UNION NEWS

Careers SUPPLEMENT

Actually working on the face

Tapping the Earth's Riches

OPPOSITE, ROGER HOUGH EXAMINES OPPORTUNITIES IN MINEROLOGY ABROAD— A CAREER WITH EVER-WIDENING PROSPECTS

WHEN the word "mining" is mentioned, most people think of coal mining. This is only natural, as although Britain used to produce other metal ores by mining, little else is so extracted nowadays.

In the British overseas mining industry, however, emphasis is on metal mining. Britain has discovered and built up mines to produce metallic ores vital to mankind.

Apart from well known metals such as gold, silver, copper, lead, tin, zinc, and uranium, there are many important ores required today. Such important materials include sulphur and pyrites for the manufacture of sulphuric acid — the basis of the chemical industry.

Fertilisers and detergents depend upon rock phosphate as a basic raw material; kyanite for manufacture of sparking plugs; and rare earth metals for transistors.

These minerals are present in vast reserves in the world: for example in the Commonwealth, Australasia has extensive deposits whilst Canada has vast unexplored reserves. Western Africa is well developed in parts, and Eastern Africa has extensive reserves, from a mineral standpoint, which are largely undeveloped.

APPETITE

The important task of satisfying the world's growing appetite for minerals falls chronologically into three main sections:

1. Discovery of mineral deposits.
2. Extraction of minerals from the ground.
3. Processing of the extracted minerals.

Discovery or exploration begins with prospecting — not nowadays the man with the horse, pick and shovel and little else, but a team of geophysicists, photogeologists and mineralogists.

At this point I will deal with one of the Geological specialists, the Geophysicist.

EXPERIENCE

He is usually a physicist who has taken Geology as a subsidiary subject. Experience in such subjects as seismology is obtained in employment, and it is in this subject he will normally specialise. After early experience as an operator of a seismograph, he will become leader of a seismic group.

The extraction of minerals depends upon how they occur. Some deposits, formed deep below the earth's surface, may have been brought to the surface by erosion. Quarrying is used to mine these deposits.

The young mining engineer has many difficult tasks entrusted to him in the early stage of his career after he has completed his academic training.

He may sample rock to be sent to the labs for analysis; survey underground workings; think out problems concerning drilling and blasting; and must ensure that operations are carried out safely and efficiently.

He must observe and report any marked changes in rock face or working conditions, and must remember that failure to maintain intelligent supervision might result in loss of part of the mineral deposit, abandonment of a working, or a serious accident to his workmen.

TOURIST

The mining engineer, the mineralogist, and the host of other geological specialists thus employed have a feature which appeals to young men— that of travel abroad in places which the tourist doesn't reach. Thus he will have variety of work and environment in a key job.

A YEAR'S GRACE

YOU want to do something exciting. You want to go abroad. You want a worthwhile job. What chance has a recent and inexperienced graduate of fulfilling these aims?

In recent years a scheme which sends both "A" Level school-leavers and graduates overseas, to countries ranging from Bechuanaland to Vietnam, has become increasingly popular.

By Hazel Melling

Volunteers for a year's work with one of the organisations of Sir John Lockwood's Committee on Overseas Service are paid travelling and essential living expenses.

Without monetary gain but filling vital teaching, technical assistance and social welfare posts, they spend twelve months on a project before commencing on a career.

The idea of sending educated young people to help in under-developed areas is by no means an idealistic waste of money. The V.S.O., one of the main bodies concerned, set up its graduate scheme in 1962. Then, thirty-nine graduates of British universities with degrees in all subjects, went out to twenty-five countries.

A quarter were girls, especially concerned with improving the conditions of women in areas where female education is non-existent.

This year VSO is sending 160 volunteers. And figures show that UNA, IVS and NUS as well as other bodies sending volunteers abroad, are finding them an invaluable aid.

Overseas work demands considerable initiative and common sense. A short training period before leaving equips you for some eventualities. Others you have to cope with as they arise.

Guinea pigs

But returned volunteers — at present guinea pigs in the scheme — hold that they gain much more than they give from the scheme. Not only the practical work but the friendships formed during service, contribute to improved feelings between nations. Nobody feels on return that a year of a salary-earning job in England would have widened their horizons to such an extent.

What sort of graduates are needed? The answer is anybody with initiative. VSO conducts a vigorous selection from the hundreds of applicants. But, although a knowledge of French or Spanish is a valuable asset, there are jobs available for science and arts graduates.

Last year five students from Leeds went on a VSO project, and another on an ISU scheme. Teaching now in Jamaica, Malaya and Sierra Leone, they have degrees varying from engineering to French.

Later work

This type of service is not a career. But it does bring out those qualities which may be needed in later work, as well as offering a chance to be a useful being.

