The skills of working with communities include very much a state of mind, a constant sense of enquiry, imagination, and an ability to continue learning the most humble source or fleeting thought, alertness to both dreams and to the minute details of reality. Buried and long forgotten in a file among much dead paper we came upon “Notes and Comments” picked out of field notebooks. The notes edited here are those of a UNICEF education specialist but are of the essence of the way all community work should be, irrespective of specially. They are presented as a tribute to all such field workers and as an inspiration to community workers everywhere.

I went to Kalankistan School yesterday, some three kilometres out of Kathmandu. Since I have been to the school once before, the children look out of the openings of the building and shout 'bye bye' (their version of hello) and then ‘namaste’ ('God be with you').

A succession of them come to get a drink from the rusty coconut oil tin that stands just inside the office door. They dip an aluminium vessel into the water and pour the water into their mouths to avoid touching the container to their lips. A futile precaution against disease, certainly judging by the ailments which plague these youngsters- from dysentery to deafness, plus eternal colds. Like the adults they all hawk and spit.

The children go barefoot, their hands grimed, their bodies sweaty and splattered with phlegm and chalk fragments. A squirt urchin grins at toe. He is cross-eyed ill lighting his cigarette stub. His feet are fated in mud. His rag of a shin has no buttons and his pants are so torn they are more for decoration than concealment. He is seven years old and the salt of the earth.

There is neither paint nor nail in this place. It is all very nearly as nature gave it: wood, clay and dust.

Inside a cupboard I find dust-covered plastic funnels and a measuring cylinder, gas jars, crucible tongs and other forgotten chemistry materials supplied long ago by UNICEF and now patinated by years of dust and roaches.

A problem of use

The problem of teaching staff not using apparatus supplied to them in common in many countries. What we thought of as a problem of supply is nothing compared to the problem of use.
School teachers do not use standard apparatus because they are not sure of the detailed use of it and they are afraid to break it. So it is locked away.

Along the roads, meanwhile, the little shops are full of the kinds of things which can be used for teaching—the objects that are my stock in trade: salt, betel, lime, string, coconuts, kerosene, cooking oil, pottery, rope and small blacksmith and tin smith items along with wooden rods for hand balances, bamboo rat traps and wire.

Despite this richness of local resources, teacher training institutes are short of practical materials for science education. We find at best more pictures of bananas than bananas, more charts of leaves man leaves themselves.

Almost the whole science syllabus up to grade five in an Asian country can be illustrated practically with things obtainable in a typical village.

If we use village materials a lot of problems disappear; no worry about security loss or breakage. The truth is that not even the next 20 years will see even a tenth of the schools of Asia provided with any (standard practical science apparatus. Its present rate of supply in India, for example, is much less than the growth of the school population and nothing like its rate of deterioration.

It seems best to train teachers in the use of the material that will be available to them—the local resources. For a teacher trained in this way, the village itself provides his kit of apparatus.

The staff, which receives 180 rupees a rupees ($18) in the primary grades, is largely untrained, though some of them have attended teacher-training school. They seem drained of energy, lacking any idea of what education could be. Help will need to be patient. And it had better be sensitive to the conditions here.

I had come with my bulbs and batteries to “do electricity”. I hoped the teacher wouldn't mind that I was doing something extra-curricular. Actually, they wouldn't have minded if I had arranged a wrestling match.

Partly, no doubt, they trusted me and partly thought of me as one of the many travelling shows which tour the villages: a circus, or at least sword swallower or conjurer that they had seen too often to care to watch again.

So here I am, as usual, with not more than six words in common with the class. The practical lesson goes on in silence. I pass out the bits and bobs (wire, nails, a bit of clay, a sheet or two of paper) and they can't wait to start.
The magnets made with nails and fencing wire were a great success. Next, I decided to teach them how to build a balance.

So before breakfast I split up bamboo into foot-long strips, whittled them smooth, marked the centres and pan suspension made weights by chopping thick galvanized wire and packed the whole kit with string, extra bamboo, knives and wire. I made 15 sets because I like the children to do things in twos or threes; cooperation is important part of education.

When I tried with the contraptions with kids they proved to be enough teaching material for several lessons. Even with crude mass-production methods, using knife and a pair of pliers, it takes only an hour to make one kit.

If only the Science Equipment Centre here, beautifully equipped with the help of UNICEF funds and UNESCO advice, would devote a couple of days to making kits, the entire school system of could be provided with these most essential devices for teaching the basics of science to these kids.

On this particular day an official from the government, Dr. Bhattari is working with me. He is keen and if he sees that something works in the classroom, he can provide it for the school.

He had visited me in my Kathmandu workplace – a large space set up in a derelict mansion that once belonged to a nobleman. To demonstrate how easy it is to build simple materials for classroom instruction, I produced a few devices for him on the spot.

