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This guest edition of Focus is given over to a radical critique of the university and its place in society. Admissions policy and social discrimination, course-content and ideology; learning ideals and institutionalised realities; examining and grading; power, status and pay; consensus and dissent — these are among the topics which are analysed from a socialist perspective.

The following essays have been conceived and written by individuals: to this extent they are personal contributions to the profound debate on the nature and boundaries of formal education and informal socialisation. But each contribution has been shaped in valuable group discussion. We have been collaborative, and despite sharp differences of opinion here and there we have used argument to clarify and develop ideas in the direction of a common program.me.

Taken together the contributions form a collective attack on the social and educational assumptions of contemporary society. We endorse the axiom that society and its institutions are interconnected and we cannot escape the logical and moral need to evaluate this relationship. The location of Sussex University within a social system predicated upon the creation and maintenance of inequality is therefore our analytical starting-point and through common investigation and discussion we aim to create the collective action needed to achieve defined goals; changes which would fundamentally alter the internal and external relations of Sussex.

The group of contributors have formed the core of an active body of faculty and postgraduates which emerged in the Spring Term of 1972 to support the student boycott of Arts Preliminary exams, the action of the student tenants' association (USTA) and the demand at the General Council meeting of that term for a democratic investigation into the structure and running of the University.

The Committee of Inquiry which Senate eventually established was restricted in its scope to the structure and relationships of committees. These limited terms of reference provided the catalyst for this edition of Focus which sets out to extend and expand the debate. We call for a reconvening of the General Council to receive both the report of the Committee of Inquiry and this edition of Focus and to formulate proposals for university action.

Members of the Radical Faculty Action Group.

Stephen Yeo
Gerry Webster
Nick Osmond
Geoffrey Newell-Smith

David Morse
Cora Lushington
Ted Lilley
Rod Kedward
Brian Goodwin

Peter France
Michael Dunne
Roy Carr-Hill
Derek Burns
Chris Baxter
INTRODUCTION

Beyond the constraints

I think we can accept that the University of Sussex has done some fairly new things. It has attracted a range of inventive people who have set out to produce a university with a syllabus, an administration and a faculty-student relationship which allows a good deal of creative freedom. In the first few years when new ideas tumbled out of every committee meeting it could even be said that the forces of inertia were on the side of change. Compared with the prevailing norms of university life and education Sussex was a departure, and input in terms of energy and confidence was high.

I think we can accept all this. I think we also know how the record or the critique continues. After twelve years the original looks tarnished or unrecognisable to some while to others the achievements and benefits of Sussex are still self-evident and self-advertising. Scepticism, disillusionment, excitement and satisfaction make up a mosaic of reactions which contains few pieces to surprise anyone who has studied the early years of a new institution.

Such low-key observations could come from almost anywhere in the university. There are two or three hundred faculty and several thousand students who could, with a mutatis mutandis thrown in, make much the same evaluation. You could call it the Sussex man’s proclamation of healthy diversification in an educated community. This is what consensus politics within the university is all about, not a belief that everyone thinks the same, that would be too naive, but an anodyne acceptance that we all have our differences and that there are bound to be individuals and groups who have strong feelings about change or continuity. A commitment to argument and debate and a widespread belief that most people have some access to decision-making provide the structure within which these differences are explored and contained, and the varied life of the university continues.

There are, of course, a few constraining factors. “What” says a questioner at a university discussion “are the constraints?” “I wish I’d asked that” thinks everyone else. There’s the University Charter, the Privy Council, the quinquennial settlements, Government white papers, the system of “O” and “A” levels. the A.U.T., the expectations of employers, the legitimate hopes of students and the hard facts of the labour market. It is within such constraints that the university has done its “new things” and produced its “healthy diversification” and within this area you can propose almost anything and expect a reasonable discussion.

This edition of Focus, however, contains proposals from a group who challenge the constraints accepted within the university and emphatically reject the limits which circumscribe the area of change. We make our proposals after our own evaluation of Sussex, which, in distinction to the one above, concludes that the university has left the inequalities and injustices of our society virtually intact and that a university which achieves so little on the social level must either be in tacit agreement with these inequalities or must be making an abstract dichotomy between the academic and the social. Furthermore we make these proposals in Focus because we reject the consensus of what can and what cannot be usefully discussed.

As priorities we propose:

An open university - lectures, library, arts centre, sports facilities, faculty time to be open to the community. The whole university, not just part of it, to be a centre for continuing education.

Positive discrimination in student admissions in favour of schools and people in deprived areas. A decisive move towards more adult entrants. Percentage of public school entrants to be drastically cut.

No compulsory or competitive exams - no classification in other forms of assessment. More collective and co-operative work.

More interdisciplinary courses, growing organically out of problems and interests and crossing traditional arts/science boundaries.

No status distinctions (i.e. lecturer, reader, professor and their parallels) among faculty and administration.

All university employees, academic, clerical, manual, administrative, technical, to be paid according to the same criteria of need.

Detailed as they are in the following essays these proposals are sufficiently radical, egalitarian and socialist to provoke the apostles of constraint who will argue that School and Senate meetings are not the place for the kind of political discussion which such ideas demand.

“What can the university do on its own to alter the pay and promotion structures of academics, let alone of all its employees? What can it do on its own about classification? How can it on its own, with limited resources, open its teaching time to the community? What’s the point of high-principled declarations if there’s no hope of carrying them through?”

To such points we have two replies. In the first place understanding and knowledge of the constraints on university autonomy are largely secondhand. Much is accepted, but not experienced by the ordinary member of faculty or student. He has it on the authority of those in authority that those in authority wouldn’t allow it. This is then popularised as a constraint and practical heads are nodded in agreement. We intend to start, not by saying that the constraints do not exist, but by probing these layers of authority, many of which, once institutionalised, appear to be out of reach.

Such probing must be more than mere questions asked and points raised. It must be in terms of concrete proposals advanced in just such places as School and Senate meetings so that, if accepted, they force the constraining authority, system or institution to act. Only in such ways can the average university member discover for himself the power or vulnerability of accepted and
established values. The politics of opposition are not merely a question of protest and criticism but of alternatives proposed and argued against entrenched positions ennobled as the facts of life.
Secondly (and here many of us take issue with the conclusions of the International Socialists¹) a university, however much a part of capitalist society, can be the scene of conflicts of educative and political value. Fundamental disagreements on such issues as public school entrants, faculty status and differential wage structures have a politicising effect. The claim which comes from so many quarters of the university that Sussex is, and should be, apolitical could not be sustained in the face of such conflict. If people can be said to reveal their value structures in discussions about the day to day running of academic life they reveal them much more openly in discussions about the academic life and the community. The confrontation and polarisation which ensue make explicit what is veiled and rationalised through the defence mechanism of constraints. In short, conflict raised by proposals such as the ones we advocate identifies the positive role played by individuals and groups in the university in the propagation and defence of constraining factors which otherwise might be thought to be purely external.

We intend, therefore, to promote a set of socialist and radical ideas about the university and society both in principle and in action. If the constraints prevail then the issue becomes one of the individual's political and social conscience. He may well decide to go ahead and try to put into individual practice the ideals which have been blocked. If he does so the fact that some solidarity has been formed round these ideals will give him confidence that any conflict which he provokes will be the opportunity for further collective action.

Rod Kedward

PART ONE: Education and Society

1. An Educational and Social System

Post-compulsory ("tertiary" as opposed to primary and secondary) education is provided in and by a number of institutions - and it is institutions which define the formality of this education, to distinguish it from the educational or learning process which is inseparable from life itself. Such institutions are the colleges of education (teacher-training centres), universities, polytechnics, technical colleges, sixth-form colleges and so on through the educational provision of borstal prisons, the armed forces, adult residential colleges, correspondence schools, day and evening institutes, and the WEA. "On top" stand the institutions of higher education (polytechnics, universities, and training colleges), sharply distinguished from the colleges of further education; while within the top level, universities are regarded and run differently from their emulators in the binary system. Unity from diversity - but the principle of arrangement is an amalgam in which status, wealth, resources, social and academic provision and autonomy are directly related.

