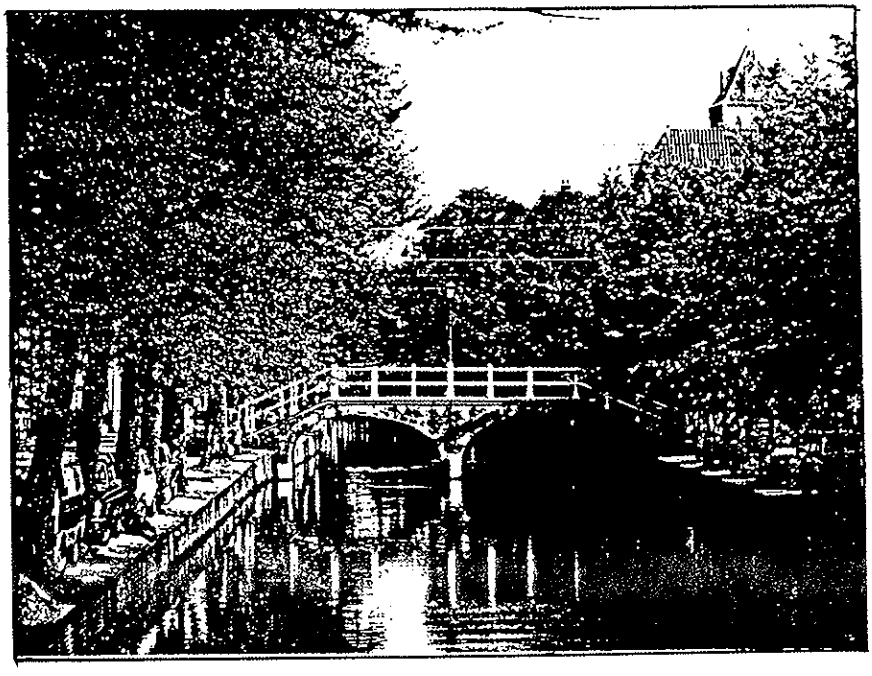
IABSE NEWS

BRITISH GROUP NEWSLETTER No 11 1996



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This newsletter is distributed to all members of the British Group and a single copy is sent to the Secretariat of all Overseas Groups.

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EDITORIAL

PERT, QA, TQM, CDM, LCC [not London County Council but Life Cycle Costing!]. Our industry is beset by acronyms. The chronological recitation of these represents a potted history of recent years. Add to that the discipline of risk management and the weak hearted are contained within a strait jacket of regulation.

There is current emphasis on LCC. A good discipline in theory and one that deserves support. However, when one considers the variables in the equation confidence in

LCC predictions begin to waver. At the front end there is the problem of getting a client to predict the intended life of his structure. Fashions come and go; industrial processes change out of all recognition; property values may change alarmingly. Then there is the question of durability. How long will a particular building element last in a certain environment which in itself may be changing? Old materials may be assessed with reasonable accuracy after many decades of use in differing environments, but what about new ones where suppliers are constantly changing the formulation of polymers? Lastly there is the financial equation; the effect of inflation [in excess of 25% in living memory] and interest rates? To make an accurate assessment for a structure funded over a long period is a nightmare and, I would suggest, unrealistic.

Perhaps what is necessary is some good old engineering judgement - or am I being too cynical?

DAVID DORAN

THE ROLE OF THE BRITISH GROUP

This is still under active review by the Executive Committee. Any constructive suggestions that members may have will be welcomed and should be addressed to the Honorary Secretary. The relationship between the British Group and the Institution of Structural Engineers is also under active review and a paper will be circulated to members in due course.

MEMBERSHIP NEWS

Professor Sir Edmund Happold, who had for some time been ill with Cardiomyopathy, died on 12th January 1996 at the age of 65. Our deepest sympathy is expressed to his wife Eve, his two sons and other members of his family. After a private funeral a memorial service was held at the Euston Road Friend's Meeting House on 31st January 1996 attended by several hundred of Ted's family, colleagues and friends. It was a moving celebration for those of us who were present; we think Ted would have appreciated it.

His was a glittering career recognised by the highest of honours [a Knighthood; Master of the Royal Designers for Industry; President of I.Struct.E.; founder Chairman of the Building [later Construction] Industry Council; Fellowship of the Royal Academy of Engineers]. His career embraced high office, academia and consultancy practice. His life has been extensively chronicled in obituaries in the Times, other quality newspapers, New Civil Engineer and the Structural Engineer [6 Feb. 96].