Careers Supplement — 2

A variety of developments & innovations

by Terry Lovell

THE other week in the Union Debate a Private Members motion was passed unanimously, deploring the lack of adequate library facilities in and around the University. The week before, Godfrey Thompson, Leeds new City librarian, gave a talk to students on librarianship as a career.

If more students took the idea of entering librarianship as a career seriously, perhaps the first problem might be nearer solution, on the principle that, "If you can't beat 'em, join 'em!"

The two types of libraries with which most students are familiar are, of course, University libraries and public libraries.

There is a third category which, for want of a better name, is known as "special" libraries, which are probably less familiar.

Under this heading come every conceivable variety, from those of business undertakings such as I.C.I., to Technical and Medical libraries, such as Lewis's, to government departmental libraries.

Varies

The work done in these naturally varies according to the nature of the undertaking, but on the whole they tend to be concerned with providing up-to-date information in their own fields, by way of abstracting, indexing and translating services.

University libraries, like special libraries, have largely developed outside of and parallel to the general structure of the profession. Academic qualifications, rather than knowledge of the techniques of librarianship, are usually stressed. While we see why this may be necessary, it has some unfortunate results.

The chief of these is that the library may often be hampered by archaic methods of organisation which were discarded by Public Libraries twenty to thirty years ago. (Did I hear someone whisper the Brotherton?).

For people who wish for their degree to have some direct bearing on the work that they do, University or Special librarianship is probably the best course. But having worked for several years in Public Libraries I have a bias in this direction.

I feel that people who cannot see the relevance of their degree in this important sphere are being very short-sighted. Some of the most important developments in Librarianship are taking place in the Public Library, rather than in any other kind.

To illustrate this I need only describe some of the services provided by the last Authority for which I worked — Hertfordshire County. This library system is organised on a regional basis, and consists of a network of semi-autonomous regional headquarters, branches and centres, under the general supervision of a Central Library at the County Hall.

Within this framework there are outlets for wide varieties of talent. There is administration (probably the least interesting, though without doubt the most prolific). Next there is reference and informative work. Also, work with children.

Immense

The most interesting developments, however, are in the Outside Branches, in hospitals for example. Here the library is known in typical psychological jargon as the "Bibliotherapy Department." Both here and in schools there is an immense amount of work to be done, as for example there are relatively few mental hospitals with separate libraries.

There is often nothing but a poor selection of cheap fiction rejects from the libraries — brought round wards once a fortnight by well-intentioned voluntary workers.

And that other institutional backwater of reaction and ignorance, the English prison, and self-styled reformatory, has only just begun to be penetrated by Public Library services of a minimal kind.

The nucleus of a service to old people and others who cannot leave their homes, and to isolated villages and hamlets and farms is made possible by mobile libraries.

For those more interested in services to industry there is the Technical Information Service, based on the Technical Colleges and Institutes of Further Education. In these it is possible to combine Librarianship with part-time teaching in any of a variety of subjects.

Auspices

This whole complex of services is run under the auspices of the County Library, and although not yet typical of Public Librarianship throughout the country, it is representative of the development which it is taking.

H.M.S. Broadsword of the Weapon Class at full speed.

Variety not Lacking

by Howard Crew

FOR many young men leaving the University, the armed forces provide an excellent outlet for the physical and mental enthusiasm which is developed during these few years of self-dependent life.

The obvious choices of services at this University are the Air Force and the Army, since both of these are represented on the campus.

But for many people, the Navy provides far greater opportunities for the sort of adventurous yet worthwhile and responsible life that most young men would find deeply satisfying.

Adventurous, because one travels all round the world and no situation can be anticipated. Worthwhile, because one is an essential element in a supra-efficient machine designed and maintained for the preservation of world peace. Responsible, because one is in charge of the lives of others, not only those serving under you, but also those who entrust their lives to you in the event of hostilities.

The Navy is by no means rendered obsolete by modern methods of warfare. The sea passages of the world must always be kept open for merchant shipping. Only the navies can fulfil this function, and now they fulfil it in a modern way with atomic weapons, missiles, and the latest in communication equipment.

As one of the most up-to-date navies in the world, the Royal Navy plays a leading role in safeguarding the entire sea area east of Suez across the Indian Ocean for the free trade and commerce of the NATO, SEATO and CENTO alliances.

Knowledge

Upon entering the Royal Navy as an Officer Cadet, one spends a year at the Dartmouth Naval College, and another at sea. This provides a basic training in seamanship, which is developed in the subsequent years to a specialised knowledge in whichever branch of Naval affairs one's qualifications, aptitude and interests suit one for.

One has the chance of serving on anything from a submarine to an aircraft carrier, in any capacity from Engineer to Pilot.