No radical, no Socialist could ever hope to change such a complex system overnight, for such a system is an integral and dynamic part of present society - a society of principled inequality. Principled inequality is not synonymous with human difference, though certain interpretations of human difference are used to support contingent inequalities and inequities. Unless we are a sort of inhabitant a Hall of Mirrors we all acknowledge that you are you and I am I. Principled inequality is the premise or moral axiom which asserts that the essential conditions of individual life, food, warmth, shelter, should be distributed by economic power which allocates these fundamental needs through competition for the very means, money, which ensures the increased deprivation of the loser. The competition is fierce - yet characterises our economy and the "wider" world-economy; and arguments which promote the growth-fetish to break the circle are merely appeals to widen the field of losers.

Through primary to tertiary education our social system is faithfully, inevitably reflected. Government White Papers, whether edited by Robbins or Thatcher, speak and plan for pre- and post-school education "on demand" - but upper limits to numbers are set by the "scarcity of resources" and general social inequalities are institutionalised both in nursery provision and in higher education. The challenge that the co-operative work pursued at the nursery stage (particularly in nursery schools) offers to the competitive, self-seeking compulsory and post-compulsory educational system is minimised by the enforced separation of parents from children and teachers (even more so after the age of 5) and the philosophy which sees such pre-school provision as a means of overcoming rather than abolishing social deprivation. Can anything more corrupt be imagined than a society concerned only to make its new members better able to fight one another?

From 5 to 16 and beyond, GCE, CSF, zoning, streaming, parental choice, head's reports - these are the methods of social control. Measurable ability is measured. Now it is the turn of the Black Paper editors, who have their hypotheses ostensibly confirmed; for if innate ability is measured, surely "more means worse" - or are we to confess that the original mesh was constructed financially and socially, not intellectually? The conundrum must be faced, for the estimated, or rather arbitrary number of full-time education students in 1980 is 750,000, of whom half will be in universities. By what principle will the sheep be separated from the goats? We are not told. All we do know is that more and more socially derived money will go to maintain institutions which do nothing to stem this diversion of wealth from the poor to the rich, nothing to reverse the accompanying and long-established bias towards recruitment from the socially advantaged. (The location and functioning of the Gardiner Arts Centre; the proposed transportation strategy of the Site Development Plan; the suggested swimming pool and increased campus facilities - all continue the story.)

The Open University, once and perhaps still seen as the new Ruskin which would bring enlightenment and challenge accepted values, now displays the familiar characteristics; grading, examinations and classified Honours degrees have been adopted; those with suitable jobs and home conditions (see the programme schedules) will obtain their degrees more easily; and far from reaching out to the rejects of an inequitable primary and secondary educational system, the Open University actually puts people with previous paper qualifications on an escalator while the others are climbing a ladder - if they know it to exist and be "Open" to them. Staff
THE SCHOOLMASTER OF THE FUTURE.

(And the sooner we get him the better.)

British Workman. "Bother your 'ologies and 'ometries, let me teach him something useful!"
and students now debate whether BA(OU) is worth as much as a BA (Traditional) - as once we debated, then decided, the value of a BA (Sussex). 

Equivalence and possession: the language of the marketplace once again. We should understand and learn from the case of the Open University. Of course we can gratefully acknowledge, disseminate, delight in, the stars, numerical points, letters of the Greek and Roman alphabets - these are the unambiguous markers of objective qualities, easily scaled to the distribution curve, unlike subjective verbal judgements. Academics are not required to disclose their articulated criticism of another person's argument. No dialogue; certainly no dialectic. Only the practised, and therefore accepted, "summing-up" through the dumb but powerful symbol. The individual candidate is measured by the hidden rule; and, appropriately enough in a university where Kafka is so perused, he believes in the rationality of the irrational. The system remains unchallenged. The desire is simply to be accepted - into the Keep. One principle alone is clear: there must be no co-operation, no working-together; and in case anyone should seek refuge in the favourable side of that ambiguous word "collaboration", such common effort is termed collusion - conspiracy to deceive.

Those who want change are sometimes pessimistic: how can we, working in a university which presently reflects and promotes certain social values, offer any effective challenge? But the model is too badly drawn, for neither within nor outside Sussex is society homogeneous. This edition of Focus is a small sign of the fundamental inner disagreement; the temporal coexistence of Sussex and any of the deprived schools in the area similarly betrays the specious harmony which unites our society. As members of Sussex we can and must openly challenge the University's internal structure of control, status and monetary payments just as we denounce and work against the distribution of wealth and power in the divided and divisive outer world. We can determine that the publicly provided facilities of Sussex - social, recreational and sporting, no less than libraries, discussion rooms, technical and academic skills - should be publicly available, not at the arbitrary 10:1 ratio but by making educational provision universally accessible after age 16. The university as a whole and not just a small, specific part of it, should become a Centre for Continuing Education, wherein personal and intellectual exploration is understood as co-operative and socially (and therefore individually) fulfilling. Those who argue that such an extension will result simply in larger numbers of knitting-classes are attacking a wool-man. They forget a number of points: the experience of Ruskin shows the limits of educating a cadre of leaders for social change; more importantly, the felt needs and articulated demands of "outside" students can pose precise challenges to evening-class bromides; can and do reject "literature" for the analysis of under-development; can and do reject a study of the "Disinherited Mind" for an investigation of colonial exploitation and the political use of personal and social psychological theory. But a crucial question remains. Do poor people, do those without "educational qualifications", do those with "menial" jobs use libraries now, think of their children's schools as their schools, see local government officers and representatives as helping them? Can the excluded and the diffident make demands on their university? The question is usually asked pessimaistically; and the underlying pessimism is increased precisely because the interconnectedness, the organic nature of the educational and social systems is forgotten. But what sometimes induces despair should inspire confidence: for the knowledge that society and education reflect one another (in the sense that the right side of our bodies reflects the left) is part of understanding that change in one can indeed effect change in the other; that the two are, as we said earlier, dynamically and necessarily interdependent. It is surely not arrogant to say that we want to make a mistake, to reject the exclusivities which stand behind the label "academic excellence" in their attempts to maintain a stratified society. It can indeed be patronising to bestow one's own on someone else; but it is only just that those who provide and create should receive their entitlement - their entitlement to learning together. We should then begin from where we are, begin to integrate from our side - the bricks and the concrete, the books and the maps. Not into the "North Field" but into Jubilee Street; not via the Gardner Centre but through the Stanley Deason School and Cardinal Newman Comprehensive.

