

GRYPHON

GRYPHON: THE CAULFIELD INSTITUTE OF TECHNOLOGY MAGAZINE 1968/69

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Gryphon

THE CAULFIELD INSTITUTE OF
TECHNOLOGY MAGAZINE

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1 Editorial

Gryphon is an obscurity to many, vaguely familiar to others and to most of the remainder an interesting or at least a known publication. It is the annual magazine of the students of Caulfield Institute of Technology.

Upon consideration of the potential articles from lecturers, department heads and student leaders — who could hardly have refused because of their belief in the importance of the magazine, the concept of Gryphon was reviewed. It has been directed primarily to new students.

What other conclusion would you reach from the fact that an individual can have the full lonely responsibility, without so much as a question regarding his ideas or moral views, to produce this magazine purporting to reflect Caulfield Institute of Technology and its students? I can only assume that most students are not really interested or even care if there is a magazine or what it says. Some of 1968's students have left C.I.T. and will not receive a copy. Some 1968 students, having read Gryphon previously, will not try to obtain a current copy. Our aim is to try to provide "orientation" for the new students — to give them something beneficial in that capacity.

Thus Gryphon by deed and by consequence undergoes modification to an orientation edition.

We feel new students will read it to find out essential information. We hope older students will read it to find out what's going on and why they fell short of more active participation and mention in this magazine. Surely students at Caulfield could not be included as part of a progressive educational system. Most appear dull, some are quiet spoken but of doubtful awareness, while others are hard to define for no one is sure whether they really exist. Names on a roll and attendance slips at class do not make Caulfield a tertiary institute nor do these names and

slips classify the people in Caulfield as tertiary students!

It is hard to become interested in people who are not interested in themselves? I tried but I cannot see much progress. Perhaps I have failed. Maybe others will come who will open the doors of Caulfield to the world, and C.I.T. will rise from its relentless sleep in the morning sun. — Caulfield sleeps on. The only reason I can advance for this situation is that administrative staff, lecturers and students have made it so, in their casual, "good-enough" outlook and the way classes are forced to be conducted, as well as the conditions which exist.

On the other hand how can a student have pride in his Institute when he spends his time in one or other of three church halls with cobwebs, decaying pulpit and frayed tapestry for teaching aids? And what of lecturers, nay teachers, for some teachers at Caulfield have never given a true lecture! The latter teachers read lessons from a book as any student may also do. Some teachers as well as students enter classes late.

What of students? Do parents realise that many play cards in the canteen, S.R.C. office or classroom? Do they realise that they are paying approximately \$100 in fees plus extras for some of you to miss up to 40 per cent of classes and get away with it? Of course I must be wrong! Young Joe, Bill or Sue would not miss classes and tell Mummy a different story. Do you believe they wouldn't? Well, let me tell you young Mr. Joe or Miss Sue do miss classes and generally without any good reason. Enough said. I realise classes are dreary and to skip them makes life interesting and chancy.

Now so that I do not give a totally adverse impression to new students let me emphasise that Caulfield Institute of Technology HAS some very highly noted staff. Some members have brought

outstanding credit to themselves and to the Institute. Also some students ARE noted for their achievements in academic study and sports. New students must try and increase this percentage so that it applies to a majority of all students.

I cannot understand why more students cannot be interested in extra-curricular activities, S.R.C. faculty associations, clubs and societies, and sport. All these things are available in Caulfield yet few ever succeed to any degree. Yet who needs to exchange intellectual ideas, at a club or society? It is difficult to even find an intellect to start the club let alone two or three people with ideas to exchange. Time is not the important consideration that many claim it is.

This Gryphon is largely therefore an orientation magazine with articles on the various courses and on the students' position in this college.

Now that we are the Caulfield Institute of Technology it is hoped that along with the shedding of Education Department shackles, there will be a more stimulating atmosphere with more participation on the part of the average student. Under these new conditions it is up to us, the students, to achieve higher standards than have been tolerated in the past.

The most effective way of improving conditions and standards is by an active interest in the Students' Representative Council. An active interest implies a greater participation in all S.R.C. activities than has been evident in past years. One action you can take as part of greater participation is to read this Gryphon twice from cover to cover. One expression of this increased participation which will take place this year, will be an increase in VOLUNTARY articles for Chronic and the next Gryphon, and an added awareness of the importance of fully entering into student affairs at Caulfield.

2 The Principals Report



Perhaps the most useful thing I can do for this year's "Gryphon" is to attempt a review of the development of the Victoria Institute of Colleges, and of Caulfield Institute of Technology as an affiliated college. The machine is gradually taking shape, and the wheels are beginning to turn and to produce some useful work.

The V.I.C. Act was passed in June 1965, and an Interim Council was established, with Dr. W. H. Connolly as President. Ten months later, in April 1966, Dr. P. G. Law was appointed as the first Vice-President. At that time the functions of the V.I.C. were purely advisory, with responsibility to the Minister of Education. Executive powers remained with the Education Department and other bodies administering the colleges.

This situation was considered unsatisfactory, and the provisions of the Act were critically reviewed. After a great deal of discussion among various interested groups, an important amending Act was passed in December 1967. The amendments gave executive authority to the V.I.C. and at the same time provision for the incorporation of college councils to control the tertiary work in Education Department colleges.

Under the amending Act, Orders-in-Council were prepared for Caulfield, Footscray, Preston and Yallourn. These Orders were proclaimed in September 1968, and members are now being appointed to the new Councils. Each Council includes members appointed by the Governor-in-Council, the V.I.C.

the Minister of Education, and a local government authority, together with members co-opted by the Council. The Principal is a member ex-officio, and members are elected, by the academic staff and the Board of Studies.

The Council will employ its own teaching staff for tertiary work, but the Education Department will continue to employ teachers for non-tertiary work. In general, diploma work is regarded as tertiary, and other work as non-tertiary. This obviously introduces some complications. Certificate courses are controlled by the Education Department, and some of our evening classes include both Certificate and Diploma students. Again, the Certificate courses in Business Studies and E.D.P. are closely related to diploma work. In spite of the complications, however, considerations of economics and of service to the public would seem to preclude the duplication of facilities to provide Certificate courses in separate institutions.

The complications are particularly important in the financial field. Funds for diploma work are provided on the basis of recommendations to the Governor-in-Council from the V.I.C. For non-tertiary work, however, funds are allotted by the Education Department, and are provided to the Council as grants from the Department. A further complexity arises from the assistance provided by the Commonwealth Government for tertiary work. The Commonwealth definition of tertiary, for this purpose, excludes the first year of the diploma course, so that assistance is given only for above this level. Commonwealth assistance is available on the basis of \$1 for every \$1 of State funds for capital expenditure, and \$1 for every \$1.85 of State funds for recurrent expenditure. The State expenditure, for this purpose, includes Government grants and tuition fees paid by tertiary students. The upper limit of Commonwealth assistance available for each college in each year is set out in the States Grants (Advanced Education) Act. These limits have been determined for the current triennium, which ends in December, 1969. It is

expected that, during 1969, the Commonwealth Parliament will pass an Act setting limits to financial assistance for the triennium 1970-1972. Consequently, the colleges and the V.I.C. have been engaged this year on the very important task of preparing estimates of expenditure required up to the end of 1972. In effect, the Commonwealth Act fixes the total funds available for tertiary work, as the present policy of the State Government is to provide just enough State money to attract the maximum Commonwealth grant.

Another very important responsibility of the V.I.C. is the consideration of salaries and conditions for staff employed by the affiliated colleges. In the past, salaries and conditions have been determined by the Teachers' Tribunal for teachers employed by the Education Department. It has been the practice for the Minister to apply the same salaries and conditions to staff employed by the Councils of R.M.I.T., Swinburne, Prahran, Ballarat, Bendigo and Geelong. Under the V.I.C. Act, salaries for Council staffs will in future be determined by the Governor-in-Council following recommendations from the V.I.C.

The V.I.C. also determines the staff establishment for each college—that is, the number of positions available in various categories. Within this establishment, however, the Council of the college selects its own staff. The future development of diploma and degree courses will be controlled by the V.I.C. and the Councils of the affiliated colleges. The colleges will be responsible for their own diploma courses and the award of diplomas, but all new courses must be approved by the V.I.C. Non-tertiary courses will still be controlled by the Education Department.

The new division of responsibilities, of course, requires the development of new routine procedures and new administrative structures, and the determination of new policies. A great many people have done a great deal of work in this reorganization, but much remains to be done before the new machine can work smoothly with a minimum of effort.

3 Lake Eyre Survey

The difference between learning fundamentals at a secondary school and the continuing of this learning at a tertiary institute is that it is possible to continue these fundamentals beyond the teaching stage and into the practical, development and research sphere.

New knowledge obtained by either collecting information or creating new ideas require continued sustained effort. It is impossible to build a solid structure without fundamental knowledge. Likewise it is impossible to carry out research without having a complete understanding of the principles prior to this research. With the continual development of science and engineering over the years, the glimmer of a new idea or the development of a project may require many years of work before it is accepted by the multitude. (The final Aswan Dam Scheme in Egypt took approximately 50 years from the initial idea to the start of construction.) Over the last four years, a variable group of students and instructors

working as a private research team, in no way directly connected to this Institute, has progressed an idea originally conceived before 1900, but modified due to new knowledge over the years. The basic idea in a few simple words is to provide an inland sea within Australia so that this will cause an increase in rainfall—that is, to try and eliminate the shortage of water.*

This work has initially required the sustained effort of a different team each year during the August-September break. Topographical surveys have already been increased out between Port Augusta and Lake Torrens (35 miles apart) and Lake Torrens (Northern end) and Lake Eyre South (50 miles). During 1969 the work proposed includes a more difficult survey from Lake Torrens (northern end) and Lake Eyre South (50 miles).

Further surveys will be continued in future years along the so-called dry bed of Lake Torrens and in the area

adjacent to this Lake, including the Flinders Ranges. A hydrographic survey will also be made of Spencers Gulf adjacent to Port Augusta.

To be a member of the survey requires more than simply a person capable of surveying. The person must be able to become one of a united team working in harmony under conditions which to say the least are not ideal.

Do you fulfil the following conditions—

1. Are you up to date with your studies?
2. Are you an engineering student.?
3. Are you in your final years at this Institute?
4. Can you adjust yourself to adverse conditions?
5. Are you prepared to rough it for approximately two weeks and wish to see parts of Australia very much off the beaten track?

If the answer in each case is in the affirmative then this research can interest you.

