

Advanced Concrete Technology and  
**The Institute of Concrete Technology**

A brief history



Edwin A.R. Trout  
2013

## **Preface**

The following brief account of the Institute of Concrete Technology, prior to its merger with The Concrete Society has been completed largely from the 760 issues of its Newsletter – referred to in the text in the format (No. Month Year) – supplemented by other documentary sources. Oral contributions from members to add or amend the text would also be welcomed.

It aims to trace the Institute's development along the themes of education, membership, awards, technical meetings and professional development, in the UK and around the World (most notably Ireland and South Africa)

Reference to the undoubtedly vital contribution of numerous individuals has been kept to a minimum for fear that the overall trends would be overshadowed by what could easily have become a directory of the 'great and good' of the concrete world. A separate appendix lists the officers of the Institute

Edwin A.R. Trout  
March 2013

## Introduction



Maurice Thompson, HF1, the first Silver Medallist, honoured for his role in founding the ACT Diploma



Fulmer Grange

Training in effective site practice and the education of specialists to design and assess concrete had long been an issue of concern for those organisations interested in developing the material's potential in British construction. Much of the rationale for using concrete in the early days, rather than alternative materials such as constructional steel or brickwork, was cheapness – cheap materials and cheap, unskilled labour – and this emphasis was beginning to hinder the technological progress of concrete construction. An interest in greater understanding had been implied by the establishment of the Concrete Institute in 1908, and the need for practical competency explicitly discussed in the inter-war years by the Reinforced Concrete Association (RCA). Members of the RCA had undertaken lectures to students in the 1940s and by the mid 1950s the Association had developed a syllabus for site operatives (entitled Concrete Practice) to be examined by the City & Guilds of London Institute (CGLI). Then in 1957 the Cement & Concrete Association opened its first dedicated training facility at Wexham Springs, the Maynell Building. Gradually the setting of standards, the provision of courses and the examination of students and award of qualifications, was being implemented. Much of the subject matter, however, remained either basic, or highly specialised. There remained a need for a more general, but advanced, level of technical education, and an emerging role for the concrete technologist. To fill this gap, a proposal was made by Maurice Thompson of John Laing's Research & Development Laboratory for a national scheme of training and examination. It was put first to the RCA, and then its successor, the Concrete Society. Indeed it was one of the earliest items of business on the Council's agenda when the Society was formed in 1966. Two years later the C&CA – having recently opened its 'university of concrete' at Fulmer Grange – commenced teaching the Diploma in Advanced Concrete Technology in 1968.

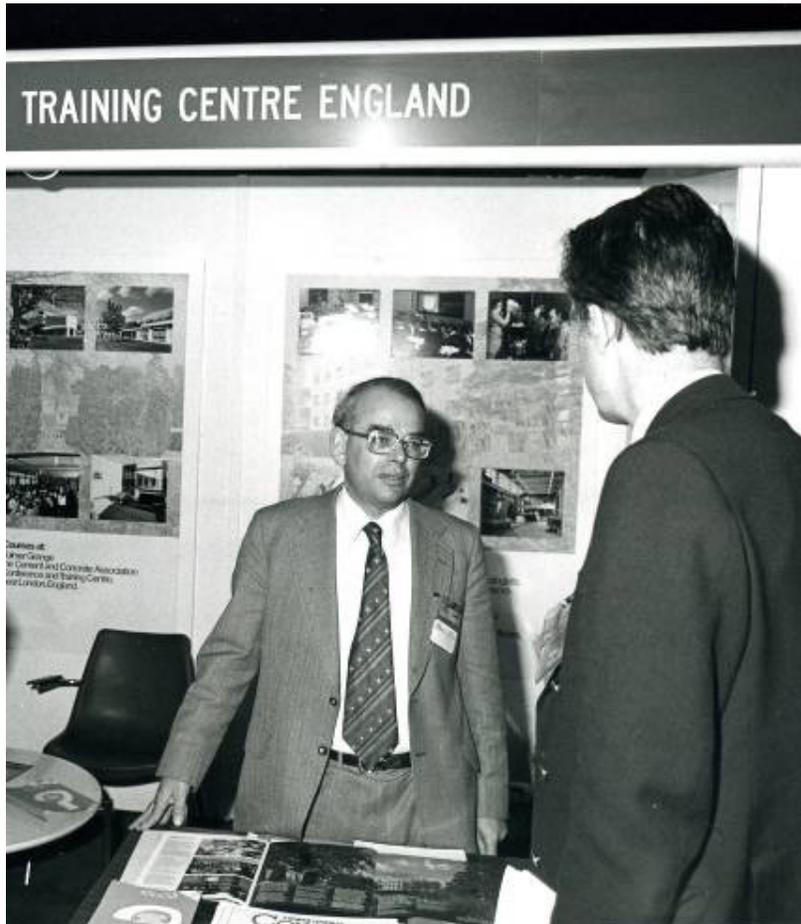
### **The Diploma in Advanced Concrete Technology (1968)**

For 18 years the Diploma was taught by the C&CA at Fulmer, originally as a five-week residential course, and later over a six-week period. Like those on the Concrete Technology & Construction course, ACT candidates were initially examined by CGLI, with the award subject to a moderating committee chaired by Professor Adam Neville. Two cohorts of candidates had passed before the idea of building upon their successful studies with something longer-lasting arose:

“The successful candidates for the first two ACT courses (1969 & 1970) met in 1971 at Fulmer Grange for what was described as an updating meeting. During one evening, whilst resolving the nation's problems both political and technical, a group of delegates, fortified by the traditional glass of milk, agreed that in future Diploma holders should meet annually at a convention. It was suggested that this might even lead to the establishing of an independent group which could influence trends in the use of concrete.”  
(*Newsletter 4, Mch 86*)



Promotional literature and exhibition stand for Fulmer Grange, manned (to the right) by Roy Jolly, later the ICT's Executive Officer



## Coat of Arms

The achievement of arms now used by the Institute of Concrete Technology was designed by Mr. W.D. Nunney, F.R.S.A., an expert in heraldic design. It symbolises the material, concrete, and the international and educational aspects of the Institute. The achievement confirms to the complex laws of Heraldry and is unique. It may only be used by the Institute. ... We are safeguarded by the artist's copyright which he transferred to the Institute.

The three sectors of the shield represent the most common constituents of concrete, using symbols considered appropriate in the field of Heraldry. The top right is recognised as the most important (the shield is always viewed from the rear). Cement is arguably the most important constituent of concrete but there is not an appropriate symbol to describe the material; therefore a plain silver sector was chosen. The engrailed chevron was then added to balance the appearance of the shield. The top left sector represents aggregates; the hourglass being an acceptable symbol for sand and also represents time, an equally important aspect of our technology. Water, the third constituent, is represented by the wavy lines in the third sector.

The international aspect of the Institute is represented by the globe in the centre of the shield and the interesting education is represented by the hand holding an open book

The coronet is a masonry one, showing our connection with the construction industry and the mantle or cape is effectively the heraldic artist's signature.

The motto 'Robure et science' is written in heraldically acceptable Latin and means 'Strength with knowledge'

An heraldic description of the achievement is: Tierce in pairle reversed, argent, gules in chief a chevron, engrailed, sable, and an hourglass of the first, in base three bars wavy, azure, overall a globe, argent and azure. Crest, out of a mural coronet, argent, a dexter arm sleeved and cuffed azure, the hand proper, holding an open book, also proper.

Ray Ryle

## Foundations: Association of Concrete Technologists, 1972

And so the Association of Concrete Technologists was formed – according to founder chairman, J.F. Dixon, writing 16 years later – despite the alleged “opposition from the Concrete Society and other similar institutions.” The tale continues in the Institute's 25<sup>th</sup> anniversary newsletter:

The minutes of initial meeting record that Brian Holland, Dennis Hart, Jack Dixon, Roland Kennett and Ken Mulhall were the 'founding fathers'. Jack was elected Chairman of the steering committee and Ken as Secretary. At that stage the name of the organisation was proposed as the Advanced Concrete Technologists' Association with the following aims:

- To promote the interests of members engaged in concrete technology
- To formally establish concrete technology as a recognised discipline
- To provide an advisory body to the training of people entering the profession
- To provide an international body of benefit to industry.

After an overwhelming indication of support from the diploma holders, the first committee meeting ... was held on 21<sup>st</sup> January, 1972, and Fulmer Grange. Jack and Ken continued as Chairman and Secretary, Brian was elected Treasurer, and two diploma holders from overseas were elected as corresponding members. Four grades of membership were proposed: full, associate, student and honorary.

A year later came the first Convention and Annual General Meeting, at which it was decided to change the name to The Association of Concrete Technologists. The Memoranda and Articles of Association were agreed and subsequently registered.

