

### The early days of the IAG – personal recollections

*This is an updated version (April 2020) of the talk given at Geoanalysis 2012 in Buzios, Brazil by Doug Miles, founding President of the IAG*

The seeds that grew into what became the International Association of Geoanalysts (IAG) were sown in June 1990 in the beautiful Grandview resort (Figure 1) in the Muskoka Lakes district, Ontario, Canada by Gwendy Hall and Chris Riddle (Figure 2).



Figure 1. Grandview – the beautiful venue for Geoanalysis 90



Figure 2. Doug Miles toasting Gwendy Hall and Chris Riddle at the end of a successful Geoanalysis 90

They recognised the need for a meeting that focussed on the particular challenges encountered when analysing complex geological and environmental materials. Gwendy, who was then head of the analytical laboratories of the Canadian Geological Survey, and Chris from the Ontario Geological Survey organised

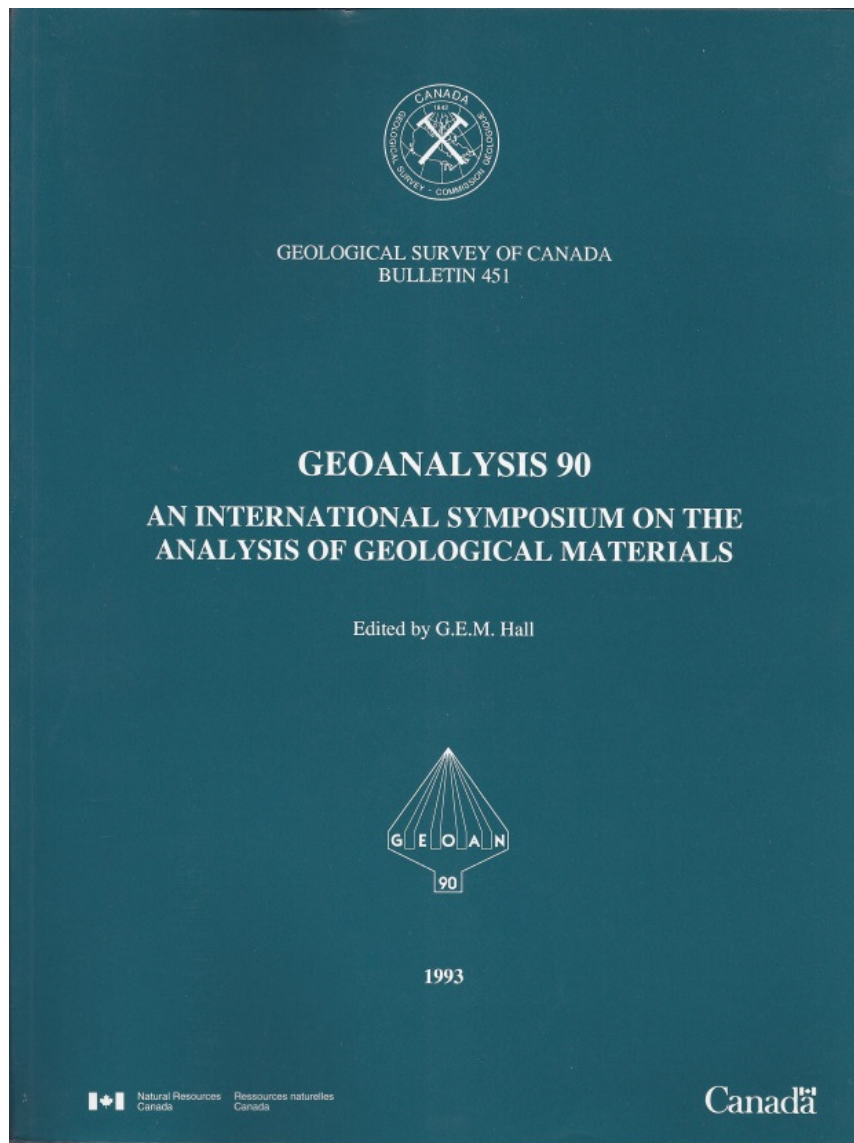


Figure 3. GSC Bulletin 451 – the proceedings of Geoanalysis 90

the very successful *Geoanalysis 90* conference<sup>1</sup>. It brought together scientists from 17 countries who otherwise typically bumped into each other on the fringes of much larger geological or analytical conferences.