The human energy and accumulated knowledge to be found in our geographical, environmental, sociological, and humanistic groupings should be turned towards the immediate, inescapable problems of housing, social services, public policy debate which confront us - even though flung to the edge of Brighton itself. (The Reorganisation of Local Government Act may at least bring about a change in a traditional but skewed perspective.) We must, in short, become a community school with a socialist understanding of community - not that offered by Council, nor by Vice-Chancellors, least of all by Brighton Corporation with the annual financial sweetener. Does the three year degree course make sense? Can an ongoing critique and social enquiry be parcelled up into years and syllabuses? to be divided out among separate institutions? "Separate and unequal" must surely vanish as the principle dividing tertiary education, indeed all education; and with it must disappear the unionist cliques fighting to maintain status and privilege: the AUT, ATTI, ASTMS, NUT, NAS, AMA. We must go into the schools and places of work - not to offer an escape ladder for the "bright", but to find our reference, to learn there what are the problems which daily confront the persons, not just the minds, of the majority going to work to service machines and processes which have substituted production and economic time for human time; to remind ourselves how the present formal education system reflects the economic compulsions upon the nuclear families which we publish. This will be no small intellectual challenge: no "knocking out" A-level ideas and mentalities. We teachers, we who believe we have a skill in helping others find out and build together, who we trust we are good learners - it is we who will be challenged by those who do not start with our maps and compasses of traditional syllabuses and accepted methods of study. The educational socialisation which now makes the situation easy, if frustrating, will have gone. The eternal truths of the great thinkers will have to wait - or be rephrased: how does our economy work? how are children taught? how do we control other people's lives? how do they affect ours? To concentrate on Antigone's dilemma and not seek answers to our own questions is true academic impotence; to fall in love with a statue. Schools must be opened up. They are our schools, our children - just as the old and infirm are our people. We must not simply sit on Governors' Boards (heavily weighted and unrepresentative as they are) but work for effective participation, whose corollary is an attack on an economics which makes production for profit primary.
not the enrichment of individual and social life. Vice-Chancellors and tell-y-dons are solicited for their authoritative opinions on any subject: the press similarly welcomes the comments of conformists. We at Sussex, in Brighton Polytechnic, in the College of Education, must make our public challenge through our own press, in our teaching, by engaging in debate and pursuing action in our daily lives. Parents' meetings, tenants' organisations, political groups - this is our world. Be still and know? Work and think for one another:

M. Dunne

Note on the Three-year Course

Does a university course have to last three years or more without a break? Does it need to be confined to one university? Are we obliged to impose a coherent total syllabus on all students? These are some of the questions we might ask ourselves when we think about the long-term development of higher education.

It is true, no doubt, that for many students a three-year course is useful or necessary as a preparation for doing a job, though even here one might question the separation of training from activity. But by no means all our courses are vocational in this way and it is far from clear to me that three consecutive years are needed for all students to derive benefit from being at a university. The justification of the three-year course is sometimes one of maturity or kippering: 'Go and be smoked at for three years and when you're thoroughly smoked you'll be fit to go out into the world.' More frequently it is based on the notion of the integrated body of knowledge which — by a happy chance — just fits into the time allotted. I suspect there is some self-deception in much of this talk; for my own subject (literature) it is doubtful if there is anything to justify a three-year course except the tautological argument that the body of knowledge tailored for such courses needs three years' study.

I do not wish to argue for a two-year course or for higher education on the cheap (indeed the argument we shall soon be having about the proposed Dip.H.E., looks like being an unfruitful one), but rather to ask whether we should not do better to think in terms of smaller units, courses lasting for a year or less. These could still be grouped to make up three-year courses for those who wanted or needed them, but we should encourage the idea that it is perfectly normal to stay one or two years only and then move on, whether to work or to study elsewhere. We should therefore try to make sure that each course is satisfying in itself (as a good adult educational course should be) and that proper credit is given (if required) to those who do not complete a three-year course. In such a system students should be able to choose courses as freely as possible; does everyone have to be a 'major' in an existing discipline?

In this way it might be possible for people to move from university to university as has long been the practice in other countries, and to take their 'ration' of higher education at different times in their lives. Universities could open their doors to many more part-time and mature students. They could come to be places where learning activities (reading, discussion, experiment, writing, listening, etc.) could be carried on by anyone, rather than places geared primarily to preparing young students for final examinations.

Perhaps these are distant prospects. They would come much closer if we abandoned officially the notion of a compulsory final examination for all. Then it would be the task of universities to persuade the government that this was a proper way of using student grants and to convince those employers who needed convincing that the three-year degree course is not the only valid form of university education.

Peter France
Knowledge is for the transformation of the individual and the social order, giving it dimensions both of meaning and of power. The supposition that a person can or should extract knowledge from the world without participating evaluatively or ethically in this process seems to me to reflect not only a misuse of mind but also a misunderstanding of the cognitive process itself. All understanding requires viewpoint or ideology and all ideology involves value. Thus there are no facts divorced from values, the exercise of judgment. Scientific training and technology, however, inculcate the belief that this divorce is a primary intellectual objective. Our failure to educate in science stems precisely from this source; and our failure to use our technology wisely comes from the acceptance that decisions should be taken by experts, those who have 'freed' themselves from evaluative and transformational participation in their acquisition and use of knowledge. These experts are the scientists we train to misuse their minds, thus closing the vicious circle. To break out of it, it seems necessary to learn about growth and transformation. These are ancient biological themes that lend themselves to metaphor, and I hope I will be forgiven for its use. The alchemists, one of whose allegories adorns these pages, were very good at it, though we now have difficulty in understanding their symbolism, to our considerable loss.
Let me start with ideology, which I take to mean a worldview which guides one's actions. No one, then, is without ideology, although the range of diversity is enormous; at one extreme, a minimal consistency and compatibility between essential conditions of food, clothing, housing and self-esteem; at the other, a continuous search for total consistency of all knowledge and experience, the search for the philosopher's stone. Since we cannot function as human beings without an ideology, the relevant freedom is to know what it is. But this is not enough: it is necessary to discover why we have adopted any particular ideology and expect to abandon it for another when we have outgrown it. This follows from the proposition that our natural condition is to grow (psychologically). So we wear our ideology as the serpent wears its skin: to define ourselves and to operate in the world. And it must be shed when it is time to grow a new one. So we cannot accept as final and definitive any ideology, whether the scientific ideology of objectivity (which is also political) or the political ideology of historical determinism (which is also scientific), or any other.

This knowledge of its inevitable transience does not prevent action within an ideological framework. We live an ideology only being within its belief structure, just as we live or experience or come to understand Euclidean Geometry by operating within its axioms. This is an essential feature of the cognitive process, getting to know ourselves and the world. Furthermore, there is nothing arbitrary about the ideology we wear at any moment, so that we cannot simply try them on in sequence: Marxism this term, Existentialism the next, and Sufism the term after. Given that the skin, until it is shed, is an integral part of the organism, freedom consists not in refusing to have an ideology, which results in paralysis; but in working at the psychological, social, and historical origins of our present state of belief to find out why we are committed to the particular ideology at this particular time, scratching it while we wear it. I have frequently heard the objection that this is like sawing off the branch which is supporting you. My point is that the more branches you get through the sooner you get to a more luxuriant growth.

This brings me to what I think is the essence of the educational process. It is to provide an opportunity to test out experimentally and to examine critically ideologies both on the small and on the grand scale. The small scale ones are usually referred to as skills: ways of handling, dissecting, and synthesizing small bits of the world as viewed from a particular perspective, such as a bit of D.B. Lawrence seen as a radical reformer or a molecule of insulin seen as an amino acid sequence. There is actually a continuity of ideological scale throughout, the same process being involved at all levels, which is learning how and why one uses certain ideologies for certain tasks or actions, discovering what is appropriate. This learning about appropriateness involves understanding the relativity of axioms, for otherwise one falls into the position that there is some absolute truth derived from a self-evident axiomatic structure as argued by, for example, Descartes, or his modern proponent, Jacques Monod. Monod raises belief in objectivity to the level of self-evident or self-validating truth, thus turning a useful viewpoint, an ideology appropriate in certain circumstances, into a myth or an idol. It becomes idolatrous because it confuses the image, generated by a particular attitude, with reality, which is always infinitely richer than any representation. Science has fallen prey to this confusion of representation and reality which is embodied in the myth of the objective observer. This ideology-free witness of natural process cannot be a human being, and indeed the training and initiation which seeks to create such an entity involves a programme of mystification and dehumanization. The mystification arises from the failure to identify the ideology associated with the idol of the objective observer, which is primarily concerned with the control and prediction of natural processes. Hence the emphasis on experimental method in scientific training and the intimate relationship between science and technology. Knowledge thus becomes essentially equated with power. Dehumanization occurs because participative transformation in the learning process is actively discouraged, achieving the desired divorce between knowledge as power and knowledge as meaning, the latter being connected with psychological growth and understanding.