### Annual Convention (1972)

The Symposium on this first gathering was entitled, 'Concrete: what of the future'. Each convention in the years following comprised a technical Symposium, the AGM and an opportunity for social exchange. Venues included Fulmer Grange, as in 1976 when the attendance was around 100, and the universities of Canterbury, Keele and Lancaster. The sixth Convention was at Manchester University, on 24-25 April 1978, on the theme of 'Concrete in the Middle East'. It was the first to be held under the new name: the Institute of Concrete Technology.



C&CA's HQ, Terminal House

### **Renamed the Institute of Concrete Technology (1978)**

The decision to re-style was made at an EGM on 24 February 1978, at the C&CA's London office, Terminal House. On this occasion the Association of Concrete Technologists voted to change the organisation's name to the Institute of Concrete Technology. As the public announcement at the time explained, "this change registers the importance that the Corporate Membership places on the establishment of Concrete Technology as an authoritative and progressive discipline." (*Concrete*, April 1978, p.4)



ACT diplomates, 1978

The Institute also adopted the title of President for its chief officer and Jim Wootten of Rugby Cement, the incumbent Chairman (1974), duly became the first President of the ICT. It was a role he was to fulfil with great presence until 1991.



Jim Wootten, President 1978-91  
when interviewed in 2002

## Consolidation and Growth: The Wootten Presidency, 1978-1991

### THE QUIET YEARS (1979-84)

‘Quiet’ only in the sense that we find little recorded of its activities at this time. During the late 1970s and early ‘80s the Institute gained members each year from among those who passed the ACT course – and continued to organise its annual Convention. The ninth of these, held in 1981, was entitled ‘Is concrete all it’s cracked up to be?’; the tenth, at Fulmer Grange, was ‘Concrete: Glimpses of the past; visions of the future’. This was the first such events attended by one of the future stalwarts of the Convention, Franco Montasin of Malta University, who continued to visit each year until 2011. ‘Should we test the structure’, Convention 1983, was held at Nottingham University and the twelfth, ‘Concrete at its limit’, at Leeds University.

### Honorary Fellows

Notable at one of these Conventions – that of 1981 – was the award of Honorary Fellow to internationally distinguished concrete technologists, Drs Bryant Mather (USA) and V. Malhotra (Canada). This status had been agreed in the early days of the Association of Concrete Technologists, and was initially awarded to those responsible for establishing the ACT Diploma: Maurice Thompson, HF1 (of Laing R&D), for proposing the training scheme; Ken Newman, HF2, as technical adviser to the ACT course; and Philip Gooding, HF3, Director of training at the C&CA. It continued in 1976 with Prof Adam Neville, HF5, chairman of the ACT moderating committee from the beginning, and Tom Tipler HF6 (C&CA) as ACT course tutor, and later, Roy Jolly in 1981. Also recognised in 1976 was Donald Stewart (well known for his work on gap-grading) and the notable concrete engineer, Jan Bobrowski. Dr T.C. Powers was made an Honorary Fellow during an ICT visit to the USA in 1979.

Most activity was undertaken in the UK, of course, and certainly in these early years single-speaker evening talks were frequent and widespread. For instance, between the one-day meeting on ‘The analysis of fresh concrete’ on 12 January 1978 to the ‘AGM and Conference’ on 24-26 April 1978, there were seven evening meetings in cities as disparate as Birmingham, Dublin, Edinburgh, Glasgow and London. (*Concrete*, Jan 1978, p.4)

### Career opportunities

Such meetings combined technical content with networking opportunities and the Institute set out to cultivate and support both aspects. It attempted to facilitate employment opportunities, as this rather lofty solicitation from 1978 indicates: “Please keep in touch, your experience is invaluable – remember the [Institute] acts as a unique international clearing house for the staffing requirements for the makers of the World’s concrete.” (*Concrete*, Jan 1978, p.4) Details of vacancies were circulated as they arose, and as the service developed over the years, a letter from SGS Testing Service suggests it was appreciated by employers as well as members:

“I am writing first to congratulate you on the speed and efficiency of your mailing system and secondly to pass on my thanks to the many ICT members around the world who responded to the circular. The ad was also run in NCA and about half of the 50 plus replies came via NCE, the other half via ICT. Needless to say, the ICT responders were of much higher calibre!”

15, Nov 90

### Technical Committee (1977-86)

The technical business of the Institute was led by a Technical Committee. This committee first met on 23 June 1977 under the chairmanship of Tom Tipler, who remained in post until 14 September 1982 when he handed over the reins to Ray Ryle. Its role was twofold: to disseminate technical information and guidance; and to secure the Institute’s representation on BSI and other national technical bodies. To aid its work, details of members’ professional expertise was collected by questionnaire and summarised as a resource for information gathering.

### Publications

The committee’s output lay in Technical Notes and Information Reviews. The former were in the form of a short report on a single aspect of concrete technology, largely derived from ACT project reports, and were published under the author’s name.

- TN/1 The interaction of hardened concrete and internal ice at very low temperatures. F.H. Turner, 1980
- TN/2 Early age thermal cracking in concrete. P.B. Bamforth, 1982
- TN/3 Wet sieving 40mm concrete to show the validity of using 100mm cubes for compressive strength testing. H.R. Harold-Barry, 1982
- TN/4 Corrosion cracking and spalling of concrete. A.W. Beeby, 1982
- TN/5 Freeze-thaw durability tests upon concrete paving block specimens. A.J. Clark, 1984

Information Reviews were ‘state-of-the-art’ reviews on a particular topic:

- IR/1 Quality Assurance
- IR/2 Revision of BS 1881

### British Standards Institute

ICT became a member of BSI and was represented on several committees by 1985:

<u>Number</u>	<u>Coverage</u>	<u>Nominee</u>
CAB/1/3	Blended Cements	R. Ryle
CAB/2	Aggregates	G. Sparkman
CAB/4	Concrete	R. Ryle
CAN/4/1	Concrete tests	R. Ryle
FRB/1 & 2	Fibres	[new rep. sought]

... and was expanded by 1989 to include CAB/3 Admixtures, /6 Mortars, /11 Masonry units, /13 Misc concrete products, and Q45/1/1 QA – Precast Concrete. All nominees were appointed to represent ICT alone, and not their employers.

Members of the Institute were eligible for half-price standards and updates on new or amended titles were included in the future ICT Newsletter throughout the Jolly and Taylor editorships – see below – through to 2007.



Teychenne's 10<sup>th</sup> issue



Roy Jolly, Executive Officer

Little of the Institute's other activities at this time is recorded, but from 1985 – in the March of which ICT was incorporated and registered at Companies House – much more is illuminated by the *Newsletter* launched that year.

### **Newsletter (1985)**

A newsletter had been tried before, but abandoned in 1977. However, a new series resumed in 1985 under the editorship of David Teychenne of the Building Research Establishment. An A5 publication, the *Newsletter* grew rapidly from 8 to 28 pages. Ten issues were published before David stepped down in June 1988 and, after No.11 was issued in December with Roy Jolly at the helm, the format was changed to four or six A4 pages. The *Newsletter* ran from 1985 to 2007 (though was revived again in 2011) and provides a running commentary on the Institute's affairs throughout this period.

### **Executive Officer (1986)**

The change in editor revealed an increasing reliance on a paid official to support the work of the ICT, in response to an increase in the elected officers' workload and a review of Institute's administration. At the 1986 Convention Robin Cannon, Hon Sec., reported that the Council had met 12 times during the year and spoke of "the difficulties of running a growing organisation on a voluntary basis. He stressed the assistance given by organisations such as the Concrete Society, the C&CA and the Rugby Portland Cement Co., but the time had come to move from an amateur to a professional organisation." During the Summer Roy Jolly accepted an offer of the newly created post of Executive Officer, taking up his duties on 1 September 1986 (6, Nov 86). He served the Institute in that capacity for the next 11 years.

## **WORK OF THE COMMITTEES**

Supported by the Executive Officer, the Institute continued to operate a committee structure. Three committees existed in 1986. The Technical Committee we have already noted; the Education Committee was chaired by Roy Jolly, and the ACT Moderation Committee (initially for CGLI), by Adam Neville. In addition, certain officers had specific functions: Dick Watson was Membership Secretary, Richard Hall was Convention Organiser, and Ian Forder took over from George Masson as meetings coordinator.

### **Education Committee**

"Advising on education for a career in concrete" was one duty of the committee, and in 1985 it prepared a guidance leaflet for schools on the opportunities in the concrete sector. Another function was "to encourage existing education and training schemes and the development of new ones". The committee offered firm support for the CGLI schemes for Concrete Practice and Concrete Technology & Construction, and medals were awarded annually to outstanding students. Typically over a hundred candidates sat the CGLI exams. A correspondence course for CT&C was introduced in the mid 80s, which was taken over by the CITB at Bircham Newton when the C&CA closed in 1987, and the Portland Cement

Institute in South Africa undertook a similar course leading to CT&C that same year. Finally the committee spent time in 1985 writing objectives for the Diploma in Advanced Concrete Technology, the examination of which the Institute duly took over.