Not only was *Geoanalysis 90* successful scientifically (Figure 3), it highlighted the existence of a scientific community that straddled both the geological and analytical sciences, whose needs were often not sufficiently met by current conferences and international organisations. It was also a highly enjoyable conference and a number of social traditions of the IAG were born there. Two such traditions – the Geoanalysis Songbook and signing the Malt Whisky container – arose out of necessity and desperation following the splendid conference banquet on June 6th.

As is usual at scientific conferences, most of us expected to head for the bar after dinner. We were therefore shocked to find that the main bar was closing! Moreover, it quickly became apparent to the dwindling but determined band that roamed through the central complex at Grandview that all the staff had departed at the end of the banquet. But then we stumbled upon a room containing a grand piano. Mike Ramsay, bless him, sat down and started to play – a mixture of folk songs, and pop songs of the time, which we attempted to sing along to (Figures 4 and 5).





Figure 4. Mike Ramsay settling down to play the piano

This raised our spirits, but did nothing to assuage our thirst. The few beers we'd brought with us from the banquet were running out. Then I remembered that I had automatically treated the trip to Canada much as I did the various visits I made to Africa, India and South America to help set up labs in my capacity as then head of analytical geochemistry in the British Geological Survey. Early on in my career, I'd learnt to always take with me a bottle of good malt whisky. This had many uses: to speed the passage of equipment through customs; to return the hospitality of foreign colleagues or ministers; or to brighten up the farewell parties.

I went back to the fine apartment Mike and I were sharing and collected the Scotch. A litre of whisky doubtless improved our enthusiasm for singing, but did little for our competence. While most people knew the tunes, very few of us knew, for example, the second verse of *Waltzing Matilda*!

Despite our poor knowledge of lyrics, what could so easily have been an anticlimactic evening, turned into a hugely enjoyable social event. Towards the end, I felt a souvenir was needed and passed around the cardboard cylinder that had protected the whisky bottle crossing the Atlantic, asking everyone to sign. It happened to be 12 year old Smith's – my favourite at the time – which came in a rather plain, pale cream package, leaving lots of space for signatures (Figure 6).



Figure 5. A litre of malt whisky improves the choir's enthusiasm



Figure 6. Signatures of participants from Geoanalysis conferences

To spare future generations the embarrassment of not knowing the words, we later produced the Geoanalysis Songbook<sup>2</sup> for Geoanalysis 94 in the UK and such singalongs have featured in almost every Geoanalysis since. I recall especially our Russian colleagues singing beautiful folk songs in Beijing in 2006 and the haunting rhythm of a workers' railway song sung in South Africa in 2009.

One afternoon, prior to the Geoanalysis 90 conference banquet, Gwendy and Chris ambushed me in a quiet room and persuaded me to agree to organise what became Geoanalysis 94. When I rashly announced this at the banquet, I could not foresee how the world would change in the intervening four years or imagine all the hard work that would be required.

Brimming with optimism, I returned to the UK and convened an organising committee of geoanalytical colleagues from universities, research institutes and industry. Slowly the magnitude of the task ahead began to dawn on us. We were faced with organising a three to five day international conference for, say, 150 people, costing tens of thousands of pounds with no institutional backing and no financial resources.

Finding a suitable venue proved particularly difficult. We wanted somewhere like Grandview – albeit more modest – where participants could be together for much of the time, rather than being dispersed in a big city conference hotel.

The problem of a venue was finally solved when Mike Ramsay discovered the Charlotte Mason Conference Centre near Ambleside in the English Lake District – a very beautiful and also geologically interesting part of the UK (Figure 7). But the lack of funds remained a huge worry. With no institutional backing, the financial risk fell directly on the organising committee. One or two members felt this was something they did not want to bear and stepped aside.



