastle-upon-Tyne became the best known address in the Society when the BSSM office was set up within the McCalvey residence—to remain there for 17 years! Also in 1967 the editorship of *Strain* passed to M.L. Meyer of City University, London. Under his guidance over a five-year period, the journal attained its international reputation.

During most of its existence the Society was administered through a National Executive Committee. By common consent, the administrative structure was reorganized in 1983/84.



Geoff Chalmers, BSSM president, (right) presented a plaque to the current SEM president, John Ligon, at the Fifth International Congress on Experimental Mechanics in June, 1984

A smaller body, the National Council, was formed to make policy and executive decisions. Detailed matters are now dealt with through five committees, each with its special remit and technical groups not unlike those of SEM. Regional committees still operate and generally undertake the detailed organization of technical meetings, perhaps five or six in any one region, between October and July. There are now about 800 individual members in many countries. The Society is also widely supported by industry, educational centers, government and other research establishments in its class 1 and 2 memberships. Recently, as SEM changed its name, so BSSM had thoughts in that direction. It was eventually decided to retain the name, but add the subtitle 'The Society for Product Design, Evaluation and Test.'

In 1976 the Society instituted a certificate (now diploma) to be awarded to candidates who satisfy high standards of proficiency, knowledge and experience in strain-measurement techniques. These abilities are assessed by written and practical examinations and by interview. Recently an additional, less demanding qualification was introduced in the form of the Society's Strain Gauge Installation Certificate. Among other highlights of the Society's activities have been the publication of a monograph entitled *Methods and Practice for Stress and Strain Measurement* and the *BSSM Measurement Reference Book* (just being reprinted), prepared by John Pople.

An important fairly recent event was the establishment of new office premises in Newcastle-upon-Tyne and the restoration of the full accommodation at 281 Heaton Road to Leo and Chris McCalvey. The Society is very much indebted to them for their hard work (and their forbearance!) and the use of part of their house over these many years. It is very fortunate to have them both still in command in the new office.

BSSM Meets SEM

A chance meeting at a European

conference in 1979 between Jim MacKinnon of BSSM and Hal Brinson of SEM (then SESA) led to the first joint BSSM-SEM venture in September 1981. This was the Joint International Conference on Measurements in Hostile Environments, held at the University of Edinburgh. The two societies organized a contribution of equal numbers of technical papers for this meeting. BSSM was delighted to welcome about 20 SEM contributors including Mike Fourney (SESA immediate past-president at that time) and several members of SESA's Executive and Editorial Committees, some of whom were accompanied by wives and families. The meeting was a great success both technically and socially. Shortly thereafter Ken Galione,

SEM managing director was warmly welcomed at two BSSM annual conferences. Relations between the two societies were cemented and put on an official footing by the establishment of the joint-membership facility. There is now also a mutually advantageous exchange of information on many matters such as publications and various aspects of standards.

The invitation to join with SEM as a cosponsor of the Fifth International Congress on Experimental Mechanics was eagerly accepted by BSSM. The Permanent European Committee on Experimental Stress Analysis also joined as a cosponsor. This prestigious meeting took place in Montreal from June 10-15, 1984. Some 20 BSSM delegates, with wives and families,

Research Project—Common Ancestors?

It gives me very great pleasure to say that, among many SEM/BSSM friendships formed at the jointly sponsored, eminently successful V International Congress on Experimental Mechanics in Montreal in June 1984, was one between SEM honorary president Bill Murray and myself. In our conversation during the congress reception, Bill mentioned that his grandfather was a Macduff from Scotland. This matter of considerable mutual interest, was pursued later at a happy little 'get-together' with Bill's wife Joan, my wife Lil and Geoff Chalmers, BSSM president in Le Centre Sheraton, and it emerged that several of Bill's Macduff ancestors had the same Christian names as some of mine and came from similar parts of Scotland. It happens that Macduff is a relatively uncommon name in Scotland—in the Glasgow and Edinburgh telephone directories containing about 640,000 names, there are only 31 Macduffs compared with, for example, more than 5500 McDonalds. It seems then that there are reasonably strong possibilities that Bill and I share common ancestry, and I have undertaken to research the matter on behalf of both of us. There



Geoff Chalmers, BSSM president; Bill Murray, SEM honorary president; and Iain Macduff, BSSM chairman in happy discussion at Le Centre Sheraton

may also be common ancestors by the name of Blair, so it is evident that the project may have wide scope and may uncover all sorts of skeletons in all sorts of cupboards! The photograph, taken in Le Centre Sheraton, shows Geoff, Bill and me at the initiation of the research project with some of the auxiliary equipment in the foreground!

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