* Refer Scientific Australian, October, 65 — Inland Water.

4 Introducing a Christian Fellowship

We would like to be able to create a good impression in introducing ourselves . . . but that is not possible. To be honest, you will find us lacking in many respects. That is the way we have found ourselves. Why then, do we belong to a Christian Fellowship?

Because of our condition, we as individuals have come to Jesus Christ and are finding him completely adequate for everything we need. In fact, we are constantly discovering how capable He is in every area of life as it opens up to us. It is this common relationship with Him that forms the basis of our activity and fellowship together.

Knowing Jesus Christ is the most wonderful experience in our lives.

In this reason we want to introduce every fellow student in our College to such a Saviour — God. We are confident in doing this because He is not One who demands a certain degree of achievement before taking us on, but rather he has already done for all of us everything we need for this life — and the next.

You will find some of us are scholars, others trying to be, but most of us are simply trying to improve ourselves so that we may be better representatives of the One who has

done so much for us. And some of us find it easier than others in this job.

All of us are looking forward to serving our God whether it be in engineering, chemistry, teaching or what-have-you. This fact affects the programme of the Christian Fellowship. In addition to public meetings and daily prayer meetings, there are students who meet occasionally to assist one another in facing the new problems presented by their studies in the light of Jesus Christ. It is our desire to be truly Christian in every part of our lives, not just in those usually considered religious.

5 Our Future

Come with me on a visit to a good, fairly typical overseas tertiary teaching institute. To reach the College or Institute of Technology, there is a drive through a rather run down industrial area of the city—tenements, narrow streets, and grime. Our first sight of the College, however, is impressive. A newly built complex of glass and blue tinted tiles, its buildings are set between attractive, well kept lawns and gardens. There is even a fountain splashing in the front courtyard.

Having parked the car in the visitor's car park at the side of the main building, there is a short walk to the entrance. Modern bronze and stone sculpture is set alongside the path, between and under the trees. Above the door a sign proclaims "Welcome to — College".

The large entrance foyer with its massed indoor plants and tropical fish tanks has as a central feature a twenty foot diameter glass walled and carpeted "Reception Centre". Here, after the necessary contacts have been made, one is led to the Principal's Suite and offered cocktails in his private lounge (this happened to me one day at 8.45 a.m.). After these refreshments we are ready for work, so the Principal leads us into his office and we settle into the lounge chairs in his "Conversation Nook" for a discussion of the College activities before our requested tour of inspection begins.

After the Principal, various Heads of Department are met, and it is noted that each Department has its own secretarial staff. The Head and his teaching staff, with usually one, two, or sometimes three to an office, are greatly helped by the departmental technicians. Generally, there seemed to be one technician for each three of the teaching staff, but there are some Colleges with a ratio of one to two. In the laboratories, technicians are often seen helping students with their project work which, as in Australia is a growing feature of the practical work.

Lunch time arrives. A number of staff dining rooms are waitress serviced, but the students generally line up and push a tray. Even in small Colleges, the menu is well varied and very reasonably priced. After lunch, the staff retire to their coffee lounge to

relax in the deeply cushioned chairs, sip their coffee, and browse through the magazine racks. The students lounge in their own rooms—as with students the world over, on seats, on the carpets, and up the walls. One of the most attractive of the lounges, in an American College, is fitted with stereo record player, carpets, curtains, and acoustically treated ceiling.

Fairly general is the large testing, counselling, and student guidance centre with its well qualified staff. At one of the large American Colleges visited there is one full time trained student counsellor for each 170 students. A number of the engineering staff have found the time to take on voluntary tutor jobs in this field, and I met a number who had volunteered to take a personal interest in fifteen or twenty students for the four years during which they are in the College. In a very short space of time, the Australian visitor becomes impressed with the fact that educators are being treated as professional people and given professional conditions. There is the impression that money is being poured into every level of technical training in England, and perhaps to a lesser extent in Germany and America. In the thirty two establishments which I visited during my overseas tour in 1968, I only saw two cases of overcrowding of staff or students.

Not only have new engineering laboratories and facilities appeared all over England, but because of the British Government directive that a study of the Liberal Arts must be included in all courses, the arts faculties have also increased in scope and size. Standards and course content vary widely, as does the reception of this section of their work by the engineering students. However, in round table discussions with students and staff, it was apparent that some of these courses were exciting the interests of many students in fields which were completely new to them. I met engineering students who had developed a keen interest in oil painting, film appreciation, drama, or classical music as a direct result of such classes. One such course, occupying two hours a week for a year of an engineering diploma course was being taken together by Art and Engineering students—no doubt a very

popular idea. This was on "The development of art and music, related to the old and the new technological revolution".

At another engineering college there is a weekly lunch time musical concert. During my visit a professional singer whose fee was paid by the College, was giving a recital of Purcell, Mozart, and Schubert. In the week before this there had been a concert by a string quartet. I doubt whether I saw or heard of any College which did not have a concert/assembly hall. A number also have well equipped gymnasiums and sports facilities—generally however used by only about ten per cent of the students.

Are we in Australia content to fall behind the widely accepted overseas standards? At present the technical content of many of our courses is as good as any in the world, but is it reasonable to ask our present trained tertiary staff to work in very unprofessional surroundings, to teach for ten to twenty per cent more time than their overseas counterparts, to act as their own technicians, to counsel and advise students and to write their letters and notes in longhand because of a lack of secretarial assistance?

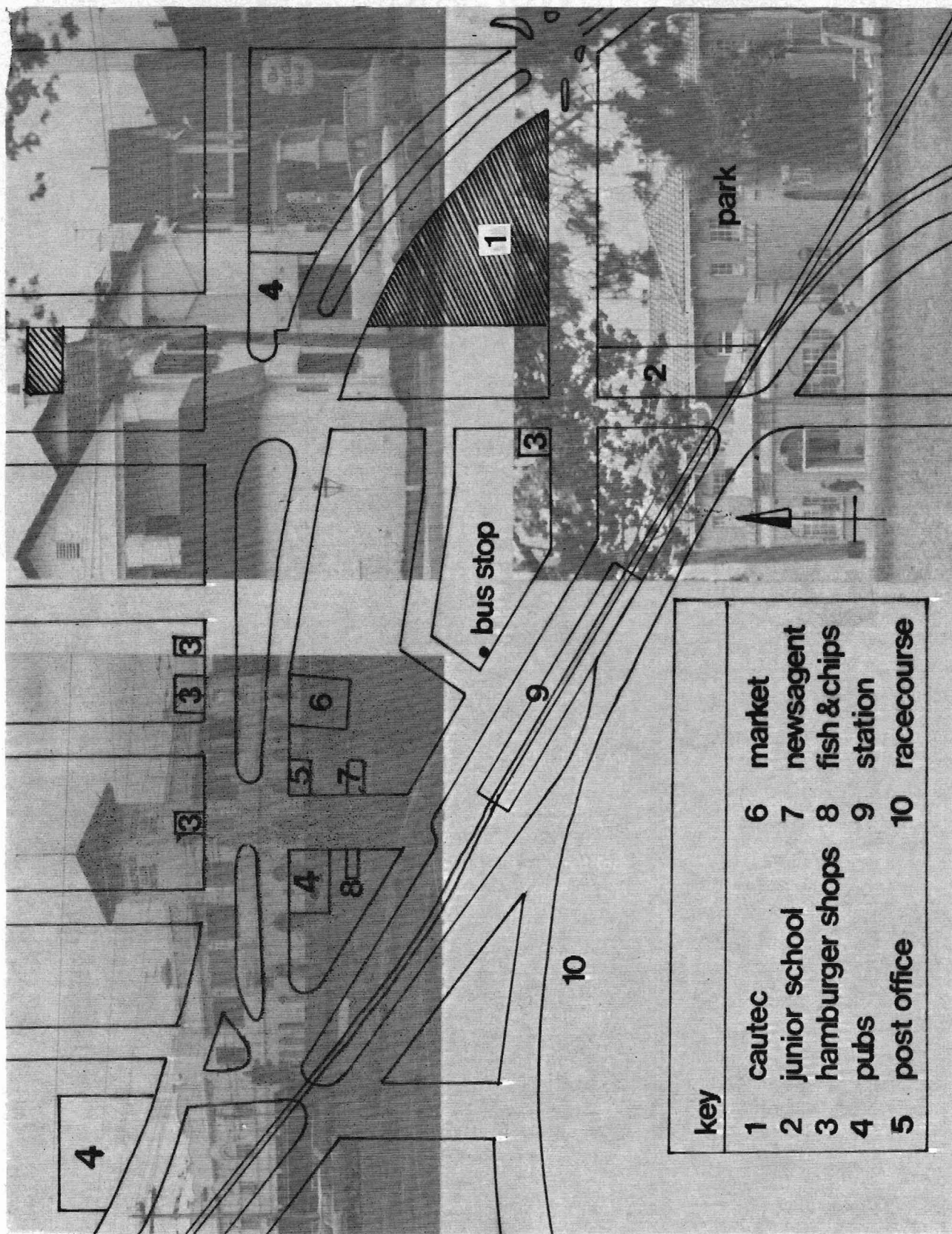
Inevitably, if this is allowed to continue, our present standards of instruction must crash.

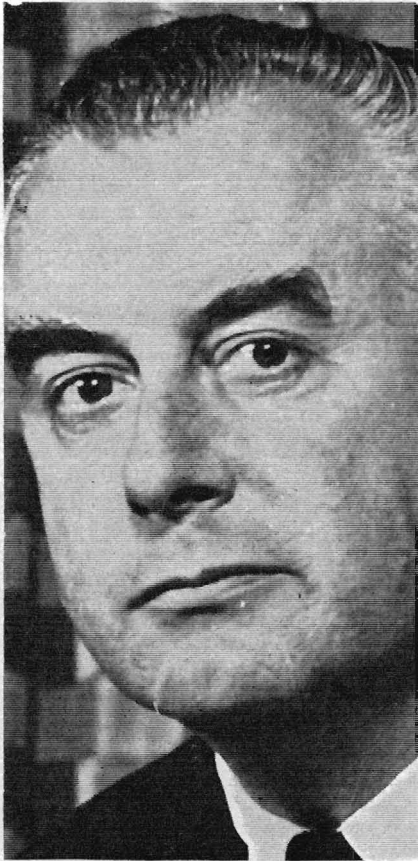
From where does the money come if buildings, staff, and general conditions are to be improved? At some places the students pay high fees; for example, the average full time student at Massachusetts Institute of Technology pays about \$1,600 per year. Apart from such fees, most Colleges receive Federal and State grants supplied through taxation.

