Attending Scientific Meetings is an essential aspect of modern science, probably more so now than several decades ago since most projects are now collaborative ventures. Meetings can take one to cities and countries one hasn’t visited before. One such meeting I attended was in Beijing in 1993. It was the ‘XVI Congress of the International Union of Crystallography’. The IUCr triennial Congresses are the most important meetings in my subject area, meetings where one gets an overview of the subject in its full breadth, where one meets those in the same field as well as leading participants in related areas, where one show-cases recent work and can find which developments are blowing in the wind. Roger Clark and myself were presenting ‘A New Analytical Calculation of the Absorption During Scattering’. Even as I write this introduction 20 years after the event I can still say the calculations described under this unassuming title were among the half dozen revolutionary pieces of work that I am proud to have done. The paper introduced a new method of obtaining accurate results far superior to anything then in use, but that’s by the way. [I can add a postscript here that it took a while for the community to appreciate it, but by 2017 the paper describing our results had gained over 1000 citations, and counting.] The science at the meeting can be found in the literature. This piece is not about the science. In 1993 China was just opening up to the world. This was the first such Crystallography Congress held there. The program had a generous allowance of time off for sight-seeing and experiencing the new China, which we made full use of. I must have kept a diary, for 20 years later I have discovered this account that I wrote at the time, not for public consumption but simply as a verbal memory aid to accompany photographs taken. Was it not Confucius himself who said that even faint ink is better than a good memory? Times change, however, and the account has acquired a historic patina, a fleeting glimpse of attending a scientific meeting 20 years ago and, more particularly, of Beijing in 1993.
The taxi was late. By the time I arrived at Dyce airport at the back of a long check-in queue there was only half an hour to take-off. After 5 minutes, 4 people had checked in and I wondered if we were going to make it. Roger had joined me and we jumped the rest of the queue to the 'Gold Executive' desk. Many of our fellow travellers looked as if they'd been plucked untimely from their beds, certainly more than I remembered seeing last time at this early hour in the morning. We slalomed between restaurant tables that occupied the wide passageway to gate 3 (airport reconstruction still continued) and passed straight through security to the waiting Boeing 757. 34 aisles of 3x3 seating; 5 cabin staff. Aberdeen was really 'on the map'. As we climbed the boarding steps the name 'Windsor Castle' caught my eye on the side of the plane. "Hope we're not in the chapel", remarked Roger. We were in the rear of a half empty plane. As I settled down, we trundled out to the end of the runway. There was a dull roar from the three engines, my free 'Scotsman' newspaper folded involuntarily onto my lap, Dyce appeared at a crazy angle through the window and we were up and away above the patchwork landscape of rural Aberdeenshire in late summer. We quickly ran up the Dee valley, over rounded heather-clad foothills that cast their soft shadows in the early morning light. As we banked slowly, there was a splendid view of Loch Muick, with cloud streaming off the summit of Lochnagar behind. After that we plunged into the altostratus. Goodbye homeland - we were off towards the distant unknown. No fatuous cabin announcements today.

I had time to marvel at the miniature food parcels that appeared on the diminutive breakfast tray which just fits onto a cabin seat table. Miniature tomatoes, pigmy mushrooms, a tiny croissant, roll and carton of orange juice, and a 1 oz solid glass jar of Baxter's marmalade to remind us of the NE. All not quite of doll's house proportions but each a perfect replica of their normal counterparts - perhaps genetically engineered for life at 30,000 feet. Well, perhaps not but it made better contemplation than the day's news. London was warm. After an exhibition of incompetent baggage handling at Heathrow, we left on Finnair for Helsinki 45 minutes late. The 150 seater MD83, fitted out in national blue and white, cruised comfortably enough at 11000 m and 825 km hr⁻¹. I particularly liked the overhead locker labelled 'megaphone inside'. It gave me more confidence that they had taken care of the details than the standard playlet with the seat belt, oxygen mask and life-jacket. We came down about 3 hours later out of a low, wet sky to the sight of a thousand wooded islands and a metropolis of clean concrete blocks, coloured tiles and many fir trees.

Another 4 hours later and we were on the runway again, now in a DC10. Projected onto the cabin TV screen was a brilliant real-time datalogging display, showing distance to go (6317km), time to go, altitude, speed and external air-temperature. As we hit 300 km hr⁻¹, the DC10 rose sharply from the runway straight toward the looming cloud. Our stay in Helsinki was so short I can't really say I've been there. We reached a cruising altitude of 9100 m, speed of 900 km hr⁻¹ and air-temperature of -50 degrees Celsius; ah! the wonders of real-time datalogging. A map alternated with the data, showing a plane symbol in the correct orientation at the end of a track heading across the Gulf of Finland. The map showed our path across the globe, successively in small scale and in larger scale. Finnair certainly kept all 269 passengers (I made a note) well informed. A mock sun was visible in the tops of the cumulus, and as we crossed over land again a vast sculpture park of abstract shapes, from solid looking mouldings, through fibrous anvils to insubstantial curtains of almost nothingness, stretched for miles. The image in the camera view-finder did no justice to the
vista and I didn't press the button. While the menu was being handed out I set my watch to Beijing time, which took the edge off any hunger. It was suddenly 1 am. We raced into the greyness of an accelerated evening on course to fly between Omsk and Tomsk, over Novosibersk to Irkutsk, Lake Baikal and on to Mongolia. I settled down with channel 5 on the earphones - classical jazz - for at least it drowned much of the noise in this quite noisy plane. As the light faded outside, the cloud cleared and we crossed the watery northern wastes of Russia where only the occasional ground illumination shone out.