The result is an expert in objective observation, an alienated manipulator without a developed faculty of judgment. Judgment can develop only through the process of transformation which accompanies the experience of the appropriateness and, inevitably, the discovery of the correlative inappropriateness, of different points of view or ideologies. The educational process should be based upon this dual development of analytical power or intelligence and synthetic judgment or to use an old-fashioned word, wisdom. But this can come about only by a commitment to continuous change both of the individual and of society. Therefore the primary role of a learning institution such as a university is to assist this unending personal and political transformation.

Brian C. Goodwin
4. Interdisciplinary Studies: a Political Approach

People talk about inter-disciplinary studies these days as though they guaranteed the coming educational millennium. Phrases like cross-disciplinary, trans-disciplinary, poly-disciplinary and multi-disciplinary, besides mere inter-disciplinary,\(^1\) interweave the conversation of academicians, creating a sense of bewilderment at this new expertise. But what is there really in it all - and especially what is there that is radical? For interdisciplinary studies slip easily into both present reformist needs as well as future radical educational schema; that is, they can be seen as a leavening for narrow disciplinary studies, creating an imitation Renaissance man, or they can be used as an autonomous mode of study in their own right. And they are radical just in so far as they are seen to provide a genuinely alternate way of looking at the world, one which enables real problems to be tackled, which provides an education that promotes personal growth rather than alienation, which moves the world consciously towards liberation. This paper is about such an alternate view.\(^2\)

This idea of what learning is really about rests on a view of how the world should be, whilst from it springs the demand for interdisciplinary studies. Let us trace the argument from the beginning. To be radical means, at the very least, a commitment to a participatory society that has its priorities right, one that 'provides an alternative to misery, to exploitation, to oppression, to injustice, to lies and mystification, to unfreedom, to indignity and humiliation'.\(^3\) And for this we need to start with liberated people, people who seek understanding, not control. Thus one of the primary aims of a proper education must be to provide such understanding as well as mastery of techniques; that is, to ask what \(dy/dx\) means - and explore why this knowledge is important - not just explain how to use it. Hence undergraduate courses should not be aimed, however vaguely, at professionalizing students - should not lead them in the direction of a job slot, but should frankly encourage the development of the student's own interests such that he grows as a socially aware and questioning person.\(^4\) To achieve this awareness the education must be an active not a passive process; the student must seek out his own answers rather than listen dully to pre-digested information. Implicit in this schema too is socialisation through the need to rely on help and suggestions from others, reducing the 'naturalness' of individualism and leading instead to cooperative work.

What else would this achieve? Since the student would have to formulate his own views he would not arrive at an uncritical reliance upon expertise, and the reduction of this mystique would raise questions about the legitimacy of hierarchies. The lack of close job linkages would not sever studies from the real world,\(^5\) but rather enable the student to stand just so far back that he can take the critique to a new level, to the basic structure and division of jobs in addition to the methodology within any one job. But, say critics, such a schema means that a student would simply get disoriented, wandering all over the map of learning. Perhaps, but there are the faculty, the 'teachers'. These have an interest as well; they have to grow too, they want to develop certain viewpoints. So the structure of the education will emerge from a symbiosis of faculty and student interests, but with the student making the final decision.

How would this lead to interdisciplinary studies? Because both students and faculty would want explanations and analyses of real problems, and particularly why some of our most pressing problems are also our oldest ones. Why should they do this? Because it is natural to raise real problems. It is rarely recognized what an astonishing effort of self-delusion is involved in seeing abstracted problems as more significant than real ones; it can only be achieved after long training in academia. And with such a real problematic the tools of interdisciplinary analysis are almost mandatory. The sum of partial, discipline-oriented solutions is simply not equal to the holistic interdisciplinary one. Moreover, students will perceive that the reason for this lies in the dangers of abstraction, the deceptive ease with which a 'clarified' concept can first become identified with the real situation and then supplant it, to the confusion of all. From this they will tend to be suspicious of clear conclusions to crisp arguments involving sharp concepts. They will find that clarity is simply not enough. And the conflicting views of the various discipline-pictures will make students keenly conscious of the importance of context to a fact, to an argument or to a 'truth'. Without such context-awareness much discourse, especially scientific discourse, has a falsely immutable air. But with such awareness there will be a healthier appreciation of the limitations of any world-view.
How did the world get the way it is? Why is the spectrum of knowledge broken up into such discrete lumps, that somehow leave the important questions hanging between them? And why this particular grouping? Disciplines are rather like ideologies - their strength can be measured by the willingness of adherents simply to stop asking questions which cannot be answered within their frameworks. Each discipline starts with certain pre-suppositions, and it happens that these exclude our most pressing moral, social and economic questions. Why? Because the disciplines reflect the norms of our society, and especially of a particular and fortunate segment of it. It is not the purpose of liberal enquiry to undermine society, to question its foundations, but to make it work marginally better. Hence knowledge is structured to achieve this. Certain awkward questions are intuitively ruled out. However, disciplines are not unchanging. Knowledge has been grouped differently at different times. John Dee's map of learning at the beginning of this article looks very different from ours. The actual structure of our map is linked to the demands of our present society, the fragmentation represents its implicit judgments. Thus sociology has sloughed its early ethical element, separating out notions of what society should be to leave only a set of manipulative, semi-mechanical models.

How is such a new schema to be achieved in practice? How is one to teach - perhaps offer is a better word - interdisciplinary studies. One way is through problem-oriented modules, flexible units utilizing all available means of learning and varying in time-span to suit the subject matter. They would be on topics like biological engineering - involving the interplay of science and ethics - or urban planning - calling on sociology, geography, economics and politics as a minimum. Others could be more generalized, such as a study of the myth of objectivity in its manifold forms, or technological alienation. Many would involve a historical perspective, since this is most valuable in generating a familiarity with the ideas and possibility of change. And they need not all be oriented to public and social problems; for instance, a module explaining an individual's particular world-view would be just as appropriate.

But such modules must be assembled with care, for they must not be tight little boxes into which a student has to squeeze but sufficiently open-ended to permit reasonable adjustment to individual needs. Moreover they must not be inward-looking, but provide hooks to other modules. And not one hook, but a whole variety of hooks so that they can be linked up in different ways. What is needed is a Lego system, not a unilinear chain; the student can then build his own world model. Within these modules the 'teaching' would likely be demanding in time and effort, for the situation must be kept open-ended through at least as much faculty/student interaction occurring out of formal learning time as within it. This does not mean gentle chatter over sherry glasses but constructive dialogue on several simultaneous levels. As a skeleton there might be a few lectures initially for groundwork, but with rapid progress to seminars and on to research projects. Inputs from other learning methods, such as audio-visual ones or independent reading, could be used as appropriate. The speed of progression needed to be self-paced to allow for the underprivileged student, and the whole exercise jointly assessed by faculty and student, using criteria largely set up by the student.

Team-teaching could be necessary to obtain the requisite spread of knowledge, but this must not slip into being a mere collection of experts. As an interim measure, to strengthen the linkages to the real world, non-campus people should be encouraged to bring their experience to bear on problems, e.g. a worthwhile discussion on Work would seem to demand the presence of a shop-steward. Studies on community problems would also strengthen these links. Ideally, as mentioned elsewhere, the whole division of insider and outsider would entirely disappear. Of itself, the heavy investment in student/faculty contact time, which seems inseparable from interdisciplinary teaching, might lead to alterations in the job-structure of faculty. Perhaps eventually the members of the A.U.T. will really earn their inflated salaries. But most crucially, such teaching would have to be done with commitment, commitment to change and the part interdisciplinary studies play in it. A positively discriminatory hiring policy would be necessary to ensure this.