We are constantly hearing that Australia has enormous potential.

Again and again our newspapers have details of newly discovered mineral deposits and news of the establishment of new industries. There is an increasing demand for more technically trained people. Can we afford not to spend money on the provision of the very best training facilities? Should the possible necessary taxation increase be thought of as a burden, or as an investment in Australia's future? Our needs are becoming urgent. We do not have long to decide.

6 Here's Where Its At





While the slogan of "student power" gains support throughout the world, Caulfield Institute of Technology is overcome by student apathy. This apathy appears to be largely due to affluence and democracy. Democracy in Australia has had a momentous influence on education; our education must be neutral. Such "neutrality" demands that teachers steer clear of important controversial issues and so worthwhile debate and discussion on politics, religion and culture is at a minimum. As a result, these subjects which are taboo at school later become taboo at adult social gatherings in general. In our society it is impolite or indelicate to discuss matters of religion, morality, politics etc. except in the most superficial manner. For rather obvious sociological reasons this position is even further exaggerated amongst women than men.

Because a person's views on such matters are seen as private, they undergo very little face to face attack or modification. These views thus come to be held much more on the basis of uninformed faith (or even prejudice) than for well thought out reasons. In this age of an "educational explosion" man's reasons for holding his most fundamental views are not

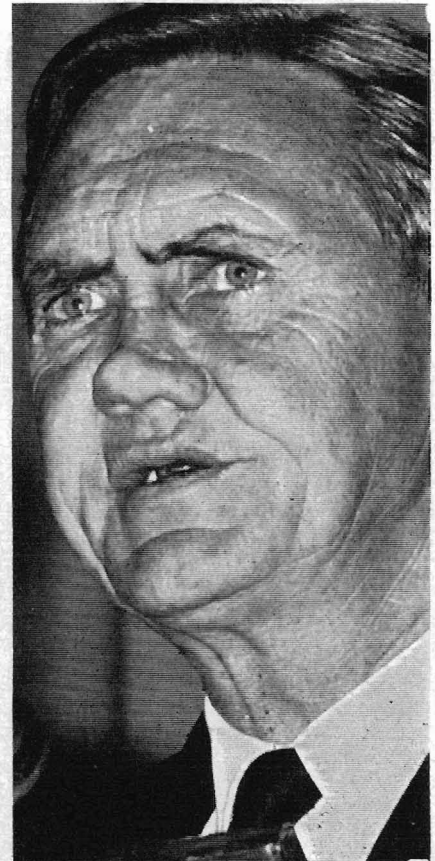
Student Power 7

becoming any better informed. Because people feel incapable of successfully defending such views in debate, important discussion is avoided. Many hide behind the smoke-screen of "everyone is entitled to his opinion", or "one man's opinion is as good as another". What could be more convenient? Now they can avoid the impossible task of arguing that the Beatles are as good as Beethoven, or the demanding jobs of looking at the complexities of such issues as the Vietnam War, the Bolte administration, racial segregation etc. instead of throwing naive slogans around.

Similarly affluence breeds apathy. Once a person is well-fed, well-clothed, well-housed and adequately entertained his sense of idealism is likely to be undermined. Such a person can succumb to what Mao Tse-tung has described as "sugar-coated bullets". On the other hand, when a man is starving, unemployed etc. he has urgent demands and little to lose. It is little wonder that our students who are now predominately economically secure and socially on the move upwards are not ready for revolutions. Their future is bright within the terms of the status quo.

Despite this, however, U.S.A. and France have seen two of the biggest student movements. While France's problems may be explained largely in terms of lack of student facilities and shortage of future prospects, the U.S. movement cannot be explained in predominately material terms. No doubt the Vietnam War is a key factor but the moral decline of the nation appears to lie at the heart of the problem. The youth of today has inherited a nation of violence, hatred, prejudice, neurosis and instability. Is it any wonder that it wishes to rebel? This is a popular thesis but I believe that it needs considerable modification. Firstly war, violence etc. have existed in every epoch and secondly part of this "moral debacle is, in fact, the rebellion of the youth thus it is not the cause of the rebellion.

The technological revolution has increased the education gap between generations. This, in many cases, has led to an intellectual arrogance on the



part of youth; the youth of today tends to see itself as enlightened and the older generation as out-of-date. Obviously this interpretation is frequently quite sound. On the other hand, lack of experience often lulls youth into the adoption of very naive or unsophisticated slogans rather than well thought out policies. Examples of such slogans or cliches are "Get out of Vietnam", "The hordes of Red Chinese are poised to invade us", "Johnson is another Hitler", "Cairns is a Communist, "the Domino Theory" etc. Normally students put forward such slogans with an idealistic fervour but what is usually lacking is an awareness of the fact that in politics idealism needs to be tempered by reality. Compromise is at the very heart of democratic politics. Idealism is most frequently developed in a youthful and intellectual atmosphere, realism, however, is developed in an atmosphere of experience and pragmatism. What we must hope for is not the sordid cynicism of many "experienced" politicians, nor the naive idealism of many student power rebels but rather a fusion or compromise between the two. Students must remember that theirs is not THE voice of society but rather one of the most vital voices WITHIN a pluralistic society.

8 Miss Cautec !

To the majority of boys around the Tech. the title, probably sounds quite interesting in a vague sort of way and some may even know who the particular girl representing their faculty is. Somebody will perhaps have pointed her out as she crossed the "quadrangle" and after a serious study has been made, lasting approximately three seconds, an opinion will be given.

Among the girls, however, a variety of attitudes are usually visible, ranging from complete disinterest to an almost excited air of anticipation as to who will be chosen to represent the faculties.

But those who look beyond the face and name of any faculty "Miss" will discover that the title on which so much importance is placed is in actual fact only a very small part of the sheer hard work which has gone into the raising of money, in this case for the Aborigines Advancement League, which is, after all, why the quest is run.

Part Time Study 9

The Author of this article had originally intended to study for a University Degree but money, and lack thereof, partly demolished his dreams. Consequently he secured a job with the State Electricity Commission of Victoria. This involved studying Full-time, for one year, the Diploma of Electrical Engineering at a Technical Institute or College. The following year Part-time studies were to be undertaken.

One student told me that his employer, The Board of Works, had allowed him to work and study Part-time one year and gave him Leave of Absence to study Full-time the next year. Such a method of obtaining a Diploma is excellent for it enables you to support yourself while becoming qualified, without having to spend excessive time in graduating. The money earned during the year can assist the student to exist the next year. Hence

After the first few days of the eight or nine weeks allowed for the quest, when the chosen girls have become accustomed to feeling eyes on them whenever they step outside a door, the donations tins, badges and raffle books are brought out and the "struggle" (and I am not trying to discourage future Miss Cautec entrants) to raise money begins. Anyone who has ever tried to raise money for charity will agree that it is a struggle, but at the same time it can be a lot of fun and a great deal of very valuable experience can be gained.

After being placed in a series of situations which vary from the ridiculously hilarious to the uncomfortably embarrassing, after trying to scrounge money out of anyone who comes within a five yard radius, be he the Prime Minister's most talented perfumed letter opener or the local timber yard's greatest, all time champion used post nails puller outer, you begin to wonder just what it would be like to live as a normal person again. But you also begin to

the idea is to work and study Part-time, saving money for Full-time. Naturally it is desirable to cut down on expenses. For example sell your car and save. Buy a bicycle! I did and I'm worth thousands!

DISADVANTAGES OF PART-TIME STUDYING:

- (1) Some evenings are required for certain subjects—this will possibly interfere with your social life.
- (2) If you are a shift worker, as I am, your life becomes even more complex.
- (3) The longer you take to obtain your qualifications the more money you are losing.
- (4) Changing syllabuses can cause difficulties in a prolonged period of study.

ADVANTAGES:

- (1) You are studying on your employers time — provided he will let you attend lectures without loss in salary.
- (2) You are advancing yourself and



realise just how much you didn't know about people and how much the experience of being in a quest such as this has taught you, both about other people and about your self. And even if ultimately the title does not become yours, you have gained in personal experience what a hundred years of day to day Tech. life could not give you. So if you belong to the sex which is in the minority at our particular Institute, and if a faculty representative approaches you (in connection with the quest of course) think carefully before you say yes because it is a lot of work—and also a heck of lot of fun.

Miss Cautec 1967-68.

being paid for it.

One of the most difficult decisions a Part-time student must make is the number of subjects he is to study. This can be based on:

- (1) Type of subject—number of hours/week, how difficult.
- (2) Time available per week on personal sacrifice and time allotted by employer.
- (3) Student's ability.

Remember, to study only a couple of subjects a year is next to useless as syllabus changes will overtake you—"Time and tide wait for no man". It is simple mathematics that the number of years Part-time is obtained by the formula:

$$N = T/S$$
 where T = total number of subjects in Diploma.
 S = average number of subjects studied per year.

It follows that the length of your course will depend on the number of subjects you are prepared to do each year, that is, on how hard you are prepared to work.

Staff - Student Relations

As C.I.T. progresses slowly towards institutional autonomy and hopes for academic respectability the nature of the relationship between students and staff members assumes great importance. Gauging from Student opinion here where it is at all coherent, there appears to be at least mild discontent over the present set-up and a desire for changes which would be mutually beneficial.

What should be the relationship between staff and students? It seems absurd to suggest a uniform and standardized pattern of behaviour which would apply satisfactorily to all; after all, the ages of students range from seventeen to over forty. Some are married. Others are not. Is this a basis for distinction anyway? Then there is the male-female problem as it applies to both staff and students.

Moreover, there is a wide difference between the intellectual ability of the students. Many would hold their own with the better students at the universities, while others in some respects are almost illiterate. These factors simply serve to illustrate the diversity of students and a recognition that the nature of contact will vary tremendously from student to student.

I hope that members of staff are aware of this.

Likewise, from the students' point of view, the staff only naturally are extremely diverse in character and quality. Many lecturers have themselves only recently been students and because of this may be in a better position to understand the problems of students and suggest advice, assuming of course that they don't have the same problems themselves or have satisfactorily resolved them.

What of older staff members? Because they are no longer young are they unable to develop what the students would regard as a proper understanding upon which to base a more desirable contact?

What of young female lecturers faced with the problem of teaching robust young men? Difficulties will invariably arise concerning this relationship—both academic and personal. Likewise with respect to younger male members of staff and female students, one can never be entirely sure how they should view and treat the opposite sex.

