





The difference between a genuine note and a counterfeit one is that the genuine note is a token of useful work done, of some commodity produced, some service rendered; whereas a counterfeit note, though it may look exactly the same as the real thing, is the result of work directed solely towards the purpose of producing the note itself. We have to understand this difference if we are to understand our counterfeit society, if we are to rise above it and attempt to change it.

Counterfeit society? Yes indeed. Take education in our country as an example. We work solely for our certificates, diplomas, degrees, titles; there is a prescribed set of steps to be followed, books to be read, stuff to be memorized, examinations to be written, years to be spent. And we plod mechanically through it all, for those bits of paper. And those bits of paper will buy us comfort, security, happiness, because no one knows the difference. We have forgotten what those certificates should mean. Or perhaps we have not forgotten, perhaps we are just plain dishonest, as dishonest as forgers. Won't it all catch up with us one day? Real situations demand real people, not zeroes with certificates to prove that they're real.

This cup of aye aye tea is over for a few hundred of us. We have survived five years (some less, some more); perhaps that is good enough. We know enough engineering to know when someone is bullshitting us. And we know enough engineering to bullshit the uninitiated. Is that good enough? A small percentage have learnt their engineering well. They have been lucky to realize that learning engineering involves more than passing examinations in seventy subjects—they have worked at developing an *integrated* body of knowledge which they know how to apply. The rest are uncertain, floundering, confused. They have gone through the prescribed motions but know so little. Some are bravely optimistic that they will be able to recollect and connect up the spate of subjects in which they have passed examinations, that they will be able to tackle

problems that extend beyond the confines of a single subject, that they will make engineers. Will it be easy?

All this is not new. It is perhaps true of every batch that has passed out of here that it had a small percentage of true engineers and a frightening majority of nowhere people who could have spent five years better somewhere else. But to shrug and say that it can't be helped is to confirm us in this morass. For an institution which, with its reputation and exacting selection, gets the best young people in the country, it is an abominable record. And the immediate fault is with both the students and the teachers. With the latter for peddling their counterfeit philosophies, for exhibiting the effiteness of the rest of our society, when it is precisely they who should be the most dedicated, energetic, and honest, when it is they who should be most concerned about genuine education. And with the former for mindlessly accepting all this, for becoming by default another generation of fakes.

How do we break out of this circle? When do we begin to develop a sense of urgency, a sense of hard and honest work to be done? The year 2001 is just twenty-seven years away. And we who pass out now will be bang in the middle of it. (Unless we go bang out before that.) 2001, when all those exponentially-rising graphs of the futurologists leap clean off the page. Are we prepared?

Let us begin right here at home, in aye aye tea. Let us begin at least to produce a high percentage of real engineers. People are generally agreed that an engineer, as a person working in applied science or technology, is required to have a very broad background in the philosophy, methods, tools and substance of the sciences; he should have a good grasp of the fundamental principles of a wide variety of disciplines; he must be always alert and aware as to their possible applications, for which his knowledge must be a composite whole and an integral part of him—not something he has to pull out of cold storage when he is told that to solve such and such problem, such and such items of information are required. He must also, if he is to be an aware member of society, have an understanding of the social sciences, of psychology, management, history, and so on.

Having decided what elements we need to get the compound, it becomes a question of putting them all together under the right conditions. So (to wring the analogy dry!) we put a pinch of this element into *one* test tube, a dollop of that into *another* test tube, a semester of this into a *third* test tube, et cetera. And each tube is tested—it must be at least 75% full, and must contain chemical of at least 50% purity, in order to pass. We then tie the whole lot together, put them in a cardboard cylinder, and declare that we have synthesized 'b-tech-2789-met' in our fabulous INI-Model IITM. The student passes his periodicals and examinations and, if you frighten him enough (god knows with what idea in mind) he may even attend 75% of the classes. The object now is most definitely survival, and to survive one doesn't have to learn engineering, one doesn't ever have to face a real problem.

If the powers that make policy here, that work on curriculum development and teacher training, and if our

teachers, those most directly concerned with our education, if these people on whom so much depends, though they may not *themselves* take seriously their rhetoric—'national importance', 'future of the country', etc., if these people be allowed one single insight, may it be this: that to teach engineering, or anything else for that matter, one has to start right from the beginning to teach *creative lateral thinking*, alongside the more common process of vertical thinking.

Vertical thinking consists of going, step by logical step, from axioms, definitions, and known facts, to results which generate more hypotheses, definitions, and results. It is an in-depth study of a particular subject. In five years here most of us have had less than five teachers who could demonstrate this process with reference to their subjects. If training in vertical thinking is poor, training in lateral thinking is almost non-existent. Lateral thinking is the connecting up of *diverse* areas of knowledge into a useful whole: it is the process whereby our minds expand horizontally and learn to approach any matter from a hundred different angles. As such it is a process vital to an engineer, who must muster a vast amount of information and ideas to work at any problem. More generally, it is an essential requirement for any person we are to call educated. On this count we, both students and teachers, fall far short of being educated people. And what we get in five years here falls way short of an education.

It is for all of us to begin to make our system more meaningful, to make this an institute of genuine education. This demands of the students and faculty a competence, a devotion to learning and teaching, an honesty, an open-mindedness, an energy, which they have not often displayed. The onus is heavier on the faculty, for it is more difficult to inspire than to be inspired. It is for them to inspire the students, however, both as persons and as teachers. Only then will we have real education. And only then can there be anything close to the 'harmonious staff-student relationships' that the public relations people feed so disgustingly to the outside world; mere proximity. The fact that staff and students stay on campus, doesn't mean a ball, and everyone knows it.

When you have had an honest look at things and seen what is wrong and what needs to be done, the ideas start coming fast. Shouldn't we have a more co-ordinated curriculum? Shouldn't we encourage work on projects and term papers right from first year? Shouldn't we exhume our staff and course evaluation programmes, which seem to have been quietly buried somewhere? And so on.

I shall stop now. To write down the collective experiences and impressions of so many of us during the last five years is an impossible task. I have scratched the surface, and mentioned a few things that a lot of us have felt very strongly about. But in the end it is upto you who still have time to serve, and to you who have to take care of those with time still left in here, it is upto all of you to work things out. We'll be out there if you need us. Be honest with yourselves and others, and learn to care for people. The rest will follow.

GEORGE VERGHESE.



SITARAMAN

all beautiful things
are written on
blank pages on
blank people
emptiness is
felt on
souls
of people
space is
created in void
void
of space
created us
we create
blank pages the empty space
and all of us are
written in
books
empty books
kept on
shelves that
collect
Dust
even
when
it
rains.

bats
flew
out of the moon and the spiders crawled the sky
and we felt the
broken wings
of birds
that flew out of our windows.

RANJIT AHUJA.

Ancient Wisdom

If you have the patience to listen to your grand-mother, you will see that she unknowingly talks a lot of Astronomy — more than a modern graduate in Science. She will say when the New Moon or the Full Moon takes place, talk about Ekadasi, Ashtami, Kirthigai and also the various austerities that should be observed on these days. But if you ask her the why and wherefor, she will say that you should not ask her any impertinent questions especially since you do not do all the Pujas she does or appreciate the efficacy of the discipline she adheres to. She will discuss fluently the Panchanga or the Hindu Calendar (Almanac). 'The entry of Guru (Jupiter) or Sani (Saturn) from one sign to the next one is to be spoken of with great reverence.'

The Hindu Calendar or Panchangam is generally the ornament of the Priests or old folk in the home. In olden times when the communication system was not like that of the present day (we have the railways, the telephone, the post, etc.) it must have been pretty difficult for a common man to know the advent of the seasons and the various dates for his many needs. The science of Astronomy, however, was well advanced and they evolved an ingenious method to introduce this time scale into the daily walks of life. They were well versed with the 12 signs of the Zodiac (the Rasis) and the movements of the Sun, the Moon and the planets. They could calculate the time when the New Moon or the Full Moon occurred.

Unlike the beginning of the Western year, the Hindu year has an astronomical significance. It is the interval between two successive crossings of the Sun across the first point of Aries (Mesha) or the Vishu or the Meshadi Bindu which means the beginning point of the Mesha Rasi. This is called the Souramana system or the Solar measurement system. Its length is a little more than 365.25 days.

There is another system in which the interval between two successive conjunctions of the Sun and Moon is taken as the Unit and the length of the period is nearly 29.58 days. This system is called the Chandramana system or the lunar month.

In Tamil Nadu and Kerala, the Souramana system is used and in other parts of India, the Chandramana system. Twelve Lunar months are less than a Solar year by about

10 days and so once in three years an extra month is added. The Souramana year *at present* begins on April 14th and the Chandramana year is linked to this starting point.

On Amavasya or New Moon, the two luminaries (Sun & Moon) rise together and set together. This is the reason why we do not see the Moon on this day. On the next day or the tithi, the Moon goes eastwards from the Sun by 12° and it rises later than the Sun by about 48 minutes (on an average) and sets later in the evening by about the same interval.

On Full Moon day the Moon rises when the Sun sets. But after that, the Moon rises later by 48 minutes every day after Sunset till Amavasya, when both the luminaries rise and set together.

After New Moon day, the Moon separates from the Sun by 12° a day. Each day is said to have a phase of the Moon. The ancients found that during certain tithis when the separation is 45°, 90°, 135° the aspects are malefic in nature and so an austere life should be observed during these days. The 45° represents the Chaturthi, the 90° the Ashtami and 135° the Ekadasi. The Vinayaka Chaturthi, Gokulashtami and Vaikunta Ekadasi represent a typical example for each. On the other hand, Aspects of 30°, 60°, 120° (Thirtheiya, Panchami, Dasami) are considered very auspicious.

It is also interesting to note that months are named after the stars (Nakshatras) on the full moon days of the months.

For example in the first month when the Sun enters Mesha or Aries sign, the full moon occurs in the star Chitra which is on the 7th sign from Mesha. So the first month bears the name of the star Chitra. The second month is called Vaikasi as the full moon in this month falls on the Nakshatra Visagam. In the eighth month Karthigai, Full Moon falls in the star Kirthigai when the festival of lights (Karthigai Deepam) is celebrated in the south. The 9th month Margazhi is called so because the Full Moon falls in the star Mrigasirsha.

If on a full moon, the Sun, Earth and the Moon fall in a straight line, the light from the sun is blocked by the earth and we have the Lunar Eclipse. Similarly, when the Sun,

Moon and Earth fall in a straight line on a New Moon Day, a Solar Eclipse occurs.

When the light is suddenly cut off from the Moon or the Sun, as the case may be, the ancients believed that the benign Solar or Lunar influence reaching us through the rays and magnetic waves would be intercepted abruptly and great care should therefore be taken to preserve the equilibrium of the physical and mental conditions. They therefore fasted during the period of eclipse so that there may be little strain on the digestive system during this period of tension.

In Astrology (or Jyotish Sastra) the Moon is said to rule the stomach and the Sun the heart. During eclipses, the Sun or the Moon is afflicted and the ancients believed that the part of the body ruled by the luminaries will correspondingly be affected. It is also said that babies born at the time of eclipses may not survive and if they survive they will have poor health.

There are two important systems in Indian Astronomy: One based on 27 Nakshatras (Aswini, Bharani, etc.) of the Zodiac and the other on the 12 divisions termed Rasis (Mesha, Rishaba, etc.) The former is lunar in nature and the latter was originally Solar in nature. Again in the Solar study there are two schools (a) Nirayana and (b) Sayana. According to the Nirayana School the first point of the Zodiac is a fixed point on the Zodiac and the beginning point should agree with the beginning of the Nakshatra system. According to the Sayana School, the first point of the Zodiac is the position occupied by the Vernal Equinox. The Vernal Equinox or the equinoctial point moves backwards in the Zodiac at the rate of 1° in 72 years approximately. This slow backward motion known as the precession of Equinox is said to have produced the great changes which we know as evolution. This precessional measure of the Sun is said to mark the birth and death of races, nations and their religions or in other words the pictorial Zodiac is a symbolical representation of our past, present and future developments. The precessional point in its backward motion moves as follows: Pisces, Aquarius, Capricorn, Sagittarius, Scorpio, Libra, Virgo, Leo, Cancer, Gemini, Taurus and Aries.