He was a tireless member of the Executive Committee of the British Group for many years and organised the London Symposium in 1981 at Imperial College, London. This was a huge success technically, culturally and financially.

For those of us who knew him we grieve the loss of a charismatic engineer, a great friend but also at heart a humble deeply religious man. The world is richer for his having been here; his passing is a great loss.

We are pleased to hear that **David Lee** is making a slow but progressive recovery from his illness.

Congratulations to :-

Brian Simpson OBE on becoming President of the Institution of Structural Engineers.

Patrick Dowling on becoming Chief Executive and Vice Chancellor of Surrey University. He has also recently been made a Fellow of the Royal Society [FRS]. His distinguished career is now recognised by a Fellowship of both the Royal Academy of Engineering and the Royal Society.

Peter Head on his award of a Silver medal by the Royal Academy of Engineering for his work on Composite Materials.

PERSONALITY

R. J. W. MILNE BSc

Bob Milne has been Honorary Secretary of the British Group of IABSE since January 1970, when the late Dr. William Henderson was Chairman.

He was born in London in 1929 [not two stones throw from the Oval cricket ground]. He was educated at Westminster City School [1940-47] in the days long before the advent of 'O' and 'A' levels. Before going to university he served in the Royal Air Force [1947-49] Subsequently he graduated from the University of London in 1952 with a BSc in Physics.

On graduation he worked for 4 years [1952-56] for Submarine Cables Ltd. on submerged repeaters for long-distance deep-sea telephone cables, ie. in the days when the transistor was a laboratory wonder and the Post Office [!] [at Dollis Hill] was still trying to perfect valves with a life expectancy of 20 years. With foresight [?] he left before satellites made such deep-sea telephone cables obsolete, except perhaps for security reasons.

A change of occupation in 1956 saw him as an electrical engineer with the Race Finish Recording Co. Ltd. [a subsidiary of the Jockey Club] working on photofinishing and photoelectric timing for horse racing, greyhound racing, athletics etc. Fond memories of White City athletics remain with him.

In 1960 Bob altered course by joining the Institution of Electrical Engineers, where he became Assistant Editor of the IEE Journal. This was the period when the Engineering

Institution's Joint Council - the forerunner of CEI was established and higher education saw the introduction of major changes. [Robbins report].

This led him to the British Iron and Steel Research Association in 1963, which move brought him into contact with the construction industry. [Fred Needham was head of the Civil/Structural Engineering Section]. He spent 4½ years at BISRA as Technical Secretary of the Plant Engineering and Energy Division.

In 1967 he joined the Institution of Electrical and Electronics Technician Engineers as Assistant Secretary and Editor of the Institution's journal. This was the time of the Haseltine report on education and training of technician [now incorporated] engineers and technicians.

Bob finally came to rest at the Institution of Structural Engineers in January 1970, which he joined as Assistant Secretary [Technical]. On the reorganisation of the Institution secretariat he became Assistant Director of Engineering as well as Managing Editor of the Structural Engineer. He formally retired at the end of February 1994, although he retains a consultancy with the Institution. He is proud to have been a recipient of the Lewis Kent Award from the Institution in 1994.

In the years [1970 - 1996] at the Institution there have been tremendous changes - working practices have altered, recessions have come and gone. Well meaning reports have been written about the industry. Little has been adopted. What will happen to Latham? In spite of all this the construction industry is the most friendly of all that he has worked in. He hopes to retain his contacts for many years to come.

In the years with the British Group he has been involved with the arrangements for the Annual Lecture, the Henderson colloquia and two of the international symposia - 'Development of structural form' held in London in 1981, and 'Places of assembly and long-span buildings' held in Birmingham in 1994. He has represented the British Group on the Permanent Committee and has been a member of Working Commission IV.

Bob Milne is married with 2 sons and 2 daughters [and 4 grandchildren]. He lives in Mitcham. His great interest is cricket. He was honorary secretary of a wandering side for 27 years and now acts as secretary for a occasional midweek side [Carnegie Exiles]. He scores weekend games for Old Rutlishians. He has even umpired in Van Coutland Park in New York! His other interests are music [traditional jazz and classical] and reading [considers George Elliot to be the outstanding writer in the 19th century]. He likes a glass of real ale, Guinness or good Belgian beer.

CAMBRIDGE COLLOQUIA

A Colloquium on 'Reliable containment for the future' was held at Pembroke College, Cambridge on 12/13 July 1995. This was organised by a Committee chaired by Brian Simpson, attended by 20 invitees and covered a variety of Containment Structures. The proceedings will again be published by E & F. N. Spon and will be available shortly.