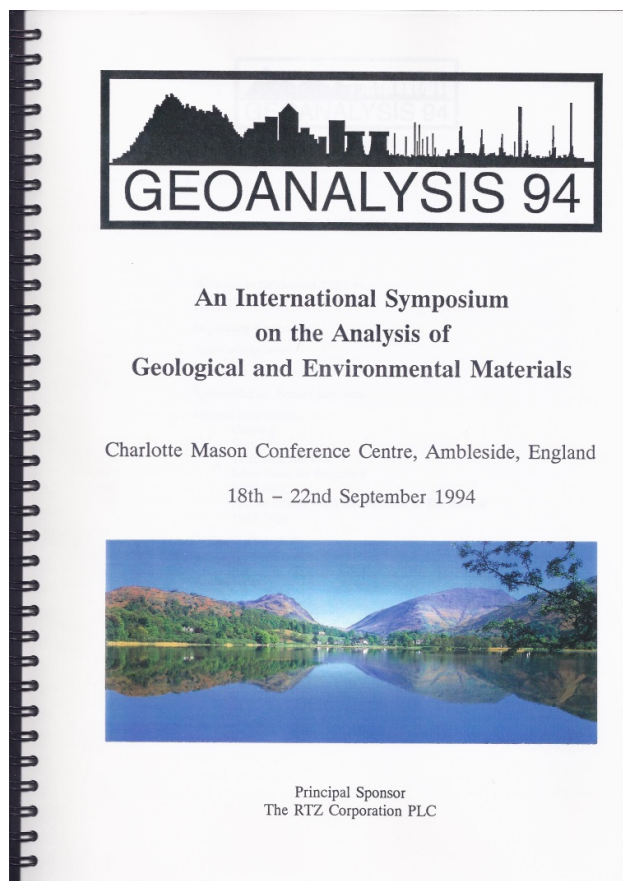


Figure 7. Geoanalysis 94 conference handbook.

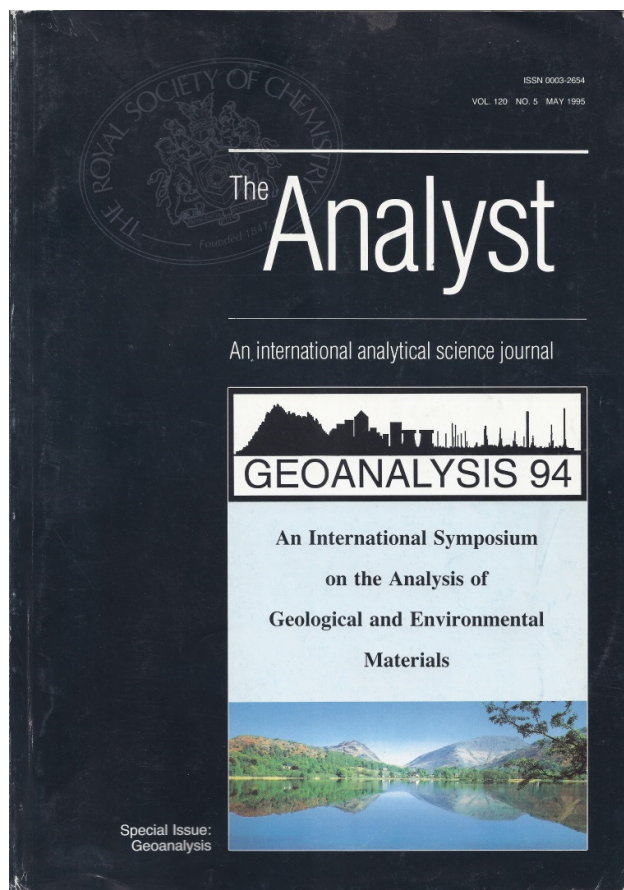


Figure 8. Special issue of *The Analyst* for Geoanalysis 94

It's worth noting here the great political and financial changes happening at this time. In the run up to Geoanalysis 90 there was an air of optimism. Nelson Mandela was freed, the Berlin Wall came down, oil was \$22 a barrel and manganese was \$400 a tonne. In contrast, while we were trying to organise Geoanalysis 94, the recession of the early 1990s triggered by the collapse of the junk bond market, meant that oil fell to \$14 and the price of manganese halved. Iraq's invasion of Kuwait in the Autumn of 1990 led in early 1991 to Operation Desert Storm, the first Gulf War. On Black Wednesday, 16th September 1992, George Soros and other speculators drove the UK currency out of the European exchange rate mechanism.