Cancer, said to be a birth sign, and the Moon, the planet of fecundation, point mystically to the period of germination when mankind first commenced to exercise the creative function at the dictates of desire inculcated by the Lucifer spirit. Thus mankind opened the gate of physical life through Cancer and the opposite sign Capricorn represented by Saturn ready to slay them with his showed the Gate of Death—or a voyage into spiritual realms where they are at home.

S. P. MANI.

The Great Year

Capricorn:

The precession of Equinox when it moves into the sign of Capricorn denoting part fish and part goat represents the stage in evolution covering the transition from fish, through amphibia to the mammalian form.

Sagittarius:

When the Sun leaves Capricorn by Precession, it enters the sign Sagittarius and this is pictured in the symbolical Zodiac as a centaur, part horse and part man. This shows that we have evolved through the animal stage into the human.

Scorpio:

When the precessional point passes through the next sign Scorpio, the next step in human unfoldment is not so much along the physical lines as along the mental. The Scorpion is the emblem of cunning and subtlety. The first faculty of the mind by infant humanity was cunning and we still see that this is a characteristic trait among the lower races.

Libra:

Libra, 'the Scales', the balance of reason, gives man a new start upon the evolutionary path.

Virgo:

Thus under the guidance of the spiritual hierarchies focussed through the signs of Capricorn, Sagittarius, Scorpio and Libra, the physical moral and mental attributes were acquired and mankind was equipped to commence the spiritual side of evolution. The germ of this progress is hidden in the celestial virgin, the sign Virgo, which is the vehicle of the immaculate conception.

Leo:

The precessional movement through the sign Leo raises humanity to a wonderful spiritual height. The royal sign Leo, is an apt allusion to the King of creation, who will then embody the three great virtues of the Masterman, Strength, Wisdom and Beauty.

Cancer:

The passage or precession through the sign Cancer with its opposite sign Capricorn denotes the early third of the Atlantean Period when the whole earth was intensely watery and covered by a dense fog. Man had to leave the basins of Atlantis and come up from the mist.

Gemini:

During the time when the precession was passing through the sign Gemini, the twins, representing infant humanity, the division of soul from soul by the veil of flesh became more noticeable.

Taurus:

In the latter third of Atlantis, egoism had developed to a far greater degree than before, spiritual sight had been lost and mankind lived more on material plans. The Bull was worshipped by them, being an emblem of strength necessary to conquer the material world. Atlantis was the home of the Bull Taurus. The Jews of today still retain the Atlantean traits.

Aries:

The precessional movement through Aries, the Lamb, inaugurated a new phase in religion. Christ came in and he was called the Good Shepherd denoting the sign.

Pisces:

Christ called His disciples 'Fishers of Men' for then the precessional point was moving from Aries to Pisces. Jupiter, the planet Benevolence rules this sign, and we have seen the supremacy of the clergy and the aristocracy during this period. Humanity is said to be moving (or has it already moved?) into the next sign Aquarius.

Aquarius:

The precessional movement through this sign signifies the height of evolution. The sign is ruled by Saturn, the planet representing the common man, and being an air sign, the conquest of space is also indicated. When the precessional point moves from Aquarius to Capricorn, the gate of Death, we have the completion of one cycle.

Prologue

This is a more or less impersonal survey of the auto-shop and the vehicular durbar which is generally hailed as the transport-cell. Included in it (namely, survey) are utterances gathered live from the entities who are presumed to be in charge of the entire business of transport. With due regard to brevity and coherence, these utterances are not to be mistaken for the exact original versions from the entities, but should be herein considered to be fully representative of the general trends of thought. The basic idea of the main text (this being the mere prologue) is to give some much-needed insight into the causes of that grand and diffuse total inefficiency about which the buses and the bus-men are jointly accused of so generously and so often: 'How come there are always a couple of buses luxuriating at the garages when irate would-be bus-users are defining "amenity" elsewhere?' is just one example from the crib-tanks. This survey provides the beginnings of the answers. Rather tentatively. And all those busly entities who were involved in the response part of this survey were so abundantly effusive in responsiveness that it would not be wrong to say that the listening-in gave more harvest than the tractors could handle. It was good fun, though.

On ideality, or the lack of it :

Compared to the vast, sprawling, and often confusing jungle of circuits that the metropolitan buses traverse each day, the few odd miles that some of the institute buses take on in their daily shuttle to and from the gate or a little farther are like so many inches to the fathom. In view of the simplicity and shortness of their routes and the comparatively smaller number of regular riders that our buses have to handle, it would seem that the bus-ing should border, if not on the perfect, at least on a semblance of perfection. It sounds as easy as falling off a log when put that way. Actually, though, it is astonishing to see the amount, variety and complexity of the problems that the auto-shop, its inmates, and those directly and indirectly responsible for it manage to create. Which is precisely why our bus-services, though not too staggering in magnitude or mileage drawn, have acted as the generators of long-standing accusations, pointless controversies and hot group-discussions. May be a transport-system simply thrives on self-generated problems: or may be, as the Sant himself says, the auto-shop ought to be dissolved and some responsible establishment outside the campus given the task of god-fathering the whole transport rigmarole. Incidentally, among the persons who came out with their opinions, the most vehement critic of the services was the Sant, although much of what he had to say was more in the nature of peeved steam-letting. And that, perhaps, is the easiest way to initiate changes in this super-sedentary campus.

Accent On Transport

On cribs, various and repeated :

The most frequently voiced grumble from the people who are certainly the most directly involved with bus-ing (no pun intended) namely the passengers, is about the total inability of the buses to adhere to the so-called time-table drawn up for the exclusive purpose of being adhered to. Nerves are frayed. Tempers flare. 'The bus-services are in real bad shape,' groans a chap from year four, 'Hell, during my first year nobody gave a second thought to it. All you had to do was walk up to the stop, whistle for a while and presto, along came the bus and rolled you out. But now? You find guys consulting stop-watches and chronometers and making frenzied dashes to be present at 6.00 p.m. for a bus which, hopefully, materializes, say at 6-30 p.m. or it may be one of those red-letter days when the bus never materializes. Bad? Lousy. Rotten.' And there are hundreds of regular bus-users who express their general disgruntlement with the bus-services in strong, colourful and mostly unprintable language. Not only on timings, but, among other things, on over-crowding, driver-apathy and the hellishness of being left with nothing but a thumb to jerk at the gate.

From the one who has the best know :

The key-word involved in explaining many a non-appearance of many a bus is the 'break-down' that is being bandied about so often that it is in danger of losing its pristine purity altogether. Why do the buses break down with such maddening regularity? 'The four buses we have are over ten years old. In distance-wise terms, some of them have done more than 3,00,000 miles. These buses have seen their day,' explains Mr. Ebert. Which, when translated into human terms would be the equivalent of keeping corpses alive on a diet of electricity. 'I don't know what the riding-off period is in this country,' declares Mr. Ebert 'but in Germany a vehicle which has been on the road for five years is past its prime'.

There then, is the nub: mileage is cause one, the rudimentary spoiler of all things mobile. Old buses break down. Would new ones provide a solution? 'New buses would cost fantastic amounts of money', came the Ebert reply. 'No money, no money,' comes the chant from the finance and accounts star chambers. 'There are bottle-necks', says Mr. Ebert, using a term which he is inordinately fond of repeating, 'all over this place'. Every year, he is given a grand (but what he regards as a shoe-string) budget of

Rs. 50,000 to keep the senile buses bumping through the speed-breakerised tracks in reasonable good health. 'That amount is simply insufficient to maintain these buses,' he argues. Which clinches the matter. The old roadsters, however poetic the injustice of branding them in picturesque after the old mountains, have to remain, come hell or high water.

On bottle-necks, in and around the auto-shop :

Since the break-downs are inevitable, the least that the regular crowd of bus-riders can be led to expect is as speedy a return of the invalids from the casualty-wards as may be possible. Which is the point where a whole galaxy of relapses germinate. Ailing buses that are dragged into the auto-shop often go effectively out of circulation for so long that even the deer begin to feel squeamish about the quiet and the phenomenal peace of the roads. What, then, causes these historic delays?

The crew manning the auto-shop consists of about eight mechanics (An A-mechanic, two B and five C) assisted by five odd-job helpers who pitch in every now and then. 'The auto-shop is certainly not under-staffed,' says Dr. V. Radhakrishnan, ruling out the possibility of that being a factor. Generally found in action at the Metrological Lab, Dr. Radhakrishnan has, at present, more or less taken up the role of overseer of the auto-shop from Mr. Ebert (who, involved as he is with the various sections of the Central Workshops, has been finding that the auto-shop and the attached fabrication unit are too much on his hands). In fact, one of the strongest reasons that surfaced in the course of this review to explain the prolonged hibernating practices of the buses seems to be the lack of proper supervisory staff at the auto-shop. 'When I go down and try to tell them anything, they (the bus-men) pretend not to understand', explains Mr. Ebert; 'communication is zero and I have to take up the book of rules and read out the clauses to them. Sure, what they need is somebody who can put on the pressure, a full-time foreman who can keep at them all the time.' Asked about disciplinary action: 'You think it is easy to enforce discipline in this place?' explodes Mr. Ebert, rhetorically. And so, unless the bus-keeping is assigned to somebody who can keep reciting jack-be-nimble-jack-be-quick all the way, the buses hauled in will stay hauled in, period.

On spares, repairs and dependencies :

But then, the coin has another side too. There are grumbles from the mechanics: 'While a driver gets paid overtime when a bus is undergoing therapy, a mechanic who

Text by ASTATINE

attends to the difficulty is paid nothing,' says one of them. 'It's an injustice that I have tried to straighten for a long time,' says Mr. Ebert, who is thoroughly disgusted with the continuous monetary veto that he is handed out every time he comes up with a suggestion. The second important reason for the general sluggishness of maintenance is the nonavailability of good repairing facilities at the shop itself. 'A faulty engine has to be shipped to some firm outside the campus where it is duly allowed to gather cob-webs. In case an axle misbehaves and has to be replaced, it is sometimes weeks before the crippled bus can be put into shape,' Mr. Ebert declares. 'We have some of the best equipped workshops right here and it should be possible to do most of the repair-work in them,' reasons Dr. Radhakrishnan, who is engaged in the task of getting to know the auto-shop better, 'why depend on outside firms who take their own time to do the needful?'. 'There is somebody or the other who goes out almost every day to purchase spares,' quoth the Sant, heatedly, 'which is a damned silly thing'. And in the meantime, the buses recline. Much of the delay involved in this piece-meal process can be eliminated if a stock of spares and accessories can be kept at hand. Dr. Radhakrishnan has been compiling a list of important components and frequent trouble-spots on the buses. 'Stock-piling of vital spares ought to cut out the delays,' he agrees. He is a cheery, enthusiastic person and the bus-services may get a good dose of spark and fire from him soon enough.

On the latest addition to the family :

There is a new cream-and-cocoa-coloured member which has been added to the great vehicular fold on the campus: a kind of truck-turned-omnibus, that, according to legend, had been a concept two years ago. 'Two years ago,' says Mr. Ebert, 'this scheme to transmute the truck into a bus was presented to me for inspection'. Being interested in alchemy, he suggested Simpson Motors for the experiment. One thing led to another, the project was dragged through TVS (who never heard about it because they were too far away) and Essen Body Works (who said it could not be done) to Champion Motors, a small, gallant firm that gave in the lowest quotation and agreed to do it. After long and involved financial detouring, they have done it, and the product now rests, more or less secure, at the garage, awaiting the rigours of registration and other formalities. If the Sant has his way, this unique truck-that-was will eventually serve to carry our ebullient sportsmen and yelling-teams to and from future ebullient matches, making it the exclusive games-wagon of the institute. Unless, of course, the auto-shoppers manage to juggle the new-comer into the rut of the old-generation services, where it will go through the entire gamut of afflictions that its elders have taken. Although pressing this new bus into the regular services may serve to infuse a little improvement there, it is a situation that none of the sport-loving among us should care to tolerate.