Members are reminded that proceedings of the 1993 Colloquium 'Towards joint free bridges' are also available through E & F. N. Spon.

The topic for this year's Colloquium is 'Structural engineering knowledge - the roles of research, education, publications and practice.' We are grateful to Angus Low [ARUP] for his help in Chairing the Organising Committee. The event will be held at Pembroke College on 9-10 July 1996.

The likely topic for 1997 is 'The behaviour and design of structures for serviceability conditions'. Professor David Nethercot leads the Organising Committee.

These Colloquia which commerate Bill Henderson the founding chairman of the British Group have developed a good international reputation . If any member has a topic which may be appropriate for such consideration please write to Bob Milne about it.

IABSE SYMPOSIUM : SEPTEMBER 1995 : SAN FRANCISCO

ANNUAL MEETINGS.

These **annual meetings** seem to occur with worrying speed yet, inevitably, one is perplexed by the task of motivating one's international friends when we meet so infrequently. The attraction of these meetings is still the opportunity to talk with other structural engineers about the opportunities and problems which concern us and to develop contacts and understanding from which we each benefit. The sum of these individual relationships seems to outweigh the deliberations of the committees and working commissions.

Inevitably there has been much discussion this year as to the needs for change in the way in which IABSE operates since the world around us is not only changing but is filled with communication developments which encourage international competition. Can we afford the time and cost of international meetings and symposia since there is world wide complaint that there are too many conferences and they rarely take place where the need for knowledge is greatest in the lesser developed countries? So there have been discussions to encourage teams of leading engineers to visit these countries and provide them with the knowledge they desire and which is appropriate to their needs. Should we video our symposia and conferences and make these available to those who have not been able to attend? Taken to extremes we could merely video presentations by experts, have small invited audiences, discuss these presentations and minimise the need to attend meetings around the world. But then we would lose the benefits of personal contacts and the development of valued friendships. As in most things there is a balance to be struck.

The Long Range Planning Review Committee discussed the Mission and Goal to make them meaningful in relation to what we could expect to do and achieve. From this the objectives were formulated with operational plans by which they might be realised. It was recognised that time is limited and the Long Range Plan needs to be

issued to members without unnecessary delay. The President will be preparing a proposal for submission to the Executive and Permanent Committees. It was stressed that we must provide value for money especially if we intend to do more for our members.

The Executive Committee considered the past and future programmes of conferences. Past ones have been technically successful but there are increasing uncertainties regarding expected numbers of participants. For San Francisco there were hopes of 800 but a month beforehand registrants were only 300 but happily recovered to 550. Had we welcomed 300 to Birmingham we would have recovered all of Zurich's and our associated costs. Future main events include the 1996 Congress in Copenhagen, 1997 Joint Conference with FIP and others in Innsbruck and the 1998 Symposium in Kobe. There are no proposals for 1999 and a suggestion for 2000 in Switzerland. The Chinese are also interested in 2000.

The accounts for 1994 show a loss of 142,588 SF due to the non achievement of expected revenues. There was much discussion over these matters and analyses of costs and time of the Secretariat in Zurich were studied. A lot of time is spent by Zurich in chasing up payment of subscriptions and no sanctions are applied until late in the year. It was proposed that membership ceased if the subscriptions are not paid by the end of February. This would remove uncertainty from the membership numbers as well as save money. There was praise for the quality of SEI, disappointment that sales were not increasing and discussion over the balance between the main type of articles. Most members thought the balance was about right.

Elections to the various committees and working commissions included J. Schlaich to the Executive Committee, K. Eklund as Chairman of the Technical Committee and D. Nethercott as a member of that Committee. He was also elected Chairman of WC2. WC7 was declared inoperative due to lack of attendance of members. Mr. Igvaarson of Sweden is to be the new Chairman of WC 8.

The correspondence between the British Group Committee and the President had been circulated and produced a good discussion and much agreement with the points we raised. In response we had received more detailed analyses of IABSE expenditure, but there were mixed views as to the comparison with the costs of other international bodies. There was general agreement that a radical overhaul of the WC's was needed and I agreed to serve on a Working Party formed to produce some recommendations. Other nationals are suffering like the British from adverse movements in exchange rates to the Swiss franc. Responsibilities for the financial aspects of Congresses and Symposia were strongly debated and yet to be resolved.