The digital technological landscape in the early 1990s was very different too. Jeff Bezos had yet to invent Amazon. More significantly, Mark Andreessen and his team did not release Mosaic – the browser that popularised the World Wide Web – until 1993, the same year in which the first text message was sent. Nowadays, detailed information about a conference can be made globally available through a website; publicity can be emailed to thousands of potential attendees at negligible cost. Hard though it is now to imagine, to publicise Geoanalysis 94 we printed – yes printed – 12,000 copies of the first circular! These were slipped into institutional mailings and handed out at other meetings.

We sought small donations from other societies and our finances vastly improved when Chris Jackson – then head of an RTZ laboratory in the UK – joined the organising committee. He brought with him not only a much needed mining industry perspective, but crucially a corporate donation of £5000. Gwendy gave us £1500 and members of the committee worked very hard to raise sponsorship from other sources. Nick Walsh did a brilliant job as Treasurer.

Despite all our worries and sleepless nights, Geoanalysis 94 was a success and I believe a worthy successor to Geoanalysis 90. It was certainly successful scientifically (Figure 8) and socially, but most

importantly for this story of the IAG it was very successful financially. External sponsorship, a good attendance and a modestly priced venue all meant that, when the dust of the conference itself had settled and all the bills had been paid, we found we had a significant amount of cash left in the bank. What should we do with it?

Over the next year or so there was considerable discussion about how best to use the money: have a great party; fund another Geoanalysis conference; enable the organising committee to attend other conferences, and so on. Slowly, the idea emerged of setting up some kind of body that could provide continuity between Geoanalysis conferences and perhaps make initial loans to future organisers so that they would not have to face the financial stresses early on that we did.



Figure 9. Royal School of Mines, Prince Consort Road, London, where the IAG was conceived.

The School was founded in 1851 and the foundation stone of this imposing building, designed by Sir Aston Webb, was laid by King Edward VII in 1909.

On the 22nd of February 1996 we met in London in the imposing building of the Royal School of Mines to brainstorm what such a body might look like. For example, should it stand alone or operate under the umbrella of an existing organisation such as the Geological Society or the Royal Society of Chemistry? Many pages of flip chart were scribbled on as ideas were floated and dropped or developed. At some point the discussion began to crystallise around forming a new, free standing organisation that would do more than just act as a link between Geoanalysis conferences.

But what might these new activities include and what should the organisation be called? More flip charts were scribbled on as ideas were captured. It could hold meetings other than Geoanalysis. It could disseminate information. How about a proficiency testing scheme specifically for geoanalytical laboratories? What about a journal?



But what to call it? The committee that had organised Geoanalysis 94 had been overwhelmingly UK based. But we recognised that the new organisation should definitely be international in spirit and that this should be reflected in its name. We considered calling it the rather obvious and lengthy International Society of Analytical Geochemistry. But I and others felt that we should, if possible, focus as much on the people as the science, in keeping with the ethos of the two Geoanalysis conferences. Society sounded rather formal and possibly exclusive, so we decided on Association instead. At some point the name International Association of Geoanalysts emerged as the favourite!

So we had a name and we had many hopes and aspirations for our new organisation. Now we had to put some flesh on the bones. We had to put in place the structures, procedures and activities that would make our dream reality.

Those would have to wait for another day. Everyone was tired after such a long but successful meeting. At the end of the afternoon – I'm not quite sure why, except that I felt they might be important for the history of the fledgling body – I tore off the last two pages of the flip chart and folded them into my briefcase (Figure 10).