On ideas and measures, big, small or medium :

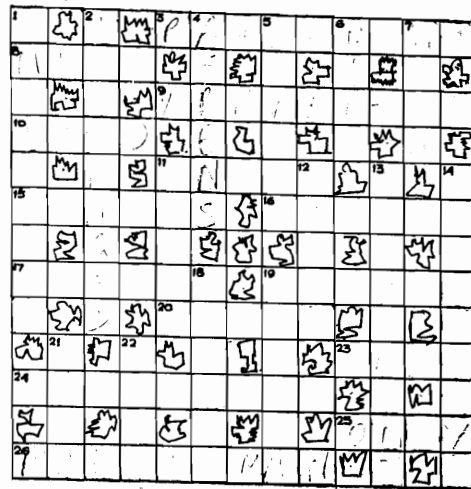
Part of the so-called transport cell are seven drivers and the light vehicles, which include the ambulance, the jeep and the van. The maintenance of these wheelers is again under the suzerainty of the auto-shop, one of the reasons why the buses fail to get the complete care that they deserve. 'The chaps from the transport cell do not realize the difficulties at the auto-shop,' says Mr. Ebert, 'they keep clamouring for priority on repairs'.

Among those who advocate certain radical changes in the existing bus-system, there are several who feel that if the bus-services are simply converted into a strictly-inside-the-campus-affair, it would solve a host of problems in one sweep. 'At present, buses plying upto Adyar during busy hours have to fight heavy traffic all the way from the gate', points out Mr. Ebert, 'which does no good to the buses or to their drivers.' And not only that, the moment a bus rolls out on the city-road, the no-standee clause goes into force and everybody squeezes into non-existent spaces on occupied seats, quite a distracting experience. Lately, this practice, fortunately, has gone out of vogue. But these are attractions on the fringe. The greatest case in favour of a wholly-inside route is that it would not necessitate the ritualistic half-yearly pilgrimage that the buses have to undergo to be granted something called the Fitness Certificate (FC in short). Which, to be precise, is a farce, since the usual practice is to deck the concerned rickety bus with paint and present it, more or less like a souped-up bride for a quick once-over from a well-tipped groom at the Traffic Commission, after which the imposter is dragged back to the campus where less sinister conditions prevail. And the FC, like the night the day, follows. 'A good idea', ventures Mr. Ebert, 'would be to assign the healthiest of the existing buses to a limited number of trips outside and to confine all the other buses to an up-to-the-gate route.'

To substantiate the institute services, proposals to get some of the city buses to run into the campus have been made. 'There was even a suggestion to have some sort of terminus at the gate for some of the long-route city-buses,' says the Sant. But these, in general, are still ideas.

Conclusion :

To put a night-cap on this survey, it would be logical to conclude that the time has come where all those concerned in this general problem of transport should realize that unless the auto-shop is up-dated, and, if deemed necessary, given the individuality of a department, with responsible, level-headed people in charge, it will have to fall apart at the seams. And with the price of fuels being what they are now, any fuel-consuming service has to have planners, financiers and a set of policy-makers who know what to do and how to do it. This should serve as the beginning of a return to sensible transport.



CROSSWORD CLUES

- Across :**
- To write on ? Sounds dry (9)
 - What follows (4)
 - Toys of the lab (9)
 - The sound returns (4)
 - A silent dwarf—at first! (5)
 - Give the kid a pie—he's got the little horses (6)
 - A running noose ?—Trapped aren't you ? (6)
 - Brings into active operation (6)
 - A small important part (6)
 - Direct the cattle ? (5)
 - The French girl friend (4)
 - Spoke casually (9)
 - A one-time ? (4)
 - Lawman (9)
- Down :**
- English to German, may be ? (9)
 - Switched ! (9)
 - The trembling poplars (6)
 - Right to possess (6)
 - Flesh is tame (4)
 - Always names (4)
 - Where the Ladies can never make it (5)
 - before you depart (5)
 - What we get from the docs (9)
 - The man who puts the fly in the ointment (9)
 - To sit on crap samples (6)
 - Erase, eradicate, expel (6)
 - What a bet for these particles (4)
 - Under it were you born
Under it do you lie.
It is not there at morn
But under it you'll die (4)

KENUN.



BEAT THE
STRIKE. NO
KID STUFF
THAT



GOT SOMETHING
TO DIVE INTO. WELL
TAKE A PLUNGE.....



GOT THE CUP
BACK. YIPPEE!
A TRIPPEE!!



WASN'T MARDI GRAS
BEAUTIFUL? NEVER
HAD IT LIKE THAT.

EVER HEARD OF
RELEVANT ISSUES?



(ulp)..... WHAT'S THIS
NOW? COULDN'T
SOMEONE REMIND
ME BEFORE?



NEVER MIND.....
A BEER?



GREAT BEING
A GENERAL
I TELL YA!

PDDVIAH, VINDS.

General Secretary's Report for the Year 1973-74

The 'Institute Day' signifies the closing of another academic year—a day of stock-taking, an occasion for provocative planning. It is the time for us to pause, reflect on the past and plan for the future. It is an occasion for us to think of what we achieved in the past or what we claimed to, what we should have and what we should do in the future.

Speaking of the past, we come to the romantic strike during which the students played the most important role ever in shaping the destiny of our Institute. I don't wish to sit in judgement over the dreary dark days which we had to pass through without food, water and electricity. But there is one thing on which I wish to place a definite emphasis—the students have proved that they are definitely a body to be considered. They have shown beyond any doubt that they should be credited with more maturity, intelligence and capacity than is usually done.

Cultural activities reached a new peak this year. We have won almost all the inter-collegiate cultural competitions that we participated in. Mardi Gras '74 was a major break-through in the domain of cultural activities. We had the privilege of witnessing an unprecedented festive atmosphere here. I would like to thank all of you for having conducted yourself in an excellent manner, giving the novelty a chance and thus making the function the success it was. In particular the people who helped us out, especially the girls, must be singled out, for without their unslugging support, we would have been in a fix.

Speaking of the girls it is heart-warming to note that they are at last exhibiting a semblance of co-existence. The participation of Sarayu in the Saraswathi Hostel Sports festival, their impressive show on the sports day and their keen interest and active support in all the activities of the Gymkhana amply demonstrate the welcome change in their attitude. We also welcome their interest in the inter-collegiate competitions. We hope this healthy trend is continued.

The field of literary activities this year has been rather odd. On the one hand, our participation in the inter-collegiate competition was extremely successful in terms of prizes won. We annexed the Stella Mary's Quiz trophy, the Madras Christian College Debate Trophy and Hi-Club Inter-Collegiate Debating Trophy. In addition our teams won prizes in all the inter-collegiate literary competitions they participated in. On the other hand it is unfortunate that on the home front a majority of literary events were

not held. The literary secretary informs me that it was the opinion of the committee that functions need not be organized simply for the sake of organizing them if the time and atmosphere necessary were not present.

In the Hostel zone there were quite a few major changes in the structure of the managing body. One definite contribution to the general public is the construction of a common room in the hospital to retrieve the poor patients from the painful boredom they have to endure during their stay there.

The Gymkhana bus is very much around. With a little co-operation and seriousness from the people above we should have the bus in the next few days. It will go a long way in reducing the grievances of the students who go out to represent our Institute in the Inter-Collegiate Competitions.

There is one topic that I'll never tire speaking of—the Swimming Pool. Because it has been the dream of the decade and the promises of many. I think by far the greatest achievement that we should rightfully boast of is to make the mirage of the Swimming Pool at least recognizably true. *And with the fulfilled promise of our present Director, we should have our pool by the end of August 1974.*

I would like to personally reach out to all the people, especially the students and Prof. R. K. Gupta and Dr. Bindow for the active interest, co-operation and guidance they have shown in seeing the pool through. I would also like to place on record my sense of gratitude to the hostels, Film Club and last but not the least the German Government for helping us out in this cause.

Bright though the past may seem in view of our having skimmed through some of the most memorable days of the last year, there are certain facets of the past that call for practical suggestions. Having had the privilege to represent you and work for you I deem it my duty to place a few suggestions before you.

Having a better set-up just lies in our own hands. It depends on the attitude of the people concerned. There is no point in the electorate electing their Secretaries as a ritual with no concern for the thereafter. It is time we came to grip with certain facts that are important but are ignored. If any reasonable changes are to be effected they can be done only with a lot of thinking on our part, may be with a little perseverance, with the people above.

I have always stressed that involvement in an organisation is a must for its growth. Only by weaving the various

segments of this institute into a social unit can we hope to achieve anything productive here.

We should have the willingness to change. We must be committed to progressive thinking. Periodicals were originally designed to be a feedback loop for the staff but they have steadily degenerated into a one hour examination paper.

The purpose of an examination is not to gauge our relative ignorance but to test our knowledge to help us to recognize our short-comings to improve ourselves. But the system is so grade-oriented that there is a scramble for marks and more marks and the administration is also kind enough to declare our results upto the third decimal place.

We have spoken a lot about our system, about our periodicals, of the deteriorating staff-student relationship, and of our lab. reports that serve no purpose. We have had committees and more and more committees to solve the problems like transport, auto-shop, hostels and the academic matters. We speak of the autonomy and flexibility that we enjoy. But there is hardly any flexibility in our courses. The Administration Block is still an impossible maze. I still see students being sent from pillar to post for undue reasons. We founded an academic forum to look into the problem relating to this field and I note with disappointment that this committee has never so far fully met.

It is time the people at the top took decisions and assumed responsibility for them. The mere formation of committees is no solution to any problem. No system can ever be perfect. Hence it would benefit us to experiment and be objective in actively searching for ways of improvement. The smooth functioning of the periodical and final examination schedules last semester which were drawn up by the students compared to the disturbed schedule this semester clearly indicates the benefits that would accrue if students were consulted on all matters.

I am glad that in an atmosphere laden with so much inertia and despair there were many people who helped us out in times of difficulties...

B. SANTHANAGOPAL
(General Secretary)

TRIP.....

The last hols of the U.G. Course and a lot of the country unseen.

I took off on a train and when I reached Cal. I stopped. Sadly the stay was short and the lack of transport made movement impossible.

The City is dirty. The walls full of posters. It was near Christmas time and all the shopping arcades were prettied-up for festival.

The call girls plied their trade. One positive attitude that I noted was the writing on the walls—they said 'Long Live so and so!' Unlike the usual X and Y Murdabad. Sanity slowly creeps back.

On the train a gentleman about 23 years of age comes around selling pens. The pens look O.K. The gent starts explaining that he is an unemployed diploma holder in engg. He and some of his unemployed friends manufacture these pens in a factory of their own and sell them on their own too. A co-passenger of mine haggled over the price. After a few minutes of dialogue the unemployed gent started ranting about the unemployment problem in his state and how the other states were better off and how all that his C.M. cared for was whisky. You can walk down the streets of Calcutta after sunset these days and be sure of getting to your destination all in one piece—you might, of course, find your wallet missing. A gentleman travelling by bus held on to the railing. He looked at his watch, the time was 5.32 p.m. Thought, ha, plenty of time, then looked again at his wrist and lo and behold a bare patch stared back at him.

The bus was crowded, Justice Bannerjee had been quoted in the morning's papers as having said that the 10 paise stage had a sentimental value. I asked the conductor how much I had to pay and got a ticket. I looked into the conductor's eyes—I'll never forget the hunted look—and asked him to let me know when we reached our destination. The conductor asked the other gentlemen if they had tickets. One small uncle Bong looked straight at him and said 'Ki?', Ki? I was puzzled and observed keenly. The conductor repeated his question, uncle said, 'I don't have one. I don't need one'. And turned away. Remarkable!

The scenery as you travel by train across W. Bengal is just beautiful. The still pond surrounded by small shrubs.