Thus it seems from the foregoing that in attempting to forge satisfactory relationships between staff and students in tertiary institutions problems will occur of a very diverse nature. One is a little suspicious of too free a relationship which can have dangerous side effects. One is that the teachers' assessment of a student will be clouded somewhat for non-academic reasons. Is this a bad thing anyway? Allegations of favouritism towards student assessment, although in many ways natural and understandable, can have serious repercussions on morale.

Consequently, there is some value in insisting on a certain mild aloofness on these grounds. Another possible side effect of too free relations is a curbing of student initiative by a sense of deference to staff members who engage in student activities.

Outwardly, if this happens, student opinion and activity appears as a pretty healthy phenomenon. But whose opinion? From my own experience at one of our own universities I feel this happened to a significant degree.

C.I.T. has a dearth of extra-curricular activities which is discussed in another article. Thus it might be worthwhile for staff members to play

a more important role in generating student activity for a while in the hope that before long students will become interested and then take over the responsibilities. Everyone should be aware that at C.I.T. and many other tertiary colleges, students regard their courses merely as a means for obtaining well-paid vocational positions and not as places where a conscious attempt is made to broaden and mature the minds of people in non-academic areas. It is here that the staff members must play their part by appearing as people who can be freely approached and questioned about various aspects of the students' experiences. But this is made extremely difficult by the deplorable physical conditions here. Where can staff and students talk together? In the quadrangle? Perhaps even in the cafeteria? In a staff room shared with a dozen other teachers? The completion and occupancy of "F" wing presumably will help to alleviate this problem. But favourable conditions themselves are not enough. There has to be a willingness to use them. It is to be hoped that 1969 is a turning point in staff-student relations.

The Knights of the Brown Ale

11



Why do we have social functions for the student body? Are they necessary? These are questions which we could be asked by a student.

We think they are necessary as they help to relax the student by taking his mind off the expanding curricular activities he is doing for that year. The three main functions held for the student body are the Commencement Ball at the beginning of the year, the Revue held around April of each year, and the main Miss Caulfield Institute of Technology Ball held in August. Apart from these, other functions run for the students include such things as car trials, rorts, trips to the snow and dances.

When a student starts at the beginning of a new year, he feels that all that is ahead of him for the year is study, lectures and more study, so the Commencement Ball is held to let him get together again with his fellow students from last year. This Ball is also a good way of getting new students to know each other.

As the student finally buckles down to study and lectures he feels that he would like to do something for the student body. So it is this time of the year that the Revue is held.

It is fully staffed by the students of C.I.T., including cast and all essential back stage service, and is held not only for the enjoyment of students and parents alike, but also as an advertisement of the imagination,

inventiveness and ability of the people of C.I.T.

After the Revue, the mid-year examinations follow and the student once again digs into the piles of lecture notes to study what he has learnt so far for the year.

And after the mid year examinations the student dives full of confidence back into lectures and study with only the thought that the end of the year examinations are fast approaching. With the thought of the remainder of the year's lectures and study and then the final examinations eating away at his mind the student feels he must have one last and big occasion before he enters the examination rooms. So the Miss Caulfield Institute of Technology Ball is held in August of each year. A budget is drawn up for the Ball but it is a very flexible budget which extends to the extreme corners of finances available. Everything is put into the organization of this Ball so that it will be an even bigger and better Ball than the Commencement Ball. The best of bands are booked, the most beautiful girls from the Institute

compete in the Miss Charity Queen and the Miss C.I.T. quest, and the most distinguished guests are invited.

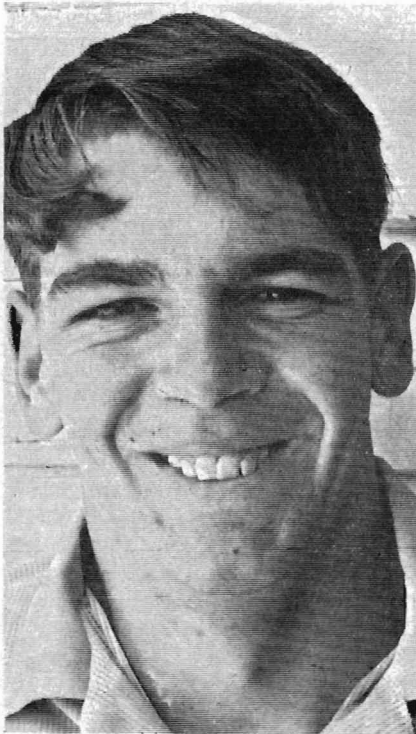
This all goes to make what is the most successful function of the year. But these functions are not organized one or two weeks before hand. The Commencement Ball for 1969 which will be held on 28th March started to be organized the day after the Miss C.I.T. Ball for 1968. And the Miss C.I.T. Ball for 1969 will be organized immediately after the Commencement Ball for 1969 has been held. The organization of the Revue is larger than the Balls and therefore the organization of the next Revue was started immediately after the final curtain of the last Revue.

The student is no longer in a junior technical college whose main theme is to work and pass the final year examinations, but he is in an Institution in which he can relax from the strict discipline of wearing the school cap.

He is at an age where he wants to get out and meet people of his own age. This is what the social functions held for him throughout the year are helping him to do.



12 The S.R.C.



PRESIDENT Paul Lofthouse, — 21.
40 Beaver Street,
East Malvern. - 211 6240.
Civil Engineering.

PRESIDENT'S REPORT

In 1969, the 21st Student's Representative Council of Caulfield Institute of Technology has the enviable task of being the first S.R.C. under the new administration of the Victorian Institute of Colleges.

For the first time in the history of the colleges, the College Council has the power to make all decisions. While this may not seem a great difference to new students, it will be greatly welcomed by older students. The fact that the Education Department no longer has the power to tell us what we can and cannot do is a great relief to the College Council.

With the College Council having all the power, Caulfield moves into line with R.M.I.T. and also to some extent the Universities, with their administration.

The old question once again comes

up "what does the S.R.C. do for the students"? This year more so than in previous years, the students will be able to see what the S.R.C. is doing for them.

The common room is to be fully furnished by the S.R.C. for student use. The S.R.C. has had the power bestowed upon it to act on and for the student body in all matters of discipline.

As in previous years, the S.R.C. plans to hold various functions for the students at a minimum cost to the students. These include:

Commencement Ball on 28th March
Annual Ball on 21st August
Snow Trip on 3rd August.

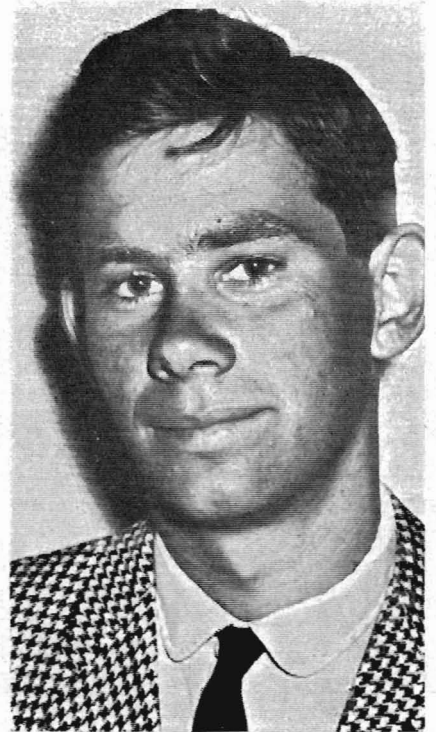
Along with these there will be three dances and a car trial on dates to be fixed.

It is hoped that the students will participate in these functions, along with the two annual general meetings on 8th May and 25th September.

With the completion of F wing during this year, the problem of classrooms should be solved. It is hoped that the church hall and bowling green club rooms will not have to be used. These rooms are a definite drawback to students as they have no facilities for proper study or lecturing. In the design of the new building a common room was planned; this eventuated with the size being approximately 24' x 56'. Adjoining the common room is the new S.R.C. office being 12' x 12'.

It has been proposed that certain rooms in the new wing be set aside for the purpose of studying, with no lectures in these rooms at all. Also there is a film room in which films relative to certain lectures will be shown. The S.R.C. has the authority to show any film which they think will be beneficial to the students.

It has been proposed that the S.R.C. carry on with its help in supporting any new club which wishes to start up this year. These clubs will be fully affiliated with the S.R.C. The members of these clubs will be under direct control of the Executive Officer of the S.R.C.



VICE-PRES. Bob McAuley, 20,
53 Parkmore Road,
East Bentleigh. - 57 3329.
Electrical Engineering.

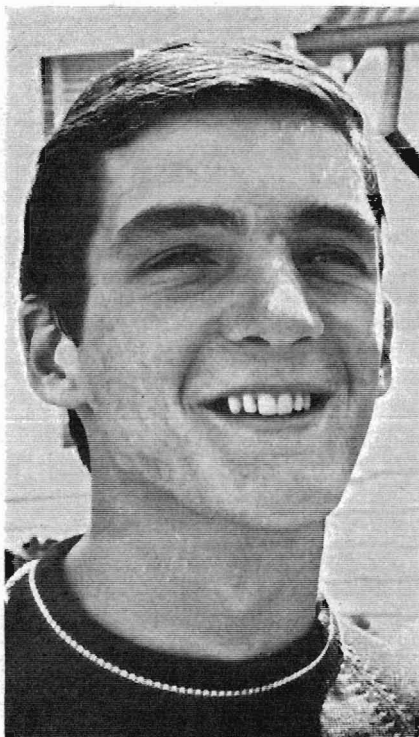
The clubs proposed are:

Weight Lifting Club.
Bush Walking Club.
Karate Club.
Electronics Club.
Music Club.
Photography Club.
Film Club.
Christian Fellowship Club.

Some of these clubs were started last year and it is hoped that they will continue.

On the 11th October, 1968, the following list of people were elected to the 21st S.R.C.:

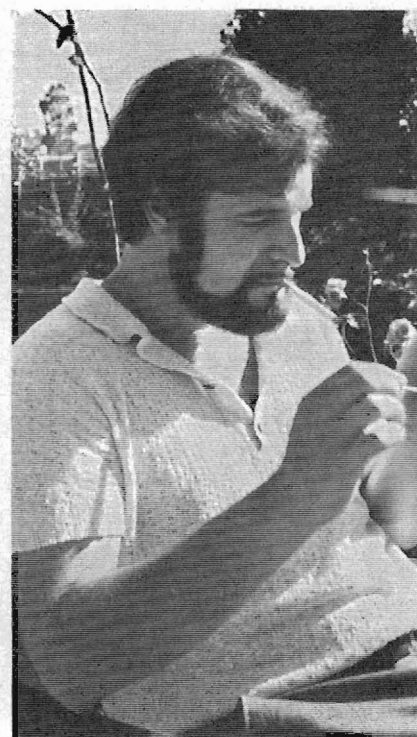
EXECUTIVE Ian Ross, 20,
OFFICER Nyora Street,
East Malvern. - 25 7009.
E.D.P.