The Permanent Committee's discussions were similar to those of the Executive regarding Programmes of Events, Finances and Elections and led to acceptance of the proposals described to them. Working groups formed by WC's may include non WC members. There are working groups studying the following topics under the listed chairmen :

Evaluation of remaining structural capacity	B. Hillemeier
Monitoring of Structures	A. S. Novac

Case histories of the use of new materials	B. Bakht
Joints and bearings of bridges	G. Ramberger
Design and construction interaction	Y. Hisatomi
CAD and construction databases	A. Schub
Implementation of models in construction	M. Hannus
Environmental loads and damage to buildings	N. V Waubke
Restoration and reinforcement of historical structures and monuments	A. Croci
Sustainable developments	R. Silman
IDNHR	M. Ito

In future, notes will be included in SEI about the activities of the WC's.

For publication in SEI, papers have to be peer reviewed, if necessary amended for length, and will be published according to the type of paper when there is next space for such a paper so as to preserve the balance of contents and adopted themes.

The social arrangements were, as always, most satisfactory. The members of the committes and their ladies were entertained one night on the 52nd floor of the Bank of America building with spectacular views over San Francisco and its Bay and on another night enjoyed views across the Bay from the Waterfront. The ladies enjoyed visits within the North of the City. We had W. Brown, A. Pickett, K. Sriskandan and the writer with their wives during the annual meetings. The UK representation during the Symposium numbered 18 and H. Webber and K. Skriskandan presented papers among some 400 in total.

The next Congress in Copenhagen will surely seem to arrive very quickly as it will be in **June 1996** and not the usual August/September.

D. W. QUINION.

THE SYMPOSIUM.

The Symposium on the 'Extending the life span of structures' was well attended. The 2½ days was divided into 5 Paper Presentation periods, 2 Plenary Sessions and 3 Poster Sessions. The first Plenary Session consisted of 3 key note lectures and was held immediately after the opening ceremony. The second on 'The Structural Implications of the Kobe Earthquake' was held immediately before the closing ceremony.

The Symposium papers numbering about 180 were presented in 4 concurrent sessions during each of the 5 periods. These included special sessions on 'Seismic retrofit of the Golden Gate Bridge' and 'Stay Cables for Cable stayed Bridges'. The poster sessions were held outside the times of the paper periods in an effort to give them equal status. There were 70 posters in all and these have all been published in the Proceedings.

The UK representation numbered 18 with 5 papers [including ones from K. Sriskandan and H. Webber] and 3 posters.

K. SKRISKANDAN.

BRIDGE ACCESS GANTRIES AND TRACKS

The draft report prepared by a Task Group of the Institution of Structural Engineers has been accepted for publication by the Engineering Committee. The legal review has been completed and the report is nearing publication. It is intended to have a meeting at the Institution to highlight this publication.

ANNUAL LECTURE 1995

20 YEARS EXPERIENCE WITH CABLE-STAYED BRIDGES.

David Doran [F] reports on the I.A.B.S.E. Annual Lecture given by HOLGER SVENSSON at the Institution on 23 November 1995.

Holger Svensson is a consumate practitioner of his art. He has worked for Leonhardt, Andra and Partners since 1972 and is currently Managing Director. He initially worked under Fritz Leonhardt, an outstanding bridge designer. In addition to his German qualifications Holger is a U.K. Chartered Engineer, is a Member of the Hong Kong Institution of Engineers and is a Registered Engineer in the U.S.A. and Canada.

For more than an hour he kept a packed audience enthralled with an illustrated account of his experience over two decades. His experience comprises some 25 cable-stayed bridges of which nearly half have been built. He has worked on projects in Germany, South Africa, Botswana, Italy, Venezuela, India, Norway, China and U.S.A.

His American experience includes :-

* Pasco-Kennewick bridge across the Colombia river [near Seattle]. 300m main span; precast concrete deck.

* East Huntington bridge across the Ohio river. 270m main span; one tower; precast concrete deck.

* Sunshine Skyway bridge across Tampa Bay. 365m main span; composite deck.

* Baytown bridge across the Houston Ship Channel. 381m main span; composite twin deck.

* Burlington bridge across the Mississippi river. 195m main span; one tower; composite deck.

He has also been involved in the design or design audit of other bridges with longer main spans [Helgand bridge in Norway; 425m main span and Yang Pu bridge in China; 602m main span respectively].