### **Technical & Education Committee**

However, during the summer of 1986 it became apparent that, due to constraints on members' time, both the Education and Technical Committees were "unable to function properly". It was decided to combine them from September under the chairmanship of Roy Jolly. The Information Reviews were revived, and the first of a new series, IR/3 on the current state of progress of BS 812: Testing aggregates, prepared by David Pike. In 1987 the committee commenced preparation of recommended reading lists, the references obtained initially from its own members on subjects of particular interest to them or their companies. "Such information may also be available from C&CA and other libraries", Roy Jolly explained, "but we believe that the lists actually in use in members' companies may be more appropriate for the use of other Institute members." A series of Lists of References was available in 1988 and issued on request.

- RL/1 Air entrainment
- RL/2 Chemical admixtures
- RL/3 GGBS in concrete
- RL/4 PFA in concrete
- RL/5 Cement
- RL/6 Index of ACT projects
- RL/7 Silica fume in concrete

By the middle of the year over 200 copies had been issued. The committee also engaged in discussions with the BSA and Cement Admixtures Association on matters of joint interest, and reviewed its representation on BSI committees, instituting a "proper report-back system" to allow updates to be circulated to members. In order to identify specialists to call upon in the course of the Institute's work, members were invited to complete a form that indicated the range of their technical interests. Sent out initially in August 1985, and maintained over the following years, the initiative prompted a "very good response" from members.



Convention 1985

### **MEETINGS**

#### **Regions and clubs**

In the mid 1980s the membership was encouraged to participate in the Institute's activities at local level – generally through evening meetings with a speaker – and several 'Regions' were maintained: Southeast, Western, Midland and Northern. Perhaps the most active was the Scottish Club. The *Newsletter* contains frequent reports of its activities, commencing with a talk by John Kennedy on 'Recent Developments with Dry Lean Concrete' at the Garfield House Hotel just outside Glasgow, which was attended by 60 people. Special events could attract large numbers, but generally 25 members in the central belt ran "a very successful local concrete club" (8, Jly 87), with its own chairman and committee.

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**Midland Region**

25 Nov 86 Milton Keynes 'Essential Aggregate Technology'  
21 Jan 87 Grantham 'Ash, Slag and Microsilica'  
4 Mch 87 Birmingham [on the Channel Tunnel]

**Northern Region**

18 March Manchester 'Concrete Quality Assurance'

**South East Region**

4 Feb 87 Maidstone [on Mt. Pleasant Airport, Falkland Is.]  
17 Feb 87 Fulmer Grange 'The Structure of Fresh Concrete'

**Western Region**

Nov 86 Bristol 'Ash, Slag and Microsilica'

**Scottish Club**

December 86 Edinburgh 'Underwater Concreting'  
March 87 Glasgow 'Ash, Slag and Microsilica'

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Ian Forder, Meetings Organiser

**Technical meetings**

Nine such meetings are known to have taken place in 1987 (50, Oct 02) – some in conjunction with the Concrete Society or Institution of Civil Engineers – and a visit to Sellafield was organised for 24-26 April 1987. A provisional programme for early 1988, leading up to the Convention, was announced by the Meetings Organiser in November 1987. It included:

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21 January	Cement Today	Shrivenham
Early Feb.	Concrete Specification	Glasgow
10 February	Concrete replacements & Admixtures	Hatfield
Feb. or Mch.	Air-entrained concrete	Midlands
Early March	Repairs to Sewers	Glasgow

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**MEMBERSHIP****Benefits of membership**

There were additional benefits to ICT membership, which were neither technical nor concrete-related. A Bupacare group scheme current in 1986 enabled a 10% discount to be claimed by ICT members, and a Life Insurance Scheme was established in July 1987. The establishment of a benevolent fund was also considered by the Institute in 1986. Perhaps more germane to the technical purposes of the Institute was the offer for members join the Institute of Ceramics at special rates as part of a reciprocal arrangement of mutual support agreed in the Autumn of 1987.

Members could pay their subscription in various ways, but the administration of cheques and cash was increasingly seen as inefficient and after some investigation, payment by banker's standing order was introduced in 1985. Similar concerns prompted the adoption of online payment in the years to come.



Dr Joe Dewar honoured



Prof Della M. Roy honoured



Prof John de Courcy honoured



Prof Peter C Hewlett honoured



Prof Neville, Silver Medallist

However they paid, and whatever they joined for, the membership kept rising. In 1986 the roll was “more than 400” and over the following five years the numbers rose steadily

1987	461	
1988	485	
1989	505	of these around 20% were from overseas
1990	557	
1991	591	

As a visible indication of membership, ICT ties were available for purchase and all members, regardless of grade, were encouraged to wear one. A new design with single motif was introduced in 1987, then another, with small, multiple motifs in 1995, priced £8. A 25<sup>th</sup> anniversary tie (£6) was made available in due course.

### Fellows (1987)

The Alternative Route to Membership had been accepted in April 1977 – permitting the election of distinguished members who had not sat the ACT examination, but who could demonstrate suitable experience – but no new class of member was introduced until 1987. With the creation of the class of Fellow (FICT) Jim Wootten was elected the Institute’s first Fellow (F1) at the 1987 Convention (Photo: 8, Jly 87). The Articles were duly changed to accommodate.



### HONOURS

#### Honorary Fellows (1986-90)

Several further Honorary Fellows were elected in the late 1980s too:

1986	HF14	Dr Joe D. Dewar
1987	HF15	Prof Della M. Roy
1987	HF16	Prof John de Courcy
1988	HF17	Prof Peter C. Hewlett
1990	HF18	Prof Fred P. Glasser

#### Silver Medal (1986-93)

Honours were also accorded to a small number of individual whom the Institute wished to thank for their service, when the award of a silver medal was instituted in 1986:

##### 1986 Maurice Thompson

Author of original ACT syllabus; project examiner, 1972-86

##### 1990 Robin Cannon

Hon Sec, Institute of Concrete Technology, 1978-90

##### 1991 Jim Wootten

President, Institute of Concrete Technology, 1978-91

##### 1993 Adam Neville

Chairman, ACT Moderating Committee, 1969-92



Prof. Fred Glasser giving the Memorial Lecture 1990 (14, Apl 90)

### Sir Frederick Lea Memorial Lecture (1986)

Further honours followed. The 1986 Convention was notable as the forum for the first of the Sir Frederick Lea Memorial Lectures, as announced and explained in the February:

The Institute of Concrete Technology is pleased to announce the creation of the Sir Frederick Lea Memorial Lecture. This has been established as a tribute to the late Sir Frederick Lea, a former Honorary Fellow of the Institute, who was internationally respected for his role in the field of Cement chemistry and Concrete technology. The inaugural lecture will be presented at the Institute's 14<sup>th</sup> Annual Convention, 23<sup>rd</sup> – 25<sup>th</sup> April 1986 by Joe Dewar, Director of the British Ready Mixed Concrete Association and himself a recently elected Honorary Fellow of the Institute. The title of the paper will be 'The Particle Structure of Fresh Concrete – a new solution to an old question'. (4, Feb 86)

The first five lectures were as follows:

1. **1986 Dr Joe Dewar**  
'*The particle structure of fresh concrete*' (5, Jun 86)
2. **1987 Prof Della M Roy** (PA State University),  
'*Hydration of blended cements ...*' (8, Jly 87)
3. **1988 Prof Peter C. Hewlett**,  
'*Perceptions of concrete: the surface*' (10, Jun 88)
4. **1990 Prof Fred Glasser** (Aberdeen University),  
'*Advances in the chemistry of Portland Cement*'
5. **1992 Prof Peter Fookes** on Geology and aggregates

All five were invited to attend the 21<sup>st</sup> Convention in 1993, and all accepted. The series continued with:

6. **1998 Prof Chris Page** (Aston University).  
'*Corrosion & its causes in reinforced concrete*'
7. **2004 Prof Nick Buenfeld** (Imperial College)  
'*Advances in predicting the deterioration of reinforced concrete*'

The most recent was by Dr John Newman at the 40<sup>th</sup> anniversary Convention in 2012, on the subject of the early history of concrete.

## CONVENTION

### Conventions at Coventry (1987-1993)

The first of the Conventions reported in the *Newsletter* (2, Jun 85) was the 13<sup>th</sup>, held in 1985 at the University of Loughborough. The theme of the symposium was 'Durability of concrete'. It was followed in 1986 by the 14<sup>th</sup>, on 'Concrete Materials: an update' (5, Jun 86). This was held at Polygon Hotel, Southampton – the first not to be accommodated at an educational establishment. The organiser for both events was Richard Hall of ARC, who ably fulfilled in this role until 1995. For some years thereafter the Convention was held at the De Vere Hotel, Coventry.