What of the position of the disciplines in such a schema? It might be argued that interdisciplinary studies should take over entirely from disciplinary ones, and be set in institutions very different from the present hierarchical universities. Such root-and-branch changes are probably necessary, but a case can be made for both existing side-by-side; what simply cannot be justified is the present ideologically exclusive studies of the kind suggested. There appears to be nothing intrinsically wrong with disciplinary study per se, and it has a very impressive record of achievement - on its own terms. But, as has been noted, what is bad about it is that, if used uncritically as is usually so, it leads to the notion that the particular problematic thrown up represents all that it is proper to enquire into. And the methods are seen as so powerful that the answers are inherently liable to be correct, and questionable only at risk of one's reputation for rationality. On this view, then, a disciplinary approach, with awareness, could be complementary to an interdisciplinary one. But the difficult question is whether it is possible to leave the two approaches side-by-side without introducing an unhappy level of tension, due to the radically different purposes and methods involved. Specialists can't help seeing interdisciplinary studies as a threat to their rigour. Perhaps more crucial to the student is whether it is really possible to work successfully in a discipline whilst being fully aware of its inherent limitations. And finally, unless universities are to grow drastically, which disciplines are to disappear from the present spectrum? Only praxis can help here. We can try to alter the existing institution and ways of working, but bearing in mind all the time the likely necessity of the more radical alternative.

What is the likelihood of all this coming about? Is it all just pie in the sky? There seems a surprisingly good chance; surprising because even ten years ago the disciplines appeared to be ever more successful. As represented by the science side at least, they were marching inexorably forward on some inner dynamic that was not answerable to mere human control. Since then there has been a fundamental break-down in societal consensus; the counter-culture and the New Left have appeared. There has been the Two Cultures debate, which demanded a bridge but, turning Snow on his head, there developed instead a great and growing disillusionment with that stronghold of the discipline - science. And besides cooling to the 'white heat of the technological revolution', people have also become aware of the shortcomings of its parallel - the Meritocracy, an essentially discipline-based concept. Perhaps more fundamentally, there is an undercurrent of awareness that disciplinary thinking has a tendency to be socially divisive. Disciplines 'work' because of their hierarchies. And they provide identity for their 'inhabitants' by
Students themselves are voting on this matter with their feet; some 20% of the intake now has mixed A-levels, and interdisciplinary university courses, such as 'Principles and Perspectives of Science', seem to generate another order of enthusiasm and interest. In consequence some Polys are already offering modular courses to attract students, though their boxes are too inward-looking at present. But why, then, is Sussex drifting the other way? Why has the emphasis changed over the years from University to Area to School and even down to Subject Group? Why did the Arts/Science scheme founder? Why have our degrees been twisted in the search for professional recognition? Partly because of the values of the faculty that have been hired as the University expanded and partly due to the shift in viewpoint of the main source of funding. For such changes as are contemplated here not only involve very considerable expenditure, which the present climate makes unlikely, but also mean great and basic alterations in universities, which are the most trenchantly conservative of institutions at heart. And sharpest of all, it means that education would be seen to be for the recipient first and the good of the economic system of the country only secondarily. This last item requires a degree of political redirection and commitment that is hard to envisage arising on the present public stage.

Nevertheless the university of the future will only be socially defensible if it is not seen as bolstering economic inequality and social hierarchy. Centred around interdisciplinary studies it could even become a force promoting egalitarianism, since such studies mean changing the structures of universities, altering the aims of education and its methods, breaking down expertise and the acceptance of social division, attacking real problems and promoting the legitimacy of personal demands. Besides knitting together the spectrum of enquiry, interdisciplinary studies are a step in the direction of liberation.

Notes

1. Cross-disciplinary is used to describe a problem that requires more than one discipline for its solution. Trans-disciplinary is a French usage meaning much the same. Poly-disciplinary is a recent catch whose meaning is not clear but, as it was used as a foil to polyglot, it presumably means the same as multi-disciplinary, which refers to a course of study consisting of several parallel disciplines but ignoring the cross-connections. Inter-disciplinary is the use of several separate disciplines to study a particular subject 'in the round'. The meaning in this paper goes somewhat beyond this, in that emphasis is even more on the linkages between disciplines as analytic tools.

2. Hence this piece does not propose an action-plan for the immediate future, nor consider pragmatic problems like tenure, finance etc. It is concerned with principles largely.

3. This quotation comes from Karel Kosik's evocative piece from the 'Prague Spring' of 1968, entitled 'Our Present Crisis', see Teleos, no 13, Fall 1973, p30-33, quotation from page 32. Original in Literarni listy, May 1968.

4. Professional studies can be done post-graduation.

5. It is important that any such separation be discouraged, and this will depend mostly on the faculty.

6. See articles by Mike Dunne and Nick Osmond and the summary of main proposals.

7. If this paragraph sounds far into the future, check the courses offered by Governor's State University, Illinois, (see Sesame, Open University newspaper, April 1973, p6) or Collaborative Studies at McGill and Sir George Williams' Universities. (see University Affairs, Ottawa, March 1973, pp. 2-5).

8. Snow wanted the bridge to be made by the Humanities recognizing the worth of Science more; instead its valuation has suffered a sharp decline.

9. This disillusionment has stemmed, of course, from the persistent appearance of 'spin-off' problems generated by the 'progress' of science (e.g. the ecology crisis), from its ineffectiveness in crucial human situations (e.g. closing the Third World gap) and from its usage in deplorably repressive situations (e.g. electronic battlefields).


11. Don't be fooled by this claim to authorship. The propositions are mine, but the ideas have gelled from innumerable discussions amongst the graduate students in History & Social Studies of Science and with members of the Radical Faculty Group.
5. Knowledge and Impotence

1. The Sacred Mystery

On those ceremonial occasions when vice-chancellors, masters of colleges, principals and professors are called upon to speak about the function of universities, or other institutions of higher learning, it is likely that they will have recourse to some formula about "the advancement of learning," "research," or "pushing back the frontiers of knowledge." They may even invoke the awe-inspiring spectacle of "the intellect" to designate the end to which a university is ostensibly dedicated. These answers, though predictable, are nevertheless curious - just because they are so curiously unilluminating. Little need be said about what kind of knowledge, what intellect, serving what purposes and what ends; knowledge, like Topsy, is something that "just grow'd" and it is axiomatic that it shall carry on growing in just the same unexamined fashion. In such answers the actual role played by universities in creating, implementing and exacerbatating class and status distinctions, in legitimising established power and authority and in providing the intellectual back-up reservoirs for policies of reaction, quietism and manipulative social control can be effectively ignored. It would be tempting to conclude that such vapidities are offered only because these orators have so far lost touch with university life and teaching that they desperately clutch, as from memory, for some more tangible Platonic ideal. To be realistic, such claims are made only to establish an initial bargaining position. The deal which universities make with society, with capitalism, is that they will do society's work, will carry out tasks of job training, elite recruitment, grading and so forth on the specific condition that their own sacred mysteries are to remain unexamined. So long as "the intellect" remains shrouded by a veil, so long as the purposes and aims of universities are not questioned, so long as their status as elite institutions continues unchallenged, just so long will universities reach any shoddy accommodation, pay any price, willingly maintain a posture that is supine and compliant in relation to academic or any other freedom, solely to remain as they are, it is this determination of universities to propagate myths about themselves, to act subserviently while craving continual indulgences, that, at the present time, makes the notion that they should fulfill a critical and transformational role in society seem like a contradiction in terms.

