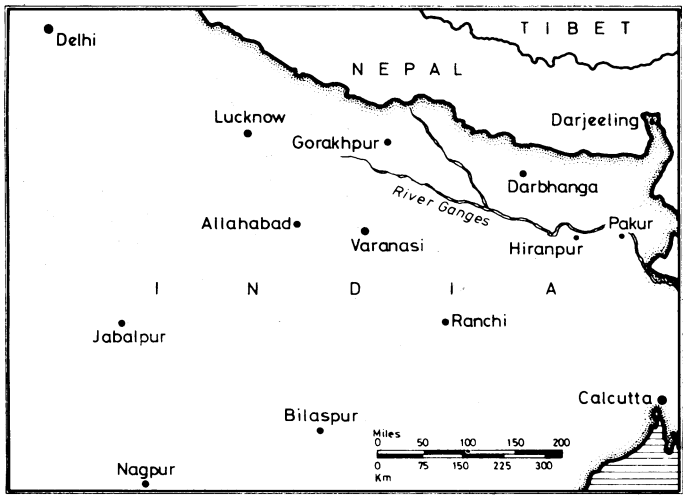
My Student Elective

With the people of Hiranpur

S J MEAKINS, H J ENTWISTLE

Delhi airport looked like any other international air terminal until we escaped from customs and came face to face with India's sacred cows. It was only when we arrived at Old Delhi station that we met the India that people had told us about. As we battled to reach the ticket office we felt remarkably tall and fat in comparison with the locals. In the queue we were



rushed to the front by some polite and friendly Indians; they explained that it was because they "thought" we were female, but they seemed perplexed by the short fair hair and denim jeans. The paperwork started and continued wherever we had to change money or buy tickets in India—the colonial aftermath.

We did not believe that so many people could fit into such a small area within the station. The platforms were packed with people squatting beside their possessions, eating rice, selling sweets and fruit, and lying in neat rows under blankets. We wondered whether they were all alive, but nobody seemed worried. As each train was about to arrive, the whole station became a hive of activity and the noise rose to an amazing pitch. The trains remained in the station for a long time so that everyone could get their packages on board and the tea-wallas could pour out the last of their *gurum chai* (not tea). Tea comes ready sugared and milked in disposable earthenware cups, which leak if the tea is left in them too long. The sound of breaking pots on the railway track is delightful.

As the train started to leave, things reached fever pitch. All kinds of things from boxes to babies were pushed in through the barred windows. All the doors were shut, and the train slid away from the platform with bodies clinging on to every protuberance. Anyone who has travelled in India will know that you always leave and arrive in the middle of the night. We were no exception: we left the capital at 3 am by train.

The station nearest the hospital was called Pakur. It was quiet and peaceful as we got out of the train at 5 am. "Hospital this way" came from the darkness, and we found ourselves on a ramshackle bus to Hiranpur. News travels fast, and by the time we arrived in the village everyone knew who we were. It was not too difficult with only three other Europeans in the district.

Hiranpur is situated in north-east India where the Ganges turns south towards Calcutta. This area is one of the poorest in India and susceptible to famines and droughts. The inhabitants are an interesting variety of people. The tribe of Paharias is the oldest in the area and said to be of Davidian origin. The Paharias are related to the very dark people who have been pushed into the south of India by the flow of civilisation from the north. In Bihar they have been forced to live on the tops of the hills, where iodine deficiency leads to football-sized goitres (fig 1), which are more common among the women. They live in mud-and-rush huts on a near-starvation diet, preferring to keep themselves isolated from the rest of the population. Hence they attend hospital only when very ill, and government nutrition programmes fail to reach them.

Lively people

The Santals are a tribal people thought to be related to the Australian aborigines. They live on the plains (fig 3) in villages of 20 to 100 huts made from mud and cow dung and roofed with straw. They are a lively people who enjoy singing, dancing, playing flutes, and drinking their home-brewed "wine." Physically they are more like Africans than Indians, having high cheek bones, dark skins, and straight backs. Their life revolves around subsistence farming, though they may walk miles on market day to sell their few wares. It is interesting that carrying is so central to their culture that they have 15 different words for to carry. The towns including Hiranpur are inhabited by a mixture of Hindus, Muslims, and Christians, and the tribal people come for market day.

St Luke's is a mission hospital run by Bryan and Helen Thompson, who accepted us into their household with open arms. Bryan's particular interest is ophthalmology, whereas Helen looks after the women's hospital. There is virtually no division of labour, however, among the other three doctors. Barnabas (himself a Santal), Surunjan (recently qualified and tremendously enthusiastic), and Dr Yadas all see patients in outpatients, which takes place in one small room. They also inspect wounds, do operations, and continue the daily ward round. The running of the hospital is well oiled by Ganbabu, the hospital chaplain, who has the confidence of the patients, speaks the local languages, and knows the cost of all the drugs. He is aided by Sham Chand, who looks after the record cards.