Organiser Richard Hall (left), 1988

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15	1987	'The role of water in concrete'
16	1988	'Concrete: the engineering material'
17	1989	'Europe: the concrete scene'
18	1990	'Chemicals in Con Construction'
19	1991	'Con for Construction: how is it changing'
20	1992	'Concrete in Highways & highway structures'
21	1993	'Concrete & the Environment'

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The 18<sup>th</sup> boasted the largest attendance yet, with 160 delegates.

## EDUCATION

### **The Closure of Fulmer Grange (1987) and transfer of the ACT Course to Imperial College**

Changing market conditions in the mid 1980s caused the British cement industry to reconsider its financial support for the C&CA, and a so-called 'run-down' of the establishment was initiated. Finally, in late 1987, this previously dominant research and development organisation was merged with the Cement Makers' Federation – the industry's trade body – to form the much smaller British Cement Association. A casualty of the merger had been Fulmer Grange and a proportion of its staff, the training function being continued on a much-reduced scale. Without Fulmer Grange, which closed in July 1987, the ACT course required another 'home' and the Institute was forced to seek its independence.



The final cohort awarded the Diploma at Fulmer Grange

Back in 1985 there had been the prospect of a one-day-a-week ACT course being held at Sheffield University, under the auspices of D. G. H. Tattersall. The idea wasn't realised, but with the imminent closure of Fulmer other universities expressed an interest in teaching the diploma. In readiness for a transfer a press release was issued in May to announce that the course would in future be held at Imperial College of Science & Technology, London – Imperial having been selected "from a number of organisations wishing to stage the course." The format would remain the same, "in two parts of three weeks each, separated by a period of about six months during which time individual project work is carried out." It helped the transition that both John Newman and Nick Buenfeld, the concrete specialists on the staff at Imperial, were also ICT members and Nick had attended the ACT course not long previously.

Just as on the final course to finish at Fulmer, when Dr R.E. Rowe (the C&CA's Director General) presented certificates to successful candidates on 23 October 1986, so the final intake of 17 Fulmer students received theirs on 28 October 1987. The ceremony in this transitional year was held at the Bellhouse Hotel, Beaconsfield, and Robert Hartland (Senior Partner of Snow & Partners) presided and paid tribute to the specialised knowledge of members. (*Below*)



28 October 1987

### Prizes and presentation of certificates

The new course at Imperial was a success in its turn, and, with 21 candidates, was described as “fully booked.” A second course in 1989 attracted 22 participants, five of whom were from overseas.



The 1988 intake (left)  
and the 1990 ceremony (below)



The practice of holding a presentation ceremony continued, adapting to the course's new setting. In October 1989 thirteen attended a luncheon at the Gloucester Hotel, London, and Prof Peter Stott (chairman of QSRMC and former President of the Concrete Society) presented the certificates. A year later it was Prof David Lee (Chairman, Maunsell & Partners), and in November 1991, Jim Stevenson, the new chief executive of BCA. The Gloucester Hotel remained the venue, and the candidates' employers and other special guests were invited to make for quite an occasion. For some there was a further honour: selection for the Joe Peirce Prize.

## The Joe Peirce Prize

“The prize was originally created by the late Joe Peirce, to encourage those concerned with the materials technology aspects of concrete construction, and reflects the importance he attached to a fundamental understanding of concrete and its constituents.” (4, Mch 86)



Peter Oldham in 1985

On 5 November 1985 Dr Ralph Andrew, chairman of the trustees, presented Peter Oldham (ARC) with an engraved silver dish and a cheque for £500. On the final two Fulmer courses noted above, Stuart Keighley of Testing Services Ltd and David Kay of John Fyfe Ltd, Aberdeen, were commended likewise. In 1989 it went to Michael Murphy, in 1990 to Simon Rickett (Appleby), and in 1991, to Steve Crompton (RMC).



Stuart Keighley in 1986 (above)  
and David Kay (right) in 1987



## The Joe Peirce Concrete Technology Award Trust & bursaries

Besides the prize to reward success, Joe Peirce left the ICT funds for two bursaries of £1,000 each to help students attend the ACT course. A stipulation was that applicants must have been born in the UK. Other financial assistance was available too and several sources were cited in issues of the *Newsletter* dating from the late 1980s. In February 1985, an ICT Bursary was offered to cover the total tuition costs of a place at Fulmer Grange, while later that year the Concrete Society made awards of £750 from the Charles Reynolds Bursary to widen applicants' professional experience by means of travel or study. Also the Quarry Products Training Council awarded bursaries to, among others, candidates for the ACT Diploma; in 1989 payments of £1,000 each were made to Steve Gold (RMC), Alan Beattie (Tilcon) and Simon Ricketts (Frodingham Cement).

## International Expansion: The 1990s

The closure of Fulmer Grange in 1987 marked the end of a phase in the teaching of concrete technology, and by extension the life of the Institute. However, the transfer of the course to Imperial College offered new opportunities and, perhaps liberated by the change, one of most significant developments experienced by the Institute in the 1990s was the proliferation of ACT courses – and the consequent pool of potential members – beyond the shores of the UK.

### ADVANCED CONCRETE TECHNOLOGY

#### South Africa

The first such overseas course was that offered in 1990-91 by the Portland Cement Institute of South Africa, at its headquarters in Midrand, Transvaal. It was open to candidates from all over southern Africa, and of the 12 participants enrolled, two were from Lesotho and one from Namibia. The course was under the direction of Rob Du Preez, Director of the PCI's School of Concrete Technology, who, a year earlier, had himself attended the second ACT course run at Imperial. Rob was supported by the PCI's teaching and research staff, with external lecturers from industry and academia, and welcomed the ICT's Executive Officer Roy Jolly to take part in the inaugural sessions. The course ended with the success of all students in the written examinations.



PCI staff and students in 1990



Class of 1992



ACT course at PCI, 1994



Mark Richardson, Distinction

#### Republic of Ireland

No course ran in 1991-92, in either South Africa or the UK, but in 1992-93 three training centres offered Advanced Concrete Technology. Imperial and PCI we have noted; the third was in Ireland, organised by the Irish Concrete Society in association with the Civil Engineering Department of University College Dublin. The course was directed by Seorise Mac Craith, a member of ICT, with the support of a small steering committee. It consisted of two separate weeks of concentrated residential study, in the Autumn and Spring respectively, with one-day sessions on every Friday in between. Lectures took place at University College and practical sessions at various locations around Dublin. 21 candidates enrolled and on completion, Mark Richardson was awarded the first ever Distinction.

The pattern continued in 1994-95 with 35 candidates split between Imperial and PCI, a total which included two ladies – then a rarity in this field – and in 1995-96 a second course was run in Dublin. Ten registered on the Irish course and nine passed the written exams, including Mark Prendergast who was awarded Distinction – only the second such award since it was introduced in 1993.



Mark Prendergast (centre) with Ray Ryle (President) and Joe Dewar (Chairman of the Examinations Committee)



Nottingham University's Cavendish Hall (above) and Dr Ban Seng Shoo welcoming students. (right)

### Nottingham University

Then, in 1996-97, the British course transferred to Nottingham University (with 22 students) while the South African course was deferred for a time. Nottingham was repeated the following year and the newly re-named Cement & Concrete Institute of South Africa was revived with 19 enrolments. In 1998-99 the Associated Cement Co. of India planned to run an ACT course and though it came to nothing, three courses did run in 1999-00: at Nottingham, Dublin (for the third time in Ireland) and Johannesburg.

### CompACT

Significantly, in view of the future delivery of content, the course at Nottingham was based on the CompACT computerised learning system, developed since 1993 as part of a consortium with Imperial and the University of Leeds.





Diplomates of 1995



... and of 1997



Ray Ryle at PCI, November 1993



Richard Tomes, C&CI's top student in 2000 receiving his prize from Dr Graham Grieve, Director of C&CI



Irish diplomates awarded in 2001

### Diploma Presentation Ceremony (1993-2001)

Presentation of the Diploma to successful participants on the British course continued to be held at the Gloucester Hotel in London, and it is remarkable that diplomates from all over the world made the effort to attend, often travelling considerable distances. Professor Illston, newly appointed Chairman of the ACT Diploma Committee, presided at the luncheon on 3 December 1993 at which 23 received the award. Lord Hayhoe, Chairman of QSRMC was the guest of honour in 1995; Dr Philip Nixon, of BRE – made an Honorary Fellow that year – in 1997; and Prof Les Clark in November 1999.



UK Diploma Ceremony, 1999 with President Mike Connell and Prof. Les Clark

The then President, Ray Ryle, travelled to both Dublin and Johannesburg in 1993 to present Diplomas to the Irish and South African candidates, and repeated the journey south to PCI in 1995.