As regards rank, when one has finished one's "apprenticeship," one is commissioned as a Sub-Lieutenant at £639 p.a. From then on, "the horizon's the limit." A Captain receives up to £3,348 p.a. if married, or £2,774 if single.

For those with loftier ambitions (and the Navy needs such men) the Admiral of the Fleet has an annual remuneration of £6,615. Retired pay for all officer ranks of Lieutenant Commander and upwards is excellent, increasing, of course, proportionately to the length of service.

Advantages

What more can a career offer than the above advantages? If you feel that this is the life for you (and why not?) then write to: Officer Entry, Admiralty, London, S.W.1, for further details.

Careers Supplement — 3

Something for the restless

"SURELY, though, you didn't need a degree to be a journalist," remarked the well-groomed and glamorous secretary of one of the university's major departments. One can forgive a glamorous girl almost everything, of course, and it's an attitude which is prevalent enough in a provincial city like Leeds, dedicated to sober trades like wool and metals.

by BRIAN MACARTHUR

Yorkshire Post Universities Correspondent

If you want to be a journalist, you will meet this sort of remark constantly from parents, rich aunts—who you ignore at your peril—headmasters and careers officers. But if you are really set on being a journalist, they will not deflect you.

A word of warning, though: journalism is not a profession for the indolent. Unlike teaching, it should not be regarded as an easy option after finals.

As a career, journalism can be exciting, demanding and exhausting. It is also well-paid, at least at the start, but very few journalists ever reach the surtax bracket.

Mutilated

You discover that the first time your News Editor tells you to interview an elderly widow whose only son has just been fatally mutilated in a car accident—and to ask her for a picture of him: no story is complete without a picture.

Or when your pearl of measured prose is seemingly brutally, but, more often than not, sensibly, cut into two paragraphs—or a picture caption. Or when you are writing or subbing desperately against the clock.

Or when you are re-writing the nth handout. Or, more sadly, when you tell the girl-friend that, you're sorry, but you're working tomorrow night—and on Saturday. If you enter journalism, the job comes first—even, sometimes, on your day off.

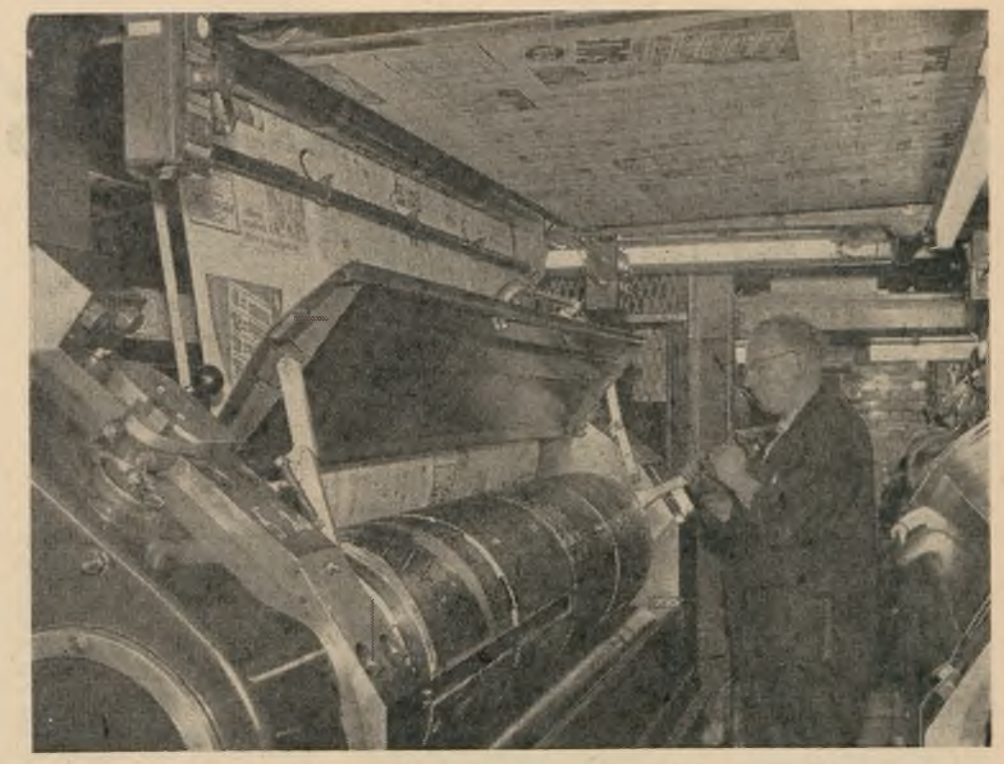
Pleasure

It is a career, however, which has its own indefinable rewards. There is the pleasure of working to no set hours, unlike your friends in advertising. There is the pleasure of a well-written report or a neat, witty headline.