At 3.30 am we were asked to fill in the Arrival Card, Departure Card and Passenger Health Declaration. The last included the curious 'Please mark with a tick in the items of the following articles, if you bring any of them with you: Biological or Blood Products, Food, Used Clothes and Articles'. How could they think we were travelling with used clothes? Hardly anyone in China has blood group O and no-one, I've been told, is Rhesus negative. If Aenea ever thought of going there, as an O Rh-ve, I suppose she would have to think about the contingency of needing emergency blood. After a short sleep I awoke near Ulan Bator to the incredible vision of arid brown hills on which were just visible in the pre-dawn light trees on one side and nothing on the other, isolated dwellings with no roads between them (at least it seemed that way from 10,000 metres up). It looked like another planet. I'm told by our travelling friend Margaret, who got back from Mongolia about the time I returned from China, that there's little grass but the ground is covered with a carpet of flowers on which horses and sheep graze. It looked pretty bare from 10,000 metres up. Further on we saw glimpses of the flatter, equally empty looking, Gobi desert and I was glad of the window seat. During breakfast of a croissant and coffee the in-flight screen showed a video of the various stages of immigration, baggage collection and customs at Beijing. It was a relief to see signs in English as well as Chinese. Down below, villages began to appear in the wilderness, with rectangular layouts that for all the world looked like pictures of MSI silicon chips (unless you know in detail how these chips are organised). Next, the in-flight exercise video - no thank you, a bit more sleep would be in order.

At last the great moment approached. Beijing was almost below us. We came out of the cloud over a landscape of fields green in every direction, interspersed with small collections of rectangular ponds. Habitations of clustered houses, usually aligned in rectangular plan, seemed all the closer together for having few roads between them. Small-scale building works and unkempt sites were much in evidence. The cabin staff collected all our newspapers (to give to passengers on the returning flight? to prevent cleaning staff taking away the Western press? I don't know). We bumped down and taxied to a spot some distance from the terminal buildings.

Perhaps it was a foretaste of the unpredictability of China: the unloading steps did not arrive. We all deflated in anti-climax into our seats and I returned to the problem that had occupied Roger and I some while at Helsinki airport. It wasn't a piece of geometry, or some vector analysis nor a complex integral. The padlock on my hand-luggage wouldn't open with the number I expected! At Helsinki, Roger and I had tried all possibilities from 000 to 999. I tried again and just before the steps finally arrived some 30 minutes later, the problem was cracked. It was one of those smart padlocks whose number can be changed by the user or, indeed, the user's kids. I don't know who was really to blame but I reset it to the 'right' number. It was a good distraction for my impatience. We were bussed to an unprepossessing side entrance, splashed through puddles with our hand luggage and squeezed almost single-file along a tall concrete corridor painted a monotonous jade green. Immigration certainly
weren't laying out the red carpet for us. They collected all our paperwork, over-stamped our visas and left us to kick our heels for another half hour to wait for our baggage. In retrospect, it was the only time during our visit that we experienced lack of enthusiasm and some incompetence.

There were quite a crowd of crystallographers on the plane, some I'd recognised, some not. Our organisers greeted us with pleasure and close-packed us into waiting minibuses. I’d expected the 45 minutes to the hotel to be through the suburbs but instead we went mainly through a landscape of green maize fields and small ordinary looking trees that you couldn't quite name, under which grew memosa-like plants and grass. Traffic of yellow taxis and small delivery trucks was light for most of the way. There were plenty of bikes, some with long frames and large trailers piled enormously high. Where were Beijing's 10 million people? We were to find out later that many lived in high-rise apartment blocks within cycling distance of the centre of the city. This made for a compact city with a huge central density. Our hotel at 10 km from the centre was near the edge. One of our fellow crystallographers from Mexico City said later that she found the crowded city daunting. Mexico City's 16 million are apparently more spread out!

We jolted over a sleeping policeman and I knew that this was it. [If what we saw later was anything to go by, real Chinese sleeping policemen are full-sized mannequin models shaped and painted like traffic police, placed beside a main road to catch the eye of guilty drivers]. A banner beside the International Convention Centre welcomed us to the XVIth Congress and General Assembly of the International Union of Crystallography and we stopped outside an adjacent dazzling white concrete monolith of uncertain architectural pedigree proclaiming itself the Continental Grand Hotel. Actually it turned out to be a duo-lith, one block of 17 storeys and one of 13 storeys, with 1259 rooms and 4* luxury.

