Wanderings

Planting mangoes for the future in Tibet

KIERAN MURPHY

Journeys, like artists, are born and not made. A thousand differing circumstances contribute to them, few of them willed or determined by will—whatever we may think. They flower spontaneously out of our natures; and the best of them lead us not only outwards in space, but inwards as well. Travel can be one of the most rewarding forms of introspection.

LAWRENCE DURRELL

In the summer of 1985 I spent two months in Ganden Monastery, now in a Tibetan refugee camp in the southern Indian state of Karnataka. This is the story of why I went and what happened.

Tibet hit the headlines in 1959 when the Dalai Lama, spiritual and temporal leader of the Tibetan people, fled into exile in India. He was followed by thousands of refugees. The Chinese invasion of Tibet must rank as one of the great tragedies of the twentieth century. The two decades that followed witnessed the total destruction of the Tibetan civilisation and culture. Conservative estimates place the total dead at 360 000; Tibetans claim 1.2 million. Some were resistance fighters using antiquated weaponry against Chinese artillery, but most died in prison of starvation, or during "political indoctrination sessions." Religious practice was outlawed, and over 5000 monasteries and shrines were destroyed. These events were largely ignored by the Western media and politicians.

One of the handful of Westerners to have lived in Tibet and the representative of the British and Indian governments there, Sir Hugh Richardson, commented in 1982, "The Tibetans had a civilisation that had developed for 1300 years. They had an immense literature and they had developed a very special practice of Buddhism. They are unique people, they have their own language and their own civilisation. Surely it is a tragedy to see any civilisation dying, even if it is not so long established, so literate and so polished as the Tibetans."

Tibet has always been the physical manifestation of a spiritual ideal for me—a place high in the Himalayas ruled by an enlightened temporal and spiritual leader. A place where for centuries people have been exploring the mind while the "civilised advanced nations" have been exploring the world. Their world is internal, infinite; ours is external and finite.

In 1983 during my second year holidays I travelled through Ladakh, a remote area of Tibet in the western Himalayas under Indian control. I found a people with a tremendous sense of joy and appreciation

of every moment despite the adversity of exile. They regard this with a calm resilience, which is never pessimistic or passive. I met two Australian doctors working in a Tibetan refugee camp on the outskirts of Leh the capital of the region. They had worked there for a year, nine months of which they spent totally isolated when snow blocked the high passes. I was impressed by their determination and idealism both to work in such a place and to walk away from the intense competition of hospital medicine for so long. I decided to do something similar as soon as I knew enough to be of use.

In the summer of 1985 at the end of the fourth year the opportunity arose. I took it, and from then on the project gathered its own momentum.

Centre of Tibetan Buddhism

For 1300 years Ganden was at the centre of development of Tibetan Buddhism. It was a great theological ecosystem carved out of rock, a monastic city of 7000 people. When the Chinese invaded a few of the great teachers and monks escaped to India, where they established schools in the refugee camps. The Ganden I visited was a vibrant and joyful settlement still struggling to accept life in exile.

Lamayuru Monastery at 3900 metres dates from the tenth century.

The monks' Tibetan roots have been totally destroyed. Many of them have lost families, friends, even whole villages.

There are 1100 monks in the monastery, only 200 of whom were born in Tibet, and of these only about 100 were men of learning. This group are old, unhealthy, stricken by fibrotic lung disease and failing senses. Their alert minds struggle to impart the knowledge that is in danger of being lost for ever. The 900 other monks were born in refugee camps in Ladakh, Himal Pradesh, Nepal, Bhutan, Assam, and Sikkim. They travel thousands of miles from these Himalayan states to study in Ganden and to become monks. They range from 4 to 85 years old, being mainly in the 14 to 20 age group. Each year a handful of Tibetans escape from Chinese rule to study in exile. It is ironic that for years Europeans struggled to enter Tibet to study under great teachers and now young Tibetans take even greater risks to escape to become monks.

In 1959 many of the older monks who fled into exile had been in the monastery environment all their lives. They knew nothing of the real world. They were unprepared for the hardships of the hot and humid plains of India. The lack of hygiene in Tibet had been legendary. Ekai Kawaguchi, a Japanese monk who travelled in Tibet in the late 1890s, says, "In the course of the 12 months I lived there, I only saw one person washing himself, the washing being confined, even then, to the face and neck. The native skin has that peculiar repulsive shine of polished dirt."

Ejected from their bacteria free, high altitude ecosystem, the monks were easy prey for the parasites and infectious diseases of India. Bad habits inculcated through years of privilege were their main source of disease. In the early years of exile thousands died of dysentery, tuberculosis, malaria, rheumatic fever, and the diseases of poverty.