There is the pleasure of performing a useful function in society. There is the pleasure of meeting well-known men and women. There is the pleasure of travel. And, if you are a restless person, there is the pleasure of a job which will rarely allow you to relax or rest on your laurels.

It is not an easy profession to enter, and a well-worn prejudice against graduates is dying only slowly. Many newspapers still prefer men from weekly newspapers, which are still the "universities" of journalism.

Some newspapers offer opportunities through the Appointments Board, which will do its best to help you. Other groups, like the Thomson Organisation or Westminster Press, run special training schemes for graduates leading to the National Diploma, organised by the National Union of Journalists.



Yet another night of toil is over as the presses start rolling at 12-30 a.m.
A Yorkshire Post picture

When you have tried all these channels without success, it is best to arm yourself with a copy of the Newspaper Press Directory and write to the weeklies. There are also hundreds of trade journals, magazines and newspapers which employ journalists who are often inexperienced.

If you are set on being a journalist, you will not be discouraged. You will meet every refusal with a renewed attempt at other newspapers until one of them accepts you.

It may be a hard and depressing journey to your first newspaper, but if journalism is in your blood, you will never regret it—or only occasionally.

Proficient in Money?

ACCOUNTANCY is one of the most important aids to business today. It is too often thought that the accountant spends all his days adding up figures and writing up books of account. This is a misconception.

Figures are certainly the raw material, but reasoning and inference are as important as calculation.

by David Skelton

What sort of work is involved? There is a wide variety of work open to the qualified accountant. Broadly speaking, the choice is between private practice and employment either with a practising accountant or in industry, commerce or the public service.

The work of a practising accountant can be of great interest: not all the time is taken up auditing other people's accounts. This is only part of his work.

Consultant

Generally, he also acts as financial and taxation consultant to his clients, advising them on various matters and helping them make their businesses as profitable as possible.

If, on the other hand, the accountant chooses to enter industry or commerce, the prospects of advancement are very good indeed.

Promotion can mean high managerial responsibility and a seat on the board of directors.

What qualities are required in an accountant? Of outstanding importance are: the power to think clearly; and the ability to communicate conclusions simply and convincingly.

An extensive knowledge of mathematics is not essential; a sound knowledge of elementary mathematics is all that is required. Any undergraduate is likely to have these qualities.

What training is required? A graduate has to undertake three years salaried practical training with a practising accountant, known as articles. A graduate after taking an approved degree course (in Leeds: B.Comm. Accountancy) will be eligible for exemption from the Intermediate examination of the professional bodies. The Final qualifying examination is normally taken at the end of the period of articles.

This scheme is voluntary. Some undergraduates who wish to enter the profession prefer to study the subject of their choice—be it philosophy, classics, history or mathematics—rather than take to the more vocationally directed course.

Present-day banking is closely identified with every aspect of the life of the community. In the field of branch management particularly (to which a high proportion of graduates confidently aspire) it offers the satisfatcion of dealing with people and their problems.

Potential

There are plenty of opportunities open to the able person, and systematic training at all stages, designed to develop potential to the full in the shortest possible time; and for the modern languages graduate, opportunities in overseas branches.

What training is required? Training normally starts at entry, originally covering routine work. A full and progressive programme of courses subsequently provides additional training in all stages leading up to branch management.

On entering it is advisable to join the Institute of Bankers thus enabling one to sit for their examinations, after which can be obtained the Banking or Trustee Diploma. The subjects set for these examinations cover a wide pratical ground. The first part, for each Diploma, is based on English, Economics, Book-keeping, Geography and General Principles of Law. After this the courses for the two Diplomas separate, each specialising in the work of its own branch. Those possessing 'A' level G.C.E. passes in English, Geography and Economics are exempt from these subjects in Part I of the examination.

Careers Supplement — 4

A life of plays and players—

BUT ONLY FOR THE INFLUENTIAL?

'DON'T put your daughter on the stage, Mrs. Worthington.' Even today the theatre is not the safest of professions to enter. But for those with a burning desire to work on stage, and who like to live dangerously, the theatre can be spiritually (if such considerations still enter into the choice of a career) if not always financially rewarding.

Nonetheless, in the past two years several Leeds graduates have carved themselves niches somewhere in this relatively small world, including the present producer of "Coronation Street."

Many students also go to post-grad courses in drama both in this country and abroad.

The universities of Bristol and Manchester both have Departments of Drama which officially provide "vocational training." But in actual fact qualifications of this sort are little regarded in the circles of professional theatre.

Weathered troupers who learned their trade before these centres were open, tend to look down on upstarts who come into the theatre full of bright, impractical theories.

But perhaps the only reason is that these academic courses are in their infancy and still have to prove their worth.

Artistic

Of more importance at present are the Drama Schools such as RADA, the Guildhall School of Speech and Drama, and The London Academy of Music and Dramatic Art, which provide a specifically professional training both artistic and technical and which are highly regarded in theatrical circles.