I can't remember ever having stayed in 4* luxury before. Moreton Moore and I were shown to our shared 'luxury' room on the 9th floor, with its panoramic window looking over the hotel grounds and from there beyond to a well landscaped two-level clover-leaf intersection and a receding forest of 20 to 25 storey tower blocks. Moreton from Royal Holloway works with me at Daresbury. I don't know whether this was 4* luxury Western style but it certainly
was by Chinese standards. I'd brought a copy of the Lonely Planet's guide to Beijing, written for the intrepid impecunious. This was 'way above Lonely Planet's standards. Not only did you actually get free soap, a luxury item for L.P. readers, but Continental Grand shampoo, Continental Grand bath lotion, a C.G. comb, C.G. toothbrush and toothpaste, C.G. slippers, C.G. shoe-cream, a C.G. shoehorn, C.G. notepaper and envelopes, C.G. sewing kit...... . The fridge was empty, though. Roger was in an 'ordinary' room. It seemed very much the same except lacking the panoramic window, and the fridge was locked. We made much use of the flask of hot water and C.G. tea bags that were renewed twice a day, so much so that room service ended up giving us two flasks each time. It soon became clear that another feature of the hotel was the number of staff on hand. The two buildings were linked by a corridor but each had its own entrance and reception hall. At both front doors, two doormen were permanently on station; another always held open the inner door as you entered. At some times of the day, one or two girls in decorative suits would be there to greet guests with a 'good-day'. Five or six staff manned each reception; every floor had attendants 24 hours a day; one of the foreign exchange counters was open from 8am until midnight, and so on. I remember eating early one evening in one of the self-service restaurants. There were 2 girls to welcome you (dressed in high oriental fashion), 5 waitresses, 2 waiters, 2 bar staff and 1 cashier. Twelve staff in a self-service restaurant! All the staff were so immaculately turned out that it was difficult to believe their uniform wasn't clean on every day. Most had rudimentary English, for the hotel clearly aimed at the foreign market. There was a uniform 'no-tipping' policy throughout the hotel. Many places here should follow the example. [If there's any doubt, I more or less have my own unilateral 'no tipping' policy, but then Aberdonians have a reputation to preserve!]. A shared room was 37 dollars a day, about a week's wage for an average Chinese. It turned out that this huge manning level was typical of Beijing's service industries, and probably China's. I remember that in some sections of the great 'Beijing Department Store' assistants were standing virtually shoulder to shoulder behind the counters. Even single-decker buses and trolley buses that had two sections with a concertina join between them had two conductors and a driver. Mind you the buses were often so jammed that even the conductors had difficulty moving to extract the fares. One result of all this was that there was no apparent unemployment, no sign of any desperate poverty and no sign of resentful or desperate youths on the pavement making you wonder about your own safety. I don't know what the crime rate was like but the visible police were conspicuous by their small numbers and were among the most mildly dressed of any country I have been in. They wore a uniform that was less formal than that of the hotel concierge, carried only a radio and sometimes a small truncheon. I felt as safe on the streets as I did in
Eastern Europe in the mid-seventies, where a woman could go home on the late night suburban bus or train without any qualms, or the affluent Westerner could wander almost anywhere without expecting to be robbed. In Eastern Europe, the police were a different kettle of fish. No doubt if I’d waived the Tibetan flag, the Chinese police would have changed from Jekyll to Hyde, but I wasn't out to test the political system. The guide books advise people to wear a money belt and it is obviously pretty stupid to leave your wallet sticking out of your jeans pocket, but honesty seemed to be the norm. When I'd just arrived in the hotel I changed 60 dollars into Yuan. The clerk gave me the Yuan and 10 dollars back. Two notes had stuck together and I'd given him 70 by mistake. Most tellers would have been equally honest but knowing that fresh faced foreigners are a classic target for a petty swindle, I thought that was a good start.

Back on the subject of jobs for everyone, I've no doubt that all this manning was achieved at pretty low pay and probably long hours. Chinese asleep in public are a common sight - wedged between bales in the back of a lorry or lying on a load of sand; on balustrades, on their long bicycle trailers or in cabs with their feet out of the window. Others relaxed by just squatting on their haunches, beside the road or at the edge of fields in the country, a trick we have lost in this country. I suspect that the average Chinese is a good deal fitter than the average Brit. I can't remember seeing a single fat Chinese man or woman among the throngs I must have passed over the week and a half. Others remarked on this too. There are few private cars on the road, and no puddings in the Chinese diet. There was not the slightest sign of any lack of food, and the locals confirmed this. What surprised many of us was the wide range of goods in the shops and the fact that the shops were packed with people buying; not the smart set flaunting conspicuous wealth but ordinary folk like us. OK, the middle classes, for lack of a better word. The contrast with Eastern Europe in the mid-seventies couldn't have been greater. There were lots of clothes shops, shoe shops and spectacle shops (could say that of Union Street in Aberdeen); leather goods, especially handbags, had shops of their own but who wants to buy a leather or fur jacket when its 30+ degrees Celsius outside. They weren't doing much business. You gather from what I've said that self-service shops were no-where to be seen. 'No smoking' was a common rule in shops, with 'no fireworks' an occasional variant. The Jesuits may have had

Microbuses are the main traffic near this large intersection  Bicycles, taxis and public transport on one of the widest roads