PCI diplomates in 1995

Ten years after the first Irish course commenced, in 2001, seven candidates were presented with their Diplomas at the Irish Concrete Society's awards night, held that year in University College, Dublin. The total in that country had reached 26. In the UK that year, "in a break with tradition", Diplomas were awarded at the Convention dinner; they have continued to be ever since.



Prof. Peter Fookes honoured, 1992



Dr Philip Nixon honoured, 1997



ICT wives at Stratford on Avon, '97



### Honorary Fellows (1992-97)

Other honours were presented at the Convention too, and between 1992 and '97 the status of Honorary Fellow was conferred upon Prof Peter Fookes, Prof Ravindra K. Dhir, Dr Philip Nixon, Prof Chris Page and Prof Les A. Clark.

### ANNUAL CONVENTION

#### Convention Symposium (1994-99)

After several years at Coventry, the venue switched in 1994 to Swindon, though still at a De Vere hotel. The title was 'High Performance Concrete'. 1995 saw further change: Richard Hall, who had organised the Convention for many years, stepped down and Iain Callender (Grace) and Andrew Rogers (Blue Circle) took up the role. The venue moved again to the Moat House at Telford. Peter Hewlett was the chairman, overseeing a programme of papers whose theme was cements and admixtures. At 165 delegates, attendance reached its highest level to date. 'Advances in Production Technology' followed in 1996, under the chairmanship of Joe Dewar, and was also held at Telford. Then for the 25<sup>th</sup> Convention Bosworth Hall in Leicestershire was chosen. 'Concrete for the next Millennium' was the theme of the symposium, and for the first time ICT organised a partners' programme. The decade concluded with 'Materials and Materials Control' in 1998 and 'Innovation in Concrete Technology' in 1999, both at Bosworth.

#### Golf Competition (1996-99)

By this date the Convention also included a golf competition. The first was held in 1996 and was won by James Dawes (Blue Circle Industries); the second, at Hinckley Golf Club, was won by Tony Wilson (C&G Concrete), and in 1999, by Eddie Miller (Christeysns).



Convention golf (left) and Eddie Miller's trophy triumph in 1999 (above)



Jim hands over to Tony

### AGM

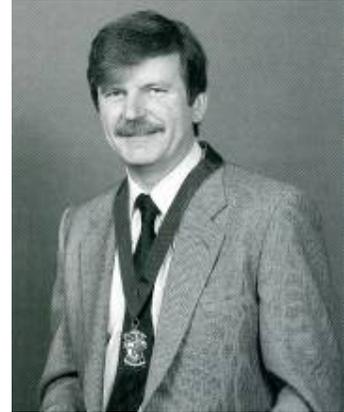
Besides the technical and social aspects, the Convention was the occasion for the business of the AGM (reported most years in the *Newsletter*) and marked the coming and going of the Institute's officers. Jim Wootten stepped down in 1991 at the end of 16 years' service in the top role, first as Chairman (1975-77) and then as President. He was succeeded by Tony Roeder of the Cement & Concrete Association (1991-93), then by Ray Ryle of RMC (1993-98) and Mike Connell of the Appleby Group (1998-2002). Steve Gold had been elected in 1997, but was unable to take up office in 1998 as planned, so as the Millennium turned the Institute had been led by only four Presidents in 22 years.



Tony Roeder (1991-1993)



Ray Ryle (1993-1998)



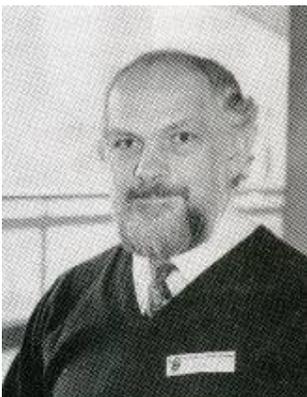
Mike Connell (1998-2002)



Presentation to Robin Cannon

Similarly the long-serving Honorary Secretary Robin Cannon retired from office in 1990, having been in post since 1978. He was followed by Mike Connell for an eight-year stint from 1990 to 1998, before taking up the Presidency.

Supporting the work of the council, though not an elected post, was the Executive Officer. Roy Jolly had fulfilled this function admirably since 1986, but in 1997 decided to retire. Graham Taylor took over from the 1<sup>st</sup> November and the ICT office transferred to the British Cement Association's headquarters in Crowthorne.



Graham Taylor, Executive Officer

### MEMBERSHIP

Membership continued to grow in the 1990s, bolstered by recruits from South Africa and the Republic of Ireland. A snapshot of the membership in 1997 reveals its increasingly international nature:

**Total: 636** (UK, 476; South Africa, 69; Ireland, 20; HK, 20; Gulf, 20; Netherlands, 10; and 21 scattered)

Another (undated) profile characterised the membership by sector:

33% ready-mixed concrete and 10% each for Portland cement, admixtures, test houses/ laboratories, government/ local authorities, and contractors

There were moves to increase the depth of membership, too, drawing various levels of attainment together into a structured progression of membership grades.

### **Designation AMICT (1993-94)**

In 1993 a proposal from Council, to permit Associate Members to use the designation AMICT after their names, was put to the membership in a postal ballot, with a view to amending the Articles of Association. The ballot would be concluded after discussion at the AGM in April. Opponents of the motion were concerned that it would de-value membership of the institute. Despite assurances that the qualifying requirements of examination and experience would be observed, and that members at the AGM were in favour by five to one, the motion was defeated in the postal ballot. Repeated a year later, the proposal was accepted by 84%. As an indication of members' reaction at the time, one member commented, "this has given the City & Guilds courses a whole new meaning, which may encourage more colleges to offer courses and more students to enrol."

### **New Membership Grades (1993-99)**

1994 also saw the presentation of a report prepared by the Working Party charged with re-defining routes to membership. The working party, under chairman Bob Hutton, proposed that the Institute set up its own examination structure for three grades of membership: Technician, Associate and Member, finding a way to recognise those members who chose not to proceed to corporate status. It also argued that examinations should be open to any candidate, irrespective of the route taken to satisfy the entry requirements. (Indeed Tony Hulett became the first applicant to sit the ACT examination without attending a course and he passed with Distinction.) No longer would attendance on an Institute-approved course be a requirement for corporate membership, though the alternative route was taken to be the exception and not an easy option. A paper setting out more detail was circulated in July 1994 and prompted a positive response. Some concern was expressed that adequate provision should be maintained to admit mature candidates, and that the assessment of appropriate experience and suitability were still ill defined. The addition of Technician and later Student member were duly agreed, and in 1999, Graduate member too.

The new grades implied a structured career progression based on an ascending qualifications and/or experience. The Institute was much preoccupied in the early '90s with the definition and provision of basic training through NVQs, and the late '90s with the enhancement of continuing professional development.

## **QUALIFICATIONS**

Besides the Diploma, which was the basis of corporate membership, the Institute maintained a broader interest in concrete education and vocational training at all levels. CGLI continued to examine candidates for the two Concrete Technology & Construction qualifications – the requirement for Associate Member status, but the entry-level Concrete Practice course was beginning to fade from favour at the technical colleges. Independent lecturers Tony Binns and Graham Taylor, members of

the Institute, offered training courses in both the UK and abroad – they conducted one in Manila in 1996, for instance – but by the end of the decade the only colleges offering Concrete Practice were Cornwall and Wolverhampton.

### **Concrete Technology & Construction**

Much the same applied to Concrete Technology & Construction. In 1992 no evening or day-release courses were being run, though there were distance-learning courses available from CITB, Doncaster College, RMC Technical Services, and the PCI in South Africa. Indeed one of the South African candidates, Mike Copeland, was awarded the CGLI Silver Medal in 1994, an honour not awarded every year. PCI itself went on to be awarded ‘Centre of Excellence’ status by City & Guilds in 1995, the presentation of which by CGLI’s Keith Baker is illustrated below.



(30, Feb 96)

### **National Vocational Qualifications**

This declining trend had probably been accelerated by the emergence of National Vocational Qualifications in industry, which became a development of interest to the Institute in 1990. NVQs were introduced by the Government after the publication of a White Paper in 1986, aiming to “secure standards of occupational competence and ensure that vocational qualifications are based on them”. After a period of concentrating on operative training, the National Council for Vocational Qualifications turned its attention to level 4 (technicians) and level 5 (professional) in 1990. The Construction Industry Training Board was designated the lead body for coordinating new or revised qualifications in the construction industry, and Steve Arnold, of the Technical & Education Committee, foresaw a role for the Institute in drawing up the requirements for competence in concrete.