The big house with a wall just touching the waters. The huts a little distance away. The gentle sway of the lonely tree on the bank, keeping time with the quiet sounds that existed yet didn't exist, the lotus in the

centre of the pond, that spreads its petals for a little while; charming those that happen to see it and then goes to sleep as though to say 'I have done my due, if you want to see me you do yours'. The greenery all around making you think of all that's fresh and new and abounding with joy creating a sense of harmony with nature. Having traversed through a large part of W. Bengal, you land up in Assam.

The grace of the lovely ladies in this area has been compared to that of swans, you just watch them and you wish you could stay there for the rest of your life. Then the locomen's strike started so I had to get away from there when I still could. So I just up and came away.

SUDS

Wolf Biermann

has invited criticism by orthodox communists as well as his colleagues in the West by signing a contract with the American record company CBS.

The 36-year-old bard of anti-Stalinism whose home-country, the German Democratic Republic (East Germany) has tried for eight years to silence him by barring him from public appearance on stage and publishing, now published his political lyrics ('The Lyre', 'With Marx' and Engels' Tongues', 'For My Comrades') and his play 'Dra-Dra' in the leftist Wagenbach publishing company, West Berlin. The records of his songs, which earlier had to remain only on tape in his living room have also been released there. The 'officially recognized state's enemy' (Biermann about Biermann) prefers pictures of this room at 131, Chaussee Road, East Berlin, as an illustration on the record-covers: 'So that it becomes clear that they have not succeeded in making me a non-person'. Biermann, son of an old-generation lady-communist living in Hamburg and a harbour worker of Hamburg whom the Nazis killed in Auschwitz for being a Communist resistance-fighter, moved to the GDR in 1953. There he studied political economics, later on philosophy and mathematics and suddenly, in 1960, started writing and composing.

Shortly afterwards his difficulties with the authorities of the GDR began. Outlawed by the power-holders but unable to crouch servilely, this sensitive and fragile-looking protest-singer developed a spirit of stubbornness and power of resistance that made him a symbolic figure.

Biermann sees the roots of such endurance in an education striving for 'humility towards the Communists' World Movement'. The motto of his first CBS-record—'Don't wait for better times'—denotes a programme but is also misleading: Biermann is still waiting—and more than ever.

Maiden Speech of the Singer

Those who once courageously resisted the machineguns are now afraid of my guitar. Panic spreads when I open my jaws and cold sweat shows on the fat brows of the office-drones when I haunt the hall with my songs, truly a monster, a plague, that's what I must be, truly a dinosaur is dancing on Marx-Engels-Square a blast within a gun's barrel, a solid lump in the fat throats of those responsible who fear nothing so much as responsibility.

So

you'd rather chop off your foot
than wash it?! Rather die of thirst
than drink the bitter juice of my truth?!
Man!

Unbuckle the belts of fear around your chests!
Even if you fear that your hearts may drop out
Man!

So loosen the fetters by two, three links at least
Let the breast get used to free breathing, free shouting!
Be pressed only by pressure from within, not from without!
With a frank forehead let's screw the day!
Not to sneeze our great dreams insidiously through a hanky
into this world were we born, idiot!
Riot's and liberty's children are our fathers.
So let us be true sons of our fathers:
Without a care for *them*.

tuck up your loose shirt-sleeves and sing!

shout!

laugh

impertinently!



Ruthless Railing

1

I I I
am full of hatred
full of hardness
my head cut to pieces
my brains racked

I don't want to see anybody!
Keep moving!
Don't goggle pop-eyed!
The collective is wrong

I am the single man
the collective has
isolated
itself from me
Don't stare at me so knowingly!
Oh, I know already
You are waiting for me with serious certainty
to swim
into the net of self-criticism

But I am the pike!
You must butcher me,
hack me, pass me through the mincer
if you want me on a sandwich!

3

2

Well, if I were toothless
you would call me ripe

If I mildly smiled
at each big lie
I'd be the clever one
If I passed lightly over injustice
as you pass over your wives
I would have won your
hearts long, long ago.

3

Not to be able to call a spade a spade
to quell one's joy
to swallow pain
to walk the golden middle way

at the extreme edge of the battlefield
to call the swamp sometimes the sea, sometimes the
continent
that's what you call
Reason

but don't you see that your reason
has been borrowed from dwarfs' brains
from rats' tails
from creepers' cracks? You
want to preach Communism to me
but you are the inquisitors of happiness. You
drag souls up onto the fire-stake. You
fasten longing to the rack. You!
Get lost, you and you sponge-mugs!
Go away insulted and indignant!
Go, shaking your heads about my wrong attitude
but go!

4

I will persist in truth
Me the liar

5

I love you
Here take my scribbles
in black and white
I love you ardently
but now please leave me alone
on the wrong path

separated from the collective
I am wrong
I am lying with my wife
and she knows my heart

Die Ballade vom Briefträger
William L. Moore aus Baltimore, der im
Jahre 63 allein in die Südstaaten von -
derte. Er protestierte gegen die Verfolgung *)

SONN-TH-G Sonntag da ruhte William L. Moore

von seiner Arbeit aus Er war ein armer

Briefträger war, in Baltimore stand sein Haus [dort]

BLACK AND WHITE U-NITE! U-NITE!

stand auf seinem Schild WHITE AND BLACK DIE

SCHRANKEN WEG! und es ging lang

*) der Meyer. Er wurde nach -
den neuen Gesetzen
Drei Kugeln trafen ihn in
die Stirn
-kein

18th December—I Day

Football :

We made a desultory start, going down 0-3 to BMB. This was actually a very respectable score considering that so many of our veterans were injured—Satish rather seriously—and unable to play. This, however, resulted in a lot of 1st and 2nd years being blooded and Coots said 'The nucleus of footer teams to come has been formed today'.

Basketball :

By evening however, spirits soared high in the Madras camp as our B. Ball team thrashed DLI gloriously at 106-34. And this in spite of the absence of C. Paul—State Captain, Star athlete and man of many virtues. Kudos to Krishnan who spearheaded our victory. Meanwhile—

Athletics :

Chandran cleared 5' 9" to win the gold in the H. J. Javid Mohammed made a bronze in the 5000s. Chandran came 2nd in his 400s. heat. Our performance was much as expected, so so.

As a lot of referees couldn't make it because of the Bandh, the day's events were much curtailed even though for some of the events, the coaches stood-in.



19th December—II Day

'Madras Omnipotent—Finalists in Six'

Screamed the banner heading in the local rag. But it didn't look so slick earlier in the day. When in Badminton Bedi (DLI) beat Kumar and Shastri took a game off Eddy. But we made it (3-2) and THAT'S WHAT COUNTS.

Table Tennis

The Worm did a timely turn : The new-look MDS team with Rajagopal (Captain), Brother Ravi and Parthasarathy beat BMB very comfortably at 5-1. This was a portent of better things to come.

Volleyball :

Yet one more pleasant surprise—we were getting injured to them by now—as under-dogs MDS beat heavily favoured KNP 15-10, 11-15, 15-10. Full marks to Harish Swamy and his merrie men.

Hockey :

After a quick first goal by KNP, MDS and especially Chicki demonstrated their superiority convincingly. Final score MDS to KNP 2-1.

Tennis :

Though the final result was never in doubt, BMB's Fazalbhoy gave 'Prof' Lakshminarayan a few anxious moments. We won thro' 3-1.

Gymnastics :

This was a dismal show with no individual prizes being won. The team however managed to make the third place (way) after DLI & BMB.

Athletics :

Pole Vault—Kumaraswamy came second clearing the same height as Upadhyay (9' 9") who came first. He had a larger number of tries.

400 M—Chandran after a good start could finish only third. This was the day MDS made sure of the gold, making it to the finals in Six.





A chronicle, just to raise a few memories

The cold grey dawn found us, eighty odd volleyballers, basketballers, long/short distance runners, high/broad jumpers, reporter, etc. on the platform of Dadar. From here to Powai in buses and a campus which seemed to consist of a large open field between lakes and hills, a large building, a few hostels, transmission towers (15 kv, I would say!) and a pipeline. And within an hour of landing up in hostel No. 8 the whole contingent was out in the bright sun, putting shots, volleying balls, vaulting poles and theoretically and generally, practising, with serious, if confident faces. We soon discovered that, quite literally, this was a meet and nothing but a meet, with no respite except for the odd painting and photography competition which most of us learnt about only after our return to Madras. Decorations, ornamentations of hapless trees, doves being released, coloured lights, etc. were conspicuously absent. Which was all to the good. It never does mean anything to dress up and attempt to adorn competitions and

Instead, there was, a very real air of seriousness, of doing things that had become important to lots of people because of their position in the educational framework. There were first of all, some of the ways in which the body and mind played games with the physical forces in the world and men, and the knowledge that all these matters—the happiness of using and training muscles, the joys of watching the mind control the body and the surrounding earth—had been tinged with the faintly sordid presence of the demon competition. It was not easy to watch, although excuses, all based on the competitive spirit abounded, people breaking up into distinct groups each into temporary paranoia, during the matches. However, one could laugh, salvage the saving juices of humour and, in the evenings, feel good, walk around the lake, go to sleep, wake up early and watch the cute people in the weight lifting team order quintuple scrambles.

The Call of the Trumpet



The trumpet was great fun when you needed help, or when you just wanted to find some of the Madras guys. Listen hard, catch it's blare sound and follow it. Whether for victory or defeat, that didn't matter, not too much. Only the feeling floating around there.

20th December — III Day

Except for a couple of surprises this was a good day for mopping-up operations. Found in the mops at the end of the day—5 golds, 3 silver and 1 bronze. Something in everything except footer was the way it worked out.

Badminton :

This was the surprise ; in the finals against BMB we lost 3-1, Eddie won his singles but Kumar lost both his and BMB wrapped it up with the doubles. Ullal did a smart bit of work for BMB.

Tennis :

No problems here. KNP being thrashed 3-0.

T.T. :

The way Ravi and Parathasarthi fought in the finals against KNP was enough in itself to make the whole meet worthwhile. They had the crowd hoarse when they won 5-2.

Hockey :

The finals vs DLI was cool. Raghu scored twice and Chicki once. This hockey team had that little extra which made all their victories seem kinda inevitable.

Volleyball :

The team which surprised everybody to make it to the finals started as underdogs. They fought, well only to go down 1-3.



Basketball :

This has always been our thing and it was no different this year. The finals vs BMB were beautifully orchestrated by PK and Krishnan.

Weight Lifting :

Shidore and his muscle men bust their garters but sneaked past the rest to make the Team prize. Srikanth lifted and lifted to win in his group.

Mr. IIT :

Srikanth won the proud distinction of being 2nd most muscle bound of all IITans. No mean thing this.

21st December—IV Day

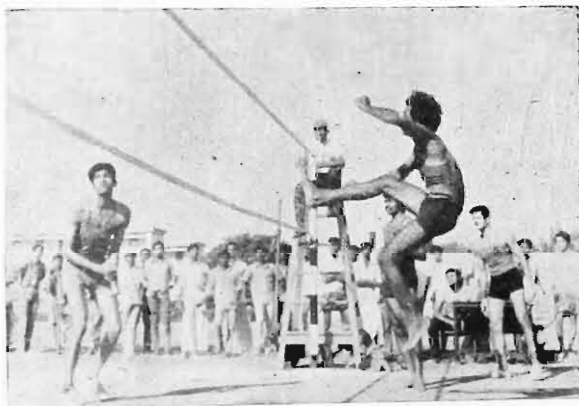
Mostly the prizes and the finals in :

Athletics :

Chandran Paul justified his air dash on the athletics field too, winning both the hurdles. We got 12 pts. in athletics. Not bad.