Outside ‘Beijing Department Store’
influence in Beijing 3 centuries ago but the Sunday Observance Society have never got a look in. Shops are open 7 days a week. I went downtown on the last Sunday, intending to visit Tianamne Square to take some photographs in good light and to buy an abacus for Iain. Every shop counter had an abacus on it or under it, which assistants would use deftly for more complex purchases than my occasional one-off. I couldn't find an abacus for sale anywhere. I'd asked one of the people at the conference information desk for some help. He said that no-one bought them nowadays and calculators were replacing the abacus. Perhaps in the lab, but I never saw a single shop assistant use a calculator or a complex till. It was just my luck that Tianamen square was blocked off all round. It could well have been the anniversary of the '89 massacre, I hadn't done my homework (but it wasn't – the 'incident' took place earlier in the year). Whether the streets were always as jammed on a Sunday, I'll never know but some streets lined with shops I couldn't go down. There's an advantage in being tall enough to see over the crowd and how far it stretches. Even in less busy places, the Chinese walk slowly and it's as well I wasn't in a hurry. After wearing out a lot of sandal leather, I finally found an abacus in the Dong An market, for 24 Yuan. This market was just the sort of place you find on the last day of a visit somewhere and wish you'd found on the first. It had lots of variety, sold Chinese goods to the Chinese at Chinese prices, which, if you earn only one tenth of a Western salary, have to be cheap. Ah well, I was worried about the weight of my suitcase by then and called it a day with the abacus.

Another thing about Beijing that I finally cracked on the last day was how to get cheaply to and from town:- by trolley bus, total cost for about a 10 km ride was 0.3Yuan or some 4 p. On the first day we went into town we took the bus, which was 3 Yuan (35 p). This seemed very reasonable, though it was an express bus with very few stops. I don't think that standing was prohibited on this double-decker but the height of the ceiling downstairs was such that I could only walk along bent like a half-shut knife. The Chinese are no smaller than the Greeks or Spaniards but they certainly pare the roof height of their public transport. Space in a taxi was little better. To get one from the hotel to the city centre seemed to cost about 40 Yuan, negotiated in advance in broken English with the taxi driver or by holding up a bunch of fingers or waving the appropriate number of notes. 40 Yuan wasn't bad by Western standards, particularly if 4 of you went together but we soon found it was a rip-off. Taxi drivers were supposed to use their meters and the price per km was posted on a label displayed in their cab. Cheap cabs, looking like mini-minibuses (microbuses?), built in Japan, cost 1 Yuan per km and more expensive cars usually 1.6 Yuan. Never get a taxi outside a 4* hotel full of foreigners! After a few folk's experiences, we all got wise to pointing clearly at the meter before we got in. Taxi drivers apparently weren't above failing to reset the meter for your journey if the previous customer had gone less that the minimum charge of 10 Yuan. What was I saying about the honesty of the Chinese? If in doubt, point to the reset button as well. Having got the hang of the buses and the subway, taxis were in little demand later on.

Thinking of taxis reminds me of the Chinese driving. I have been across zebra crossings on foot, by taxi, by minibus and by double-decker; whatever the means, priority is given to the person with the greatest bottle. He who dares, wins. Communism and 'after you brother' - that hasn't got a look in: it seems like out and out survival of the fittest. Having said that, we saw a hundred close shaves but never an accident. Driving down a typical street, and they weren't very wide, was a memorable experience. Cyclists usually outnumbered cars by many to one. They rode on all sorts of machine, from mountain bikes your kids would be glad to be seen on to heavy black uprights, reminiscent of your grandmother's bike and perhaps of an
equal age. Fluctuations in the density of the bikes left holes in the flow. Taxis hopped from hole to hole, overtaking down the middle of the road. Two on-coming taxis thus approached each other along the middle of the road, side-stepping into the holes whenever they opened up. Some drivers sounded their horn almost continuously, to which no-one seemed to take a blind bit of notice. Just when you were thinking that the oncoming taxi couldn't possible find a hole to pass you, somehow both taxis managed to squeeze sideways and pass each other. The cyclists seemed to take it as part of life that cars, taxis and trucks passed them with a whisker to spare. On busier main roads it was not uncommon to see an old boy on the crown of the road standing beside his bike almost broadside on to the two fast lanes, waiting for a gap to appear in the on-coming traffic. Even your hardened Parisian would blanch at that. I never saw an accident and no-one I met at the meeting did either. No doubt they do occur.

Of the Congress itself (difficult to see that word in quite the same light after you've read the Kama Sutra) … of the Congress itself that took place in the Convention Centre, I won't say much. We were entertained at the opening ceremony to an hour of Chinese music and dance. Some of the dancing showed great elegance, grace, wit and charm. The music had its moments but after enduring one singer with a particularly armour-piercing voice I concluded that the Chinese were into high decibel, high frequency sound. What had finally done for my appreciation was an exhibition on the Suona, 'a unique Chinese instrument', thank goodness, described by the graceful compere 'it can almost the human voice sound like'. I would prefer to describe it as an incredible screeching pipe that would put the fear of death into your enemies on the battlefield. It is said that the Chinese find it difficult to whisper their language but fortunately even they never sound like the suona. The following day, a Sunday, found me at 0830 in one of the two main lecture theatres listening to a talk on fullerenes. Head-of-Department, you should have seen me! I was still chuckling at the minor incident that had happened at breakfast when we were given the menu. Moreton looked at the curious mixture of offerings, mostly distinctly Western, and thought he'd order porridge. 'Sorry, we're sold out' came the reply, which seemed about as likely as being sold out of cold jellied tripe at Dunbar Hall. We never got a menu any other day, for they took to offering a self-service buffet, with no porridge, to cope with the numbers.