Dressed up in his Professor's gown
This man is skilled at dressing down
Opponents of established lore
But no one listens any more.
Why don't they listen any more?
2. The Knowledge Mosaic

In bourgeois society knowledge is seen as a mosaic. Every field of inquiry, every type of technical expertise is seen as separate and self-contained - (in fact it is characteristic that all knowledge acquires this character of "technique" and "expertise" with a consequent reduction in the field of intellectual vision and a tendency even for disciplinary self-criticism and philosophical self-reflection to disappear) - but if they were all to be put together they would nevertheless constitute a mosaic even though they might not separately connect. Knowledge is hopelessly and helplessly fragmented. Although it will be argued that such is the inevitable concomitant of living in a technological age it is by no means inevitable in the future that it takes the form and indeed that there is a very definite ideological function: which is to confine critical thought and critical inquiry within highly circumscribed areas of society - and even there to endow it with a "specialised" and mystified character. It is perhaps only fitting that most people should come to recognise the effective constraints and injustices of capitalist society in the hard school of experience, simply by coming up against them. Still, it is astonishing that most people's education should be of so little use to them and offer so little scope for consideration of the nature of contemporary society and the role they are - destined? - to play in it.

Education reinforcing the existing class structure by promoting the image of society as a pyramid or ladder which all can climb according to ability and by encouraging people to accept that their failure to do better, to get out of a blind alley is solely their own fault - inequality may be divorced from the question of the ownership of capital and be seen as obscurely bound up with whether or not you possess "the right qualifications." Within the education system, with its clear distinction between vocational training and the higher learning, criticism is construed as a privilege for the elite - a kind of conspicuous intellectual consumption that can sample the most exotic and unorthodox intellectual dishes in a spirit of disinterested curiosity, while leaving the structure of society completely intact.

Yet is thinking - are politics - a necessary part of the division of labour, so that while some are assigned a role of thinking and debating it is assumed that others - will acquire in the endless discipline of workbench, lathe, assembly line, account book, typewriter, supermarket check out and consumer sale without protest or murmur against a situation that makes this so? Politicians and academics are prone to whimsical speculation on the oddity of their role - but what is odd is not so much what they do or the way they define it as the fact that, in bourgeois society, these things have become luxury items, destined for the few.

Britain is a deferential and elitist society. Too many people are prone to defer to some higher authority, to make a token protest but fundamentally to acquiesce both in such decisions and in the manner in which they are made. So often in the higher echelons of power the hidden bribe lies in the acknowledgement that one is a member of the elite whose views will be taken into consideration. The alternative is not to have one's views considered at all. So, by American standards, the challenge to centralised power in the mass media, in parliament, in universities is weak. There is a terrible fear of public debate, of bringing things out into the open. Bureaucratically arrived at decisions acquire the character of fate. Fate, inevitable, fate, repeats the capitalist press, the Greek chorus of our age, and the university limply acquiesces, preferring a position of impotence within the elite to the challenge of self-examination, the dread of becoming "controversial," the fear of exclusion from those corridors of power.

3. Passivity of the University and the Idea of Academic Freedom

By any standards the passivity of universities, their lack of weight and failure to constitute any kind of countervailing influence in the ideological sphere, is puzzling when measured up against the expansive claims which they make for themselves both as a source of knowledge and values. In this country universities have no radical tradition; academics have never been forced to the point of asking themselves what their commitment to reason and truth really implies, whether it is part of their self-definition that they should be strangely ignorant and uncertain, reluctant to compromise themselves by taking up a position, when they blinkingly return to the real world from the well trodden haunts of their own specialism. A "university" is normally thought of as a congerie of disparate individuals, each going about their separate intellectual business, so to try to invoke it as something more tangible, despite lip-service to an idea of community, will in all probability seem as though one is indulging in a slightly indecent and improper language game. This atomisation of the university, the normative character of such fragmentation, is integral to its role in bourgeois society. The state, foundations, major capitalist enterprises can encourage the pursuit of certain lines of research (often in an "innocent" form), can assign a representative function to certain reactionary individuals in the media, can employ others in consultative roles in the confidence that their colleagues can have no cause to object, provided that they are allowed to continue their own activities in peace. So, as at the University of Pennsylvania when I was there, as part of the variegated texture of life in the modern multiuniversity, some may be researching into the development of new or more efficient killing machines, while others may be studying American literature. The danger of the ideal of academic freedom - for which I must supply a tendentious definition, since it is more often invoked than defined - is that it tends to imply the right of the individual to pursue any line of research without due regard for its wider implications, its future uses its general morality or the nature of the priorities it represents while, at the same time, to construe freedom in terms of "academic freedom" is effectively to emasculate it, by implying that knowledge can be obtained and transmitted in a completely value-free way, by completely shutting it off from contemporary society. Clearly this is paradoxical, since the myth of the second part of this sentence is contradicted by the reality of the first part. Such is the double game played in academe: reaction advances and consolidates itself under rubric one, while dissidents and radicals, who contaminate the purity of learning by their "biased" outlook, fall under rubric two. The logic of "academic freedom", more as fact than theory - since (theory it clearly cannot be) is that the state and the prevailing power system is free to make use of the university in any way it thinks fit, to exploit its intellectual resources: but conversely, neither the university nor individuals within it are free to teach in anything other than an academic "black room", from which reality and the social world which surrounds it have been carefully excluded. When one asks what a university stands for one has to conclude that it really stands for very little: its function apparently cannot embrace a thorough-going critique of society and an oppositional stance towards it, but it is apparently perfectly compatible with all kinds of deals with established power, with ownership of shares in companies which exploit black labour, with active involvement in the policy-making of the Vietnam war.
4. Scepticism as an Ideal

In general, universities are not active in the day-to-day formulation of bourgeois ideology but serve rather to provide the background assumptions within which this formulation takes place. The opportunist solutions and manoeuvres, initiated in response to the contradictions generated by capitalist society, more frequently come from politicians and from the editorialisers and commentators of the reactionary press. The relation of the university (or rather particular sections of particular universities - All Souls, LSE, etc.) to all this is more far-reaching and far more subtle, but the essence of it is the practice of scepticism as a professional ideal, and, more particularly, a policy of systematic doubt in relation to the possibility of any society other than one based on class, inequality and exploitation. This takes a different form in different subjects. In the social sciences there is the tendency to operate within existing social and policy restraints, to present social problems and situations as endowed with a unique and ungeneralisable specificity, to pin the blame on maladjusted individuals, who are turned into scapegoats, when the sociologist, psychologist, social worker becomes aware of his or her own position within a system that can or will do nothing to help them, when "help" anyway is not the answer. More generally, Parsonsian systems theory and its successors present society as a more or less self-regulating mechanism, without significant contradictions. The anthropologist may stress the importance of ritual; for Mary Douglas only the eating of fish on Fridays on the part of the "Bog Irish" stands between them and the Durkheimian alienation of modern man. The historian, for his part, is likely to speculate on the folly of millenarian and revolutionary movements - how can such complex concatenations of social forces be other than a vanity of vanities, when even in the study of that art called "statesmanship", the historian's scepticism is likely to take the form of a threnody, in the style of A. J. P. Taylor, on the futility of human action; since every decision taken by some eminent individual can be shown to have had consequences quite other than he intended. In the study of literature emphasis falls on the ineluctable limits of the human condition, the fallibility of man, the danger of a relapse into barbarism and of a decline in civilised values, the glibly prospect of mass society, from which, thankfully, one is rescued by a literary education. While philosophy, abjuring the dangerous pretensions of the Platonic-Hegelian tradition, presents itself as a particular expertise in the unravelling of language games. Broad outlines only, without the nuanced presentation that so often seems to be their raison d'être, for it is impossible to pin down the sceptic in his infinite capacity for manoeuvre; the sceptical ideal betrays itself rather in its tendency to collapse into a shallow, strident and unvarnished cynicism when its bluff is called; for the Nietzschean game of constituting values, despite its intellectual pyrotechnics, is still only a game, played out to exhaustion within the academic "black room."