The compounders are also a central feature. They are men trained within the hospital to administer anaesthetics, dress wounds, and pull teeth. The only nurses are the midwives in the women's hospital. The patients' families provide and cook the

King's College Hospital, London SE5 9RS
S J MEAKINS, MA, MB, senior house officer in obstetrics and gynaecology

Greenwich District Hospital, London SE10 9HE
H J ENTWISTLE, MA, MB, senior house officer in general medicine

FIG 1—Paharia women and children (note large goitre).

FIG 2—Rickshaw at rest.

FIG 3—Santal village.

food, aspirate nasogastric tubes, turn them to prevent pressure sores, and generally attend to their needs. At night the families can be seen sleeping under the beds, on the verandah, or by the dying fires under the Banjan tree. There people also wait to see the doctor or have their penicillin or streptomycin injection the next day. They may have been carried 75 miles by their friends on a homemade string-and-wood bed.

Operations are carried out mainly under chloroform anaesthesia, which is dripped on to a mask covering the patient's face. Everything is recycled: swabs are washed, put out on to the grass to dry, and reboiled for the next operation. The skin is cleaned with soap, and cotton is used for all suturing. Consequently the cost of a hernia operation is about £3. The postoperative complication rate is low. There is an operating season, which coincides with the relative wealth after the harvest. Fortunately this also coincides with the favourable weather before the monsoon, as during the monsoon skin infections are rife. A variety of operations are performed, from gastrojejunostomies to amputations.

Most infections are treated with sulphonamides. Ampicillin is rarely used since it costs more for a day than the average labourer earns. Metronidazole is an unheard of luxury, though amoebic dysentery and liver abscesses are rife. The laboratory facilities under the care of Timtaz, himself a Santal, run to microscopy and haemoglobin examination. Few blood transfusions are undertaken, and the equipment is too costly for the widespread use of intravenous infusions; rehydration is achieved with nasogastric tubes. Many people survive and work with a haemoglobin concentration of 10 g/dl.

The women's hospital gave us the most experience, and we became proficient in tubal ligation by laparotomy—the main contraceptive measure, since men will not have vasectomies because they believe blood is made from semen. There is too much pelvic inflammatory disease for the widespread use of coils, and the complicated Bengali months make using the pill confusing. We also performed dilatation and curettages, inserted coils, and managed forceps deliveries. We saw a maternal death from septic abortion after her using a stick to produce termination. One woman was carried 60 miles after the birth of the first twin as the second could not be delivered. One obstructed labour required a perforation of the dead fetal skull. Not everything was horrific, however, and there was an increasing tendency towards hospital deliveries and antenatal care. Immunisation programmes were set up while we were in Hiranpur. We injected 400 schoolgirls, pregnant mothers and young children with tetanus toxoid.

We visited a smaller hospital 40 miles from St Luke's, where a Santal doctor carried out gastrojejunostomies and cholecystectomies with great skill under spinal anaesthesia. We also visited the Paharia villages with two nurses who ran clinics on a government-backed project, while Jonathan took us to Santal villages on his "barefoot doctor" scheme. He was trained to diagnose and treat leprosy and visited each village twice a year.

While in Hiranpur we carried out a project on nutrition in Indian babies. It has been accepted for some time that Indian babies at birth are smaller than their Western counterparts, and yet do not show the complications of either premature or light-for-dates infants. We set out to correlate the nutrition of the babies with that of their mothers to try to shed light on the reason for this cultural discrepancy.

Baby study

We studied all babies born at St Luke's hospital between February and April 1978 (30 babies, group I), and the same number of Indian babies born in London hospitals (group II). Since dietary assessment would have been impossible, we used triceps and subscapular skinfold thickness as our nutritional index. We measured these in both mother and baby along with maternal age, height, and weight, and the infants' weight, length, head circumference, age by dates, and age by Dubowitz score.

Our sample comprised many different cultural, religious, and social groups. Those in group I were both the tribal and townspeople from around Hiranpur (Hindus, Muslims, and Santals), whereas those in group II were Sikhs and Muslims living very different lives in London. There were so many uncontrolled parameters that rigorous analysis of the data was meaningless. But we did make some interesting observations. With the Dubowitz score, specific parameters did not appear to correlate well with the known gestational age by dates—in particular, there was a noticeable absence of lanugo. The Dubowitz score has been standardised only on white Western infants. It seems to us as though the individual parameters have different relative weights in Indian babies. We wondered whether lanugo may itself be influenced by nutritional state as well as gestational age.