Needless to say, Beijing food was not the same as the food you'd expect to get in a Chinese restaurant here. Perhaps Chinese restaurateurs all come from Hong Kong, or perhaps they've all got stuck in a rut but you'd scarcely recognise it as food from the same country. We didn't often eat in the hotel, where the food was comparatively highly priced and didn't have the variety of the local cafes and restaurants. A typical meal would start with a few cold dishes - peanuts in garlic, hot green peppers, gherkins in garlic, sliced cooked jellyfish (to be avoided, for it tasted rather like seaweed-flavoured rubber bands), duck's foot, a grisly curiosity said to be a local delicacy. Well you had to choose carefully if a spread had been ordered, all the dishes were placed centrally and dipped into with chop-sticks. There's a fortune waiting to be made by anyone importing knives and forks, which I hear are beginning to be fashionable in Japan. The cold dishes were followed by as many hot dishes as there were people. Pork, chicken and beef were common, all in interesting sauces; a fish may be brought to you in a net first, for your approval. I then realised what all the rectangular ponds were that we had seen from the air - fish-ponds. Peking duck was the speciality, first presented whole on a plate, then in thick slices with all the glistening basted skin over the meat, on a serving plate that most likely had the beak as well. After the meat followed rice to mop it all up; finally, the soup which would be the remains of the duck if you'd had that first. The food wasn't at all greasy, was often quite spicy and had a complex mixture of tastes. It was washed down
with a good Beijing beer and eaten outside on a pavement table. All the restaurants we went
to were within a few hundred yards of our hotel for the affluent, yet they hardly catered for
foreigners at all. Often the menu would be only in Chinese and you had to find someone with
a smattering of English or point to what others were eating. The Chinese ate very early in the
evening. At 5.30 you would see native hotel guests departing in full evening attire. By 9
O'clock restaurant chairs were being put on the tables in many places and the staff were
tucking into the left-overs. One evening I had to squeeze in a meal between afternoon and
evening activities and discovered how to get better food out of the hotel. Go at 5.30. The
food was fresh and hot, and people like me hadn't been earlier and scooped all the lychees
and pineapple out of the water-melon fruit salad. During this meal I was entertained by some
fitters outside dismantling scaffolding (everyone to their own choice of entertainment).
There were no hard hats and quite some agility shown on poles high above the ground.
Heavy metalwork was loaded by hydraulic crane onto a two-horse cart and the scaffolding
poles themselves man-handled onto another two-horse cart - a real mixture of new and old
technology. Later in the evening that particular restaurant in the hotel used to become a bar
where a live group performed on traditional stringed instruments. They were the best act in
the hotel and could have filled a folk concert hall or made good television in the West. We
reckoned that they might have been four girls from the equivalent of the Royal College of
Music, for you didn't need to understand Chinese music to appreciate their expertise. Usually
we Westerners occupied a second sitting at restaurants, starting at 7 O'clock or so. Standards
of hygiene in some places outside were reminiscent of transport cafes at their worst, with
cracked glasses or plates a likely hazard. By a miracle, no-one I know succumbed to Beijing
belly. We were told that the restaurants were all privately owned and usually making a
fortune for their owners. The wealthy in China were the independent business men whose
numbers were rising spectacularly. On a couple of occasions we went Korean, where the
food was more spicy and traditional dishes were cooked before you in the centre of the table.
It was at a Korean restaurant that Pam Thomas, the well-known Warwick physical
crystallographer, almost stood on her chair when she spied a 'furry rodent' scuttling down a
wall. She didn't look as if she'd had too much Beijing beer but none of the rest of us saw it!
The owner probably did, for we were all presented at the end of the meal with a painted china
egg on a stand that still adorns my living room at home. Perhaps the restaurants didn't really
cater for guests from our hotel because only the likes of a collection of scientists with no
pretensions to the high-life would consider exploring such places. The service was always
charming and friendly; our attempts to struggle with the menu, language and customs the
source of good-natured mirth. Tipping was 'ganz verbotten'. One nearby restaurant where
the food was particularly good had a row of large glass bottles on the counter inside in which
were steeping dead animals or their parts. These were liquors in the making. Robin Shirley,
Roger's room-mate, tried the spirit that had a whole snake preserved in the liquid. He said it
tasted like Bison Vodka. The object in another jar was said to be deer's genitals. Nobody
tried it. The whole display had a primitive look about it. I expect that at one time there was
the superstition and magic of the witch doctor's ritual potion attached to these drinks.
Perhaps there still is but we were cut off from any significance they might have had. Looking
back on our food, the diet was varied, tasty, unusual and healthy: after a week many of us
could have murdered a plate of mince and tatties.