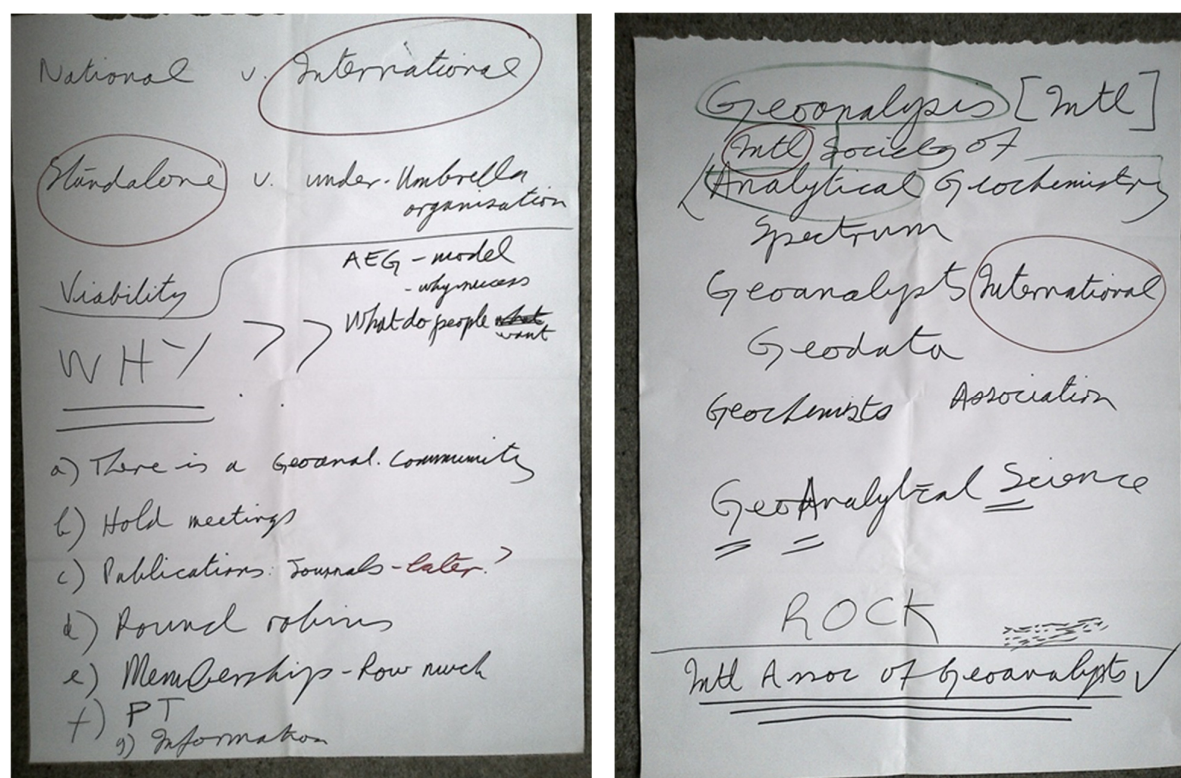


Figure 10. Pages of flip chart from the brainstorming session that conceived the IAG

Over the next several months we defined the mission and aims and objectives of the nascent IAG and I volunteered to draft the constitution. I had no experience in this, but I looked at the by-laws and constitutions of similar organisations, such as the Association of Exploration Geochemists and the Chemical Society, and thought they were rather too long. Years of experience with quality assurance documentation had taught me that brevity was important to avoid giving hostages to fortune. I also wanted the constitution to be an enabling, rather than a restrictive document – something that would provide for future growth of the organisation.

The constitution sets out the governance of the IAG, its officers and the composition of Council and its membership categories. In particular, it provides flexibility for people to be co-opted onto Council for specific tasks. It seems to have stood the test of time!

We had a name. We needed a logo. Initially, that was an easy decision. Essentially we would keep the logo that had been devised for Geoanalysis 94, but just drop the digits. The story of this logo is told elsewhere, but it bears re-telling here. Mike Ramsey takes up the story:

*The organising committee of Geoanalysis 94 wanted a logo for the conference that would symbolize the great scope of the activities of geoanalysts. I discussed ideas with my wife Jane, who has many year's experience as a designer for television. Ideally, we felt we needed something that spanned the complete range of geoanalytical science, from the natural environment which we sample, right through to the analytical - often spectroscopic - techniques we use in the laboratory. Jane did a wonderful job turning these ideas into a well balanced logo.*

*Especially because the Geoanalysis 94 Conference was to be held amongst the beautiful hills of the English Lake District, the natural environment and many of the geological processes that shape it are symbolized on the left hand side of the logo by the silhouette of a mountain range. This grades into a profile of the urban and industrial environment, which nowadays seem to generate an ever increasing number of our samples, often pollution-related. The tallest building with the triangular top is based on the Canary Wharf tower, a major development in the Docklands area of London. Past the cooling towers typifying the power generation industry, the logo grades into an analytical signal. This was originally a portion of the emission spectrum of iridium – the element of meteoric impact and K/T boundary fame.*