TREASURER Chris Ward, 20,
220 Patterson Road,
Moorabbin. - 97 4708.
Civil Engineering.



SECRETARY Brian Lightfoot, 19,
26 Elster Avenue,
Gardenvale. - 96 3985.
Applied Chemistry.



PAST-PRES. Daryl Chatfield, 22
2 Comes Road,
Beaumaris. - 99 1259.
Civil Engineering.

Gary Bailey (2nd Form)
772 1913
Ray Barton (3rd Form)
97 4156
Terry Harwood (Electrical)
93 7633
Mick Keans (Civil)
93 8277
Ron Lovell (Chemistry)
544 2782
Doug Luxmoore (Electrical)
90 4546
Mick Mulhall (Mechanical)
92 8489

Ross Myerscough (Mechanical)
58 3972
Miriam Parker (Art)
90 4959
Gwenda Summers (Art)
58 7655
Mario Ticli (E.D.P.)
57 8298
Gail Woods (Secretarial)
95 2610
Anne Zimmermann (E.D.P.)
378 1779
Richard Zagrzejewski (V.A.S.T. Officer)
232 8602
Garry Cross (Civil)
Don Kerley (Electronics)
57 1563
Kaye Dineen (S.A.C.)
53 4916
Kama Lane (S.A.C.)
98 2382

It is hoped that students wishing to
say something to the S.R.C. or want
them to act for them, will contact

his or her representative on the
Council.

The S.R.C. tries to voice the requests
of the student body to the college
administration. In order to do this, it
is necessary for the students to
co-operate with the S.R.C. in matters
concerning this.

In closing, I would like to welcome
back old students and a special
welcome to all new students. We hope
you will participate in the functions
held by the S.R.C. throughout the
year.

Students interested in careers in the electrical field may take the Diploma of Electrical Engineering or the Diploma of Electronic Engineering.

The courses are of four years' duration, and the subjects taken in both courses are identical in the first two years.

In the third year, 5 of 7 subjects are common, while in the fourth year only 2 of 7 subjects are common.

The first year emphasizes fundamental background subjects such as Physics and Mathematics, but has an engineering content in the subject "Introduction to Engineering", which endeavours to acquaint you the student, with the nature

of the engineering profession, to encourage you to develop a practical engineering approach to problems, and to express yourself clearly on engineering matters. At the end of the first year, a student may change to either the civil or mechanical courses if he wishes.

In the second year, while attending the basic subjects which form the background of any engineering course, you will commence engineering subjects, of which Electrical Engineering IC will be the most important. Here the fundamental electrical concepts which are so vital to both "Power" and "electronic" courses are met, and a clear understanding of these will immeasurably assist your later studies.

Towards the end of the second year, electrical students will be asked to indicate which Diploma they will take. You are advised to find out all you can about the course, the nature of your future work, and the prospects of employment before making a decision. The staff members will welcome your enquiries and will be able to help you.

In the final year of the course, a feature introduced for the first time in 1968 is the "Projects" subject. (Electrical and Electronic). Here the

students undertake research, design or manufacture and gain confidence in their ability to carry out advanced engineering work.

Employment Opportunities

On completion of the course, employment can be found in official bodies such as the Commonwealth and State government departments, or in private industry. An area which must not be overlooked is the teaching profession where, of course, the very best engineers are needed.

The larger employers have cadet schemes, which give very valuable experience and training, usually for a two year period.

Post Graduate Study

A graduate in one of the electrical courses who wishes to complete the other course could do so over at least two years' part time. It is not possible in one year full time as some of the extra subjects are pre-requisites.

It is a possibility that the Institutes of Technology will be offering Degrees by the time you graduate, but at present the only degree courses available are at the Universities. In general, subject to quotas, an exemption from two years of the university engineering course would be given to our graduates, leaving a further two years for Bachelor of Engineering.

Alternative Courses

The engineering diploma course is not easy, and some students do find it beyond them. The Certificate and Higher Technician courses are provided for people in employment to obtain extra technical qualifications on a part time basis, and lead to careers as technicians, operators, or testers. Subjects passed in the Diploma course will give certain exemptions.

The Hurdle—Passing

Apart from indolence (loafing), failure to pass engineering subjects is usually due to a lack of clear understanding of the fundamental principles involved. In turn, this can usually be traced to the students' reluctance to seek early clarification, often for fear of

being shown to be ignorant. We can assure you that the staff regard questioning by students as an essential part of the teaching process, and are always available to explain a point, or perhaps to admit that they do not know but will try to find out.

The following dossier of staff members shows name; qualifications; year of joining C.I.T.; particular area of experience; and particular area of teaching, in that order.

A. L. Corben, B.E.E., Dip. E.E., M.I.E. Aust., 1966; Power Distribution; Introductory.

K. Edwards, B.Sc. Eng. Hons., HNC, M.T.E.E.; 1964. Industrial Electrical Engineering and Electrical Machines; General Electrical Engineering.

B. Gerstmann, B.E.E. (Vienna) Dr. Eng. (Vienna), M.I.E. Aust., 1949. Electric Traction, design of transformers, switchgear and motors; final year.

D. Lazarevic, M. Elec. Eng. (Belgrade), B.M. Eng. (Belgrade), M.I.E. Aust., M. Prod. E. Eng., 1958. Design of H.V. alternators, transformers, Management; Design and Electric Power System.

F. Payne, E.B. (Elec.) Dip. Elec. Eng. M.I.E. Aust., T.T.T.C.; 1968. General electronics design and development. Electronics and electronics design.

M. Telfer, B.E. (Elec.) Dip. Elec. Eng., M.I.E. Aust., Grad. I.R.E.E. Aust., T.T.T.C.; 1968. Missile telemetry and electronics; Electronics, control systems and analogue computation.

M. Winthrop, B.M.E. (Lwow, Poland), M.I.E. Aust., 1960; Construction of power stations; General electrical engineering and design.

For thousands of years, man recognized only the natural forces of muscle and of flowing air and water, as controllable sources of power. These, he converted to his use by simple mechanical devices, such as slaves, sails, windmills, water wheels and so on. To this extent, he practised mechanical engineering, but, because of limitations in either the source, as

in muscle power or the strength of available materials, mostly wood, he was unable to approach the spectacular achievements of his colleagues in civil engineering. They, by the overpowering use of mass, were able to smother many of their problems, while they developed their stress analysis. Try to imagine wind force toppling the pyramids!

And so the world toiled and kept physically fit until it was discovered how to endow water and air with very much more energy than nature ordinarily vouchsafed and to develop devices to utilize this vastly increased energy. The boiler and steam engine marked the breakthrough, followed by the internal combustion engine and more recently, atomic power. This is the path of modern mechanical engineering. Its broad objectives remain the production of power and the development of systems that use it in the service of man.

Fortunately for the mechanical engineering student's sociability and sense of proportion, the attainment of these objectives relies heavily on the work of others; the physicists, chemists, mathematicians and metallurgists to name a few. So heavily, that right through his course he sits at the feet of one or more of these specialists.

Also, in a world of ever increasing complexity, he needs to cooperate with other likeminded servants of society and hence has to learn something of electrical engineering, electronics, industrial administration, English expression and social science, all of which are included in his curriculum. The main subjects are of course related to the basic objectives.

They are thermodynamics for the production of power and applied mechanics, drawing and design for the development of systems to harness it.

Any prospective mechanical engineer should carefully examine his inclinations in respect of the major subjects before committing himself. Satisfied on this score, he should honestly assess his capacity for work. All engineering disciplines require a lot

of sustained work; the emphasis being on 'sustained'. All have had their teaching class hours reduced, to enable students to better organize their own time and to permit extra curricular activities. Of these, the running of the SRC is particularly praiseworthy, but not, dare it be said, at the expense of the office bearer's studies. In fact, does not the student body owe it to its collective conscience to require an office bearer to withdraw at midyear if his studies have demonstrably suffered?

But, having battled his way through this exciting course and had his sense of power stirred by much practical work, culminating in his own final year projects, our hero will want to know how to turn his knowledge into a satisfying career. Here indeed is he fortunate in the ubiquity of mechanical engineering. It is this branch more than any other that brings the benefits of scientific discovery to the mass of humanity. In tracing the path of any product from recognition of its need to maintenance in service may be discovered the numerous openings for mechanical engineering. Thus it requires research, design, development, production, sale, commissioning and maintenance. Combine any of these activities with any product from a tin tack to an oil tanker and an opening for a mechanical engineer is uncovered. Nor, need it be a material product. It could be the training of a student or for that matter, of the teacher. So it is unnecessary to list specific avenues of employment.

Any thinking mechanical engineering student can do this for himself!

WHY DO CHEMISTRY?

Why does a student choose any particular diploma? There are probably as many answers to this question as there are students. Before entering a course it should be considered whether it leads to an interesting, well-paid, satisfying position, if it is in an

expanding field of progress and discovery and if it provides the environment in which a man may work happily for forty years.

In the practice of chemistry the Diplomate may be employed in semi-Governmental, Industrial or private enterprises. He may be concerned with production, development or quality control in many varied areas such as chemicals, fertilisers, food, paint, plastics, rubber, metals, fuel or power. He may assist in the solution of problems of manufacture or use of products. He may be a salesman, manager, teacher or research assistant. He has a secure job as there are, at present, many more positions than there are qualified applicants, and our exit students are able to choose that career which most closely meets their interests.

Since the field of chemistry is a large one and constantly growing a course cannot treat more than part of it. We therefore aim to provide fundamental knowledge and develop the correct outlook and techniques in our students that they may be equipped to tackle unforeseen problems, or acquire fresh knowledge as the need arises. It must be remembered that the diplomate will continue to expand his skills for twenty or thirty years without receiving any further formal training. As well as a solid foundation in Chemistry, Physics and Mathematics we add an introduction to Electronics and Computer Programming, the useful skill of Glassworking and the cultural benefits of English and Social Science.

In the present situation in which each College of Advanced Education is established as a separate unit, the need for a College to develop a reputation for itself becomes important. The student must have reason to be proud of his Diploma and employers will be quick to compare different courses. The quality of our exit students must be of a high order.