‘Sportswise, this has been one of our most glorious years. Our thumping victory during the Inter IIT Meet in Bombay for the third year in succession, our standing in the local college tournaments and the excellent performance of our Basketball team in having won five major tournaments this year speak for themselves. The Horse Show, the Gerhard Fischer’s Basketball Tournament, the institution of prestigious awards to honour the sportsmen of our Institute speak volumes for the silent efficiency of Jacob Mathew, our Sports Secretary. I wish to place on record my deep sense of gratitude and appreciation for the tireless and ceaseless efforts Jacob Mathew has made this year for the honour of our Institute and the glory of Sport.’

G. Sec.



X INTER IIT MEET											
ATHLETICS SCORE BOARD						GENERAL SCORE BOARD					
TEAM	100 YDS	200 YDS	400 YDS	800 YDS	1600 YDS	3200 YDS	6400 YDS	12800 YDS	25600 YDS	51200 YDS	102400 YDS
BOMBAY	21	11	3	2	1	1	1	1	1	1	1
DELHI	55	7	5	3	1	1	1	1	1	1	1
KANPUR	42	3	5	3	2	1	1	1	1	1	1
KHARAGPUR	43	2	4	3	2	1	1	1	1	1	1
MADRAS	31	5	7	3	2	1	1	1	1	1	1

From outside it looks like a garden, but in actual fact it is a grave-yard. The compound wall is laced by green creepers. In the western corner is a little hut of palm-leaves in which Aandi lives. He is a vagrant, as his name implies. On the cloth-cradle hung on the neem branch in front sleeps his dear little son Irulan. See, there, his wife Murugayee is collecting twigs now.

Aandi is employed by the Municipality on a monthly pittance of seven rupees and is provided with a hut within the compound of the grave-yard. His job is to dig graves for the corpses that are brought there.

Everyone thinks Aandi is crazy. It is not that he is of unsound mind, but people who have experienced no happiness consider him so because all the time he keeps singing merrily. His body knows no fatigue. At forty, he is up and about like an agile youth of twenty. He does not know what grief is.

Whether or not he understood the meaning of the words, he would always keep humming a song, the same song :

In the temple-garden
there was once a rotter
Who for ten long months
was after the Potter.
Brought he home a pitcher
the vain vagrant bloke
Danced with it like mad
till alas it broke !

When he was free, he would tend the plants. It was because of his loving efforts that the grave-yard wore the festive look of a garden. Whether he was watering the plants or digging the graves, he would sing the song in a hoarse loud voice without grief or embarrassment, the veins on his neck bulging out thick. As far as he was concerned, the song had neither meaning nor significance. It was just a habit.

As it was only a burial ground, the corpses that were brought there were mostly those of children. To dig a grave three feet long and three feet deep was no job at all for Aandi. A towel wound round his head turban-like, his dhoti raised and tied up firmly, he would stand with his legs stretched firmly apart. A shovel in his hand would strike effortlessly, and each time moist earth would respond in folded lumps. It was as if the earth itself yielded in willing co-operation.

The way he hit the earth hard with his shovel, as if to split its very heart open, emphasizing the words 'Danced like mad', gave the impression that he did know the meaning of the song. But in truth he did not.

Where did Aandi learn the song and when ? Can we place every word we know—when we learnt or used it first ? A special word, we might perhaps be able to trace. Where and when did Aandi hear the song first ? If he tried he would be able to recollect the occasion.

One morning when Aandi woke up and rubbed his eyes open, the scene before him struck him with amazement. In front of the hut on a torn palm-leaf mat, Murugayee was still fast asleep, contrary to her habit. In his fifteen years of married life he had not once seen her sleeping when he was up in the morning.

'Murugayee', he shouted. She did not answer, but turned over and continued to sleep.

He got up from his rope-cot and sat beside her. Wondering if she had fever, he touched her forehead gently. Nothing of the kind.

'Murugayee', he called aloud and shook her.

Murugayee opened her eyes, as if in a state of stupor.

Aandi was alarmed. 'Murugayee, what is wrong ? Are you not well ?'

'No, nothing. My limbs are aching terribly. I feel beaten up. My head is reeling'. Even as she spoke, her dark eyes opened and closed.

'I had a dream'.

'What was it ?'

Murugayee rubbed her eyes and yawned. 'In the dream, there was an insect, a small black creature...' She shivered once.

'Yes'.

'Even as I relate this, my whole body trembles in revulsion. The abominable creature crawled and got on to my hand and turned yellow. No, not yellow but golden and sparkling. "Eat me up, eat me up please", it said'.

'Then ?'

'As it spoke, it began to munch my hand. I lost my nerve and became hysterical. "Look at this little insect. What insolence that it should dare to ask me to eat it up". Is it because it is definite I won't ?..'

Her face went red.

'I took the insect with two fingers, put it in my mouth, crunched it to bits and...'

She had not finished. With a revulsion that came thundering from within, she began to retch. Her head grew leaden, her breath faltered and her eyes went red.

'O dear, the insect keeps crawling about in my stomach'.

She retched again. She held her stomach and sat down, her head bent. Saliva overflowed from her mouth.

'Listen, there is an insect in my stomach'.

In a flash, Aandi understood. A thrill of exhilaration coursed through his veins. Something he had waited for fifteen long years, something he had longed for so often and been denied so long ! And now after he had resigned himself to accept that it was not to be....

She retched again.

'That is it, Murugayee, that is it', said Aandi and laughed. Murugayee was sitting, her body bundled up. He hugged her.

'That is it, that is it', he said.

Murugayee too wanted to laugh but couldn't because of her nausea.

She cried out: 'I just can't bear it. My stomach seems to churn over...'

'Be quiet. I'll go to our native Doctor Vadivelu and get some medicine'. He started, putting on his upper cloth.

Murugayee laughed and said, 'Why don't you keep quiet ? People will laugh at us'.

'I can't bear to see you in discomfort'.

'Why should you see ? You can move away farther'.

With bubbling joy, Aandi reached the gate of the grave-yard. It was then that he heard a minstrel in saffron-robos who passed by singing that song in self-forgetting bliss :

In the temple-garden
there was once a rotter
Who for ten long months
was after the Potter.
Brought he home a pitcher
the vain vagrant bloke
Danced with it like mad
till alas it broke !

Aandi stood and listened to the song absorbed, overflowing with a joy he had not known before. The minstrel sang the same lines again and again. Every word that came on a dancing beat took root in Aandi's heart. His lips began to hum :

In the temple-garden
there was once a rotter....

The grave-yard that served to bury thousands of corpses soon saw the birth of a new life. Aandi was blessed with a son. His joy knew no bounds. All his waking moments, he took his darling child and danced.

The hands with which he hugged his child to his bosom continued to dig graves for the children of others. Like a little boy manuring a rose-plant, he would dig the graves with the song on his lips. He never understood the grief of bereaved parents.

How was he able to sing so heartlessly with a little corpse beside him, the father standing there trying in vain to control the sobs that came bursting through ? Was he human ? People did not understand and thought him crazy.

The Grave-Digger

The moment he finished his work, he would rush to his hut, take his son in his arms and fondle him, dancing merrily around. Didn't all his joy, his spirits, his song and his merriment spring from Irulan?

Two years passed by.

In the grave-yard where ended abruptly the joys and dreams of parents, in the life of Aandi who had forgotten the certainty of death in his absorption with a new life in his home. what is there to say? One day, Irulan died. He had come after years of prayer and penance and despair, after Aandi had given up hope of having a child to call his own, he had come suddenly as if from the land of Oblivion, and, after laughing and playing and filling Aandi's heart with dreams, he passed away as suddenly in just two days of illness. In the grave-yard which had hardened and twisted itself in mounds and lumps, witnessing the grief of thousands of bereaved parents, Murugayee's heart-breaking lament rent the air.

Aandi was sitting under the neem tree near the empty cloth-cradle, his face buried in his knees. His eyes stared at emptiness. The scenes that passed before them were a mixture of what had been and what could never again be.

Irulan, Irulan, Irulan all over.

How he went crawling to the fence! How, waking up from his sleep, he jerked his head out of the cloth-cradle and with a laughter that created dimples in his cheeks called out Appa! How he crawled behind Aandi's feet as he was watering the plants and thrilled him head to foot by a sudden embrace with childish warmth! How his tiny fingers danced around the plate of food and how he tried to enjoy the little crumbs that stuck to them with noisy relish, laughter bursting out and his hands clapping!

Was it all a lie, a dream, an illusion, a madness or just imagination? Aandi sat frozen like a statue, his mind a blank. All the land over which Irulan had crawled, all the things he had touched and played with and all the words he had lisped made a thumping impact on his sense. But there, inside that hut lay the boy's body, bloated, flies crowding on his mouth and eyes. On the forehead was a sandal-mark; from within the darkened mouth his young innocent teeth sparkled out. And with his limbs stretched out, he was—was he just in deep slumber? No. He was dead. Murugayee took the child's hands and folded them one over the other. She drove away the flies and covered the body with a piece of cloth.

At long last—there was such a thing as duty.

Hot tears pouring out from his reddened eyes, Aandi took his towel and wound it round his head. He picked up the shovel lying in the corner and fixed it to his shoulder. He rolled Irulan's body in a cloth dipped in turmeric water, held it close to his bosom and started to go.

'My dearest, my darling child...' The grave-yard resounded with Murugayee's heart-rending cries. She fell on the ground and writhed. She held Aandi's feet tight and arrested his movement. There was a grief in his hand, grief in his heart and grief personified at his feet. What could he do? He stood transfixed. Could the shovel he carried on his shoulder dig a grave for all griefs?

One hand hugged the child; the other held the shovel tight. 'Don't cry, Murugayee', he said, and burst into tears as he said so. She wailed louder. Aandi extricated himself from her grip and waked on. All these years he had known only the corpses, not the grief that went with them. It was too much to bear.

The garden seemed to be gay that day. The trees and plants were full of flowers that had spilled all over. Aandi walked on carrying the dead weight of his dream.

'I must dig a grave for Irulan under the Pannir tree. It will shower its fragrant flowers on him all the year round' He laid his son's body on the ground. He took out the shovel from his shoulder and stood erect like a tree. His eyes stared at the empty sky. The staring eyes turned red, and tears flowed out. His lips and nostrils twitched with unbearable agony. There was a sense of suffocation in his heart.

He hardened himself and lifted the shovel. His hands trembled, his feet faltered. For a long time he stared at his darling son's face, the face he would never see again. Beads of perspiration lined up on his forehead. He lifted the shovel again. Legs stretched apart, eyes closed, he planted the shovel firmly on the earth.

In the temple-garden
there was once a rotter.

That song now? He had not sung it. Who was it who sang it then? He lifted the shovel once again and let it fall forcefully on the earth.

In the temple-garden,
there was once a rotter,

The same voice again. 'Who is it?' Another voice:

In the temple-garden
there was once a rotter.

Who for ten long months
was after the Potter.

'My god! Now I understand' Aandi threw the shovel away and looked back.

Like Lord Narasimha bursting out of pillar, a little handsome boy came out, breaking open solid earth from inside a grave.

He looked at Aandi and sang, his hands clapping rhythmically:

In the temple-garden
there was once a rotter

Who for ten long months
was after the Potter.

Brought he home a pitcher
the vain vagrant bloke

Danced with it like mad
till alas it broke!

The voices, so many of them, rose, mingled and separated and sounded in a crashing crescendo.

All the dead children, from the one that was first to be buried in the grave-yard to the one that was buried only the previous day, rose exuberantly into life and danced round him singing in unison in their lisping voices, clapping hands merrily. Fetterless and free they danced in the wonderland of space in a mad gyrating frenzy.

Aandi forgot himself and laughed outright. His lips opened and the song took wings:

In the temple-garden
there was once a rotter.

In that suffocating ocean-like infinity of children, Aandi ran to trace his son and hold him to his bosom. He searched for him but could not find him. He searched again and again but Irulan could not be traced. All the children looked alike.

In the surging swarming multitude of children where there was no room for differences of mine and his and yours, how could he find and identify Irulan?

Aandi was in agony. It was unbearable.

Murgayee was aghast when she found Aandi lying under the tree near his son's corpse, his face buried into the sand. She turned him over, put his head on her lap and shrieked in grief and terror. He slowly opened his eyes. Thank God, he was alive. He was not dead.