*When the formation of the IAG was first mooted following Geoanalysis 94, it was felt that, as the logo encapsulated so many aspects of geoanalytical activity and incorporated the name of then two and soon to be three successful conferences, it should be adopted as the Association's emblem.*

I thought Jane's concept for the logo was marvellous and for a number of years we used it on our stationery. But years later, as the IAG expanded, it became clear that the long rectangular shape, black and white style and the lack of the Association's full name were limitations. I commissioned a design company to come up with a new corporate logo. The brief was fairly straightforward: preferably circular, appropriate colours, our full name and the letters IAG to figure prominently. But the one thing that was non-negotiable was that the silhouette from mountain to spectrum must stay. It needed to be shortened, and sadly this was possible by removing New York's twin towers from the urban landscape (Figure 11).



Figure 11. The original and current IAG logos

So what could we do that would help our scientific colleagues? Phil Potts, Mike Thompson and Peter Webb led the way. One of the field activities during Geoanalysis 94 was a visit to the disused Threlkeld Quarry (Figure 12) to collect 18 kg of microgranite of Upper Ordovician/Lower Silurian age ( $486 \pm 6$  Ma). This was processed at the Open University, UK, and became the test material (G94) for the first round of the IAG's proficiency testing scheme, GeoPT<sup>4</sup>, that has been running for over 20 years and in which over a hundred laboratories worldwide participate.





Figure 12. Doug Miles (Centre, green anorak) next to Phil Potts holding the raw material for G94.

Typically, an important component of a learned society is its journal – and we didn't have one. But a fortunate conjunction of circumstances solved that problem. Since 1977, Raj Govindaraju based at CRPG in Vandoeuvre-les-Nancy had edited, printed and distributed the invaluable *Geostandards Newsletter*. To mark his impending retirement in the mid-1990s we presented him with a pair of specially commissioned curling stones at Geoanalysis 94 (Figure 13). More significantly, Phil Potts and Mireille Polvé took over as joint editors of the retitled *Geostandards Newsletter. The Journal of Geostandards and Geoanalysis* and it was adopted as the IAG's official journal.

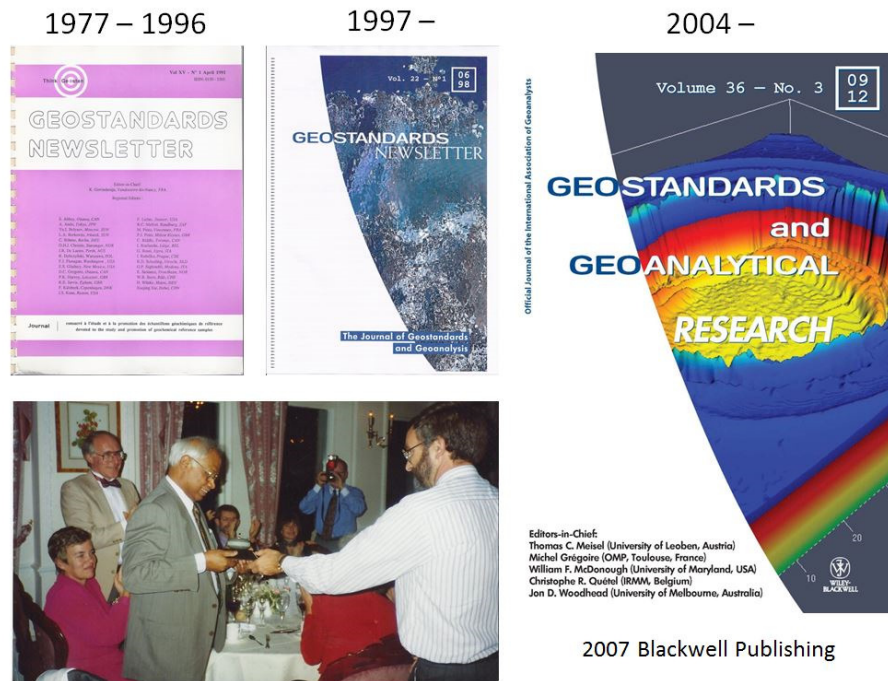


Figure 13. Presentation to Raj Govindaraju and the evolution of GGR

A decade later the Association became much more closely involved with the management of the journal. The CRPG, like many organisations at that time, was seeking to divest itself of in-house printing. Their parent body, ASGA, leased the title of the journal to the IAG and production was contracted to Blackwell Publishing and later Wiley. The journal, now called *Geostandards and Geoanalytical Research*, continues to thrive with a good impact factor.