In 1969 we will be occupying a new suite of laboratories which should provide very fine working conditions.

There is sufficient space and the rooms are well lit and force ventilated. We possess all the basic apparatus of the

chemist, together with a very costly range of modern instrumentation. We plan to keep up with every new development. Much time is spent on practical work and emphasis is placed on able performance in the laboratory, so that our course is properly of an applied nature. Specialized areas will be developed to deal most efficiently with each division of our course.

If you have chosen to do Chemistry at the Caulfield Institute of Technology then we believe that you have made a wise choice

CIVIL

16

The V.I.C. promises to improve greatly the status of our diplomas. This is desperately needed since our qualifications are not recognised outside Australia, and considering that even some Australian degrees are not honoured in Europe, then we must realise that our battle will be a long one.

A feasible way to gain recognition for our college would be to become known for a specialty. It is more excellent to succeed at a different line of action than to succeed at conventional courses. We have Messrs. Pescott and Morris, both strong advocates of model design. It would be wise for us — the students, the college, and the V.I.C. — to exploit the lecturers' orientation towards experimentation. We should concentrate on model study. The era of design by models should be a long one, superseded only by undiscovered, complex mathematics. We admire engineers like Nervi for their intuitive knowledge of strengths of materials and transmission of forces, yet in a four year course, (if students were to concentrate on experimenting with models, materials and forces) these students could easily gain that intuition. It would be a terrific advantage for an engineer to know, instinctively, a sensible, economic section for such secondary purposes as ties, bracing, stiffening or reinforcement.

The Civil Department, in 1968, finally

won a laboratory technician . . . At last . . .

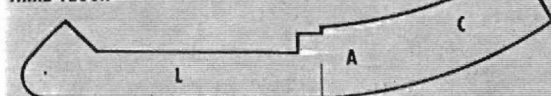
Of interest to us all is the recent salary adjustment following the seemingly lengthy national wage case, the Commonwealth Arbitration Commission awarded salary increases of \$71 per annum.

The Engineers' main pleas were for adjustment following wage increases in other professions and also for increases due to the fact that the modern engineer has to deal with more complex problems, use more sophisticated equipment and that, generally, the role of the engineer has changed very much.

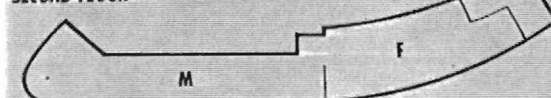
There is much talk of nuclear power stations, but at present it seems that hydro-electric power stations are more feasible, and a more practical solution to Australia's problems. As opposed to all thermal stations, hydro-power costs nothing in the way of consumed material — in setting up reservoirs and pondages for hydro-schemes we also build safeguards against both flood and drought and we hold water to use as desired, for irrigation, etc.

PLAN OF INSTITUTE

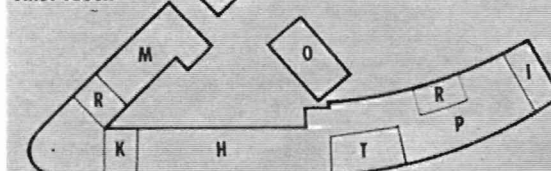
THIRD FLOOR



SECOND FLOOR



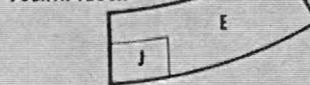
FIRST FLOOR



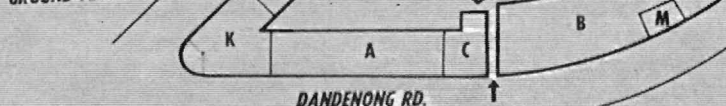
FIFTH FLOOR



FOURTH FLOOR



GROUND FLOOR



KEY

- A Civil Engineering
- B Electrical Engineering
- C Mechanical Engineering
- D Electronic Engineering
- E Electronic Data Processing
- F Applied Chemistry
- G Humanities
- H Physics
- I Materials
- J Business Studies
- K Administration
- L Mathematics
- M Art
- N Welding
- O Trade Studies
- P Library
- Q Cafeteria
- R Staff Room
- S Workshops
- T Lecture Theatre

18 Not Two Cultures

Art is not remote from life. It takes, or abstracts, from life and it returns knowledge and experience in a multiplicity of ways. Our homes, commercial buildings, theatres, bridges, aeroplanes and motorcars all reflect our taste and sense of style.

Pier Luigi Nervi, the famous Italian architect and engineer, has said: "Without a doubt the aesthetic tastes of man start from a few isolated points and from there expand step by step into all creative fields, not only the artistic and architectural ones, but also the technical and functional ones. In this manner we see that the horse-drawn carriages, ships, palaces, furniture, fittings, decorative objects and even the clothing of a certain era are in perfect accord with one another, and that they all are pervaded with a certain character difficult to define but which is called style."

Modern painting and sculpture have been powerful influences on our day-to-day existence—perhaps without us even being aware of the fact. For instance, the name Mondrian may not be known to a majority of people; however, it has been fashionable to paint the interior walls of our homes with balanced and contrasting colours; so much so that each wall may be a different colour or texture. This fashion can be traced back to Non-Objective, or Abstract, painters such as the Dutch artist Mondrian, who experimented with coloured shapes that have little relationship with objective reality. Of course, Mondrian's painting also had a considerable influence on recent dress fabrics and dress design.

It is generally believed by present-day art teachers that an art school must be a vital part of the community—and an art school embodied in an institution where scientific and technocratic studies are paramount must be a contributor in that small community in which it operates. And yet engineers and scientists may not be quite aware of how vital an aesthetic approach to their work can often be, and what they can gain from art studies in their midst. Today the tendency is to believe that

the art student and the students of engineering and science should be trained in the same environment because a feeling for aesthetics should be combined with a knowledge of function. This has all the potential for a healthy educational atmosphere in which to create better artists and fully competent engineers, scientists, and business men. One of the growing problems of the second half of the 20th century is the production of professional and technical people who cannot occupy themselves creatively and imaginatively in a way that will give them a more complete life.

The art student has much to learn from the technical world, and engineering and science students must be given the opportunity to experience aesthetically satisfying forms in art.

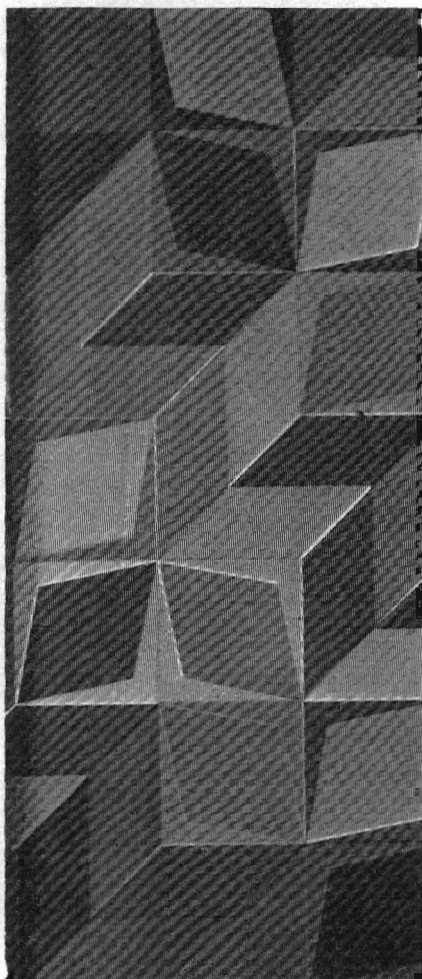
It should never be a question of "two cultures"—but merely ONE. An art student has the ability to make ideas pictorial and graphic: he is trained to use his eyes and understand how problems can be solved in this way, and he understands the necessity for scientific disciplines. On another level the art student plays a big role in a school when he designs official publications, brochures, and displays.

In the past many artists have gained much through knowledge of science and engineering: Leonardo da Vinci and Michelangelo are two obvious examples. Not many art students will reach heights comparable to Leonardo da Vinci and Michelangelo, but when a student learns to share his ideas and experiences with others, he is fast becoming a mature individual.

How does a student enter an art school these days? This is a common question, but a few basic facts should be remembered. It is firstly essential to have natural artistic ability, and it is important to aim for the highest qualifications at a general secondary or technical school level. Art courses at the present time are expanding into many fields, and the art student is encouraged to study literature, sociology, films, theatre—a variety of subjects. The entrance standard is a minimum of four Leaving Certificate

subjects, or Matriculation.

Career prospects are continually growing for students who complete their Art Diplomas. First-class graphic artists are always required. The world of television is one excellent example of a technical area where graphic designers are being used more and more. The development of the Art Centre in Melbourne is the product of a growing public awareness of the need for a real appreciation of the fine arts: it is also another indication of the demand for good design in our daily lives. Many kinds of artists must be trained to satisfy this demand. The present-day student is experiencing a broad and deep education to equip him as a creative individual who will develop personally and within society.



The Apprentice in the

An important function of Technical Schools in Victoria is the training of apprentices in the skilled trades. In the main, this training is supplementary to the training received by the apprentice in the employer's workshop or "out" on the job.

It may be of interest to look back and briefly study the development of Technical Education, with the corresponding development of trade training in Victoria.

In 1858 a Technological Commission was set up to promote technological and industrial education.

In 1870 the first technical school in Victoria was opened at Ballarat, and was known as the Ballarat School of Mines and Industries. This was followed by the Bendigo School of Mines in 1873, and the Gordon Institute of Technology in 1885, with other schools being established over the next 20 years or so, at Castlemaine, Sale, Maryborough, Bairnsdale, Stawell, Daylesford, Warrnambool, Echuca, Prahran and Hawthorn (later to become the Swinburne Technical College), with the Royal Melbourne Institute of Technology first opening in 1887 as The Working Men's College.

At the turn of the century a Royal Commission, under the chairmanship of Theodore Fink, investigated Technical Education in Victoria. At this time there were ten Schools of Mines, five Schools of Art, and three Technical Colleges in Victoria.

In 1910, the State Government passed an Education Act which incorporated recommendations from the Fink Commission. This Act paved the way to the reorganization of the secondary education system and made possible the introduction of new technical schools.

A Technical Education Branch of the Education Department was established, and in 1912, under the direction of Donald Clark, the Chief Inspector of Technical Schools, Junior Technical Schools were developed to provide preliminary training for technical studies, thus bridging the existing gap between primary education, higher technical education and industry.