Even now, Aandi lives in the grave-yard, but he doesn't sing any more. Whenever he sees a corpse that comes there, he bursts out weeping. He has become a soulful image of universal grief. But the people continue to consider him crazy.

JAYAKANTAN.



A Naturalist

WANTED

Balances to weigh turtles and other technological aids to conservation. Visit Snake Park for details.

A naturalist! what does that convey to you? an old man peering round the forests looking for exotic butterflies? but it also could be YOU.....possibly.

I have been confined to this city all my life, (except during the holidays when I'm confined to another city!) so I grew up with the sophism of the city. I haven't seen a natural forest nor a wild animal in its natural surroundings! Of course I read about the dwindling number of tigers, rhinos, etc.—sitting in the college canteen! We argued, we shouted, we whispered, but we did nothing. It didn't touch me. It didn't move me.

One not so sunny day, I happened to drop in at the Snake Farm, Guindy. The topic of the day was—turtles. There were a couple of turtle hatchlings swimming in the tank. Every few minutes they bumped against the glass. Had they opened their eyes? Were the shells hard already? How old were they? These and many other questions whirled around my mind. I decided to find out for myself.

A few people from the Snake Farm were going to observe the turtles the next day. I said I would join them too. That was the beginning!

So the next day, four of us ventured out from the Snake Farm at 6 p.m. We took a bus and got down at Tiruvanmiyur. We headed towards the sea and started walking along the shore. As we were walking, the miraculous story of the sea turtles was related by the 'enlightened one' among us. That day unfortunately we did not see a single turtle. We saw only some broken shells—the only remains the dogs had left behind, after eating the eggs. Though we did not see any turtles we were not disappointed—the somniferous ocean mysterious beneath the dark sky enchanted us in its own way.

The next weekend, undaunted, we drove down to Tiruvanmiyur. We walked and walked but did not see any turtles. It was when we were walking back slowly that we spied one, flipping out sand. It was digging a hole. Thrilled, we flopped down next to it. She was oblivious to the entire world! She made her nest taking into consideration factors such as temperature, humidity, depth, to mention a few. She was a true architect. She started laying her eggs.—1,2,3, and even 4 at a time. They were the size and shape of ping-pong balls. As she was laying she sighed now and then, (perhaps with exhaustion or even ecstasy!) she laid the usual 120, eggs a number which is variable, but not by much. This took her about ten minutes.

After she finished, she covered the nest with her hind flippers, patting the earth by lifting her body and falling back with great thumps (probably to make it difficult for predators to dig out the eggs) she flipped sand about for a long time, to level it and make a false nest. Then she got a mysterious cue as to where the ocean was. She crawled back to her haven—the vast ocean, not to be seen again, till maybe, the next season.

This took us back a million years or more. What do you say? Don't say anything! Do something. Youngsters and students can do even better than the naturalists of the older generation; and we sure do need our latent talents unearthed.

LET US BE AWARE!

PEACE

AMU & VALLI.



It gives me great pleasure to be with you today to participate in the annual convocation of your Institute. The IITs have rightly earned a reputation as centres of excellence in higher technical education in India. I am confident that IIT Kanpur, and its sister IITs will continue to successfully fulfil their role in moulding technological skills of a high order, in disseminating advanced technical education, and in forging innovative links with Indian industry through research, development and, above all, successful technology transfer.

It is by establishing a base for technological competence within the country, rather than by importing technology, that we can fulfil the requirements of a truly industrialised state. It is here that the IITs have an important role to play. The efforts of this Institute in providing technical education of a high calibre can bear fruit only in the capabilities, commitment and performance of its erstwhile students. Therefore, while congratulating the graduating class of 1973 and the winners of special awards today, I would like to suggest that you are tomorrow's agents of change and transformation. You bear a heavy responsibility on your young shoulders in executing the tasks that the Institute has trained you in, for the country that has invested in you, the society that has placed so much confidence and trust in you, and in what your own efforts have equipped you for.

Optimal Science Policy

The vital role of science and technology in propelling a developing economy like ours to the 'take-off' stage, needs no emphasis. Indeed, economists consider science and technology as the prime movers of development in any economy. While science and technology by themselves are governed by universal principles, science policy, or the mode of application of science and technology, encompasses several feasible, and some divergent, approaches. The optimal science policy for any country would obviously be the one that is attuned to the nature and needs of its socio-economic milieu. Recognising this uniqueness of science policy, the National Committee on Science and Technology has formulated a detailed scientific and technological plan which forms part of our fifth plan. The guiding principle in planning for several R & D projects in this plan has been the relevance and appropriateness of the output of knowledge, skills, techniques, processes and equipment of these projects to the needs of the country. The search for 'relevance' has thus been very dominant in our science policy. I would like to spend some time on this theme of 'relevance'.

The choice of R & D projects critically depends on the need for their outcomes. A predominant goal of our national plans has been to improve the standard of living of the masses below the poverty line. Many R & D projects which would provide the technological content of various agricultural, industrial and health programmes are being formulated by our science planners.

The Search for Relevance in Indian Science and Technology

Convocation Address by

Dr. Hom. SETHNA at I. I. T., Kanpur, 1973

Such emphasis on relevance obviously implies that there cannot be any 'science for the sake of science' except in a few chosen areas of basic research where the criterion of relevance is not applicable. Hence, nearly 80-85% of our R & D efforts would have to be governed by the criterion of relevance. This means that projects cannot be chosen merely because similar projects are being pursued elsewhere, or because of the high prestige of these projects in the professional scientific world, or the publishability of the outcomes of these projects in scientific journals.

This brings us to the concept of 'appropriate technology'. Appropriate technology, according to me, means technology appropriate to our socio-economic conditions: technology that can produce the needed goods and services most optimally; technology that can utilise our own natural and human resources effectively and technology that can become a part of the social milieu. Such technology may be mundane or advanced but its choice is related to its relevance. For example, our society needs both 'gobar-gas' plants and nuclear reactors to meet its diverse energy needs. Both these technologies are relevant for our country. Gobar-Gas plants use a locally and plentifully available resource to generate low-level energy for specific applications in rural areas. Atomic power plants are required for generating base-load power for large electrical grids. Such co-existence of advanced and traditional technologies are possible in several fields and our concern ought to be with their relevance alone.

Planning for science and technology is intimately connected with planning for the output of goods and services. Just as the use of luxury products and products which do not utilise local resources are being discouraged by our Government, research and development associated with such products and services must also be discouraged.

Similarly, in the field of education the main role of technical institutions is to develop knowledge and skills which are most appropriate to our needs. While a few may be trained in the frontiers of knowledge not necessarily related to our present needs, the majority of the students ought to be trained in areas where they can apply their knowledge and skills for the development of the economy. Unfortunately, in many of our technical institutions, training is imparted in technologies which may be too sophisticated for existing or foreseeable needs of the industry. As a result, many of the students find it frustrating when they start work after graduation. Most of our educational programmes lay emphasis on the acquisition of information or 'rote' skills, but not skills for innovation.

Many of the bright students from IITs go abroad as they perhaps find that a great deal of their learning is more relevant to the needs of advanced economies. I understand that the 'brain-drain' of some of our best talent continues to be acute even now. Such efflux of some of our best trained manpower is as undesirable as the wholesale import of foreign technology. Institutions like the IITs should give attention to this aspect while developing their educational strategies. Apart from appropriate restructuring of course-content and training methodologies, one way of achieving such relevance in the field of technical education would be to integrate academic learning with work experience. Sandwich courses, summer schools and other continuing education programmes come to my mind as examples.

In the field of technical education, the concept of 'relevance' assumes another important dimension. The explosion of knowledge in many areas is so great that differentiation and specialisation has become the order of the day. Several fields which did not even exist 5-10 years back are recognised disciplines in their own right now. For example, Cryogenics, Micro-electronics, Laser technology, Tero-technology, Tribology, Membranology, Plasma technology and Ecology can be cited as some of the new disciplines that require specialised knowledge and skills. Such greatly enhanced specialisation and differentiation has however proved inadequate for the solution of interface problems. These problems require interdisciplinary approaches for their solutions. This need is partly reflected in the simultaneous development that is taking place: the emergence of inter-disciplinary fields. These fields require knowledge in two or more traditional disciplines. For example: Medical Electronics, Environmental Sciences and Biomedical Engineering are fields in which one requires knowledge in more than one traditional discipline. Another parallel development is the growing emphasis on overall

integrative disciplines like Systems Engineering and Operations Research. Considerable work has been done in these fields in the recent past and these have applications in many areas of science and technology and even in business and administration.

Are our educational systems responsive to these developments? It seems to me that they are not. While post-graduate education today reflects to some extent these trends towards differentiation and integration, undergraduate education in many technical institutions continues to be traditional and hidebound. The traditional compartmentalisation that exists in technical institutions has hindered the development of programmes which are responsive to these new developments. New programmes are conceived as extensions of one traditional discipline or another, and if they cannot be so conceived, the absence of a well-defined departmental slot for them is allowed to inhibit their introduction and development, thus losing sight of their relevance. In the next ten years or so, there is an urgent need to restructure our courses consistent with these new developments in knowledge and changing industrial needs. Partial specialisation at the undergraduate level, inter-disciplinary programmes and programmes in integrative disciplines will be necessary to meet the diverse needs of future technical education. An outstanding example of an inter-disciplinary programme in India is the School of Automation at the Indian Institute of Science. I do hope that the IITs develop such 'relevant' programmes in the next few years rather than continuing with the old pattern of education.

The Question of Management

'Relevance' in educational institutions has another aspect which I would like to touch upon briefly. Merely choosing relevant educational programmes is not sufficient. The management system of technical institutions like yours should also be 'relevant'. An obsolete management system based on the traditional concept of 'administration' in which deputationists have developed administrative procedures very similar to those of government departments, would not be relevant at all. Management of educational institutions in which innovation and creativity are the most important factors need adaptive and responsive systems and procedures. It seems to me that management systems of our technical institutes are not so innovative as they do not seem to have benefited from recent developments in pedagogical methods and techniques and educational evaluation. We come across cases where institutes which are imparting training in the frontiers of technology have rather underdeveloped systems of management to handle their problems in industrial relations. Similarly, in the areas of placement, procurement and accounting, the institutes do not have well developed management systems. I would urge that the institutes

should develop more relevant and appropriate management systems consistent with the complex needs of such large educational institutions.

Meaningful Education

I would like to cite an example where an academic institution has innovated a major form of technology transfer. *You may be familiar with the story of the MIT and the 'Route 128' in Boston.* Along this route several industries have come up using the knowhow developed at the MIT laboratories. These industries have been largely set up by the professors and students of MIT. Very close links for practical training, design, experimentation and production exist between the MIT and industries located on this route. The relevance of education at MIT to the future careers of students has become much more meaningful by the development of this technological estate in Route 128. I foresee a great opportunity of developing such technological estates or Industrial Parks around the IITs. The impact of these parks on the education of the students would be very profound and meaningful and they would open up new and exciting career opportunities for many of them.

'Technology must be Attuned to the Social Milieu of the Country'

The immense academic resources of the IITs and the excellent laboratory, workshop and testing facilities that they have, can be instrumental in developing such parks. Such a measure would also attract some of the best faculty members to the institute as it provides them opportunities for experimentation and integration of knowledge with experience.

Another area in which the IITs can contribute to the effective adaptation of technology is the provision of technical consultancy services to industry. Experience elsewhere has proven that such consultancy utilises existing faculty more productively, aids quality improvement in industries and brings about a very discernible improvement in the content and quality of academic programmes in technical education. While the IITs have started offering such consultancy services on a limited scale, I would urge that they

Out of the thousands of the engineers produced
in this country, not one has done a thing to
improve the bullock cart.

should expand them to a much larger extent. The Institutes of Management have adapted this principle admirably in the field of management and the desirable impact of consultancy on the quality of faculty and the relevance of academic programmes is already evident.