We had an official break of a day during the meeting for organised sightseeing, another day
free before the meeting started and there were occasional half-days when all the subjects of
the sessions were well away from my interests. Enough time to visit a few of Beijing's sights.
On the day we arrived I went with Roger, Robin and Moreton to see the Imperial Palace Museum, aka the Forbidden City. "Welcome to the Forbidden City" said the contradictory sign at the entrance. We paid our 45 Yuan foreign visitors' entrance fee (more than 10 times the charge for the Chinese themselves) and went in on a very dull, hazy and showery day. One hundred years ago, had you set your eyes on the interior you would have been on the Lord High Executioner's business list. Today it was a tourist trap; people come to China to see it. I'm glad I didn't have any expectations of grandeur. It's a rum place, monastically isolated from Beijing city by a 30-foot enclosure wall, excessively formal without any obvious intellectual elegance. It contains many small buildings all with tent roofs of glazed imperial yellow tiles, laid out in a rectangular plan with roughly two-fold symmetry. The decoration was in similar style throughout: all the stone balustrades were carved with similar dragons, similar large metallic cauldrons provided courtyard furniture in many places, with large gold dragons a variant. Each roof echoed the theme of dragons with everything. I saw it, probably quite wrongly, as the folly of bored tyrants. The theme of heavenly peace and tranquillity was re-iterated so often that, methinks, they protesteth overmuch. If the same message has to be repeated again and again, it is a good sign that common sense and a bit of reflection will tell you it's not true. Advertisers, political demagogues and religious proselytisers don't seem to have realised this simple truth. The Palace was an oppressive place, cut-off from the world, introverted to the point of claustrophobia. There was certainly no fun about it, rather the remnants of a theatre-set when the actors have gone home, the music and the dancing has stopped and it's quite impossible to work out if the play was at all interesting. We couldn't get into any of the buildings. The complex dated from the 1400s but it had been burnt and rebuilt on several occasions since. Maybe my impressions merely reflected the close weather. Roger and Robin found it a relaxing and peaceful place, embodying the best in monastic traditions. The Chinese seemed to love it. Hordes swarmed over every available object and posed their single child in front of everything for the obligatory photo. It was part of their history, not mine.

Much more enjoyable a couple of evenings later was a
visit to the Beijing acrobats. They gave an absolutely brilliant display of strength, poise, grace, steadiness of muscle and eye, suppleness - it was all there. I'm a sucker for a display of talent in any field and this was a pretty good hour-and-half's worth. How can you keep a 3m high unicycle on top of a large ball and catch various articles on your head at the same time? It defies belief, unless seen. [OK, who would want to keep a 3m high unicycle..............?]. Ten people riding an apparently ordinary looking bike at one time was pretty impressive. As I said, I'm a sucker for that kind of thing.

Another two days later found me going downtown again, past the numerous signs proclaiming variants of "A more open China welcomes 2000 Olympics". Every bus and taxi had the slogan "Beijing 2000" writ large upon it. I'm sorry in a way that Beijing didn't get the 2000 Olympics because the possibility of it seemed a tremendous spur for them to poke their heads above the great wall and mix with the rest of the world. Once off the bus I set out to walk a couple of kilometres down Qianmen Street to the Temple of Heaven. It took longer than I expected because the outside of the pavement was lined with parked bicycles, the inner edge of the pavement interrupted by pavement traders and the strip down the middle pretty busy with fellow walkers. It was worth it in the end. The Temple of Heaven itself was a masterpiece of symbolism and formality, colour, form and creative energy. The inside was a riot of blue, jade, red and gold decoration; the furnishings a most curious collection of life-size porcelain suckling calves in china basins and other symbolic objects of opaque meaning. From a distance away it looked like a giant ornate chess piece but you would recognize its round shape and its layered roof, for its image is as international as Edinburgh Castle. In close-up, it is exquisite. The whole is set in an open park of a thousand acres that the Imperial entourage used to parade to from the Forbidden City on ceremonial occasions. There are other Imperial buildings in the park on a smaller scale that give as good an idea of Imperial architecture as the Forbidden City buildings. The openness of their setting provided the breath of fresh air that was so obviously missing in the City.

Best of all was the final Imperial encampment, the Summer Palace, situated a bit to the North-West of the City. The Summer Palace grounds were big enough to thin out even the
The dragon-prowed boat that ferried us

The 17-arched bridge

Empress Cixi's stone boat

Iconic Chinese image: a single occupant under a red parasol in the boat, a mountain range fading away in the distance