Having recognised the potentialities of technical education in the fields of "trade" training and work at diploma or professional level, industry was brought into a closer relationship with the technical school, and trade specialization was soon reflected in the variety of courses being offered. In 1927 a special Act of Parliament established the Apprenticeship Commission of Victoria, with the control of apprentices in proclaimed trades. Under the Apprenticeship Act of 1928, it became compulsory for an apprentice employed in a proclaimed trade to attend classes as prescribed by regulation.

In 1948, the schooling of apprentices was transferred from evening classes to compulsory day classes, which in a number of trades are now supplemented with evening instruction. The number of trades proclaimed since the establishment of the Apprenticeship Commission has risen from several in 1928 to over 150 by June, 1968, when five more trades were under consideration for proclamation. In 1940 there were 5412 apprentices employed under the Act, as against 28,465 at 30th June, 1968. From these figures, it will be realized that it is necessary for apprenticeship training to be carried out at as many Technical Schools as possible.

Since trade instruction is related to industrial conditions, and since the various trades are becoming more specialized, Technical Schools are

Technical Institute

continually endeavouring to provide more specialized training in the variety of courses offered.

Technician Courses were first introduced for apprentices in 1958. The subjects in these courses include the trade theory and practice of the appropriate apprentice course, and are so arranged that students with the necessary entrance qualifications may undertake the extra work involved concurrently with their trade training. At present this college has Building Technician, Mechanical Technician and Production Technician Courses available to its apprentices, this being a centre for such courses. It is envisaged that Higher Technician Courses, which are an extension of the above, will be available in the near future.

In conclusion, I quote from "Technical Education for Development," edited by C. Sanders.

"A tradesman is a skilled operative who has acquired manual dexterity and a good knowledge of the tools, materials and practices of his trade. In the hierarchy of skills he ranks below technicians and technologists, but his group forms the largest section of the skilled workforce and is the medium by which the work of the scientist and technologist is translated in the physical artifacts of our society. In short, skilled tradesmen are basic to the economy and their training and education are matters of national importance."

During educational training, students must always consider their eventual place in Industry and therefore must develop suitable attitudes.

It has been truly said, that the gaining of a Diploma is the **start** of a learning process.

Those golden years of college life implant principles into your minds, so that you can learn upon entering industry how these can be further applied to useful means. Always look for practical applications as you progress through your course.

Industry wants people who are familiar with basic principles and who can then apply these to a given situation, and calling on past experience make a realistic decision. On leaving college you do not have any experience to draw upon. Tertiary education cannot fit you to walk into industry and immediately take charge of some phase of a manufacturer's plant—nor would he expect this of you. In this respect, part time students have an advantage. It will take time in your new surroundings to "settle in" so that you can be part of the team.

Your approach must take the following factors into consideration:

(1) Become familiar with the Company structure and the lines of communication. These vary tremendously with the size and type of company. Most important—to whom are you responsible and who is his superior? Having established this you "know where you stand".

In the case, for example, of an engineer who considers that a modification in manufacture of a particular component would save money and produce more efficient articles, the proper method is to approach your superior and ask for his appraisal of the suggestion. If he considers it

worthwhile, he will submit this for official company approval and you may then be given the task of seeing the project through all design and manufacturing procedures.

Considering this too much "red tape" many people are tempted to take the direct action, of approaching a tradesman direct in order to change manufacturing procedure. Such an action is not an uncommon cause of strikes, when people assume authority where it does not really exist.

(2) Recognise that you do not "know everything" and be prepared to learn from anyone, whether professionally qualified or not. There is often a resentment by older, nonqualified people (usually rich in experience) towards young, recently qualified graduates, which is at least partially due to the graduate's air of superior knowledge. You may have greater knowledge, but recognise you must learn how to apply it.

"Having had good foundry experience do you feel confident that you could run "... and Co." foundry efficiently on your own?" was the first question I was once asked by a Management Consultant.

Realising that one must make an impression during an interview it was a temptation to answer in the affirmative but on short reflection I was forced to admit "No—but I feel that I could after an initial familiarisation—particularly with the Electric Arc furnace with which I am not very familiar".

Yes—that old word—"Balance"—not between success and failure, but between knowledge and its application. It can be done with confidence, based on a realistic recognition of our own ability i.e. capabilities and limitations.

(3) **Never** enter an argument on which is the most important—theory or practice. Neither is the most important on its own. They are complimentary. You, however, have the advantage from a training in theoretical principles, which you will then have the opportunity to apply in practise. The experienced person without such a back-

ground is limited in the extent to which he can progress. Be thankful that you had the opportunity to start from the correct end and co-operate with the practical man for his benefit and yours.

(4) The old proverb "It is better to be quiet and be thought a fool, than to speak up and confirm it" should be well considered in the early months. Finally some advice on types of persons you will meet:—

(a) **The Manager.** He may have either commercial or engineering background. If it is different to yours, he may not be as sympathetic to your requests as you would like. Re-phrase them in the terms in which he thinks. He is usually much older and well experienced. Respect him and do not oppose him.

(b) **The Labourers.** Without them the hard physical work could never be done. Be firm but friendly and never superior. They are often your best source of information on what is really happening in a production plant as compared with official statements.

(c) **The Tradesman** have considerable manual skill which, when combined with your technical training is invaluable. Always ask his advice on the practicability of any proposed changes. Never bluntly tell him what to do—as he can usually find a way to prevent it from working.

(d) **The More Experienced Professional Worker.** He is the one from whom you will receive most guidance in the early months. Confide in him, and he will help you over problems which you had not previously encountered.

Enter Industry with confidence and enthusiasm balanced with a realisation of your own "greenness". Be teachable and where appropriate — teach, so that you may be an efficient link in the industrial chain.

21 | Origins of an Institute

During June, 1915, agitation for establishing a technical school to serve Melbourne's eastern and south-eastern regions, then estimated to contain some 80,000 primary and high-school pupils, was sponsored by the Mordialloc State School Committee and led by its chairman, Councillor Frank Groves, M.L.A. Largely through his efforts an organization representing the municipalities of Malvern, Caulfield and Moorabbin (which included Mentone) and the Shires of Dandenong, Carrum, Oakleigh and Mulgrave was brought into being to further the project. While pressing for the actual erection of a school, and with the willing help of local Progress Associations, Friendly Societies and School Committees, the Councils concerned raised some £1,600 for the enterprise, the bulk of the money being contributed by Malvern and Caulfield.

Cr. Groves then led a deputation to the Minister of Education who, on behalf of the Government, accepted the offer of funds by the local council and promised to recommend to Cabinet that a School should be built as soon as Government money became available.

With the conflicting local interest of

the various shires and municipalities involved, the choice of a site was not an easy one. Cheltenham seems at first to have been favoured by our pioneering committee but eventually Caulfield, with its key position as a railway junction providing access to the Frankston area as well as being "The Gateway to Gippsland" was settled on.

As its first choice the committee hoped to obtain some land used as a Motor Park by patrons of the Caulfield Racecourse; and with this in view Cr. Groves led a deputation to the Committee of the Turf Club. Sad, but not surprising, to say, permission for use of racecourse land was not forthcoming. (I cannot help wondering, in passing, whether a longer shot has ever been tried in that venue of forlorn hopes). Thus Cr. Groves and his men were forced back on this second choice, the "Drill Hall" site on the corner of Dandenong Road and Station Street, then classed by the P.M.G. as "Malvern" but now, as you know, as "Caulfield East". After ministerial approval for the choice of site was obtained, a post and rail fence was erected to enclose the land.

It was not until February, 1919, that the Government finally authorised the building of the new school. That same month, the School's first council was elected and formally took over responsibilities for the control and development of the school from the original committee. Cr. Groves was elected president of the new body, which seems to have been chosen so that each of the districts which pioneered the project and would provide the majority of the pupils was represented.

Costing £21,000, the original red-brick tiled-roof building, the present "D" block, holding twelve large classrooms and eight smaller rooms, was eventually completed, and was officially opened by the Premier, The Hon. Mr. Lawson, on Wednesday, January 25th, 1922. In his opening address Mr. Lawson emphasized that the test of the new school would be in the calibre of the students it turned out into a world where the struggle for commercial supremacy, based largely on technological skills, would replace the military conflict recently over.

After the triumph of Allied arms, we were now in the ironical position of having to send for German experts for



our technical knowledge. The need to provide our own practical skills was plain, hence the importance of such institutions as the one being opened. For those days, the original building was quite an impressive one, with its large and airy classrooms, designed for good lighting (something which was missing from the usually glossy school edifices of those days). Separate from the main building was the Blacksmiths' and wheel wrights School, these trades being the ones in which the school was to specialize in its early days. Classes in these trades, and also in carpentry, has commenced their for returned Servicemen in 1921, the year before the junior school began functioning. Similar Repatriation classes, the responsibility of the Federal Government, were also held in 1945 and 1946 at the end of the Second World War.

Other speakers at the opening ceremony included Cr. Groves and several members of the Victorian Parliament. It is, of course, for the community we serve to judge whether the school, now in its forty-seventh year had passed the test the Premier that day posed for it. The communities that paid a modest £11,000 or so

annually for our entire operations in the twenties now pay a bill running into millions of dollars for the extensions and improvements planned and envisaged for what will in the future be a degree-granting institution.

But to return to our early days. Classes for the intake of 200 boys (an overflow of some 50 hopeful applicants was accommodated in quarters at the Hughesdale State School) commenced under a staff of fourteen headed by the Principal, Mr. R. J. Dorey, with Mr. F. M. Wharington as headmaster. It is interesting to note that our first Principal was a qualified blacksmith, which underlines the importance of that trade in the original aims of the school.

The school had its share of "teething" troubles in 1922. Equipment was slow in arriving and for months the instructors had to make do with blackboards made of painted plywood while their charges sat on the floor.

The first evening enrolments were made by candlelight, the electricity not having been connected in time.

When these early difficulties were overcome, the school made steady

progress. Its extremely convenient location within a couple of Dave McNamara's kicks (look up your football records) of a station with a double train service was further enhanced by the electrification of the Flinders Street—Caulfield line in the very same months as the commencement of junior classes. Very soon electric trains were running to Dandenong and Frankston. The pressure on our facilities rose steadily with the increasing interest in technical education and, though ameliorated from time to time as extensions were built, has continued to be a problem ever since.

The rapid displacement of the horse-drawn vehicle by motor traction soon widened the original narrow aims of the school and before long lads were being trained for the motor trade and in other modern industrial skills. I do not need to tell you how much the courses have expanded and proliferated till we enjoy (if that is the word) the complexity of studies, junior and senior, technical and academic we now pursue.