Most of the young actors in the West End, in films, television, radio, and in local rep., including well-known figures such as Albert Finney, Tom Courtenay, and Vanessa Redgrave, passed through these schools.

The most common way to enter the professional theatre is to join a provincial repertory company, usually after attending a drama school. From then on it's a rat-race to the top.

And the unfortunate thing is that so many competent actors are just non - starters. Surely nothing could be more soul-destroying than to spend one's life playing "bit" parts at a local rep.

But for the more fortunate who rise to the London theatre world (or higher) either from rep. or straight from drama school, life is still very dicey.

Fame

Few stay at the top for long.

Perhaps for the reasonably talented actor who is not in the game merely for profit or fame, work with a good repertory company is most rewarding—and there are signs of a provincial revival.

New theatres are springing up in the provinces—at Nottingham, Coventry, Scunthorpe and Rotherham — and the older-established companies, such as Birmingham and Bristol, where Peter O'Toole trained, are also involved in what is fast becoming a movement to break down the exclusive centralisation of theatre on London.

For the past four years Lincoln has been taking productions on tour to local towns which have no permanent theatres of their own.

Among other exciting ventuers are the Birmingham Cannon Hill Project and the Victoria Theatre, Stoke-on-Trent, which is the only theatre in this country to use theatre in the round.

Actors in rep. are usually paid a basic minimum wage which is supplemented according to the parts they are taking in the various productions.

Today the system of advancement in the theatre (as in so many other professions) is delicately graded on the basis of "knowing people" and making contacts.

The theatre is definitely not the profession for the faint- or the half-hearted.

But for the full-blooded enthusiast — very rewarding.

PAUL ADRIAN

Profession on the upgrade

BY

CLIVE VINALL

WHERE have they all gone? The number of opportunities for electrical engineering graduates now exceeds the supply so much that last year, every graduate was fixed up almost as soon as he graduated.

There are several ways which an electrical engineer can go after graduation, depending on his degree and interests. For those who are academically minded, and have good degrees, there is the possibility of staying on at University to do work for a higher degree or to go to a research establishment such as the National Physical Laboratory, which is concerned with scientific research over a wide field, or to other establishments like the United Kingdom Atomic Energy Authority (UKAEA), also concerned with pure research.

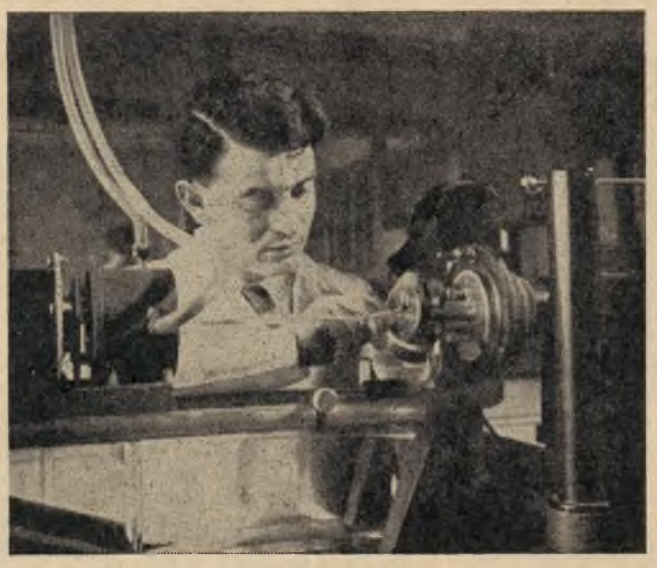
Sponsored

The major part of research in electrical engineering is, however, sponsored by industry, and so is directed towards specific products. Here we can make the distinction between the light current and heavy current sides of electrical engineering.

The light current men, now becoming called electronics engineers, find themselves with ever-increasing openings into the fields of computer design, instrumentation, semiconductor devices and telecommunications.

In the past few years, many new and novel techniques have been evolved, including the laser — a device which produces a beam of light which can carry many tens of thousands of telephone circuits or up to a dozen or so television signals.

Whilst some branches of electronics have tended to become very specialised, others, such as control engineering, have obvious connections with the heavy current side. Research into new methods of large-scale power generation as well as the development of existing methods is one of the many opportunities for heavy current graduates.



Checks being carried out on raw materials in the laboratory.

Others include the design and development of new power systems, such as the cross-channel power link, joining the grid systems of England and France, and, in conjunction with electronics engineers, the design of completely automated production systems making anything from transistors to radio sets.

Familiar

Most companies taking graduates straight from university run training courses, called graduate apprenticeships, to enable the graduate to become familiar with the company he has joined, without the responsibility he would otherwise have.