Early in 1991 the Institute appointed CTA Projects Ltd to develop standards in concrete technology for NVQs at professional, managerial and technical levels appropriate for ICT members. Workshops involving ICT members, “with the full support and encouragement of their employers”, were held to define standards of competence for concrete technologists and technicians. It was considered “essential” that ICT should “provide the main body of influence in this area” (16, May 91). In the autumn work was seen to be proceeding well on the development of standards for NVQ in concrete technology. A meeting was held with representatives of the Construction Industry Standing Conference and the Training Enterprise Education Directorate to explore possible funding on the methods of assessment for the NVQs. However, the scheme came to a halt while ICT proposals were coordinated with other qualifications in construction through CISC, for which a ‘convergence seminar’ was promised. ICT also expressed concern that no standards for testing technicians were being prepared. The absence of news thereafter suggested that the halt had become long-term.

Steve Arnold, who had the particular responsibility for NVQs eventually recommended ICT relinquish its interest. In June 1996 he wrote to CISC: “I am very disappointed to note that Concrete Technologist does not appear anywhere in the CISC plans for future development. From the beginning, the Institute of Concrete Technology supported CISC to the point that an appreciable sum of Institute money was invested in the development of standards. This was done on the understanding that Concrete Technologist would be taken up as a Level 4/5 qualification. Despite meetings between the President of ICT and your Chairman, nothing has materialised. I have been asked by ICT for my opinion on this matter. I regret that I have had to advise that they drop all interest in this activity” (31, June 1996). He went on to propose a Professional Vocational Qualification to establish the discipline as a career worth following and that it should include the NVQ’s emphasis on competence without the bureaucracy and inflexibility.

## **CONTINUING PROFESSIONAL DEVELOPMENT**

In 1997 the Technical & Education Committee presented recommendations to Council, based on a report by Bob Hutton and Mike Burton (35, Oct 97) to introduce a scheme for monitoring members’ ongoing development. Having examined the schemes of other institutions, both mandatory and voluntary, the Committee proposed a middle course: individually maintained programmes with random checks to ensure that obligations under the ICT Rules are being met. All members save those who had retired, would be required to prepare an action plan and maintain a record of at least 25 hours per annum. Council accepted the recommendations in principle subject to financial and operational considerations. Guidelines were drawn up by Andy Price, Chairman of the Admissions & Membership Committee, and put to the AGM in March 1999. The scheme was accepted and put into effect from 1 April 1999.

The first audit was carried out on a random sample of members in April 2000. Ten per cent of the membership was invited to “submit their records for validation by the Admissions & Membership Committee” (42, Feb 00). In practice the figure slipped to 7%, and only half responded. Those that did received a certificate signed by the President validating their records (44, Oct 00). Accepting that the Institute could not compel, the Committee issued guidelines to be kept in the new members’ handbook and folder (issued in 1999), and exhorted from the pages of the *Newsletter*. The Institute also draw up guidance on ICT recognition of other organisations’ courses and seminars for CPD purposes.

In March 2002 another sample of the membership was asked to produce evidence of CPD, and again in 2003. The response to the latter prompted a note in the *Newsletter*: “several of the members asked have not returned their CPD records for checking. Please note that members are expected to undertake CPD and to keep records” (51 Apl 03). Then again: “Those members who didn’t comply with the request to submit their 2001 records will be asked for their 2002 record sheets” (52, Jly 03).

Further guidance notes were produced in 2004 by the CPD Reviewer, in response to recurring weaknesses in members’ submissions (55, Aut 04). In his own words, “there were too many shortcomings in the information submitted for me to be at all confident that the need for the review was generally understood.” He commented on each aspect of CPD as set out on the record sheet. A further audit was scheduled for early 2005, but the scheme eventually fell into abeyance.

## TECHNICAL MEETINGS AND PUBLICATIONS



Concrete Durability Design, 1994

The technical work of the Institute – upon which much of the CPD would be based – continued to flourish. There were new publications from ‘Tech & Ed’ – such as Information Reviews IR/6 *New QSRMC Regulations, 1 July 1995*, and IR/7 *European standardisation* – and a special arrangement was made with the British Cement Association’s Centre for Concrete Information for technical updating services (37, Jly 1998). This was an echo of earlier publicity for the Technical Information Service (9, Nov 87) at the time of BCA’s formation. But most visible was the range of meetings organised by the Institute or held jointly with related organisations. ICT was a co-sponsor of the Dundee conference, *Concrete in the Service of Mankind* (June 1996), for instance, and of the Fourth International Symposium on *Corrosion of Reinforcement in Concrete Construction*. There were various one-day meetings, of which the following is but a selection:

- 1994 Concrete Durability Design (27, Feb 1995)
- 1996 Computer Methods for Concrete (14, Nov 1996)
- 1997 Concrete for Extreme Conditions (15, Oct 1997)
- 1998 The Appearance of Concrete – Finish and Form for the Future (Sep 1998)
- 1999 Concrete at Cardington (41, Oct 99)



'Concrete Scotland', 1996 (above)  
Scottish Club Committee (right)

Of the regional network so active in the 1980s, only the Scottish Club remained vibrant throughout the '90s, collaborating with both Dundee and the Concrete Society locally. A one-day conference on 'Advances in concrete durability and design' was held in Dunblane on 12 March 1998, and a one-day symposium on the environment, held on 21 October 1999, raised £2,000 for ICT funds.

#### **Southern Africa Club (1990)**

This was in the UK, of course, but the '90s saw ICT activity replicated abroad. Roy Jolly's visit to the PCI in 1990, to launch the ACT course, was coincident with the formation of an ICT Southern Africa club. The inaugural meeting was held at Halfway House, at which 17 prospective members elected a committee, with Tom Benn of Fosroc as Chairman. As guest of honour Roy Jolly presented at the first technical meeting – on recent developments in concrete technology in the UK – to a capacity audience of eighty.

In 1992 Tom Benn was able to report considerable progress. Five technical forums had been held in 1991-92, some in conjunction with the Transvaal Branch of the Concrete Society, and seminars and workshops were planned for the forthcoming season. Attendance was described as "good" and membership stood at 35.

Two years later the Club was described as "very active" (26, Oct 94), with technical meetings held frequently at PCI and, on one occasion, in Durban. Approached to provide representatives on several technical committees for the South African Bureau of Standards, its technical reputation was "growing rapidly". Indeed, months later (27, Feb 95) it was said to have "already become highly respected in the concrete industry" and members were involved in new national standards as a matter of course. The Club was represented on standards committees for:

- Concrete, Reinforced and Prestressed Concrete
- Aggregate Specifications and Test Methods
- Structural Use of Concrete – Design and Materials
- Method of Test for Concrete
- Cement & Lime
- Masonry & Segmental Paving.

It was also on the PCI steering committee for a project on concrete durability control and specification, work aimed at updating Codes of Practice. In all this the Club sought formal recognition of ICT qualifications from the South African engineering bodies.

Chairman included John Kellerman (1994-95), Rashid Jaffer of Blue Circle Cement (1995-96), Tom Benn of Fosroc (1998-99) and Rob du Preez of C&CI (2001-02).

## PUBLICITY AND COMMUNICATION

Comments about the Institute's low profile and the need to raise awareness in industry at large occur in the Newsletter sporadically and as the 1990s drew on the tempo seems to have increased. And as the membership expanded in number and geographical diversity, so the need to communicate internally with distant members grew. Instances of individual, ad hoc publicity effort can be adduced for this period, as for earlier times. A new general information leaflet about the Institute was prepared in 1995 (27, Feb 95); lapel badges were introduced in 1998, at the modest price of £2.50 (36, Mch 1998); and a promotional stand was set up at the Concrete Society's Concrete Day 1997 in Bristol.



ICT exhibition stand



25<sup>th</sup> anniversary Newsletter



An early issue of the Yearbook

Largely for communicating with the membership, but with promotional value too, was the ongoing *Newsletter* and new series of *Yearbooks* introduced in 1996

### ICT Newsletter

Throughout the 60 issues of its 22-year span, the *ICT Newsletter* had only three editors: David Teychenne (10 issues from 1985-1988); Roy Jolly (25 issues from 1988-1997) and Graham Taylor (26 issues from 1997-2007). Production was by Fine Print of Abingdon (and later, Oxford) which, from issue No.12 (May 1989), set the Newsletter in an A4 page format. It was printed in dark blue on white with a matt finish, then in gloss from No.31 (Jun 96) to No.38 (Nov 98). At the end of the 90s, from No.40 (Jun 99), printing was transferred to Premier Colour, Maidenhead, and the layout changed from two to three columns. Four-colour printing was introduced in July 2003 (No.53). The contents were varied, ranging from meeting reports, accounts of technical developments, and book reviews, to members' personal news, Council announcements, and lists of updates to Standards.