Dipl-Ing Svensson focused his lecture on structural concepts and erection techniques. He spoke not only with authority but frequently with good humour particularly when describing regular upheavals to the family home as he pursued his love affair with bridges to America. In addition to his mastery of technical problems, Holger displayed real feeling for the aesthetics of structures. Many of his 130 slides illustrated driver's - eye views of bridges and even his interest in the finished [red] colour of the cables of the Flehe bridge across the Rhine.

In dealing with cable anchorages, for example, on the Pasco-Kennwick bridge, he emphasised that these should be visible and accessible. Also on this bridge he described the use of steel balls and epoxy resin to clamp the wires into the steel socket and suggested that this technique used in conjunction with Hiam cables would provide a fatigue strength nearly double that of an arrangement using zinc poured pockets. He seemed to favour cement grouting of cable wires within a PE tube except in the Norwegian design where winter grouting was not possible because of very low temperatures close to the Polar circle. Here the alternative used was shop injected petroleum wax.

Mr. Svensson dealt with a number of other issues which included :-

* Development from isolated towers to 'A' frames and thence to diamond configurations.

* The use of 'jumping' forms rather than sliding methods for pouring concrete towers - to achieve better dimensional control.

* The use of 'match' casting to achieve greater accuracy in the construction of concrete deck units. His experience included units of up to 270 tonnes.

* Pre-assembly of cable anchor pipes in steel cages for subsequent lifting to tower heads - again to achieve a more precise location.

* Jointing procedures for precast concrete deck elements involving new detailing techniques for reinforcement together with the use of low-shrinkage concrete for the in-situ closure to the joint.

In the ensuing discussion many warm tributes were paid to Holger's ingenuity. He ably dealt with questions raised about deck fixing or otherwise at tower positions; working with architects; cable grouting; wind tunnel testing; dynamic damping and future developments.

From the tenor of his responses it was clear that Holger Svensson is an innovator but one who likes to proceed with caution by way of gradual change rather than quantum leap.

The lecture concluded with a warm vote of thanks from the joint meeting Chairmen Brian Simpson [President I.Struct.E.] and David Quinion [Chairman I.A.B.S.E. British Group]. For all present it had been a memorable meeting at the Institution, one only made possible by an acknowledged expert in his subject.

A manuscript of the lecture has been made available and copies can be obtained from Bob Milne.

THE ROYAL ACADEMY OF ENGINEERING

The object of the Royal Academy of Engineering is the pursuit, encouragement and maintenance of excellence in the whole field of engineering to useful purpose in order to promote the advancement of the science, art and practice of engineering for the benefit of the public.

In pursuit of that object, the Academy has powers which may be summarised as follows:

- To establish and advance efficiency in engineering.
- To promote excellence in education, training and experience.
- To stimulate excellence, creativity and innovation.
- To exchange information on all branches of engineering.
- To give advice to UK Government, or any other body on engineering.
- To foster relations with other organisations at home or overseas.

History

The Royal Academy of Engineering was established as The Fellowship of Engineering in February 1976. The present title was adopted in July 1992 with the gracious consent of Her Majesty the Queen. The Fellowship was formed on the initiative of HRH Prince Philip Duke of Edinburgh and a group of distinguished engineers. Prince Philip had long sought to promote the views of engineers of all disciplines and it was in very large measure due to his efforts that the Fellowship was established and he accepted the office of Senior Fellow. It was felt that a prestigious body of engineers should be created to further the understanding of engineers in their various activities. In June 1976 the inaugural meeting was held at Buckingham Palace. The founding fellows were 126 Chartered Engineers who were either Engineering Fellows of the Royal Society or Engineers considered by their Institutions to be the most eminent in their Membership. The Academy aims to take advantage of the enormous wealth of engineering knowledge of its members to further the practice of engineering in all its

facets. Election is by invitation only, up to sixty Fellows being elected each year from nominations made by the Body of Fellows. They are elected by their peers in recognition of their achievements in engineering. They are distinguished by the title **Fellow of the Royal Academy of Engineering** and the designatory letters **FEng**.

Honorary Fellows and foreign members who have made exceptional contributions to engineering may also be elected. In July 1995 there were 1,008 Fellows and 62 foreign and Honorary Fellows. The Duke of Edinburgh remains as the Senior Fellow and HRH the Duke of Kent is a Royal Fellow. The policy direction and administration is exercised by its elected council and is administered by a Secretariat.

Sir David Davis CBE FEng FIS soon takes over as President from Sir William Barlow FEng.