Beijing crowd. Centre-piece was a large lake, studded with pleasure boats from dragon-prowed ferries, to punts and pedal boats. The lake stood in the foreground of a big man-made hill up which climbed a cascade of yellow-tiled Imperial chalets crowned by the brilliantly colourful, symmetric Tower of the Fragrant Buddha. Parts of the grounds were everything you might have expected in a Chinese park: marble bridges, rows of weeping willows over-hanging the water, exotic buildings, a tall pagoda on the skyline of a distant hill, rounded, jangling music in places adding an air of Chinese tranquillity. Elsewhere, cicadas revved up in unison in the trees lining the lakeside. There were paths enough for a long walk on the flat but my walk was cut short by the sight of anvil cumulus welling up over the city and a rapidly darkening sky. As I got back towards the Marble Boat, a folly of the late nineteenth-century Empress dowager Cixi, and reached the top steps of an arched marble bridge, gliding up the steps on the other side was a Chinese girl in full wedding dress looking every inch as if she belonged to the Imperial party. I don't think I've ever seen anyone glide up steps in such a smooth and effortless way. The setting was perfect for her. The Summer Palace was popular with honeymoon couples. Roger and Robin, whom I met up with again as the first rumbles sounded and the first drops fell on us, had been photographed with one couple, at their request, presumably as 'exotic species'. The storm was short and the 20-armed, 20-faced Buddha of Fragrance was no-doubt unmoved. The three of us took one of the dragon-prowed ferries towards the photogenic 17-arched bridge. We were discharged onto the island it ran out to and we finally returned to the entrance, via the 'Pavilion for Enjoying the Springtime' after a brilliant afternoon's trip.
Two thirds of the way through the ten-day meeting came the official conference excursion. You had to pay extra for it but by 8.30 am 21 buses had loaded up. Lead by an official black car, the convoy drove along the outer lane of the main road out of Beijing with all hazard lights flashing, sweeping through intersections and past the lumbering traffic in VIP style. I could get used to travelling like that. We headed for the Great Wall, at Badalung. The wall itself was pretty impressive as it snaked across a mountain ridge from horizon to horizon in uninhabited country too barren and steep to support even village communities. If I remember, it was about 5 m high and 5 m wide, all steps and ramps up, steps and ramps down as it followed the terrain. We climbed to the highest point with some effort, under a hot sun. All the steps were uneven in depth and height; in one place they were distinctly higher than deep, making the gradient steeper than 1 in 1. This thing went on for 6000 km though not all in such good condition now. The rulers who conceived it certainly thought big and must have had tremendous resources at their call. How the wall was defended all year round beats me. It was built to control people, a bit like a child's playpen: I couldn't decide if it was really to keep people in or keep others out. Whatever its original purpose, it attracted tourists like a magnet. Our 900 would have been scarcely a blip in the visitor figures that day.

Most of the tourists were native Chinese. Hearing Chinese spoken for several hours is a frustrating experience. The sound is tonal but not musical, and it doesn't get any more comprehensible the longer it goes on. It's a frightening thought that a billion people speak it in one form or another, for it doesn't seem to map onto my brain cells in any intuitive way. I got the impression that all foreigners are expected to talk English. If French, Italian, German, Finnish or Polish is your pitch, you've had it as a tourist. English is the foreign language and the Chinese seem pretty keen to pick up a little of it. Tourists shops abounded at the entrance to the wall, some with quite good material at almost bargain prices. I bought a T shirt which I think says in
Chinese 'I climbed the Great Wall', but I really don’t know! We didn't go to buy souvenirs (I mean we didn't think we went to buy souvenirs) but everyone on our bus seemed to have bought something. Clearly every country needs a wall likes this. I had visions of rebuilding the Antonine Wall for the tourists but in the end decided that I could make my fortune selling posters that showed one part of the wall stretching from horizon to horizon just as it used to cut across southern Scotland, the wall being reconstructed in fine detail by high quality computer graphics on a real landscape. At least Scots and émigré Scots will fall over themselves to buy the picture. For a hefty sum, the dedicated nationalist can buy the virtual reality CD-ROM and experience a walk by the wall itself...... .

In the afternoon we went to see one of the Ming Emperor's tombs, this one at Dingling belonging to the 13th Ming Emperor, Wan Li, who died in 1620. The Emperors spent years of their reign constructing their tombs. This Emperor had a comparatively modest company of 25,000 labourers working for 6 years. Photographs were forbidden, the only place I came across this rule. With anticipation we descended the 90 steps that lead into the tomb some 27 metres underground. We passed through plain walled passages into a series of barrel-vaulted chambers. The sanctum sanctorum contained a low raised platform covered with (reproduction) wooden packing cases with simple brass handles. The trip was a huge non-event. When the smaller packing cases were discovered they contained funerary artefacts and the larger two the skeletons of the Emperor and his wife. Like many of China's antiquarian sites, much of the treasure had been dispersed by the People's Liberation Army in the worst excesses of Mao's reign. Some had been re-gathered and displayed in a small museum near the entrance. I was expecting something on the scale of the Pyramids but you clearly don't get that for a miserly 150,000 man years. The stonework was pretty good. The 'guides' couldn't tell us much about Wan Li but I read after that he was notorious for his debauchery and cruelty. Perhaps they just didn't want to tell us much about him. With his successor, the Ming Dynasty was overthrown in revolution. The tourist shops at his tomb were still thriving.

On the way back to Beijing we were offered a break at a 'china factory'. If it had been left to a vote, our bus would not have stopped, for most wanted to press on home, but this I had to see. 'Visit a factory' my guide book said. Besides, a relative of my mother's was a notable china painter who worked at the Coalport works around the beginning of the 20th century. I'd never been in a china factory. I might have been disappointed that it turned out not to be a china factory at all but a cloisonné factory instead. I'd never been to a cloisonné factory either. It was quite fascinating.
Metal pots were welded together by hand from spun segments, buffed off and then meticulously covered with metal wire to mark out the decorative pattern (the cloisonné part). Each segment of the design was hand painted from multi-coloured enamel glazes and the pot fired. The fired pieces were polished to a high lustre, by hand again. It was all painstaking, labour intensive work, at least in this place. Having poked our noses into almost every room in the place and dazzled the poor workers with repeated camera flashes we conveniently had plenty of time to spend in their huge showroom. The Chinese are no slouches when it comes to extracting the bucks from tourists. The range of items on display was very much larger than this wee factory made. I suspected that the real business of the place was selling to busloads of foreign tourists daily and the workshops were a blind. What a cynic I am sometimes. What made it bearable was the high quality of most of the articles and the modest prices, certainly modest by Western standards. I bought a pot for my mum, now almost pride of place on her mantelpiece. I met up with Roger and we returned on a later tour bus, to the accompaniment of a student guide who entertained us with a few well sung Chinese songs.