These schemes allow him time to attend specialised courses and lectures on his chosen subject, as well as learning the general procedures and organisation of the company. The apprenticeship usually lasts for two years, and a salary of about £750 is usually paid.

Another advantage of the system is that the professional institutions, in this case the IEE, take this type of training into account when corporate membership is considered.

A large proportion of engineering graduates who go into industry will find that as they climb up the promotion ladder, they are becoming more and more engaged in directing others than in undertaking research or design themselves.

Salary

This brings in the qualities of the engineer in economics and is the first step on the way to the managing director's salary. Many engineers find that their interests lie in this field, and many courses, both at undergraduate and post-graduate level, have been started to cater for the need.

In the past, the public image of anyone who calls himself an engineer is the man at the garage who mends the car or the plumber who fixes the pipes.

Nowadays, this situation is slowly being rectified; the title "professional engineer" or "chartered engineer" is becoming more and more recognised as comparable to similar qualifications in medicine and law.

It's a Hard Life!

SO you want to write? Not journalism, of course. Nothing so crude as publicity blurbs. You want to really write, don't you? To express your personality. To depict the world as you see it.

To those whose desire it is to make this noble vocation their career, my personal advice is, in the words of Punch: Don't.

If you must devote your life to enriching our culture, you must do one of four things: (1) win the pools, (2) cultivate a passion for living in garrets, (3) marry a publisher, (4) take a job and type away into the small hours every night.

The first two are out. You will probably find yourself in No. (4) category. There is an alarming scarcity of eligible publishers.

It helps here if you are a woman. Virginia Woolfe, for example, did just this.

At this point I should ask why you are reading this article. Why, that is, are you a University student? If you intend to write specialist literature within the compass of your course, read on.

Lecturing

If you are hoping to earn your money by lecturing and to write in all the spare time you will then have, like Muriel Spark, read on.

If you have come here to integrate your personality, to nurture your creative spirit, get out. You can do that just as well outside.

What happens, then, when you have eventually established some source of income? Now decide what you want to write, and write it.

Whatever it is, write something every day. So many words. If you don't like them you can always tear them up.

Robert Graves said that his best friend was the waste-paper basket. But it is important to get into the habit of a daily output. Don't just sit around invoking your muse.

Another "Don't": having written your material, don't send it to every publisher you can think of, unless you really *want* to become a nervous wreck.

Try to persuade a literary agent that your work has prospects. He will then market it for you, taking his cut of course. Still if your book is a success it will be worth it.

Trying

This is how most of the people who have made it, did in fact make it. One thinks of John Braine as a case in point.

If you don't make it, keep trying. If you do you will then have a decision to make. If you are really big-time you could sell the film rights and retire. Normally though, you may be offered a commission for n more books, or you may not.

Either way you will have to choose: whether to carry on writing, with financial security, in your spare time, or whether to make a complete career of it.

The latter decision is risky. Faced with the expediency of selling words, your work may, like Braine's, lose its urgency and freshness.

The best immediate advice for those who intend to make a career of writing is—make a career of something else first.

T. M. LOUGHREY.

DECLINE OF THE SMALL FIRM

by John Sutton

BROADLY speaking a career in Chemical Engineering will be in one of three main categories. These are plant operation, plant design, and management.

In all of these roles the Chemical Engineer will need to be able to correlate a large amount of data in a fairly short time without making blunders. This requires, of course, a well ordered mind and a considerable fund of practical knowledge upon which to draw.

To obtain the necessary practical background the Chemical Engineer will most probably, at first anyway, enter the field of plant operation. Many will remain in this occupation, it being the largest sector of the industry as regards employment.

Testing

In the U.S.A. a Chemical Engineer would be employed to do the job done by a shift chemist in this country. Generally speaking this basically consists of the operation of a small item of plant such as a distillation column and possibly some testing of the product. Although in a large firm the laboratory staff will usually deal with this.

Operation of even this may of course vary greatly; in a modern plant the still may be remotely controlled from a control house or even automatically controlled. Conversely, in an old plant shutting down the column for instance might be done manually.

Experience in the latter type of plant is now unlikely for many graduates as the tendency is for an ever increasing amount of automation. Resulting from this is an increasing complexity of plant and consequently of the plant designer's work.

Hence, plant design requires either more specialisation if one is to design actual items of plant or a very sound general background to correlate data when considering the design of a plant toto. Experience in the first instance of these is probably best obtained with a firm specialising in the design of certain types of plant.

In the second it is probably best obtained with one of the larger firms of chemical producers. These will usually have their own design department or will at least have the relevant information required for designing the plant that best fulfils their needs.