We had a name, a logo, a constitution, a proficiency testing scheme and a linked journal. All the pieces of the IAG jigsaw were falling into place. But we needed to announce its birth and attract members. This was planned to happen during the Geoanalysis 97 conference organised by our USGS colleagues in Vail, Colorado. More than once, during that preceding three years, when all the work to create the IAG was being undertaken, I couldn't help thinking of the line from the 1989 film *Field of Dreams* starring Kevin Costner, oft misquoted as – “If we build it, will they come”. We hoped they would, but we simply didn't know!

In fact they did come. About fifty people joined during the conference. Not only that, our American colleagues to whom we'd lent some seed corn money to help them start organising Geoanalysis 97, very generously donated \$14,000 to the IAG after their conference (Figure 14)

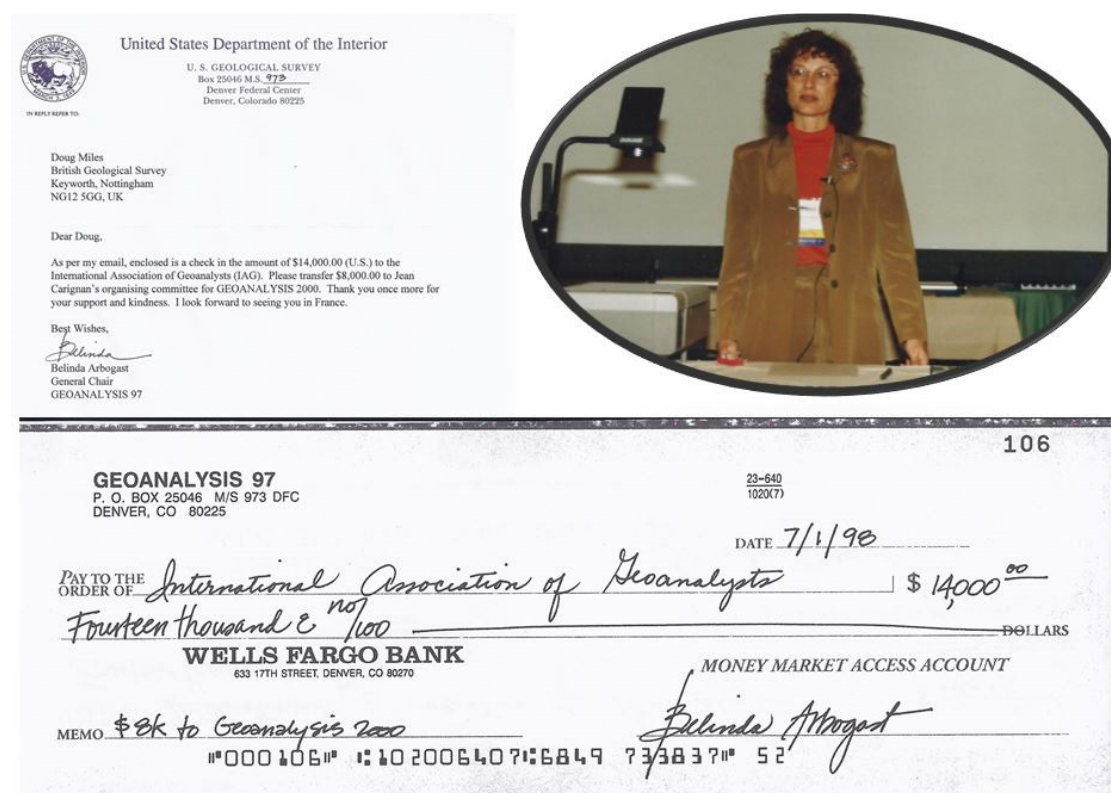


Figure 14. Belinda Arbogast's letter and cheque following the successful Geoanalysis 97

So the IAG was well and truly launched at Vail and I can draw my early recollections to a close. Since then it has gone on to achieve things I could never have dreamed of. Ten Geoanalysis conferences have criss-crossed the globe (Figure 15), Council members run workshops on topics from SIMS to quality assurance. A protocol for the certification of reference materials has been published and *GeoPT*, our very successful proficiency testing scheme, has been joined by G-Probe – a PT scheme for laser ablation and microprobe analysis – and G-Chron, the first ever PT scheme for U-Pb dating. We collaborate with major geoscience organisations and have observer status on ISO-REMCO. We make awards to brilliant young researchers, partly funded by the sales of our high quality reference materials to laboratories in forty



countries, and offer small research and networking grants to enable geoscientists across the globe to collaborate.