### ICT Yearbook (1995)

In late 1995 the Institute engaged the services of Laurie Perkis to produce the first of a new series of *ICT Yearbooks*, to be issued in September 1996. It would act as a vehicle for publishing the symposium papers from the Convention, and abstracts of the ACT project reports, and be distributed free to members. An editorial panel was set up with Peter Hewlett as Chairman and representatives of the Events & Promotion and Technical & Education committees. Over the years new features were added, such as the 'Face to Face' interviews and the 'Milestones in the History of Concrete' series (*Yearbook 2001/02*).



The 1999 Marketing Plan

### **Marketing Committee (1999)**

Established by Council on 2 June 1999 under chairman, Bruce Perry, the new Marketing Committee set out to devise a publicity strategy to promote the new grades of membership that had been agreed (41, Oct 99). A professional PR consultant was then engaged to publicise the Institute to industry, increase attendance at the Convention and meetings, and to raise the levels of membership. Des King, a member based in Hong Kong, offered to help the Institute developing its marketing strategy and when Tony Hartley took over as chairman in early 2001 he undertook to continue this work. Key aims at the time were to target potential new members and their employers; establish and expand a website; and promote the Convention principally as a prestige technical symposium for members and non-members alike.

### **Website (1999)**

The Institute's first website was designed by Colin Nessfield in early 1999, and by mid year had been launched on the URL [www.ictech.org](http://www.ictech.org). Less than a year later, it had been viewed by 2,300 visitors. A thorough update was undertaken in 2000, and during the year several new features were added: a discussion area; search facility; company homepages site; Convention reports; and a resources section with external links. By the end of 2000, the site had received 5,000 visitors. Future plans for the website included a full list of ACT project reports and original papers to act as reference material, for which Mark Norton of the Marketing Committee sought authors.

A questionnaire circulated in February 2000 gave confidence that 96% of the membership was aware of the website, and 45% had visited. Features requested included access to technical information; contact details of other members; a discussion forum and online payment facilities. Similarly everyone was aware of the new Routes to Membership; 70% had read the guidelines and were prepared to promote membership within their own organisations.

## The 'Noughties': Falling membership and revitalisation

Around the turn of the Millennium, an anxiety about the Institute's small size and the slowing growth (and future decline) in the number of members became increasingly apparent. It was one of the prompts that had lain behind the extension of membership grades as a means of attracting a wider range of members. It was evident in the more energetic attempts at publicity and promotion at the time of the website's launch in 1999. And it was one of the principal concerns that directed the move towards merger with the Concrete Society in the period 2005-07.

### MEMBERSHIP

#### Widening the net

In extending the membership structure to become more inclusive, the institute hoped to appeal to a wider range of candidates and recruit more members: "We are looking for a membership explosion and would ask all members to encourage their junior staff to join us" (39, Feb 99). Graham Taylor, the Executive Officer, was to the point in his exhortations in the Newsletter:

"There is a general feeling that once we have left the 1900s behind us things will be different and better in some way. This will not happen if we don't, collectively and individually, do something about. One aspect which should concern us all, and I make no apologies for repeating it yet again, is the declining number of members as the founding and early members reach retirement.. Council has extended the membership grades to bring in students, graduates and technicians, but it is up to you to ensure that we see new members in these grades." Graham Taylor (41, Oct 99)



The 'Who are We?' presentation

A five-year plan was discussed in Council to increase membership by 5% per annum (42, Feb 00), and greater numbers was one of the aims of the Marketing Committee's strategy. The entry fee was abandoned "to encourage new members to join" (47, Oct 01) and a multimedia CD entitled 'Who are we?', was produced by the Marketing Committee in 2003 as a publicity and recruitment aid (51, Apl 03). Council also urged members to consider upgrading their membership as their careers developed (43, Jly 00), and by 2002 had quantified the number of Associates with more than the minimum length of experience as 121 (50, Oct 02).

#### Arresting the decline in membership

A reduced pool of recruits was blamed in part on "major changes in the industry's infrastructure", which were expected to have "far-reaching effects on our membership" (43, Jly 00). ("Companies continue to downsize, rightsize and even capsized", as President Mike Connell put it in his foreword to the Yearbook, "with a consequential effect on the number of members".) A year later the Institute admitted it was losing members "– for two main reasons:

original members who joined in the early seventies are now at retirement age and there are not as many new candidates coming through with ACT Diplomas” (45, Feb 01).

Despite the Institute’s aspirations and practical measures, static membership numbers remained a stubborn problem. Three years after the introduction of Technician membership, fewer than half a dozen such members had been recruited (48, Mch 02). To address the lack of uptake, the Marketing Committee contacted Technical Managers throughout industry to raise awareness of the grade. For a year or two afterwards, members were also offered £10 vouchers as an inducement to recruit.

There were some successes, of course. Membership extended to more than 35 countries, and also reported in March 2002, was the recruitment of 100 Student members, mainly as a consequence of publicity given by Peter Latham at Liverpool University. In 2004 Student numbers stood at 235 (54, Summer 04). But overall, declining numbers were reported in 2004 (54 Summer 04) – “due to retirements and industrial reorganisation” – and 2005 (56, Spr 05).

**Honorary Fellows**

Honorary Fellows continued to be elected, but, with the exception of Larry Roberts – Grace Construction Chemicals, USA, made HF38 in 2005 – from among the existing membership. Those elected in 2002-05 included: Robin P. Cannon, Tony R. Roeder, Des King, Colin Peplow, Dick Watson, Jim RA Holland, Roland J. Kennett, Prof George Somerville and Richard Hall.

**Communication with members**

The Institute’s internal communications evolved to reflect changes in wider society; email addresses, which we take so much for granted now, were actively being collected in 2001 (46, Jly 01). In 2003 a questionnaire on the style and content of the Newsletter was circulated and prompted 15 (out of 50) replies, mostly favourable, though some ambivalence about usefulness of standards update and inclusion of humour. The result of this exercise was a standardised four-page document with a smaller font and colour printing (53, Jly 03). Graham Taylor, as editor, was gratified to report that the changes had been “warmly received” (53, Dec 03).

**QUALIFICATIONS**

**Advanced Concrete Technology**

During the opening years of the new millennium, the ACT diploma was taught as before, on residential courses at Nottingham and Midrand. But changes were afoot. The CompACT consortium was developing plans for a web-based course that would transform access and delivery – and, it was hoped, candidate numbers. Preparations came to fruition and the new course was announced in the Autumn of 2003 (53, Dec 03). Computer software and a four-volume set of specially written books replaced Nottingham as the basis of the UK-based course. Initial numbers were promising: 30 participants were registered in 2005 and the course was described as



The first full-colour Newsletter

“thriving” and, with the South African course, a total of 44 candidates were studying in 2006. Indeed in 2006 the Institute sponsored Mamo Kabede of Ethiopia to take the ACT course as an investment in engineering competence for a country that had little native training.

### **Concrete Technology & Construction**

Change was limited to delivery, however; the Technical & Education Committee was charged with reviewing the content of all three examinations (45, Feb 01), a task that was supposedly “almost finished” a couple of years later (52, Jly 03). The aim was to have “a progression of exams leading to full membership of the Institute and replacing the existing ICT and City & Guilds exams”. Proposals for new levels 1, 2 and 3 (to replace Concrete Practice and CT&C parts. 1 & 2) were out for comment in 2004, and ACT would become level 4 (54, Summer 04). The work was painstaking, though, and progressed slowly, but at the AGM 2005 Bryan Marsh reported that revisions were “going well” (56, Spr 05). Following the merger with the Concrete Society – *see below* – CGLI transferred the revised syllabi to the combined body, and ICT took ownership of a new suite of qualifications: CT&C Stages 1-4.



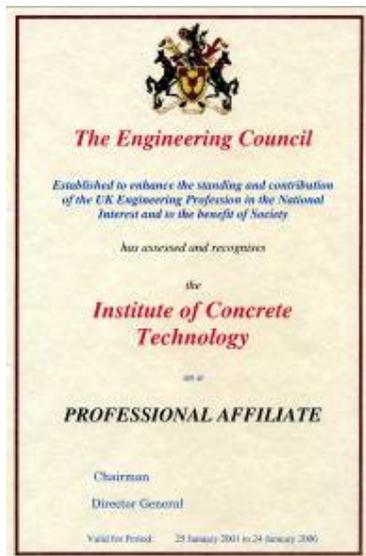
Course participants from contractor MJ Gleeson (43, Jly 00)

### **Other courses**

In 1999 Council endorsed RMC Readymix’s proposal for a certificated one-day course entitled Readymix Site Practice. This was developed by RMC’s Technical Training Department, designed to be run on a regional basis, but would be available to other ready-mixed concrete companies. It was to be examined by ICT members (41, Oct 1999) and was approved by both the ICT and Concrete Society (43, Jly 00). During its first year it was offered to RMC’s customers in Scotland, Home Counties and North West, and tailored for presentation in India and the UAE. A little later, after the launch of The Concrete Centre in April 2003, Council considered endorsement of TCC training courses in September that year (53, Dec 03).