We were fascinated to see the different range of diseases. Children were brought in with frightening contractures that resulted from burns; and roundworms were the commonest cause of intestinal obstruction, and malaria of pyrexia of undetermined origin (there is a pocket of falciparum malaria in

Paharia land). We saw two children recover from hemiplegias, one secondary to cerebral malaria and the other to rheumatic heart disease. Osteomyelitis and tuberculosis were also rife.

We were sad when we left Hiranpur. After eight weeks we felt we belonged to one area of India and had made genuine friends. The train to Calcutta left at 1 00 am and the journey was, as expected, eventful, for we had to share our wooden bunks with packages, sacks of cement, and several Indians.

The humidity of Calcutta hit us like a heavy overcoat. Poverty existed here that we had not believed possible. Against every wall were lean-to hovels made of sticks and sacks under which whole families lived. Among this in Khali Ghat was Mother Teresa's home for the care of the dying. The calm sisters caring for the thin, starved patients seemed to shut all suffering outside the severe atmosphere. Rickshaws in Calcutta are pulled not by animals or bicycles but by barefoot men (fig 2). The moral dilemma arose whether we should provide them with some kind of livelihood and allow ourselves to be carried by another human being or whether we should walk.

We queued for several hours to obtain a visitor's permit to Darjeeling, but it was well worth it. The toy train rambled slowly along the single track and even more slowly when it started to climb through the Himalayan foothills. Countless twists and loop-backs later, we were still travelling no faster than walking pace. The views into the tea-bush-clad valleys below and the towering mountains above were fantastic. People started looking more Tibetan as we passed through every village.

We could not leave India without visiting the South, where a totally different culture exists. This was reflected in many ways, even table manners. In the North it is regarded as the height of indecency for food to reach beyond the interphalangeal joint, whereas in the South food up to the elbow indicates enjoyment. The people were darker, healthier, and spoke yet more languages. We also had to see the Taj Mahal. Despite all expectations, its imposing architecture and immaculately detailed inlay took our breath away.

We thank everyone who made this trip financially possible and particularly Dr Stuart Tanner for his enthusiastic help over the project; and Bryan, Helen, and Surunjan for their teaching in Hiranpur. We will never forget what we learned socially, economically, and practically from the Indians. They are a delightful and welcoming people. But, as Churchill said in 1931, our experiences in 1978 brought home to us that: "India is a geographical term, it is no more a united nation than the equator."

Reading for Pleasure

So many books, so little time

PATRICIA NORTON

Why read, if not for pleasure? For information, I suppose, and instruction, and to keep up with one's subject; and in the near future it looks as if these purposes will be served not by the printed word but by the television screen and the latest computer technology. Browsing through learned journals in libraries may become even less popular than it is at present.

I find this prospect immensely depressing. I no longer, as I did when younger, suffer from print hunger—an urge to read anything printed lying around, coupled with an irrational dread of being without anything to read so that I always took (and still take) far more books on a holiday than I could possibly want. But I need to handle a book to get full enjoyment from it, rather than hear it from a disembodied voice on the radio—though hearing it read aloud in a family circle is different. I like watching the television news, but it does not take the place, for me, of the newspaper; and I save up newspapers—at least for a few weeks—if I cannot read one on a particular day, in the hope that I shall catch up.

But, in spite of my enjoyment of the printed word, I do not regard myself as widely read, at least by comparison with many of my contemporaries. The huge gaps in my reading are partly the consequence of combining family life with a job, so that for at least 10 years most of my reading was of children's books, aloud. That was certainly a pleasure; I could read aloud *The Tailor of Gloucester* to the end of time. But by the time I came back to reading to and for myself I found that my capacity for it had diminished. I could no longer rush through a book and remember it. Lack of practice slows down one's reading power as it does everything else.

So what, now that I am two-thirds retired and in theory have all the time I want, do I find myself reading? All the time I want? I still have an inhibition about reading for pleasure in the morning—or even in the afternoon, except on Sunday—unless I am on holiday. Newspapers do not fall under this puritanical ban, though I read them nearly as much for pleasure as for information, enjoying reviews of things I know I shall never read, see, or listen to.

Lloyd George and all that

With too many books thus chasing too little time for reading them, I find I tend to concentrate on biographies and memoirs. This year, for instance, I have read with great pleasure the second volume of John Grigg's life of *Lloyd George*, which covers the constitutional crisis of 1910 brought about by the House of Lords veto of the 1909 budget (this is the clearest account of that crisis I have read) and the National Insurance Act of 1911. This measure has had a particular interest for me: because since 1942, when the report of the British Medical Association's medical planning commission was published, I have written about health-service matters; and also because I remember my uncle, who practised in Oxford, telling me nearly 50 years ago how unpopular for a time he was with his colleagues after he had announced at a BMA meeting, called to oppose the Act, that as it was now the law of the land he felt unable to take part in what would have amounted to a strike by

Greenwich, London SE10
PATRICIA NORTON, Health Services correspondent of *The Economist*