I have talked a great deal on relevance in R & D and technical education. I would like to share some of my views about 'relevance' in careers. Some of you have secured jobs in industry while some others would be going abroad to pursue higher studies. Quite a few may be keeping their options open, undecided about the direction to take. Unfortunately, many students do not have a clear idea about their career development and take up higher studies even though they may not have the aptitude. I would like to mention to you a few career opportunities that are emerging in this country.

The Government of India is very keen to promote entrepreneurship amongst our young engineers. Numerous facilities from small scale industry service institutes, financial institutions, industrial development corporations and national laboratories are available for young technologists to start small industries even though they do not have resources of their own. Some of the IIT graduates have successfully started such small industries. This needs to happen on a much larger scale. We, in the Department of Atomic Energy, are very keen to transfer some of our spin-off knowhow to young graduates like you who can set up industries. Our department would like to encourage any co-operative ventures from IIT graduates for utilising our knowhow. Such innovative entrepreneurship can greatly contribute to the rapid industrial development of the country.

Career Mobility

Many of us think that a career means working in a particular institution or a particular type of job for 30-35 years. While this concept might have been true in the past it is not true any more. Research on the careers of scientific and technological personnel has proved beyond doubt that successful careers are built around experiences in multiple roles and functions. The Research Scientist today may become a Production Engineer after 5 years and General Manager after 15 years. In the Atomic Energy programme, we have followed this concept of career mobility very successfully. Many of our plant managers were once research scientists. Such mobility is vital for a satisfying and meaningful career. Your first job may be at a research laboratory, educational institute, industry or a Government organisation. But you must plan to get diverse experiences throughout your career. I would urge that many of you consider becoming entrepreneurs. The richness of experience in being an entrepreneur is very unique and I invite you to this great experience at least once during your career.

Higgledy

Of all dull places to stay in, Madras is far and away the duller. There is nothing here to see or do. A zoo that has nothing to offer the visitor, except its own presumption in calling itself one; empty glass tanks passing themselves off as an aquarium; very modern (and very vulgar) cinema-halls showing the latest tear-jerker, with the reigning matinee-idol cast all at once as the hero, the heroine, the villain, the villainess, the old grandmother, and the family-dog: such are the joys of Madras.

I would long since have fled the city for the inner Hebrides, or outer Mongolia, or some such more interesting place, had I not been a creature that does not ask much of life, and is prepared to put up with, and forego, a great deal, if some small outlet, some tiny relief-valve, is allowed it. Mine in this city is a peaceful, slightly seedy Chinese restaurant run by Old Father Time and his brother, who, having seen the ups and downs of a million years, think it no great matter to keep a customer waiting an hour for his meal. The overdone fawning politeness increasing in degree with the estimated wealth and social standing of the customer, the scraping and bowing that characterizes other restaurants: all this is noticeably absent here. The two ancients are rude to pauper and prince alike. They are too high-souled to make concessions merely to attract more money: the stairs are a death-trap, the furniture is rickety, and there are grease-spots on the tablecloths.

For all these reasons I rather like the place. Besides, the venerable ones are artists of a sort. Beneath the gnarled, time-worn exteriors lurk poets, and their cooking is their affirmative poem to life. So I go to them whenever I have money to squander on eating out; a condition that I unfortunately do not find myself frequently in, teachers being next of kin to the proverbial church-mouse.

For the rest, even if there is not much else in Madras, at least a few book-stalls and libraries exist. And so one takes to books, and, perhaps even without one's being aware of it, crosses sooner or later the line dividing those who read selectively and with a specific purpose, from those to whom reading and books have become an addiction, an end in themselves.

One encounters the type only too frequently. On week-ends and holidays, when it has time and to spare, it feels miserable and just does not know what to do with itself if it is deprived of reading matter. It reads in buses, it reads on trains, it reads in the morning, it reads in the evening: in short, it reads.

—One goes from cradle to grave subjected unceasingly to exhortations to temperance and proportion, and warnings against excess of every sort. All the world and his wife make it their business to counsel us to hold ourselves in

rein, and not let ourselves go to excess in this, that, or the other thing. No one, however, says anything about reading carried to the point where, far from being a means to some worthwhile end, it becomes an end in itself, and the person concerned an addict, helplessly, hopelessly dependent on printed matter, squandering his time always reading about life without ever actually getting down to living it.

That such a state is a distortion of the will of Allah, not what he intended us to be, does not need much elaboration. We are supposed to stand with both feet planted firmly in the midst of life, having recourse to books only in so far as they are necessary to help us understand what we observe and experience. Standing on the side-lines and reading, eternally reading about the game, cannot and should not be substituted for actually playing it.

—We are all of us, however, fearfully cracked about the head, all of us without exception addicts to one form of insanity or the other. Some sing to the Lord at three in the morning, certain others cannot be deflected from eternally trying to explain away the whole marvellous universe using inadequate forms of rationalism; there are those who babble the latest cricket or hockey or football scores at you endlessly, and still others who hold forth, till the milkman comes in, on the political State of the country, or the end of the world.

No, there is no getting away from it. March Hare territory, Mad Hatter country, is where we humans live. Granting which, we would have to admit that the confirmed and hopeless book-addict is no madder than the rest of us, and certainly a lot less trying, since he at least is not a close range, hard breathing bore.

—I seem to have strayed magnificently: a tendency of mine, which I do not seem able to shake off, to get to Mylapore by way of Madagascar and Mauritius. All I wanted to say was that I have been reading a great deal of late. Among other things, different biographies of the Queen of Scots.

Confound the woman! Even across four centuries of time she exercises a spell, although I do not see why. All she seems to have done is to engineer the speedy departure, out of this world, of a thoroughly objectionable husband. After which she fell into the hands of her cousin of England, who had her beheaded after a very long period of imprisonment.

And now, centuries later, for all her qualities of statesmanship, her clear-thinking head, her concern for England's greatness, mention of Elizabeth fails to stir one, whereas the Scottish Queen, who was none of these things, who was not much more than a passionate woman dogged by misfortune, continues to fire the imagination. Lost causes and doomed persons appeal to the romantic in us. For solid

achievement brought into being by careful planning, and far-sighted thinking, we have a nod of recognition and approval, but it fails to touch our hearts.

—Writing about historical personages, who lived centuries earlier, must be a fascinating job. All that the historical biographer has to go upon are a few paintings of his subject, a few letters written to, or by, him or her, a few State documents surviving from the era that the person in question helped to shape, at best perhaps a description of the subject written by a perceptive and thoughtful contemporary. From such inadequate material the biographer must create for his readers a credible flesh and blood person, and in addition must reproduce with fidelity the atmosphere of the era in question, so that history, from being a dull list of dates and events, comes alive, and we begin to understand, from an understanding of the personalities of the leading figures of the time, why the history of that period took the particular course that it did.

When writing about a person who lived centuries earlier the biographer can never really hope to portray his subject as he, or she, really was. The truth about a person who does not keep an extensive, and honest, written record about himself and his doings, and who is also not written about in any great depth by his contemporaries, is lost beyond recall with his death and with the passing on of his circle of intimates. Even the best of biographers can therefore only come up with an informed guess. And that is why I find the biographies of historical personages so fascinating. If one reads a sufficient number of writers dealing with the same individual, one gets an overall picture of the person which is fairly close to the truth. In addition one learns a good deal about the writers themselves. Where the available facts are scanty, inadequate, one has to guess intelligently at several points. One's guesses may be off the mark and throw no real light on the person one is writing about, but from them any observant reader, who is interested in a detective-game of his own, can form a shrewd estimate of one's own strengths, weaknesses and prejudices.

—Shoes and ships and sealing-wax seems to be what this essay is about. It has no central theme, no main idea which has been gone into in all its aspects. That there should be a theme of sorts, forming, if one wishes to put it that way, the backbone of the essay, is the contention of one school of thought. Very possibly it is right. However, we also serve: we who set out with no particular idea in our heads, turning off here, cutting across there as the whim takes us, hurrying past a fine-boned horse, halting a while by a donkey. We are very restless people to be with. We do not tax our readers. Our objective, and it is a very modest one really, is to be a sort of gentle transport-service, to carry our readers from the realm of wakefulness to that of sleep after the hard day's idleness (or work. Except that I do not think anyone in this country works.).

ANTHONY REDDY

Piggledy

STATE OF THE MESS IN IIT

This article is being written with a view to giving information to the students about the functioning of our messes and the problems involved. In the context of the rising prices, mess bills have risen to scaring heights and many students are really beginning to feel the pinch of the bills. Since IIT is a world in itself little or no thought is given to the fact that after all we are not cut off from the rest of the world and what is happening outside affects us also. It should be noted that there have been food riots in Gujarat, strikes all over India and a general scarcity of food everywhere. These incidents have gained momentum in India and are responsible for our high mess bills; not 'organisational inability' as many think.

The Strike and its Results

The strike came all of a sudden; we knew it was coming, but did not expect it so suddenly. Our mess staff also joined the strike and we were left in the lurch. Why did we not close down and leave for home? Why did we stay behind and endure all this? Were we not stupid? The answer is a flat NO. BECAUSE a lot was at stake for us. (a) We wanted to show that we cannot be cowed down by threats; (b) We did not want to lose precious time; (c) And last but not least we wanted to show that we are a body worthy of being respected. And we have come out in flying colours in this respect.

'The mess staff have come under hostel jurisdiction. It would be well to remember that the new authority we have carries with it the corresponding responsibility for the welfare of those who work for us, which means that we must at least now start to think and feel what it is to work a long routine day, to share a room with many others at the end of it, to continue the same thing for years, with little hope of saving much, of earning more, of learning something new. It would be a sad silent commentary on the level of our awareness (and incidentally on the relevance of the applicability of our courses in psychology and management) if we do not consider what we can do to make things better'. From the Hostel management's side (all Wardens, Steering Committee, General Secretaries, and Mess Secretaries) we have decided that wherever possible we shall not employ any fresh mess staff. The existing staff being quite large in number, we shall transfer them to other Hostels where there is a vacancy, or to permanent institute posts, wherever possible. But asking the students to pay more is ruled out. The students just cannot

afford more taxes. But we can always explore alternative ways of doing good for the staff, such as the possibility of building them lodgings, etc. A number of committees are working on this such as the leave-rules committee, rationalisation committee, and service rules committee. The Leave Rules Committee has already submitted its recommendations and these are being implemented. Efforts are being made to see what best can be done. But no miracles can be performed and the solution of these problems may take their own time.

Preparation of Mess Bills

A deposit of Rs. 175/- is being collected from every student when he joins the institute. Assuming that there are about 180 students in a Hostel, the hostel will have about Rs. 31,000/-. This will be the running account of the hostel. This is the money used for making purchases for the mess. This amount is refundable at the end of the course. At the end of the month the mess bills are issued to the students. The daily rate is calculated as

$$\frac{\text{Total expense—Extras}}{\text{Total No. of Man Days}}$$

If one person eats for one day, it is considered a 'Man Day'. This daily rate is multiplied by the number of man days of a particular student, i.e. the number of days he takes food, and this becomes his basic. It must be noted that the mess bill is the most important thing in the functioning of the messes. Prompt preparation of mess bills and prompt payment of the bills can do marvellous things to our daily rate. How exactly this is so will be explained presently.

The Central Supplies

The Central Supplies has been functioning with the purpose of supplying essential articles to all hostels. This takes care of supplying rice, sugar, maida, rawa, bengal gram dhal and milk. Only a few items like sugar, maida, rawa, atta, and wheat are procured at the controlled rate on the ration card issued to all hostels. Items like raw rice, boiled rice, wheat, and sugar are procured from the open market at the existing market rate.

It should be noted that each hostel gets only 200 kg. of sugar at the ration rate. Over and above this, whatever is needed is bought in the open market at exorbitant rates. Such is the case with wheat, the amount supplied on the ration card by the Civil Supplies Department of the Tamilnadu Government is only 50 kg. per hostel per month; a ridiculously low quota considering our needs. Therefore most of the wheat is obtained from the open market at nearly double the price. In spite of such high prices, many dealers are not in a position to supply good quality wheat due to restrictions imposed by the Government. Hence we cannot afford to be choosy about the quality of wheat and we have to make the best of what is available. 'A half loaf is better than no bread'. Efforts are being made to contact higher Government authorities to get more wheat sanctioned on the ration card.