In the room that I used as my clinic I found a copy of *Tibetan Foothold* by Deirdre Murphy, an Irish travel writer who described her experiences in refugee camps in the 1960s. She had dealt with exactly the same problems as I faced 20 years later. I arrived in Ganden in the dead of night in a monsoon shower, unannounced and apparently unexpected, equipped with my stethoscope, ophthalmoscope, auriscope, and patellar hammer. For reference I had brought *Where there is no Doctor* by David Warner; *Primary Child Care* by Kind, King, and Martodipoero; and the *Merck Manual*. I had some rudimentary drugs and £1800 raised in Ireland for the programme. What "the programme" actually was I did not know. I was the only medically trained person in the camp.

The Tibetan pace of life is the same as in the west of Ireland. Things are done "slowly, slowly." The people eventually discovered who I was and that I had been invited. I met Jigme Wangdu—a brilliant 23 year old monk fluent in French, English, Nepalese, and Tibetan—who had taken on the health care of the monastery as his way of prayer, his contribution to the welfare of others. He and I worked symbiotically for two months with great success. He knew how the monastery wheels turned and I knew how to approach specific problems of health. We worked at a rate that the monastery accepted.

First task: tackling the oral faecal route

The basic health problem was simple. The drains at the sides of the roads were used as latrines and they became flooded during the monsoons; buffaloes wallowed in them; the monks washed and played in them. The monks seldom washed their hands before eating, therefore completing a perfect oral-faecal route for infection by worms and protozoa. The slightest cut or scrape became infected by exposure to this mucky water and the monks developed horrible skin infections frequently of bovine origin.

I drew up a simple overall plan to tackle the problem in three ways: education, prevention, and treatment.

Tablets deliver only ephemeral health; wellbeing requires permanent change. The teachers and older monks played an invaluable role in raising awareness of health and hygiene. Without their cooperation and that of the abbot, the venerable Jampa Yeshe, we would have failed totally.

Wangdu and I explained to the teachers how these infections were occurring and how they could be prevented. We explained the importance of using latrines and of wearing shoes, interrupting the life cycle of hookworms, the importance of hand washing before meals and after defecation, and the importance of staying away from the drains. For the next four weeks,

at every assembly and during every class, the teachers and the abbot hammered home the importance of these measures to the children.

My aim was to break the oral-faecal route at as many points as possible. We concentrated on all the possible sites of infection. We employed local labourers to dig over 600 metres of drains beside all the major roads and paths. These drains were channelled into a nearby stream and prevented flood water stagnating and serving as a focus for infection.

There were two stand pumps for 1100 people to wash at. These were surrounded by a muddy swamp inhabited by rats, frogs, turtles, and all sorts of strange reptiles. Firstly, we drained these ponds into our drainage system. Then Wangdu and his friends built two huge concrete washing areas 10

Digging the drainage system behind the kitchen.

metres in diameter around the stand pumps linked by stone lined drains to the drainage system. The historically hydrophobic Tibetans suddenly discovered washing to be a pleasure and a sport. Multicoloured laundry appeared all over the monastery.

The cooks in the communal kitchen chucked all their refuse out of the window, causing a huge pond to form outside, only feet away from where the food was prepared. To counter this we dug a settling tank and laid 20 metres of sewage pipes to drain this effluent away into our roadside drainage system.

Stunning example of appropriate technology

During the monsoon the drinking water becomes heavily contaminated and diarrhoea is common. It was essential to find a cheap and efficient means of chlorination. I visited a medical school that I had passed on my way to the monastery, and the professor made a suggestion that was stunning for its simplicity and efficiency. Take a 10 litre water container, cut two small holes in the side, and fill it with 6 kg of clean sand and 1.5 kg of chlorine. Cover the top and suspend it one metre below the surface of the water tank. The sand acts as a matrix to hold the chlorine in, and it gradually diffuses out. The idea worked and so we had safe chlorinated water for 1100 people at 7p a week. It is efficient, maintenance free, appropriate technology.

These physical and structural changes to the environment helped drive home the message that the teachers were preaching, that health was a personal thing stemming from hygiene. Furthermore, these structures would remain long after I had left and tablets wore off.

While this preparatory work was going on I was systematically examining the monks. I examined 710 people and treated 426 of them for various illnesses. I examined the school children from 7 am until about 5 pm and the adults from 6.30 pm until almost 11 pm. This took place in a room in the school which was Dorjee's "clinic." Initially I needed a translator, but by repetition I learnt enough Tibetan to cope with most events.

The children below 16 suffered from skin infections, diarrhoea, and otitis media. The commonest skin infections were ringworm and secondary bacterial infection, causing painful neck nodes, carbuncles, and scabies. We deferred treatment of all but those with acute diarrhoea. These were rehydrated and treated as seemed clinically appropriate. Forty five per cent of the children gave a history of passing worms. I eventually concluded that the worms predisposed to secondary bacterial or protozoal infection, which led to the worms being blamed causally for the diarrhoea.