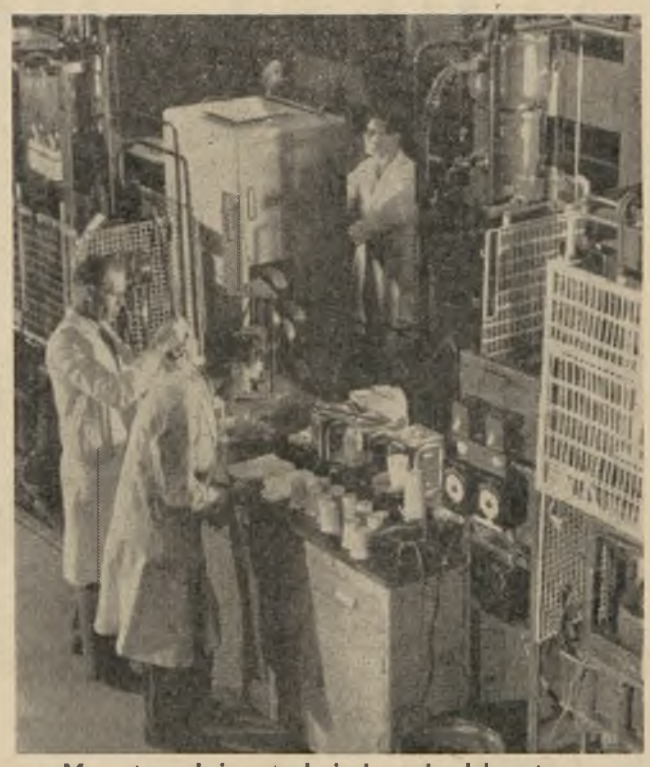
The management's part of this is partially the economics of the process and partially the decision as to whether the firm concerned is large enough and has the organisation to deal with the problems arising from extension.

To extend the latter point; a process which is economical for a large organisation may raise sales and distribution problems with which the smaller firm cannot deal.

Again a plant for say the production of ammonia has to be so large that a small firm not only cannot find the sales for the product without setting up a separate sales department but it also cannot find the finance required to build the plant.

This question of finding a market and the general financing of development and research is very important to the smaller firm and it is in this field that the larger organisation has many advantages. Even though its process may be less efficient it has the edge on a smaller competitor because it has the large scale marketing organisation required to sell the product.

In the final analysis, this is resulting in the continued growth of large firms relative to the smaller firms. Hence it is in the larger firms that the best opportunities will probably lie for the graduate Chemical Engineer.



Men at work in a technical service laboratory.

MORE THAN TEACHING

SO what can you do with a fine Arts degree? Apart from the usual channels — teaching, the Civil Service, and Social Work, there seems to be only the starving - in - a - garret painting pictures or writing poems sort of pursuit.

In the large cities, however, and in London in particular, there are other alternatives. Window-dressing, for example.

Desirable

This is no longer a question of propping up half-a-dozen pots and pans on a display shelf. To sell a frying pan now, it has to be made beautiful and desirable.

And the more elegant and exclusive the store, the more it will pay its window-dresser. Some artistic qualification and background is needed. But talent is the main thing. Thus a fascinating career may result from lowly beginnings as a selotape holder, string cutter and artificial snow sprinkler.

Scope

Commercial illustrating has possibilities, too. Apart from the stifing sordidness of drawing grinning, fluoride-appreciative mouths for toothpaste advertisements, there is plenty of scope for talent. Book-covers, magazine illustrations and advertising posters. All remunerative!

Design (of anything from screwdrivers to silver plate), is more specialised. Some technical knowledge is needed, such as the limitations of material, details of manufacture, and market demand.

Many of the more affluent nowadays no longer want white paint and Regency furniture in their homes — they want originality with an expensive touch of the off-beat, and they will pay for it.

With enthusiasm and and enough perseverence to work as a factory hand for a while in the accumulation of capital ,it should be possible to start up as an interior design consultant, or at least attached to a firm of decorators.

Lucrative

It does not have to be B.A., Dip. Ed. and off to teach knitting in an infants' school. There are lucrative openings for the artistically minded who prefer a good income to Left-bank type martyrdom.

UNION NEWS Careers Supplement — 6

YOU'VE NO DEGREE, SO WHAT?

by
Lynne Pheasey

IT'S all very well to talk brightly about careers open to graduates, but some of us may never attain that happy status. Have you ever thought about what you'd do if you got the push? Pessimistic it may be, but you might save yourself unemployment, boredom and bankruptcy by working it out, just in case.

What could you do? Reject or not, you were bright enough to get here in the first place, so ten to one you won't settle happily in a non-stimulating occupation.

Unless, therefore, your past experience has put you off higher education for ever, your best plan is to try to get back into University or College as soon as possible.

If you started in Special Honours, you may be lucky enough to be re-admitted for a general course. In most cases, however, it will be at least a year before you can re-embark on full-time academic studies.

Four typical non-graduates—things can't be quite so bad after all!