Central Supplies is housed in two rooms of Cauvery Hostel! There is no godown or room to store any of the food items. So it is absolutely essential to distribute all items on the very same day. Hence necessary arrangements should be made to receive these items as soon as they arrive. The CSU has a limited number of supervisory staff and of delivery boys. The strength is not adequate to meet the needs of all hostels and residents of the campus.

Financial Position of the CSU

To start with, the CSU received a deposit of Rs. 35,000/- from all the hostels, and about Rs. 20,000 from the residents. With this running capital, CSU has to meet all its demands. It is necessary that all bills given by CSU to the various hostels be cleared immediately. But the hostels are not in a position to pay off the dues and as such the financial position of the CSU becomes very difficult. At present, a sum to the tune of Rs. 80,000/- is locked up in the hostels. At one stage dues to the CSU reached 1.5 lakhs. This in turn is partly due to the irregular payment of monthly bills by the students, the inordinate delay in calculating the daily rate at the hostel level, and the undue delay at the Administration Block. Once these problems are solved at least to a reasonable extent, the financial position of the CSU will certainly improve, so that the CSU can cater to the needs of the various hostels in a better fashion; that is, it can supply more items, which, purchased in bulk, would certainly go a long way in reducing the mess rates.

Letter to the Editor

For solving any problem it is first of all necessary to find out the cause. In this case the root cause is finance. If this problem is solved, a major portion of our problem can be considered to be successfully solved. It is for this reason that the Hostel Management has resolved to impose a uniform fine policy for all the hostels. But just passing the resolution is not enough. The resolution should be implemented in the spirit in which it was made; which means that we must see to it that mess bills are prepared promptly and given to the students; and that students should pay up their dues as fast as possible. This calls for a spirit of understanding and sacrifice on the part of all concerned. Now that we have a Computer Centre, efforts are being made to write a programme for the preparation of the daily rate. Let us hope that this will make it possible to lessen our problem.

Establishment Charges

This is used to pay the salary of the mess staff. The mess staff are eligible for a salary of 13 months and a food allowance of Rs. 2/- during the holidays.

N-3 Rule

According to this rule, which is being implemented in all hostels (for N greater than 3) if a person goes home for N days he gets a rebate of N-3 days. This rule has been framed due to the following reasons as it has been in force ever since the inception of IIT. (a) Our institute is a residential one and as such if rebate is given to those who go home, then in that case those who remain behind will have to shoulder the expense of feeding the mess staff. This would not be fair to those who remain behind. (b) In practice, the issues are not reduced in proportion to the number of persons going home. If one-third of the students go home on a Sunday, the expected reduction would be one third in the issues. But this is never achievable in practice even with the greatest care. There are certain constant factors which always involve the same expenditure. The problem becomes worse if say only ten students go home on some other day. Absolutely no reduction in issues may be possible. Therefore in order to be absolutely fair, we must take all these factors into consideration. This would require a very huge computer programme for calculations. (c) Giving rebate fully, would encourage students to go away even on important Institute functions. Also it is practically very difficult to keep track of students who go home very often at intervals of one or two days. For all these reasons the N-3 Rule seems to be a balanced one.

H. R. PREMNATH
Co-ordinating Mess Secretary.

'This is your mag. You have got to write'. One finds such order-like appeals often occurring in *Campastimes*. In the last issue there was even an incentive, to all hesitant contributors, in the form of prize money. Still there is a dearth of articles. 'How do you expect the Ed. Board to bring out issues when no one is interested in writing for the mag. What can we do? (So say the Ed. Board members.) But why? No one has so far ever paused and thought 'Why is it that guys do not write for the mag?'.

The appointment of the Editor has been purely on the basis of the number of articles he has written so far; one who has been writing most regularly for *Campastimes* it does not matter whether the said person's articles are appreciated or not he becomes the Editor; the person of some ten lines back is nominated Editor and he in turn chooses his friends to constitute the board. Thus the sole criterion in appointing the Editor has been his literary Oh Jesus! How successful he has been in the past in filling up columns in the mag and the constitution of the board arbitrary.

People have got to realise that just because a person has been able to fill up columns in the mag, he needn't be Editor. You don't need to sing well to be the Social Secretary, or win debates to be the Literary Secretary or paint well to be the Fine Arts Secretary. Any 'top' post in any organization calls for 'ORGANISATIONAL ABILITY and DRIVE'. But if you can write articles, sing well, win debates, etc. they would only be 'ADDED' qualifications and certainly not the primary criterion for holding any post.

The Editor should be one who moves and mixes well with people of all sorts, always keeping an open mind, prepared to listen to various people and give due consideration to all their ideas and above all have organisational ability and 'DRIVE'. To help him in the technical details the Ed. Board comes in. The Ed. Board on the contrary should be constituted keeping in mind how good a person is in

It is good to find someone offering his ideas and trying to help give shape to this mag. The issues raised are too wide and complex to be answered here. Since beauty is always in the eyes of the beholder, the only possible reply is in the editorial.

S. SITARAMAN.

—ED. BOARD.

It is pleasant to record that the souvenir was released at a function attended by the Governor, Mr. K. K. Shah. He generously donated a large sum for our pool. Our hearts reach out to everyone who helped us.

writing articles for the regular columns, looking after the art section and people with imagination for the layout. The Editor's job would be to allocate work and get it done and not do the whole thing himself. He should be able to tap the right sources and bring out the talent. Thus the mode of appointment of the Editor has to be seriously looked into and this could possibly solve the problem of guys not writing for the mag.

There is yet another point which has to be made clear. This mag is by us and for us. Then why should there be an illusion and a false prestige built up about the mag? If the quality of the articles received is poor, it only goes to show that the literary level of the people has gone down. If that is all that they can produce they have no reason or right to say that the mag is sick or that the standard of the mag is poor. It only reflects on your own capabilities. A mag cannot and should not cater only to the needs of one school of thought. It has to have articles of various types and if one can find one article tuned to his way of thinking he should be happy. Beauty lies in the eyes of the beholder. There is no use airing a lot of ideas—sit down, take up your pen and write an article—then you would realise how difficult it is.

But if you do get off your arse and write something it is rejected as not being quality enough. They put in what they like and when it does not measure up to their expectations, and their standards, you are coolly told that you have not matured enough, that you have not evolved—this word, I fear, has been grossly misused by many of our so-called evolved types, if evolution is 'Beatles and pot' then thank God I have not evolved. By Gad! the way they talk gives me the creeps; I fear I have taken off on a tangent, this by the way is a useful qualification in writing for *Campastimes*.

Across : (3) Parchment (8) Next (9) Apparatus (10) Echo (11) Gnome (15) Pomes (16) Snared (17) Exerts (19) Detail (20) Steer (23) Armie (24) Mentioned (25) Once (26) Barris-ter.
Down : (1) Interpreter (2) Exchanged (4) Aspens (5) Claims (6) Meat (7) Noun (11) Gents (12) Enter (13) Treatment (14) Adulterer (18) Stools (19) Delete (21) Beta (22) Star.

CROSSWORD SOLUTIONS



• Energy is action and movement
all action and movement ;
All thought is energy,
All living is energy,
All life is energy ;

Everybody Says there's an energy crisis ;
That is true. I feel it too.
There is nothing to Say.

You who Say you know—take heed ;
You know nothing.
There is nothing to say.

ANINMAR.

Another one, the second, a little bigger than the last. As always, a race between us, or the input of usable material, (the inevitable labour period at the printers and blockmakers, these are just a few of the factors) and it, or a date—the deadline, which has been statistically pin-pointed to be the main cause of heart-attacks, ulcers and other sundry disorders.

Most material had to be searched for and found. Two of the main problems inside the campus—the buses, and the messes have been researched into; the findings are reported so that everybody can now think and figure out methods of improvement. Lots of people, never quite enough in number, helped. P.C. Vijay, Asty, Juggi and Premnath were involved. The long natal hours were attended ably by Paul, Nitin, Krishna, Badri, Sunil, Dip and Nina Chattopadhyaya. They supplied much needed energy.

From the world outside there is a story by Jayakantan. He writes in Tamil and this was translated by Mr. Hakim at the A.I.R. Incidentally, the A.I.R. would love to have guys present programmes on the air-waves. Meet Mr. Hakim and talk it over with him if you're interested.

The Great Year, and a part of man's relationship with the stars and the planets are explained by Mr. S. P. Mani. Ancient wisdom is so often forgotten and neglected.

Mr. Guntert translated Wolf Biermann and gave it to us. Ranjit Ahuja from N.I.D. sent poems. Ansari, Ravi and Jasper, artists all, breaking out on the cover—'Scorpius,' Valli and Ammu are at the Snake Park. Next door to us.

Ed.

Reading through back issues of this magazine is an interesting way of spending a few hours. Mostly because it helps to understand the bases of the magazine's existence and to provide answers to a few questions that people keep asking and wondering about these days. These questions involve matters like the function, form, content (level, particularly level of content) and the attitudes of the people who run and read the sixteen pages or so that appear, more or less periodically, in the campus.

So, during the first few years of its existence these pages carried accounts and reflections of all the little things that happen when two thousand young people live in the same few acres, have (supposedly at least) almost the same purposes and interact with the same authorities and problems. These events were put into either of the two or three basic forms available—satire, and if there was enough bitterness, sarcasm, ~~an~~ in an intentionally devised fatuousness.

Thus, beginning with a basic desire to entertain and do some good at the same time, *Campastimes* appeared, was read by all those sufficiently interested and that was that. But no magazine can be left in such a state. One could start from the technical side of the matter knowing that the Institute in kindly munificence provides enough of the wherewithal to ensure glossy pages and all the rest. That, however, is an affair which, in this environment, is an incidental, a frippery useful only to the extent that it may be an encouragement for people to write. Instead, we have to concentrate on the whys, the whats and the wherefores and try to understand this magazine's place in this community.

In the community, the environment, or simply, the people around here, there exists a division, enforced by tradition, or rather by an inability on their part to break away from tradition. Note the significant word 'their'. Us and them, and they do lots of things which we cannot understand and they, to a large extent, control us in the things we do everyday and the course of our lives. The germ of protest, therefore, exists in all those not occupied totally by their books and their work. For the few who wish to express these feelings, the media available are not many and a magazine is immediately a weapon, and a very powerful one if used properly. It may not accomplish too much, especially since print can only catalyse and not cause protest (It is here that the shortage of material, that very thorny affair, can be understood. The lack of good material means only this: that the basic energy of protest exists in a rather limited quantity. Such is the situation and we are content with it. To include things which are not written well, which say very little, is untenable, the time spent on them could be used for a better purpose). But if only for the purpose of broadcast, print is necessary, the few gropings must be encouraged and helped along. Until matters improve, 'They' are all examples of Bureaucratic Man. Trammelled, controlled by rules and regulations, they cannot see for themselves at all, and create hardships and torments for all those who do. These people have to be jolted out of their paths, in them one sees the death of this institution which could be so beautiful. The choice exists only between reason and unreason and all the people in the departments and the ad-block seem to follow the latter path for they are always throwing their silly rules, their petty regulations in our faces (witness the fact that while doing your project work you have to walk about for hours in the sun getting three signatures to obtain a small piece of metal, and that's only for a start). So, protest is a very important function of any magazine here.

But.

Sheer naked screaming protest alienates people and never brings anyone any closer. Here in the academic environment feelings like 'they' and 'us' cannot exist. All of us here have to work together, the older people must help the strivers and gain the humility of knowing that no one has reached, we must all hold hands and walk together. And all the frictions between us must be dealt as little problems whose solutions are at hand, and know that looking at these questions on the cold surface of print is the most peaceful way of finding answers. This is where this magazine is at.

Bobo.

