Letter from . . . Peking

Going underground

DEREK MEYERS

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Da Sha La is a shopping street near Tien An Men, the Gate of Heavenly Peace, at the centre of Peking. Eighty thousand people—shop assistants, customers, and pedestrians—pass along its 270 metres every day, 10 000 being there at any moment in business hours. Five minutes after the sound of a warning siren these 10 000 have vanished underground. You don't believe it? Let me explain.

We were a mixed group—20 women and four men, aged from early 20s to late 60s. The common interest was teaching, and our tour, 18 days in China, had been arranged through the Queensland Teachers Union. We had made the usual crossing into China from Lo Wu at the border, had travelled on a comfortable train to Kwangchow (Canton), and flown by Ilyushin jet to Peking. This was our last day there, and as a great privilege we were to be shown something of the underground defence installations. Not everybody received this invitation—certainly not Russians (if indeed there are any in China now, other than diplomats)—but our group, and especially our leader, had made a good impression, we gathered. Cameras and handbags had to be left in the bus—the only time, other than on the visit to Chairman Mao's mausoleum, that this was necessary.

As we left the bus Mr Tai, leading member of the civil defence committee of Da Sha La, met us. He led the way into a clothing store crowded with customers; the whole street was a mass of trucks, bicycles, carts, and people, the usual orderly, patient Chinese throng. The shoppers stood back to let the visitors pass behind a counter. Mr Tai pressed a switch; a section of the flagged floor slid quietly back, showing a steep flight of stone stairs. "Let's go," said Mr Tai. "Watch your head!" said our ever thoughtful guide Mr Yien.

Five metres down, the stairs led into a corridor, bricked at the sides and plastered overhead. It was well lit, airy, and cool. Numerous galleries turned off at right angles—some winding out of sight, some running into small annexes, some bricked up. We passed a room containing air-decontamination plant, a kitchen, a large dining room, aid posts, storerooms, and lavatories; and then we entered a very big open room, with long tables, chairs, and the by now expected cups of tea.

Mr Tai crossed to an illuminated map of the complex. There were, he told us through Mr Yien, three km of tunnels under Da Sha La. Up above were 95 separate entrances, connected with every shop in the street. The complex contained enough food and water to support 10 000 people for four days. At several points it joined similar complexes under nearby areas of Peking. In all, the complexes now built could accommodate the four million inhabitants of the central city area. Tunnelling had begun eight years ago. Local shop people formed the workforce,

working two hours a day in their own time, or in some cases eight hours a day for a few weeks at a time, and mostly with simple tools. The complex was not finished, as a whole new section was being built below it at the 15-metre level. "We are not very experienced tunnellers," Mr Tai said modestly, "so nothing is luxurious." But there could be no denying the effect on the visitors. Staggering, overwhelming, breathtaking. But there it was. In five minutes the population of Da Sha La, the population of inner Peking, could vanish underground.

Mr Tai invited questions. Were similar complexes built in other cities? Yes—in all large and small cities and in strategic areas of the countryside. Were they proof against nuclear attack? Yes—they could withstand blast and could decontaminate the air. Only a direct hit would damage the complex, and the area concerned could be sealed off as required. How was sewage treated? There was a holding pond and a sewage disposal pump that discharged away from the site. The faces of Mr Tai and Mr Yien indicated quiet pride and supreme confidence. "We are a peace-loving people," they said, "but we have enemies. This complex is for defence only. If we are attacked, we can protect our people. If we are invaded, the invader will not get out of our country again."

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As Mr Tai and Mr Yien spoke I wondered if it was really happening. Had the subtle Chinese added some drug to our food? Were we still in our hotel, was all this a hallucination? The colossal scale of the enterprise taxed the imagination. The thought of tens of thousands of people, digging away with simple tools, carrying earth in baskets, disposing of it around the countryside; of hundreds of bricklayers, concreters, plasterers, carpenters, electricians, and plumbers, toiling away largely in their own time for eight years to produce this veritable underground city, and with the same thing going on all over China, was mind boggling. Yet it accorded with what we had seen. Many areas and buildings in China are constructed on a vast scale. Tien An Men Square could only be described as a colossal open space, flanked by massive buildings. Airport terminal buildings and railway stations have cavernous lofty rooms; even simple country hotels contain big reception rooms with upholstered chairs covered with antimacassars. Streets were invariably crammed with people, bicycle parks contained bicycles by the thousand and tens of thousands, so that the question of scale did not seem to be a problem for our hosts. Moreover, we had seen how the Chinese used labour. Labourers on the roads and in the fields worked shoulder to shoulder in big groups. Soil was often carried in the traditional double basket, water was lifted from irrigation channels by the shovelful, small carts were often manhauled. Even in school factories the youngest children, aged not much over 7, sat elbow to elbow producing boxes for chess sets, their hands moving at high speed.