## ENGINEERING COUNCIL

Given that one of the purposes of the ICT was – and still is – to raise the professional status of concrete technologists in general and the Institute’s members in particular, registration with the Engineering Council to secure the coveted designation, ‘chartered engineer’, was a natural aspiration from early on.



### Engineering Council

Affiliation to the Engineering Council was first proposed in 1987 and an application prepared at the time of the AGM (8, Jly 87). However, the path was far from smooth and debate as to how best to proceed was protracted. By June 1992 the matter was still being “hotly debated”. A working group of the Technical & Education Committee eventually delivered its recommendations, both to the Committee and Council, and John Payne presented a discussion paper to the AGM. The key premise was that further progress to registration would be most effectively sought through affiliation with another, already registered institution such as the Institutions of Civil or Structural Engineers. The Committee investigated further and entered into discussions with the Institute of Materials. However, it concluded that affiliation “would not, in itself, raise the status of the Institute of Concrete Technology”, and the Council accepted its findings (25, Jun 94).

### Professional Affiliate status granted

Six years later the issue had been raised again and an announcement was made at the AGM in 2000 that Council would seek admittance as a Professional Affiliate of the Engineering Council. This was deemed achievable without constitutional change, and could be followed in future years by the further step of becoming a Nominated Body. Professional Affiliate status was duly awarded and a certificate presented to the ICT President, Mike Connell, at the 2001 Convention Dinner (46, Jly 01). The Institute then entered into partnership with the Society of Environmental Engineers in order to offer a route to registration, and between 2003 and 2005 developed a ‘Mature Candidate’ route based on submission of a technical report (52, Jly 03 and 56, Spr 05). Professional recognition of MICT by the Engineering Council was credited in 2004 as “the result of work by ... immediate past President, Dr Bill Price” (*Yearbook* 2004-05), and the EngC logo started to appear on *Newsletter* mastheads from Issue No.54 (Summer 2004).



Award of Professional Affiliate status presented to Mike Connell (46, Jly 01)

## CONVENTION AND MEETINGS

### South Normanton (2000-04)

Possibly the most constant feature of the Institute’s collective life, during this time of considerable change, was the annual Convention. Appropriately enough the decade opened with a Convention sub-titled ‘Engineering challenges and solutions’. It was held in Stratford, a venue used only once before the Convention re-established itself at South Normanton on the Derbyshire/ Nottinghamshire border. Over the four years 2001-2004, the following themes were addressed: ‘Concrete in a changing world’; ‘Concrete in the city’; ‘Concrete & infrastructure’ and ‘Concrete structures: get it right or put it right’. The numbers



ICT Convention 2003

slipped from 130 to 120, and then were described as “a little down” (but still represented a quarter of the membership in the UK.) On this last occasion the then incumbent, Rob Gaimster, introduced the President’s Raffle at the Convention Dinner, a feature that has been maintained since. On that occasion a sum of £596 was raised for the charity, Whizz-Kids.

### **Chesford Grange (2005-08)**

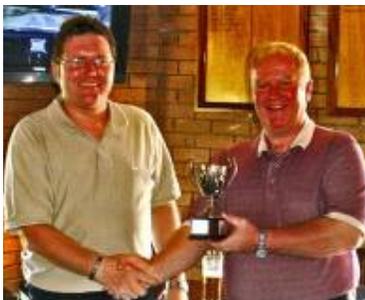
In 2005 the Convention was at Chesford Grange in Warwickshire and remained there for four years. Titles included ‘Concrete for a new world’ (2005); ‘Sustainability’ (2006); ‘New concrete technology in construction’ (2007) and ‘R&D in concrete technology: an international update’ (2008). They were well supported and in 2005 there were as many as 20 trade stands in the adjoining exhibition. The papers presented were reproduced in the Yearbook later each year, or purchasable separately at time (priced £15 in 2005).

### **Events Committee (2000-06)**

Conventions were organised by the Events Committee, the chair of which Ian Forder took over from Richard Hall in 2000, the two men having alternately dominated event planning for many years. In 2001 the committee also planned to hold five one-day meetings during the year. Of the wider programme, some meetings stand out in the record, for example: ‘Precast quality into concrete’, Brownsover Hall Hotel, Rugby, 16 October 2003; ‘Concrete mix design: the specialists’ view’, Statham Lodge, Lymm, Cheshire, 18 October 2006.

### **ICT Golf Society (2003-07)**

The one series of events not planned by the Committee, was the occasional meeting of the ICT Golf Society. Its inaugural Stableford competition was held on 15 Sep 2003, at the Forest of Arden Golf & Country Club, organised by Barney Patel and Peter Oldham. The winner was Nick Jowett (Christeys). Another golf day was planned for the Convention in springtime, while the Autumn competition was held at Dewsbury District Golf Club. There were 17 players and the overall winner was Dennis O’Neill on 43 stableford points. The season quickly settled into a pattern for the next four years, with a Convention competition early in the year and a separate golf day in the summer (either July or September). Courses included Heydon Grange, Herts (2005); Welcombe Manor and Gloucester (2006); and Richmond (2007).



Ian Ferguson with winners Nick Jowett, 2005 (top) and Neil Jackson, 2006 (below)



## Merger with the Concrete Society, 2005-07



Bill Price



Rob Gaimster

The changes to membership grades, progressive qualifications and chartered status were the legacies of Presidents Mike Connell (1998-2002) and Bill Price (2002-2004). The next two Presidents were more closely associated with the attempts to revitalise the membership in the face of declining numbers, and the negotiations to combine with the Concrete Society.

Perhaps the 2004 move to new offices at Blackwater, on the edge of Camberley, courtesy of The Concrete Centre, can be seen as a symbolic break with the past, followed not so long after by the retirement of Graham Taylor as Executive Officer.

When Rob Gaimster was elected as President in 2004, he declared ‘Revitalization’ to be the theme for his two-year term of office. In answer to the question, “Does [the ICT] have a long-term future?”, Gaimster was quoted in the *Newsletter*:

I think sustainability is the key issue facing the ICT moving forward. Our membership base is in decline and there has been considerable consolidation within the industry. In order to answer whether the Institute has a long-term future, I think we have to be clear about what our membership wants from the ICT. Complacency will lead to strategic drift and our ultimate demise. It is my conviction, however, that we have an important role to play, not only within the concrete industry, but also within the wider construction industry. We need to strengthen our voice, we need to be heard, but we need to be clear about what our members want.

And to formulate a wider strategic review, the President instigated a period of consultation with the membership. He was pleased to report that “we get a lot of things right, particularly in terms of self-actualisation and the networking opportunities which we foster” (56, Spr 05). He thought that the big opportunity was “to embrace the challenges presented by the dynamic environment in which we operate.” In doing so, he reported that Council had “examined the operations of a number of aligned bodies, and in particular the Concrete Society, and these considerations are constructive and ongoing”. This was an early hint of a change to the Institute’s self-sufficiency.

By the summer of 2005, there was more anguish about the loss of members from industry reorganisations, “with little hope of a reversal”, and a warning that such a trend “makes the Institute less viable” (57, Sum 05). It was reported that Council was “in the process of considering alternative strategies to make the Institute more viable and to enlarge its profile within the construction industry by joining forces with another organisation”. Similar suggestions had been floated before, though possibly with less urgency: “there was an argument in the early years that to survive perhaps we should become the academic wing of the Concrete Society or some other group” (Wootten, 2001).

A survey on the future of the Institute in 1989 had yielded a 60% approval of links with other bodies, but without the final step of merging (13, Nov 89). Tony Roeder as new President in 1991 had made comments along the same lines when asked about working more closely with the Concrete Society: “I think that our relationship at the moment is perfectly satisfactory and hopefully it will remain so. We are different types of organisation and I do not envisage any change to that at present.”

Different conditions applied in 2005 and the *Newsletter* reported that “much of Council’s deliberations over the last year or so have been about the survival of the Institute and, after investigating various avenues, including merging with other material organisations, they propose to the membership that we join forces with the Concrete Society.” Feedback to a consultation paper was largely supportive and two meetings were held in February 2006 to allow discussion in person by the members. The proposal was carried at the AGM by 92% in favour (59, Sum 06).



Bryan Marsh

Bryan Marsh was elected to the Presidency at the 2006 AGM, and it fell to him to conclude the negotiations over terms and definition of the working arrangements. Marsh signed in 2007 and the merger went ahead, with ICT as the so-called ‘professional wing’ of the Concrete Society. Graham Taylor retired, and the Society took over administration of the Institute.

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*The story of the ICT continues, of course, but at the time of writing, the period of merger appears to be approaching a crossroads. The merger remains the present, however, and until it becomes the past, it seems best to conclude the history here.*

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