Activities

The Academy is actively concerned with encouraging excellence in engineering, some of which are initiated by the Academy, while others are carried out on a contract basis for outside bodies. The Academy co-sponsors with industry Senior Research Fellowships and personal Chairs at Universities. Funds are provided for visiting professors, for engineering secondments overseas, international travel grants for British Engineers and an industrial secondment scheme. It also administers the DTI Engineers to Japan scheme. It administers the Royal Academy of Engineering McRobert Award, Britain's premier prize for innovation in engineering. It operates the Engineering Education Continuum. There are many trusts concerned with providing help for engineers at various stages in their careers.

Meetings and Publications

The Academy arranges a programme of events in London and the regions, often in conjunction with other bodies. Public meetings are open for all to attend, usually free of charge. Major conferences are also held from time to time. The Academy also publishes various reports and newsletters.

Links with other Bodies

Links are maintained with learned societies, professional institutions and other bodies with mutual interests. The Academy also maintains close links with the Engineering Council and provides the Secretariat for the Parliamentary Group for Engineering Development. The Academy also maintains links with many overseas groups having similar interests.

Finance

The Academy is a registered charity financed by Fellows' subscriptions, Government grant, investments and grants and incomes from various engineering contracts. In 1994-95 the total income was £8.2 million and the budget for 1995 is over £9 million.

Basically engineering in the UK has a relatively low status compared with other similar countries and Prince Philip's initiative, in conjunction with the Academy's activities gives engineering a much appreciated boost.

Recent activities include an Annual Meeting of the Royal Society, at which items of common interest were discussed for both home and overseas activities. Visits were made to the inauguration of the Academy of Sciences Malaysia, The AGM of the Royal Swedish Academy was visited in Stockholm and The President visited the Australian Academy of Technological Sciences in Australia. The Academy supports the continuation of the Foresight exercise. The Academy has also been concerned with nuclear restructuring. The Academy supports the Hydro Award, the Fifth Framework Programme for European Research and Development. The Academy supported a Conference on the Engineers' Role in Sustainable Development, also much work in support of the Disaster Relief Fund. Visits have been made to the second Severn Crossing, the Silent Power Limited covering car battery technology and Interlinks 1995. The Academy is concerned with the next biomedical engineering conference entitled 'Medical Engineering - Improving the Quality of Life'.

The Annual lecture of the Royal Society and the Academy was given by the Chairman of Brown and Root.

To summarise, the Academy by its presence, by its various lectures, visits, sponsoring of conferences, does a great deal to help the reputation of engineering and to advertise its values.

ALEC SANDBERG F.Eng. Messrs. Sandberg.

IS IT TIME TO WAKE UP OUR SLEEPING BRITANNIA?

A personal view from a distance.

Those of us who are loyal active members of IABSE are familiar with the work and achievements of many colleagues from other nations. We respect their work, but I

sometimes wonder if, due to traditional British understatement, they are always as well aware as they might be of what Britain has and is achieving in bridge and structural engineering.

I draw a marked distinction between writing and talking about structural theory, and design and construction, for it is with the latter that engineers demonstrate their understanding of the practical challenge and serve the public.

Perhaps I am mistaken, but I do sense a trend within IABSE to give too much emphasis to inappropriate computer-based research often incorporating unproven hypotheses which common sense and a simple experiment would clarify so easily.

I recall an eminent member of IABSE once explaining to me that "*the problem of course is that Engineering judgement involves common sense but to the academic mind common sense is unscientific and hence unacceptable*".

Like many other engineers, my work has taken on an international flavour these last decades, so that I spend most of my time overseas, but I do try to keep in touch with current affairs in the UK.

Recently, my journeying has brought me to the south-east of France and within range of BBC Radio 4 long wave. I am thus aware of the Engineering Council's new campaign to improve the status of professional engineers, bringing it into line with what is perceived to be the position in other European countries.

This of course is nothing new, and I must confess to being unimpressed by the spokesman for the Council when interviewed. Perhaps that is the problem, able Engineers are too engrossed in their work to indulge sufficiently in public relations.

On the other hand, is it fair to assume that the social status of the Engineer is higher elsewhere, or indeed is it deserved?

From my own limited, yet direct experience, perhaps the answer to the first question is yes and the second 'perhaps'. Quite what status means in quality of life is another question. Being granted status has its comforts, it is pleasant, but does it lead to better or improved Engineering?

It depends so much on the individual. Status in society gained by recognition by one's peers is one thing, automatic status is another.