I also showed him some of the photo sequences I have developed in the last weeks showing the children actually doing the practical work. The photos were something the children themselves could work from.

He was so impressed with my down-to-earth approach that he wanted us to go to the Ministry of Education with the idea.

And that was what I had been hoping for all along. It is so important for continuity and a good foundation stone for any project that I, the outsider, don't “urge” anything on the local inhabitants. I see it as my job essentially to indicate the possibilities for action. I indicate possibilities physically in actual situations, taking photos, making exemplar materials.

I find this convinces.
The ministries of education of Asia have had so many proposals that words have finally become suspect to them. And rightly so; most proposals are without practical foundation. On the other hand, an activity in operation in the rough and tumble of the poor schools carries a lot of conviction.

I do not in fact write any proposals unless someone prevails upon me to put down something in writing for the Ministry. Then what happens? The Ministry promptly ignores it! Cheers!

My kind of consultation works informally through back doors, friendships and local enthusiasms. Of course I am deeply anxious to get the operation formalized as soon as possible because without that, it will not continue nor take official root. But the formalization must follow the conviction, not precede it.

This matter is at the heart of my criticism of million dollar programmes agreed at high levels before the groundwork has been done - the sensitive investigation into whether it is workable among the rural poor and whether there is actual enthusiasm for it.

A hole and a bamboo mat

Between lessons, he headmaster shakes his head about the fact that the school has no latrine. I am interested in helping. In fact I want to photograph the construction of a latrine, step by step, and to make a teaching poster for the project.

Perhaps they hope UNICEF will pay for the project? (We will, as a matter of fact, at a cost of about $3.00). We go down to the area outside the school where the children have no facilities. They show me where they will dig a pit for a latrine.

I decide to set up the operation for next week. I’ll bring odd pieces of firewood to cover the edges of the hole and a bamboo mat for a screen on three sides. I’ll do some digging to help the labourers and try to get the kids to help. I am sure they will. People often ask me what I do in my work with UNICEF. I feel at a loss when I describe my various activities between the mud doors and the Ministry carpets. I decide upon a provocative answer for future use. “I build latrines.”

Dr. Bhattari and I are shown up to the top of the school building under the rafters.

The air is slightly fetid. I look at a girl of eight, her fine black hair uncombed, hiding the almond eyes of her lovely face. The warm smell that comes from her is evidence enough that she knows little of soap and water.
Each child smells different, according to what he or she ate or what task was performed-firewood, dung, lentils. I know pupils by their odour, rather than their names.

**What can be learned?**

A smell gives a different space sense, wholly different from visual perspective. This led me on to ponder the process by which we grasp what we then name “laws”.

To a non-literate, non-graphic population, the verities or 'laws' on which they draw may well differ in nature and scope from the academic and scholastic conventions which arose in Greece and followed their own course of development in modern Europe. Here in Nepal the religious authority and tradition are similar to those which long ago produced scholasticism back in the Middle Ages in Europe.

My own vote would be for knowing as much as we can about Nepal's experiences and building bridges from these to Europe's science.

We perhaps am losing a valuable opportunity of experiencing a new world of the genesis of ideas of the physical world if we neglect to research their psychologies. They may disappear under the debris and overlays of Europe's practices.

In all cultures there have always been craftsmen, millwrights, military engineers, farmers, irrigators, nautical builders and the like. Most of them are still deeply embedded in a culture such as here in Nepal.

These workers have ken very able, knowing the raw materials within reach or trading possibility they have been heirs to complex traditions of construction, compounding, mechanical and hydraulic principles, mysteries, clarities, saddlery, Greek fire, alloying, medical practices ranging from ineffective horrors to the subtle brass needles.

We need to appreciate how the change from the threads of craft traditions led towards the web of technology, not only in its full form in Europe but in its practical forms in other cultures.

Around me in my workplace are tools, radio, paper, camera slides, bamboo and debris on the floor...a cup of cocoa, a coffee pot, wire in coils hung by windows, clay in a bowl, buckets, lines of photo posters, a bed, books, files, recently made science kits, empty film cassettes, cans of film. Ideas come and go and are modified instantly like a videotape-a kind of dreaming.
When a stage comes in the dreaming when I can cry eureka I go out and try it, getting the wood, tools and so forth. At each stage as I make it, I set up lights and take pictures of it so it will be ready for a photo series on the construction.

At this stage I am thinking partly through my hands. I am prodigal of materials, careless of tidiness and heedless of logical thought. It is all cheap enough. What is most maintained and expanded is - I don't know how to express it- high spirits.

I have set all this down in order to show how I go about my work. It no doubt reads oddly, but I won't change it. It's the end of the day and I have some more things to try out in school, notes on what to do, action photos and a near complete photo series.

With these thoughts revolving in my head, I sit and dream. It is like writing poetry.

End