So that was it, the conference outing to some of China's special sites. In a way it wasn’t much to show for 3000 years of civilisation. Even the Imperial buildings were largely wooden and modest in scale. Many were fired by occupying European troops in the 19th Century, along with the historic calligraphy and paintings they contained. You can see plenty of evidence of a society reconstructing itself but there is surely a cultural vacuum, or at least a low pressure area, that won’t be able to resist the inrush of Western ways much longer. When our successors look at the world in a hundred year's time, I wonder what will be particularly Chinese about it, apart from a great many people? Go to China now, while some of the oldest surviving civilisation in the world is still alive. We had the conference banquet in the evening of the tour. It was a non-event so underwhelming that I remember it. We started at about 6.40: 10 courses or dishes were served in rapid succession: some completely forgettable speeches were made and by 8 O'clock we were all leaving, presumably so that the staff could be home by 9. Ah well, the cost was bundled in with the conference fee.

On one afternoon I signed up for the trip to the Beijing Synchrotron Radiation Facility (BSRF). In one way it reminded me of Japanese science in the 1950’s, not that I personally remember much from then: import, copy and learn. There were only 7 experimental stations, if I remember correctly, compared with over 30 at Daresbury. All were built from imported equipment. One station was a 'Chinese copy' of the Daresbury station I use, which is probably the oldest station at Daresbury and considered in real need of upgrading. In fairness to the Chinese, the synchrotron is primarily a nuclear physics facility built round an electron-positron collider modelled on SPEAR, the Stanford equivalent. The synchrotron radiation folk operate parasitically for about one-and-a-half months a year. The deputy director who showed us round was a very nice man, quite relaxed and very well informed. My guess is that in 20 years' time the Chinese will be running their own fourth generation synchrotrons designed and built by
themselves. [This prediction was almost right, for the Shanghai Synchrotron Radiation Facility (SSRF) was opened in 2009 as an advanced third generation facility]. I was quite intrigued to see in the control room a couple of Chinese girls poring over a Fortran program listing. Not only was the Fortran in English, but all the ‘comments’ were too. Imagine if computer languages were entirely in Chinese and one had to learn Chinese before making any headway with the computing. Scottish Honours computing graduates would be pretty thin on the ground.

The only other place I can remember visiting was the ancient observatory, located downtown among the multi-storey buildings. Sitting outside were an amazing collection of astronomical sighting instruments and armillary spheres. The Jesuits had commissioned them about three centuries ago in an attempt to bring the precision of Western science to the East. The basic instruments were mounted on hugely ornate, cast stands with dragon's legs and the like. I'm sure it was all good psychology and it certainly gave them an unmistakable oriental flavour.

Little cameos flash before me unbidden when I try to remember the atmosphere of Beijing: the cycle repair men who operated in a few square metres at the side of the road; the glimpse of the barbers working in the open under the trees as we passed by in a taxi; the acres of 'hutong' shacks with their felt roofs held down by slabs and loose bricks, managing to convey an air of serviceable living; the young official in imposing peaked cap and brass-buttoned uniform sitting on the pavement nursing an infant; the mid afternoon rain of monsoon intensity that had the natives and us walking through water up to our ankles; the lifts in the hotel, all eight of them whose carpets were changed daily so that the woven message read 'Welcome Friday', 'Welcome Saturday' or whatever day was appropriate; all of these
memories though nothing special in themselves together made up the flavour of the place. Yes, we had a good time, and the Science was good too.

Coming back, we got superb views from the plane all the way across China. Beyond the flat green plain on which Beijing lies, the mountains rose sharply, looking from the air as if 'they had been crafted by a woodcarver' as Moreton said. In the beginning they were green with vegetation to the top, then they became very brown, often terraced to the top and cut by immensely brown streams that fed immensely brown rivers. The plateau began, at first divided into myriad thin variegated strips and then fading to an arid brown landscape with occasional lakes and low ridges of hill. The Gobi desert had begun and the scenery didn't seem to change much as we crossed into Mongolia. It wasn't until we were over the old Soviet Union (Siberia? I’ve lost track of what that bit is called now) that large fields and orchards appeared in flat valleys between lines of hills. The mountains rose up again showing iced tops and patches of summer snow before the edge of the great Lake Baikal passed beneath. Here the scale of the scenery was huge: one very large river and several big lakes, all draining thousands of miles away into the Arctic. I wonder what governs whether a landscape supports a few large rivers or many small ones? Is it just age? We lost the impression of vastness over the rest of the Soviet Union, if I can call it that, for the clouds developed. Compensation for me was the pleasure of a sub-sun and even a sub-sundog appearing in the thin ice-crystal clouds. I was reminded of the scale of Asia on the last stage of the trip, many hours later towards the end of a long day. Sitting at 35,000 feet in an A320 Airbus from London to Aberdeen, visibility was excellent and you could see from the Wash to Angelsey, from the Humber Estuary on the starboard side to the Isle of Man on the port. Britain seemed a small place. Hopefully my outlook at least was a little bigger.

*John S. Reid (1993 with a forward in 2013)*