Let me relate two of my own experiences. Some countries' engineers do have status but it is somewhat bland, automatic and in my view frequently unjustified. It leads to an assumption by too many students that once graduated, they are assured of a 'desk for life'. Theory dominates, 'hands on' practice is for lesser others. In Turkey for example, status in society is determined in no small measure by official 'perks' and in particular by the colour of the cover of your passport! Standard passports are coloured blue, all civil servants, university staff and professional's coloured green and red is reserved for very senior officials, parliamentarians and ministers. A diplomatic incident was caused a few years ago when our Home Office failed to grasp the significance of passport colour and instituted UK entry visas for ALL passport colours, destroying a very coveted status symbol.

My years in Italy and particularly Rome where again engineers are granted social status, adds a different complexion and one which I quite enjoyed. To be addressed as '*Ingegnere*' does have a meaning. In fact engineers are listed with the title in the

telephone directories but it commands respect everywhere. A designer is granted an even higher perch and, I would say, justifiably so.

When early in this decade I was invited by Stretto di Messina SpA to lead the Messina Bridge design from their offices in the broad Viale Liege in Rome and provided with a modern apartment just off the via Salaria near Villa Ada, the normally imperious native Romans in the block, were most deferential to their newly acquired '*Ingegnere*'. My wife and I enjoyed many a delightful dinner on the respective *balconies* with our host and their friends, sipping wine from the Frascati vineyards still visible in the distance before experiencing the wonderful red sky as the sun slowly set over the distant hills. Of course whether all this resulted in better engineering remains an open question. To be truthful I doubt it.

Of course the Italians are more conscious of the benefits brought by engineers and good industrial design. Certainly the Roman's believe in and accept the motor car, so that when, after a few years I sought an explanation as to why the office entrance gates always opened as if by magic for me when I arrived in the morning, but not for others, I was told the explanation was simple. The porter, a keen amateur motor mechanic, could tell a car by the sound of its engine. I had brought my 20 year old Ford Cortina from Istanbul and he could easily distinguish the sound of its crossflow Ford 'Kent' engine from the Fiats of practically everyone else. I was a little deflated.

Without a national culture which accepts industry as its wealth generator it will be very difficult for the Engineering Council to make such headway.This view was reinforced even more recently when listening to BBC Radio 4 a few weeks ago. I heard an episode of *Any Questions* with Jonathan Porrit as one of the panellists. Perhaps not surprisingly he lambasted the Engineering profession for destroying the environment and damaging our lifestyle and in so doing, drew considerable support from the audience.

His father, an eminent Physician and Surgeon would no doubt accept that up to the first half of this century at least, improvement in the Nation's health owed more to the civil engineer than to the medical profession through the provision of clean water and good sanitation. Mundane perhaps by the accepted standards of sophisticated medicine of today, but it may be worth recalling that Prince Albert died of typhoid contracted at Windsor Castle.

Electronic devices are now so common in medical use that we are inclined to take all these products of the engineering profession for granted. After all, the '*scanner*' was invented by an Engineer at EMI, a company better known for its pop records.

Although I still spend most of my time abroad, I make a point of being in London around the end of November on the occasion of the annual dinner for the Faculty of Royal Designers for Industry. A group of designers covering all aspects of industry ranging from, for example, fashion design to aero-engineering and to which I was privileged to be elected some 20 years ago. It is limited to just 100 and is only some 80 or so strong at present. Established 60 years ago by the Royal Society of Arts (RSA), it endows on its members the title RDI. Regrettably it is virtually unknown outside the International Design Institutions, but nevertheless represents a distinction much sought after in the whole world of design.

Many may not realise that the RSA's full title is Royal Society for the Encouragement of Arts, Manufacturers and Commerce. It is known better for its examinations and

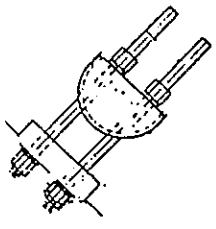
certificates in commerce but it in fact strongly promotes industry as it did for 'Industry Year' some 12 years ago, when I was Master of the designers and a Vice President. Frankly it was not a success, the problem being that Britain, although dependent on industry and engineering, has an anti-industry culture.

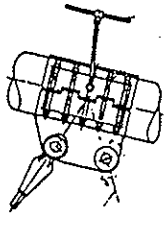
How many realise when they admire the products of other nations that the designer is probably British. The designer for Bang & Olufsen for example is an Englishman, and an RDI. The designer of the trend setting Minolta camera is an RDI. Much of Thomas porcelain is designed in London. Design studios in Italy and Germany are staffed by graduates from UK design colleges. Ford Motor Company send many of their young design staff on postgraduate courses at the Royal College of Art in London.