About 17% of the children had otitis media, many with bilateral perforation. Fortunately, they responded to ampicillin or Septrin. Others suffered from conjunctivitis, migraine, and tuberculosis. These we treated separately.

The adults suffered from both obstructive and restrictive airways disease. I put the more dyspnoeic of these on salbutamol. Many had clinically active tuberculosis, and these I brought to the attention of a Tibetan doctor, Pasan Norbu, who was receiving money from a German relief agency for a tuberculosis programme among the refugees. He worked in a neighbouring camp about six miles away but seldom visited the monastery. The elders also suffered from diarrhoea, worms, skin infections, and conjunctivitis, just like the children. Initially, I could not explain the symptoms, similar to those of chronic active airways disease, of many of the monks, until I realised that they were heavy users of snuff.

I treated these problems and others as they arose using the books at my disposal for reference for doses and appropriate therapeutic measures. I soon discovered how easy it was to prescribe a pill for every ill. It is so much easier to have a happy person leave clutching tablets that he does not need than to have someone disgruntled leave empty handed. Occasionally, I resorted to 150 000 units of vitamin A as a placebo—this at least has a long term therapeutic effect in treating keratomalacia.

Wangdu's friends washing scalps during the ringworm programme.

Mass five day programme

By this stage all the groundwork had been laid. The oral-faecal route and the life cycle of the worms and protozoa had been broken at as many points as possible. It was time for our mass programme aimed at wiping out all infections. I decided on levamisole, mebendazole, and metronidazole. For the under 18s I prescribed levamisole 80 mg once and metronidazole 400 mg three times a day for five days; for the over 18s I prescribed mebendazole 150 mg a day for three days and metronidazole 800 mg three times a day for five days.

The programme lasted five days. Dosages for the younger monks were worked out on a kilogram basis. They received the tablets in the school to ensure compliance. The adults were given their five day course and were followed up by Wangdu's friends. All 1100 people took part, and we were soon surrounded by people telling us the length and colour of the various worms they had produced. Generally, the smaller the child the longer and greater the number of worms. We followed up this programme by distributing iron tablets to every home as many of the children had been anaemic on examination.

After this daily clinics continued on a reduced scale as diarrhoea had virtually disappeared. Some monks still remained to be treated for their specific complaints—for example, pneumonia, urinary tract infections, skin infections, and rheumatic heart disease.

Among the young monks there was a major problem with *tinia capitis*, which caused disfiguring karions and secondary bacterial infections with huge painful cervical nodes. Over 200 young monks were affected. We treated this with 1200 mg dose of griseofulvin and mass washing twice daily with antiseptic shampoo. Wangdu's young friends looked after this, and it was they who realised that the infection was being spread by the razor blades used to shave the monks' heads. So we solved the problem by supplying new blades. The mass washing helped to reinforce health from hygiene, not from tablets.

Planting mangoes

The Tibetan diet is remarkable for its monotony, its lack of vegetables and fruit, and the absence of any taste. The Himalayas were a physical barrier to the spice trade, and flavour plays no part in the Tibetan diet. Fat, salt, bread, and tea dominate in that order. Seven weeks of this is soul destroying.

I noticed that the more prosperous monks grew mangoes and that a good tree could produce 200 fruits a year. The local soil was well suited to mango trees, and saplings were cheaply available from the excellent Indian agriculture service. I calculated how much I needed to get home and spent all my remaining money on 111 mango trees. These will take four years to mature, at which time they will produce £1000 worth of produce. In 10 years as seasoned trees they will produce a crop worth £10 000—on an initial outlay of £140. This money is to be used by the clinic for medicines and to subsidise the cost of vegetables for the diet. My participation is long term, and in this way I hope that the monastery can avoid becoming dependent on aid as it will have its own source of medical funds.

Wangdu would make a terrific doctor. He has natural diagnostic and therapeutic gifts, but he refuses to leave the monastery or to give up being a monk. All the time I was examining people he was present, learning all he could. We got an auriroscope for the clinic and he became skilled in treating otitis media and externa. When I left he was efficient in treating all the diseases that we came across and he had learnt large parts of *Where there is no Doctor*.

Surrounded by prayer

I worked hard each day for 14-16 hours and I was continuously surrounded by the sounds of prayer. I awoke at 4.45 am to the rhythmic resonating chant of prayer in the temple beside my room. I worked all day in the clinic in the school surrounded by chanting children. There was an all pervasive rhythm of prayer, a kinetic melody of joy and meditation in every act. Despite the formal teaching, the strict rules, and no outward manifestation of individuality there was no dogma. Each monk had a unique belief. The teaching provided a vocabulary with which he could find his own understanding of things.