Caulfield Institute of Technology is a tertiary establishment and the atmosphere is a lot freer with respect to studies and extra-curricula activities. Although the extra-curricula events provide a good outlet for tensions and help to broaden your outlook it is easy to become involved in them to such an extent that your studies suffer (if Diplomas of Card Playing and Boozing were given C.I.T. would have a very high pass rate). It is important to strike an even balance between social and scholastic activities early in your academic life for habits once started are hard to break (alcoholism).

The places of general interest on the campus (just practicing for when we get Degree status) are the Library, the Common Room, the Students' Representative Council Office, the General Office and the Cafe.

The new Library is next to the Common Room in F Wing. It is larger than the old one but will still be crowded around exam time. The Common Room will be under the control of the S.R.C. and standards of behaviour will be set and enforced i.e. unauthorised orgies will be frowned upon. The S.R.C. Office is an annexe of the Common Room so as to make it easily accessible to the students. It is a good idea to find out who your faculty Representatives are as soon as possible. The

S.R.C. Suggestion Box is in the Common Room and to all those who sent us their greetings throughout the year via this medium we wish you the same. The Cafe is on the West edge of the campus, next to the tennis courts. Standards were greatly improved in 1968 with the introduction of hot meals. The General Office is in expanded quarters in 1969, having taken over what used to be D1. The Office is the place to pay fees, to buy stationery and to make enquiries.

The dates that are most important are:

FEBRUARY, 10th

Full-time classes begin

Part-time classes begin.

Freshers Dance — date to be determined.

MARCH 28th

Commencement Ball.

MARCH 30th

APPLICATIONS CLOSE FOR CERTIFICATES AND DIPLOMAS TO BE CONFERRED IN 1969.

APRIL 3rd

Thursday, College closed at 5 p.m. for Easter break.

APRIL 9th

College reconvenes.

May 9th

1st Term ends.

MAY 20th

2nd Term begins

JUNE 11th

Award night — Caulfield Town Hall

JUNE 30th

Re-enrolment **BEGINS FOR SECOND HALF YEAR.**

AUGUST 3rd

Annual Snow Trip.

AUGUST 21st

EXAMINATION ENTRIES CLOSE

Annual Ball

AUGUST 22nd

2nd Term ends.

AUGUST 30th

Brian Lightfoot's Birthday.

SEPTEMBER 8th

3rd Term begins

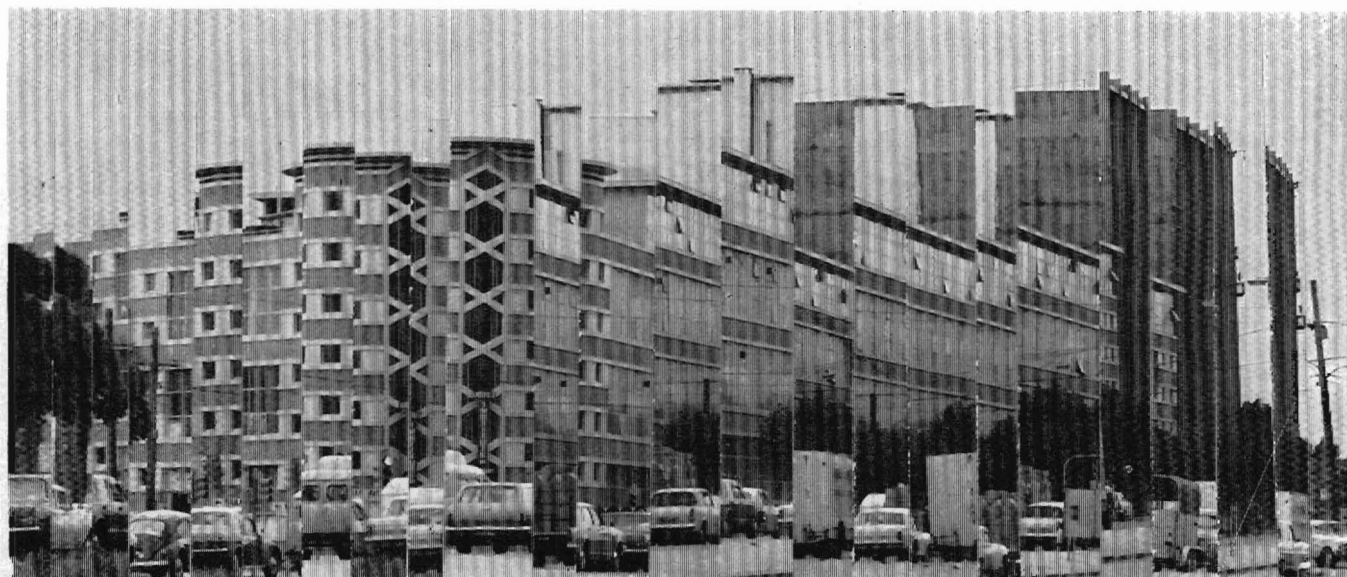
DECEMBER 5th

Part-time classes cease

DECEMBER 19th

3rd Term ends.

Other events to watch for are the dances to be held by the S.R.C. for the students, the raft race, always a smashing success (literally smashing) and the Revue. The Revue is the most important function put on by the students during the year. In the past it has been of remarkably high calibre and we hope it will continue to be of an equal or better standard. We (the S.R.C.) hope to see you at both the Balls as well as revue and other notable functions during the year, after all they are put on for your benefit.



23 Graduating Students

CIVIL ENGINEERING

ANAGNOSTOPOULOS, Charles Alexander.

ARNUP, Bruce James
CODNER, Gray Peter
CROUCH, Brian Lindsay
CULLEY, Gregory David
EARNSHAW, Colin Lewis
ELLIOT, James Francis
GALE, Allen Jeffree
HALE, Alan
MAH, Siew King
McDOWALL, Kenneth John
REBBECHI, Michael David
ROWE, David John
TABENSKY, Vladimir
WILLIAMS, Gregory John

ALCOCK, Bruce Lewis
ANNER, Leslie John
BANNERMAN, Braeme Charles
BEATTIE, Ivan Charles
COOPER, Roderick Boyd
ELLWOOD, Keith Arnold
HANSFORD, David Ross
HATTAM, Richard Alan
KERR, Alan James
McALIECE, Glen Thomas
MERLO, John Francis
STEENHOLDT, Geoffrey John
STOCKDALE, William Leonard
SZAFRANIEC, Alexander Joseph Peter
WARNER, Bruce Arthur

ADAMS, Geoffrey Bruce
BALLARD, David Keith
BESTER, Brian Louis
CHATFIELD, Daryl Charles
DAVIDSON, Bruce Leonard
DAWSON, Colin James
DE VRIES, Jacob John
De VRIES, Jacob John
DESZCZ, Ralph
HENG, Harold
HO, Chiao Jian
KOAY, Inn Cheok
McDONALD, Stephan Morris
McKELVEY, Braham Maxwell
MOLE, Barry Raymond
PAYNE, John Leslie
PERRIN, Eric Geoffrey
RICHARDSON, Barrie
RODENBURG, Robert
THOMAS, William
WATKINS, Kenneth Hector
WESTHORPE, Colin Gordon
WILLIAMSON, Peter James
HALLIFAX, Allan James
LIM, Bon Sheng

ELECTRICAL ENGINEERING

CARTER, Bruce Malcolm
CHEE, Siew Meng
CLOUGH, Neil Edwin
DEMKO, Joseph
DIXON, Nigel Stuart
DOVEY, Terence Eric
EIFERMANN, Wayne Robert
EUSTON, Graeme John
GRIFFITH, Kim Patrick
GRUBB, Ian Douglas
HEAFIELD, Ian Robert
HUGO, Anthony Michael
IRWIN, Ronald Frank
KEALY, James Kevin
LUDLOW, Robert Francis
LUI, Ching Loong
LUMLEY, Michael Andrew
MALCHOLM, John Norman
POYSER, Greville Tristram
ROGERS, Leigh Francis
SEDMAN, Raymond Leon
SHEPHERD, Robert Wilson
STEEL, Reginald
TAWTON, John Ernest
TAYLOR, Daniel Maxwell
TUNBRIDGE, Kerry Charles
WAISMAN, Abe
WAUGH, Paul Jude
DWAN, Anthony Yik Shing

BOWDEN, Geoffrey Douglas
CLAXTON, Berry Keith
CLAYTON, Perry Keith
EVANS, David Alan
EVANS, Rodney John
JEFFRESS, Stephen Ronald
NESBIT, Peter Robert
SYAN, Terry David
SVALBE, Zigurds

E.D.P.

DOLLEY, Peter John
FORBES, Gregory John
JENNINGS, Richard Francis
O HOY, Julie Ann
O HOY, Wendy Maree
SMITH, Peter Barry

MECHANICAL ENGINEERING

ALLIN, Richard Clifford
BAWDEN, Ross William
DI TORO, Nicolo
DOWNIE, Ronald James
HARWOOD, Graeme
JAFJE, Denis Peter
LARUFFA, Tony Joseph
MAY, Ronald Norman
MIDDLEHURST, John Scarisbrick
ROGERS, Kevin John
VESSEY, Graeme Frederick
NALLATHAMBY, Kurunathan

ARMOUR, Bruce Crawford
COSTELLO, Patrick William
COSTELLO, kPatrick William
DOBRICH, Kenneth Leslie
DONALD, Robert Archibald
HOLMES, Robert William
KLEVERLAAN, Johannes Leonardus Clemens
LAWRIE, William
WAUGH, Colin William
WONG, Edmond King Pui.

ART

BERRIMAN, Shara Anne
BROCK, John Vincent
BUCKLEY, Quenton Ian
DUDLEY-HI, Pierrette Suzanne
GEORGE, Wendy Kathryn
HOSSAIN, Diana Victoria
JONES, Clive Wittenbury
KRZYWOKULSKI, John
NICHOLLS, Christopher
OSTBERG, Ingrid Helena
TENENBAUM, Lilli

CHEMISTRY

AITKEN, Bruce
ANDREWS, Brian Donald
BYWATER, Stephen Noel
DOWLER, Noel Hector
EVERETT, John Richard
FLEMING, Peter John
GARLAND, William
GILLARD, David John
HUNT, Geoffrey Brian
JOHNSON, Garry Clyde
PERKAL, Michael
PHIPPS, David Kenneth
PRITCHARD, Robert Graeme
STEWART, Lindsay Robert
TARANTO, Joseph Michael