5. Knowledge and Status

At universities, as hardly needs pointing out, knowledge and status are intimately connected but the connection is hardly a salutary one. Status in the academic community is a contradiction in terms since it is of the essence of rational argument as we understand it that rightness and wrongness, relative truth or falsity, relate to views, arguments, intellectual positions rather than to individuals. When near infallibility is ascribed to persons possessing status, when views are widely disseminated only because persons of status hold them and when such views are supported by others who seek acceptance or promotion, academic life rapidly becomes a parody of its pretensions. Moreover, within the university professorial and other higher appointments become symbolic bargaining counters between different interest groups. Serious distortions and imbalances are created; the development of new subjects is jeopardised by numberless considerations and every problem is resolved through trade-offs between various interest groups. Professorial and suchlike posts should be abolished along with the fiefdoms that grow up around them. Areas of study, research and growth should be a matter for consideration by the university body as a whole with a clear sense of social and intellectual responsibility. The notion that everyone should concern himself only with his own subject area and its immediate priorities without reference to its wider context within the university, and within society, is clearly wrong.

6. A Free, Independent, Critical University

My conclusion is that universities must abandon their passivity and posture of neutrality and adopt a more active and critical role in society. To begin with this will mean individuals within particular universities; then it will mean that one or more universities will have to take the decision to go out of step with the rest - whether it is in abolishing assessment and grading, in vastly altering the nature of its intake, in a refusal to undertake certain kinds of research, in developing publishing activities of a kind not associated with universities, in clearly taking sides not with the big Industrialists but with the trade unions, the workers, the under-privileged and putting its intellectual resources at their disposal. The university must relinquish its phantom freedom and ally itself with the struggle for freedom and equality for all; this is the hard but necessary step.

David Morse

1 In this context the proscription of classified research at Sussex is a significant safeguard; but rather more is involved here than a posture of complacency at the moral purity of one's own univerality (if pure it be).
6. Being a Militant Teacher

There are two ways of looking at a university and how an individual should act to change it. One approach is to have a utopian vision of the ideal educational environment (or, perhaps university) which gives us a blueprint towards which we can orient our activity. Alternatively, one develops an analysis of the faults of present university structures and proceeds to consider action appropriate to remedying those faults. But these prescriptions overlap in complex ways.

Knowledge is available to everyone, but the present institution of a university affords knowledge to only a select few. Educational establishments attempt to perpetuate myths like:

1) Education happens only in separate institutions so that university is unworthy, the world is non-educational
2) You can only learn 'knowledge' when taught and this knowledge is quite different from the mundane understanding of ordinary folk.

We should be emphasizing that knowledge is only of value when it responds to people's needs: 'education' should be the cultivation of our capabilities in whatever direction we choose. Universities (inasmuch as we should bother about them) should be used as resource centres for the people.

Philosophy as a university subject is rather different from the popular conception of it as concerned with the meaning of life.

An unusual feature of the major in Philosophy in the Schools of English & American Studies and of European Studies is that it allows undergraduates to vary considerably their degree of concentration on philosophical work.

Still-life study, and captions by courtesy of the GUIDE TO APPLICANTS
1) There should be open access to their libraries and facilities. If this is refused then they should be liberated for the people. In fact the logic of the libertarian activist's point of view is that if universities restrict access to an elite then needed material can be stolen.

2) Although a university is a repository of facilities this argument assumes that anyone can use a library. But you have to learn how to use a library. There are more or less formal skills which are a pre-requisite for doing, for example, research on power structures, - and these skills are more complex than the 3Rs. This doesn't mean that they can't be learnt on the concrete job. It does mean that we cannot overlook how dependent people are on experts. The important distinction is between those experts who transmit information without skills, and thereby maintain their position, and those who transmit their skills.

What does all this imply for someone who is in an educational institution? Obviously we should be campaigning for libraries and facilities to be open to everyone; and for faculty time to be available for work in the community. But if this is all we can do, why be a teacher? Why not work directly in the community or in a factory as an activist. What about being radical whilst being a teacher?

One way in which some people say that one can be a radical teacher is to be a socialist and a teacher. The class analysis of advanced capitalist society tells us that a teacher, like any other industrial worker, is a wage slave. This means that one can consider the effort to be a socialist and the activity of teaching as entirely separate.

A militant teacher who saw trade union activity either outside the factory gates or in, e.g. the AUT, as the only road to socialism would be the obvious example. And in some situations when the courses to be taught are decided elsewhere this seems the only possible action. As a result socialism becomes an evening activity only.

The opposite approach sees teachers solely as purveyors of ideology and therefore strictly irrelevant to the overthrow of capitalism; so that all a radical teacher can do is to teach socialism. But we are employees of a state financed institution; are we just mystified as to our true role, can we impart, or communicate knowledge, whilst being paid by those for whom this knowledge could be dangerous? Since we obviously can, perhaps the form in which the knowledge is presented makes it useless; is the crystallisation of socialist knowledge into a university course robbing it of its vitality? There is some force to this argument since, by making socialist knowledge into an expertise, we deny access to all but the cognoscenti. The teachers are not able to practice what they preach because of the intellectual effort involved in updating the doctrines; the taught can only practice whitout understanding and are, therefore, in error. So that the teacher is someone who helps enthusiasts to attain knowledge.

Both of these directions are obviously part of what is meant by being a militant teacher. Solidarity with the struggle of organised labour against capital, and propaganda in the teaching situation are not irrelevant to changing the social structure or the structure of the university. But both see socialism as a part-time activity, and even in combination, such teachers see socialist activity being defined by its content alone without regard to its form and manner.

We have structures to attack; a structure of power unresponsive to people's needs; a structure of authority inside the faculty which makes a community of scholars into a pyramid of management; a structural teaching situation which obscures the educational process. What should we do?

I want to make it clear that I am not denying the utility of collective action to attack these structures. This would include action at Subject Group, School, or Senate meetings with the faculty, boycotts or withdrawal of labour with the students and agitation to break down the rigid structure of higher education through one's union. But I want to point instead to the day-to-day activities which do not depend on 'favourable issues', 'opportunity situations' and other similar escape clauses.

Faculty hierarchy depends upon respect and deference structures which must be directly challenged; academic and intellectual pretensions to give advice about policy, to be an expert, are related to the structure of power and authority. Our research should be orientated towards demonstrating and exposing these links. Who owns what? Who exploits whom? Knowledge and information about the nexus of power and authority in our society helps us to attack it.

The structural teaching situation is directly related to one's own teaching activity. There are a number of procedural 'tricks' which abound in educational theory as to how to increase the mutual learning of teacher and taught. How many of us allow the students to plan the course or to evaluate the course and our performance; how many of us invite non students to take part (not as guest speakers); how fluid are we with our time and place? And of course it is important to use the teaching situation as a politicising vehicle either by concentration on socialist ideas or developing the contradiction in the ideology sustaining capitalism. But by itself this can only be a partial success; unless the teacher is involved politically his prescriptions of political involvement for his students will sound hollow. The teaching and learning of socialism must be based in political activity as well as theory. So the courses should be related to the political involvement of the teacher and students. How is this branch of 'pure' science being used to exploit and oppress; how does this area of culture sustain the ideology of capitalism; how is this social theory being used to contain some 'social problems'?

We should go further: we have to link our academic role with our political activity. We can provide articulate manpower, information and a respectable name for all kinds of groups in the movement. We can help individuals defend themselves at rent tribunals and S58 offices and the courts; we have privileged access to information about many bastions of establishment, and we can help groups, starting some research into a particular locus of power; and we can provide 'jobs,' 'references', for those who would otherwise be denied access, or imprisoned. We have some (small) amount of technological power; let us make sure it is oriented towards the right ends.