And in the meantime? You either want a job that complements projected studies, or one that leaves you time for academic work. The "reject" is usually in dire financial straits.

To earn money quickly, and probably at the expense of his studies, he can take a manual job where, with overtime, he can knock up £20 a week.

On the other hand, he can supplement his personal creativity with intermittent work — say bartending twice a week on rush nights. That's if he is content with a diet of gruel once a day.

Somewhere between these strictly non-academic extremes come the few jobs which, although hard to come by, and less remunerative than punching holes in aluminium plates, are rather more suitable for filling the gap.

The scientist can work in the labs of a school or college, or even the firm he hopes one day to run. The rest of us can teach—juniors in most cases—that is if there are any schools that need us. For some, even a job in a library or office may fill the bill.

Of course, if money is no problem, there are many interesting and useful ways of passing the time. You could take some more "A" levels with a view to embarking on an entirely different course, and merely linger on in Leeds for the fallow year.

Impressive

But supposing you either can't, or don't want to be re-admitted?

There's always the possibility that whichever firm you had planned to enter with your degree will still accept you, for your impressive personal qualities and aptitude for the job.

Even if they don't let you in quite where you had hoped, you may be taken on a little lower down the scale, from whence you may quickly rise.

Your period at University may well be in your favour for selection for various management training schemes, and the relatively high standard of your education will certainly help you on the way to a commission in the Forces, always assuming that you can digest the military ethos and way of life, after the palmy student days of C.N.D.

Like the Forces, Banking, Law and Accountancy can provide paths to the top which do not necessarily hinge on a degree.

If you failed in the exams because you spent too much time in the Union than you did working, you'd probably be far happier making a profession of what you used to kid yourself up as a side-interest.

Fanatic

A political devotee could try working for his party: a rich member of Theatre Group could give his all to the stage; a cinema or sound fanatic could present himself to a film broadcasting company, and so on. With unfailing regularity those of our staff who sweat over page-blanks till 4 a.m. turn up as sub-editors of the Yorkshire Post.

So thinking of non-graduation isn't so pessimistic after all. The more you think, the more opportunities you can see. If the front door's firmly shut, try sticking your foot in the back—even if you have to do it as a brush salesman for the first few months.

Quality not quantity

BOTH food science and leather science are technologies based on chemistry and physics, tempered with a biological outlook. Graduates from both fields are urgently required at the present stage of industrial development in Britain and the most advanced countries.

At the same time, the need for technically trained personnel is even more pressing in the under-developed countries of the world, since they are having to make a flying leap into the nineteen-sixties.

None of us can do without food. Over one-quarter of our national income is spent on food. As the world population grows, so more and more food has to be produced and a greater and greater proportion of it has to be processed for distribution, preservation, palatability or convenience.

UNLIMITED

Processing should be based on scientific principles and should be controlled scientifically. Scope for food scientists is virtually unlimited.

Posts open to graduates of the Procter Department are primarily those in industry as control or works scientists, responsible for the quality of incoming and outgoing products, and for the scientific control of the processes carried out in the factory.

There are still many firms in the food industry with room for only one scientifically trained member of staff, who is then expected to display a challenging versatility, which not infrequently leads into the boardroom.

The larger firms are able to offer posts in research and development work. The largest firms run full-scale research establishments, as do the various Research Associations

In these, as well as in the University Departments at Leeds, Glasgow, Nottingham and Reading and the National College of Food Technology, research of a high degree of sophistication is being carried out in many branches of applied science covering chemistry, biochemistry, bacteriology, botany, zoology and physics.

Food science is a technology not only attractive to men and the University Departments are fortunate in having a mixed population. For women graduates, teaching in schools and in Domestic Science Colleges, may prove to be attractive careers, apart from those already mentioned.

Hides and skins are a by-product of the food industry. As more is being produced, more hides and skins are there to be used. At present, leather is by far the most important and economically advantageous use for them.

About 70 per cent. of the world's leather production goes into shoes. Demand for footwear is continually rising not only because of the increasing world population but also because standards of living are progressively rising.

FOOD SCIENCE

In addition, leather is used on a large scale for gloving, clothing, upholstery, cases, fancy goods, belting and machinery. In all these fields leather faces the challenge of substitutes.

This is stimulating research and development within the industry, which in consequence has an imperative need for scientifically trained personnel.

As with food, research interests tend to spill over the boundaries of the subject into fields, such as medicine, dermatology, and dental science.

Both the food and the leather industry are served by many different suppliers. These offer varied posts, giving excellent experience, as Technical Representatives, be it for fats and oils, packaging, machinery, flavouring, basic chemicals or dyestuffs.

In summary, one can say that both industries thus offer a wide range of careers, not only full of interest and urgency of all the jobs that need to be done, but buoyant because of the current emphasis on technology.