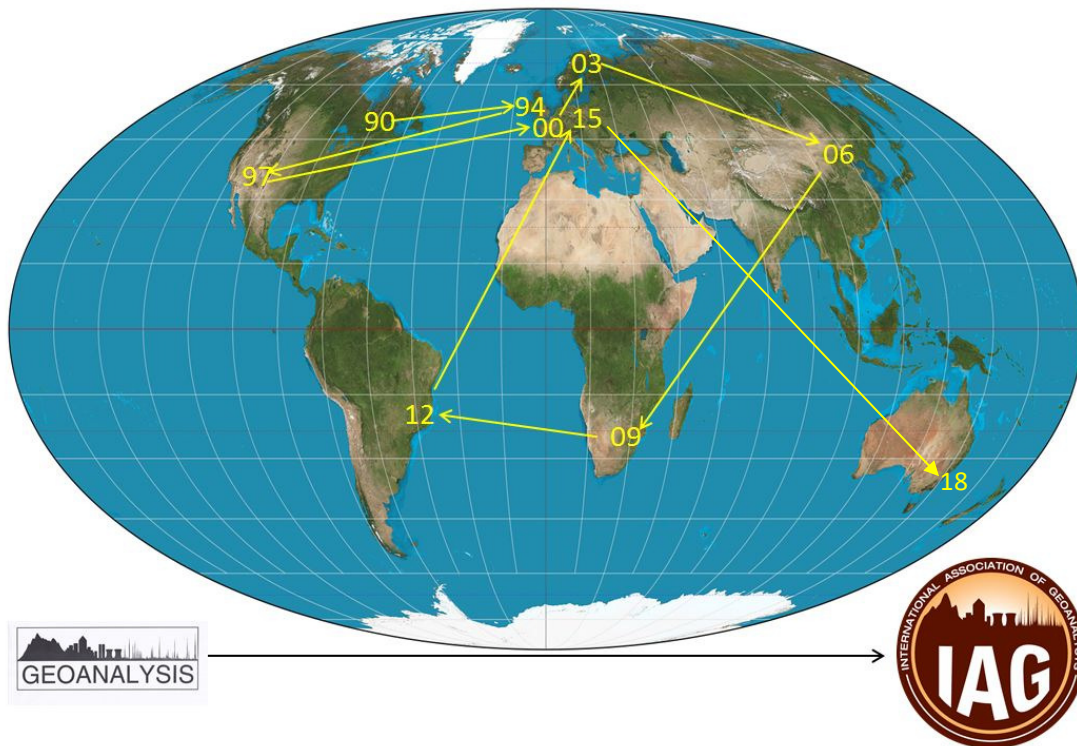


Figure 15. Locations of Geoanalysis conferences 1990 – 2018

As I write this in April 2020, in the middle of the Covid19 pandemic, I am grateful that my progressing motor neurone disease did not prevent me from attending Geoanalysis 2018 in Sydney. From the other side of the world I looked back and marvelled at what the IAG has achieved in twenty years. It was conceived in the success of Geoanalysis 94, sustained initially by hope and optimism and nurtured throughout its life by dedicated, talented and, above all, altruistic people it has truly been a pleasure to work with.

#### References

1. GEOANALYSIS 90, an international symposium on the analysis of geological materials; Hall, G E M (ed.). Geological Survey of Canada, Bulletin 451, 1993, 172 pages, <https://doi.org/10.4095/134327>
2. Geoanalysis songbook (put on website)
3. Geoanalysis 94. Analyst Special Issue, Vol 120, No 5, May 1995
4. Thompson, M, Potts, P J and Webb, P C (1996). Geostandards and Geoanalytical Research, 20(2), 295-325