I was fortunate to meet many of the older scholars and monks of the monastery, but the person who I had most empathy with was Guten Lama, the Oracle. An elderly monk with a friendly face, he impressed me as a person of sincere good will and religious devotion. His outward simplicity, his natural yet dignified bearing, and his quiet way of speaking made me feel that I had nothing to fear from him. He had that air of learning of one who has left behind the ambitions of mere scholarship.

Despite communication limited by my fledgling Tibetan he and I had daily tea drinking sessions in the Cha shop. He is typical of the older monks. They represent a rare intellect in danger of extinction. It is incredible to look at middleaged monks with the same presence and intelligence as my professors and lecturers, yet with such completely different preoccupations. The monk who specialised in Tantric mandalas, in which every angle has special significance, looked just like my Carmelite mathematics teacher preoccupied with his Pythagoras and Euclid. The headmaster of the monastery school had the same attitude of care and love for his pupils as my old

At the clinic during the mass treatment programme.

principal for his. They belonged to the same breed, possessed the same ethos. Giants among young minds, moulding with the same fundamental principles, they would have recognised each other.

My aim was to find simple methods of prevention that would continue to effect change long after I left. The primary health care that we established is part of a long term project to ensure that these people can continue to impart their unique knowledge. They have an enormous amount to contribute to the world.

I intend to return on a regular basis. Leaving Ganden was the hardest thing that I have ever done; I had been there long enough to have an existence. After 21 years of continuous education it was the first time that I had put that learning into use.

The following quotations illustrate the fundamental principles of our work in Ganden.

"We must teach the students how to collect the facts, to verify them, to assign a value to them, and how to draw conclusions from them and test those conclusions; in short, how to form a judgment. . . . The true aim of the teacher should be to impart an appreciation of method rather than a knowledge of facts, for method is remembered when facts have been forgotten, and method can be used in a new situation where there are no, or too few, facts."¹

"If a time of scanty resources brings out inner truth, one must not feel ashamed of simplicity. For simplicity is the very thing needed to provide the inner strength for further undertakings. Indeed there need be no concern if the outward beauty of civilisation or of religious forms should have to suffer because of simplicity—one must draw on the strength of the inner attitude to compensate for what is lacking in externals. Then the power of the content makes up for the simplicity of the form." (From the *I Ching Hexagram 43*.)

I should like to thank Dr Francis Sully, who created the programme; my classmates, who attended our fund raising party; Vincent Kenny and ICROSS, who are funding the programme as a long term project; the Oxford Union charities fund; and Professor Denis Gill and Dr Eoin O'Brien for encouraging me to write this article.

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Scott: 75 years on

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This winter marks the 75th anniversary of Robert Scott's epic walk to the South Pole. It was on their return that he and his four companions perished through cold and poor nutrition. Much has been written and televised recently denigrating the man for his planning and character. But it is easy to criticise in hindsight and to forget the conventions of the era that bound Scott to a rigid code of practice. Additionally, so far as I know, none of the critics have actually experienced a lengthy polar journey using machines or dogs, let alone attempted to plan or undertake a manhauling journey to either pole.

Last year I was fortunate enough to be the expedition doctor with the three man team that repeated Scott's route to the South Pole, and although not on the polar trip itself I was intimately concerned with its planning and the many training trips that occurred during a one year stay on the very beach that Scott had lived on in 1911-2. I also attempted to manhaul to the North Pole with Sir Ranulph Fiennes, and I believe that these two experiences make me better qualified than most to comment on Scott's planning and character.

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Lambasted for logistical mistakes

Scott has been lambasted for his mistakes in logistics, with little account taken of how difficult it is to plan for the unknown. Sure enough, he was an amateur when compared with Amundsen, and beyond doubt he failed to see some of the lessons that could have been learnt from the Norwegian. Nevertheless, he took on a mammoth task and, despite his means of transport being far from the best and his nutrition being hopelessly inadequate, he actually covered more than 1500 miles of his 1700 mile journey. If luck had been a little less unkind he would have succeeded.

Last year's trip to the pole was only one way, but it still took the three men 70 days to cover the 875 miles of unbroken ice. In temperatures down to -35°C each man pulled sledges weighing 155 kg, slightly more than that pulled by each man in Scott's party. They consumed an energy dense daily ration that weighed only 970 g uncooked yet provided about 21 MJ (5000 kcal). Over the journey the men lost between 6.7 and 10.5 kg, and from these figures and their energy intake an average daily energy expenditure of nearly 25 MJ (6000 kcal) was calculated. This corresponded well with estimates of their energy output made using a diary card method, in which the time spent each day in different categories of activity was recorded and each category was assigned a value based on previous reports on energy expenditure.

Although a discrepancy between Scott's energy intake and output