Again, we had seen how the Chinese accepted the challenge of developing their own technology. When in 1961 their former Russian allies "perfidiously" tore up the contract to bridge the

Yangtze at Nanking, the Chinese determined to do the job themselves. (The word "perfidiously" was always used when our hosts spoke of this and similar incidents.) Learning to make steel to the required specifications took two years, construction eight years; and now the bridge is there. The river is 1.5 km wide; the bridge, including road and rail approaches, stretches 6.5 km, carries 120 trains a day, and has shortened the crossing from two hours by punt to four minutes. The Li Shia Ho flood mitigation and irrigation scheme, another project of vast scale, serving a population of ten million and one million hectares of cultivated land, was developed by the Chinese themselves, and had broken the centuries-old cycles of drought and flood. Behind these projects lay the Chairman's dictum of 1945: "We stand for self-reliance. We hope for foreign aid but cannot be dependent on it; we depend on our own efforts, on the creative power of the whole army and the entire people"; and, more specifically, a directive given in 1951, "The Huai River must be harnessed." Edgar Snow had written that the Chinese avoided incurring large debts for expensive machinery by using labour as the West uses capital. Half a million men and women carrying a small quantity of soil each can soon do the work of earth-moving machinery—and if you lack the machinery but have the people any job can be done, provided the dedication is there.

Could Peking's underground city have been a showplace, the only one of its kind, built to impress visitors? At Wusih, half way between Nanking and Shanghai, we visited a silk factory. On the way to one of the workshops we passed a large circular structure rising above the ground, made of concrete and lined with brick. The diameter was about 5 metres, and the walls were several feet high, with work clearly at an early stage.

It could have been a storage tank, possibly for liquid, possibly some other material used at the factory. I asked the interpreter what it was. Her reply was prompt and quite laconic. "Anti-air raid tunnel," she said. So the Chinese were doing what their great Chairman had advised years before. "Dig tunnels deeply, store grain everywhere," said Mao Tsetung and, with much accomplished, the process is still going on.

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Many of our hosts impressed me but none more than Mr Yien. He was an interpreter attached to Lüxingshe, the Chinese International Travel Agency, based at Peking. His IQ may have been near the 160 mark, his knowledge was encyclopaedic, his English perfect, his vocabulary extensive. He had an excellent sense of humour, could play any part, and at times I wondered if he were a senior government official in the security department who occasionally attached himself to touring parties to get first-hand information of what other people thought. (I could have been quite wrong—there could be thousands, tens of thousands of people like Mr Yien scattered over China. Eight hundred million people must throw up a great deal of talent.) "May I publish a description of your defence system?" I asked Mr Yien at the end of our visit. "By all means," he said. "Why not? But please make one thing plain—this is a purely defensive complex."

Perhaps the Chinese have studied the old Roman writers. Perhaps they independently discovered the dictum that, if you seek peace, you should be prepared for war. At all events, there could be no doubt on one point: if war comes, the Chinese intend to survive.

Medical Education

The abuse of slides

MARY EVANS

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"What is conceived well is expressed clearly"—BOILEAU

The standard of verbal delivery of scientific lectures has improved in recent years (largely as a result of the insistence of most research societies that papers must not be "read") but that of visual presentation has not. Audiences are expected to accept and tolerate bad slides, despite the efforts of such pioneers as Hawkins,¹ Calnan and Barabas,² and Dudley.³

"None can be said to know things well who do not know them in their beginnings"⁴; perhaps lack of understanding of the purpose of slides is at the root of their continuing mediocrity. They are often misused as aides-mémoire by poor speakers, who declaim the contents to the last digit to the mounting irritation of the audience. Their correct function, however, is to complement a talk in the same way that pictures enhance the effect of an advertisement and "give a truthful, exact, apt and

striking description of the nature, quality and properties of the goods advertised."⁵

Many lessons may be learned from the world of advertising. Ogilvy⁵ wrote that "the purpose of illustration is to telegraph the message to the reader" and a useful rule to remember is that if a slide is not understood by the audience in four seconds it is a bad slide. Slides that take attention from the speaker for any longer detract from what he is saying.

If more than two of the following seven adjectives do not apply to your slides scrap them and start again. If they are good they can be shown at the rate of one every 50 seconds.

Appropriate

Tables, graphs, and drawings produced in enough detail for journals (where they may be studied at leisure) are unsuitable for slides (fig 1). Only the salient points should be abstracted and, where possible, presented as pictures, cartoons, or diagrams that must produce an immediate effect impossible to achieve in any other way. If words must be used then only a précis should appear. Yorke⁶ showed the virtue of abbreviation when he pointed out that had Nelson's signal read "With reference to previous instructions appertaining to naval discipline, it is felt