At last year's RDI dinner, a fellow engineer mentioned that the BBC had just begun a series of half hour programmes on BBC2 intending to encourage young students to follow the engineering profession. A worthy objective. A book on the series had just been published under the general heading 'The Limit' including a section on bridges, dwhich was broadcast in early December, with the Storebaelt project in Denmark as its theme. Needless to say it not only failed to recognise the developments in this field made by British Engineers over the last decades, but even went on to suggest that the British contribution was irrelevant. All was attributed to Niels Gimsing, whom many of us will know from IABSE meetings as a good teacher but one who has never laid any claim to being a designer nor did he. It was just the invention of the BBC.

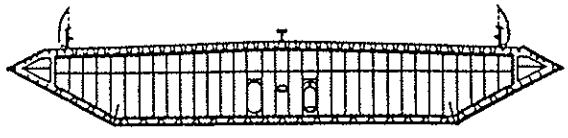
The Storebaelt bridge, with whose construction I am also involved, extends a most marked link, both in shape and all important details, to the trend setting Severn Bridge of the late 1950s early 60s.

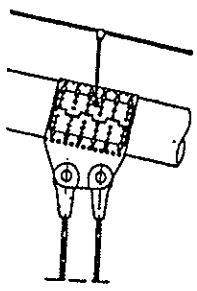
SEVERN BRIDGE
1960

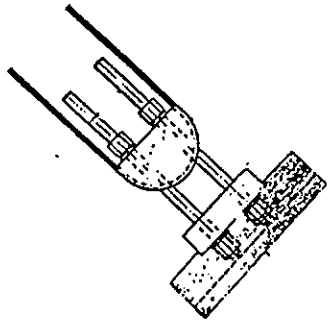




STOREBAELT BRIDGE
1990







Quite how or why the BBC deny such a direct link is beyond belief, yet they do! Such is life! Such is the challenge!

It must surely be the Engineering Council's prime task to educate and inform our media and public if Engineers are to receive their just recognition.

To answer my own question, yes, perhaps the time has come to awaken Britannia, unfurl her flag and wave it strongly in the face of all our cynics both at home and elsewhere. It may not grant Engineers social status but at least provide some satisfaction.

DR. W. C. BROWN OBE RDI

STRUCTURAL ENGINEERING INTERNATIONAL

May I remind all members of the on-going opportunity to have articles published in SEI. The rules for so doing are relatively simple and I would be pleased to hear from any who may wish to provide such material. I can be contacted by telephone or fax on the following number **0181-989-9082**.

DAVID DORAN - SEI. UK Correspondent.

INTERNATIONAL REPRESENTATION

As a result of the elections last September our representation on the International committees is now as follows :-

Mr. D.W. QUINION	Executive Committee. Vice President of IABSE.
Prof. D.A. NETHERCOT	Member of Technical Committee.
Prof. D.A. NETHERCOT	Chairman of Working Commission Two. [Steel, Metal and Timber Structures]
Mr. A.J. PICKETT	Member Working Commission Four. [Construction Management]

N.B.
U.K. is not currently represented on Working Commissions 1, 3, 5. 6 and 8. Should any member be interested in these vacancies please discuss with Bob Milne [0171-235-4535]. The activities of Working Commission 7 [Building Physics] are suspended for the time being.

Elections to Working Commissions take place in alternate years. Please advise if you are interested and able to participate in the meetings and work of a particular Commission. Members may apply to attend any meetings of the Working Commissions in which they are interested. The present Working Commission structure is under review.

CALENDAR 1996 - 1997

16 - 20 June 1996	CONGRESS: Copenhagen, Denmark. 'Economy, Environment, Energy.
28 November 1996	ANNUAL LECTURE and Dinner. Topic : BRIDGES OF THE LANTAU CROSSING - D.C.C. Davis [Mott-McDonald]
03 - 05 July 1997	'NEW TECHNOLOGIES IN STRUCTURAL ENGINEERING'. Lisbon, Portugal.

PLEASE PASS THIS NEWSLETTER ON TO A COLLEAGUE WHEN YOU HAVE FINISHED WITH IT.

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Whereas every effort has been made to ensure the accuracy of statements and acknowledgements we reserve the right to be as wrong as everyone else. [The British Group is indebted to Messrs Sandberg for the wording of this disclaimer].

EDITORIAL PANEL