Conclusion

Although the eventual society that we would like to create may not include a 'university' nor a 'teacher'; this does not mean that the only appropriate radical effort is to resign and attack the university (among other institutions). Whilst changing society we have to work partly through its present institutions like the university, since that is where we find the resources of both people and materials who will be the agents of change. On the other hand we must avoid using this argument as an apology for inactivity whilst in our professional role. We have to develop along the lines suggested in this short piece, the specific modes of action which will politicise and radicalise the university and the surrounding area. There is room for occupational radicalism.

R.A. Carr-Hill
'He is completely to be trusted to maintain good standards of morality and behaviour'.
'She is co-operative towards established authority and is by no means identified with the ethical and moral attitudes of modern 'permissive' society'.
'An easy-going affable young man with a gift for conversation of the kind that should make him socially acceptable anywhere - but he is not without determination, and shows in rugby football that he can be impolite when the occasion demands it'.
'His appearance gives some cause for concern'.
'He has fully justified his promotion as a Prefect'.
'He took to many school games with alacrity, and was in the 1st Rugby XV during his last season as 7th man. Soccer (a game to which we do not pay much attention) is perhaps his greatest love'.
One of the incidental pleasures of interviewing are the headmasters' references for their favourite sons, of which the above are some examples accumulated during my three-year stint as an interviewer. They are marvellous documents, full of evidence - often very funny - about the continuing social and class bias of the model university man' of our age.
But as well as livening-up Fridays during the interview season they are also, in the longer term, disturbing. They show a great ignorance among reference-writers, for which we rather than they should be blamed, about what are the qualities universities in general, or this university in particular, want in their students. Lack of definition here is culpable because who gets in, as opposed to how many get in, is an area we have, as a university, considerable freedom. At Sussex there is also considerable (and possibly under-used) freedom at a very decentralised level - the level of the individual interviewer or interview panel. It is also a job for which one can volunteer. So the particular composition of the student-body at Sussex (as opposed to the national student-body) is not the fault of, except in a very ultimate sense, particular academic or administrative managers at Sussex, or of Margaret Thatcher, or of Henry Kissinger or even of international monopoly capitalism, but of interviewers. It should not need stating that no admissions policy is neutral. That it does need stating was emphasised to me by experience on a history subject group working-party on admissions when I was accused of 'national socialism' for advocating some deliberate bias in admission policy toward certain social groups. If no explicit bias is exercised, in the name of a policy which goes for 'the best academically' (whatever that means), there is of course implicit bias in the direction of reinforcing existing economic, cultural and geographical inequalities. If it is stated that it is no part of the university's role to alter existing economic, cultural and geographical inequalities then it is also being stated that it is part of the university's role to reinforce those inequalities. Neutrality is not wrong, it is impossible: 'we are all involved' as James Dean had to shout in his films.
And that, of course, is the trouble with 'A' levels. You get good 'A' Levels if you are born of certain parents, live in certain areas, go to certain schools. Bad 'A' levels are better than good ones without those parents, areas and schools. No 'A' levels can simply mean none of those parents, areas or schools. Or as the Admissions Officer has put it, 'the general point is of course that 'A' levels are useless indications unless seen against the environmental factors which affect performance'. Overall, 'A' levels correlate positively with university performance, but even here they are not particularly good guides. The co-efficients rarely rise higher than +0.3. About 14% of variance in degree class may be accounted for by 'A' levels. So while these exams may be administratively convenient (for keeping some constancy in relationship between offers and acceptances) academically they are poor guides and socially they are very context-sensitive.
So what is to be done? One response is the ambulance-wagon response. That is, to look for casualties who fell off the educational ladder early, left it long ago, or cannot get onto it at all. Hence 'Special Entry' schemes, of the mature students type or of the deprived areas type. This is an ambulance-wagon approach because it deals with minorities of casualties within an ongoing order which still informs the majority of admissions decisions. It is good for speeches about the University, but safe in that it only marginally affects the total composition of the place. It looks for gold among the dross, thereby ratifying the permanence of the categories 'gold' and 'dross'.
If it would be churlish to speak against such schemes, it would equally be reformist in the worst sense to deny that 'the open university' could exist on the ground as well as on the air, but more 'open' than the one on the air. In other words free access to comprehensive higher education by choice from the consumer rather than by selection for the supplier, would be the most desirable non-system of admissions. But since that is not going to happen immediately, and since even if it did happen it would not remove the necessity of us choosing what kind of a university we wanted to offer (and therefore choosing
who would be likely to come here) some immediate changes may be suggested. These are necessarily connected to the rest of this Focus in that they derive from and only make sense within an overall idea of the university. They involve 'positive discrimination'. For example, against applicants from 'independent' schools. In 1970, for example, Sussex took 2.5% more than the UCCA average (14.5% compared to 12.0%) from independent schools: our applications were 5% above the UCCA average, showing what 'the idea of the university' looks like from outside. In 1971 21.7% of all our places went to Direct Grant or Independent schools. I would be in favour of a 'quota' system, fixed according to the number of pupils in these schools compared to others in the school system in the U.K. as a whole, (the figures in January 1970 were 1 1/2% in Direct Grant and 3 1/2% in Independent schools which were 'recognised as efficient'). I would also be in favour of planned discrimination (possibly by quotas) on behalf of applicants from occupational groups, geographical areas, and schools with low percentages of admissions to university. Also of deliberate and rapid movement towards a much older age-structure of the university with school leaving, high-flying, 17-18 year olds becoming the ones who had to be catered for by 'Special Entry' schemes rather than others. All the indications in Arts are that mature students do as well as any others academically, so that this is a decision which can be defended on academic as well as other grounds.

Steps towards an open university could also be taken via a policy in the Centre for Continuing Education of not so much exporting university-type work to outside groups and areas, but of importing outside groups into university courses (thus inevitably, sometimes, changing their nature). To this step there are of course administrative difficulties, just as there are to the other steps outlined. But the problem of admissions policy should not, at present, be discussed in terms of administrative difficulties, but rather in terms of 'what kind of a university do we want?' All opinions (not just those of this Focus) should be discussed in these terms. Too often the alternative to the 'social engineering' approach outlined here is put in terms of 'academic excellence', as if we all knew what that was (and were all pretty good examples of it ourselves), and as if we all knew what the consequence for excellence would be if the composition of the university's student intake was drastically altered. A tutorial system, and an assessment system which (while it remains) concentrates upon dissertations and extended essays rather than 3-hour memory tests can only be defended in terms of the particular kinds of student who would benefit from it most. Equally, academic excellence needs discussing (and not just by people who share the prejudices of this author) in terms of excellence for what? and excellence for whom? or excellence in whose interests?

In collective discussion of this article three further points for discussion and later for action, were raised. First, if we are serious about the 'social engineering' approach, does that not mean a much less passive interviewing posture? In other words does it not mean conducting many interviews outside the university, in particular schools? Second, how much is UCAS an essential convenience and how much is it an unnecessary constraint? If we developed a very identifiable and particular-to-Sussex admissions policy, would that not mean in the end being prepared to operate outside the UCAS framework? Thirdly, in an 'open' university system would there be any place for the existing divisions between College of Education, Polytechnic, Technical College, Adult Education Centres, and so on? Problems of who finances what, and how local a student body is desirable are of course raised - but the minimum feeling of the collective was in favour of comprehensive higher education.

Stephen Yeo

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OUR PUBLIC SCHOOLS
8. Examinations

IMPAUSE?
I have yet to meet a member of faculty who is prepared, as an individual teacher, to argue an educational case for Finals examinations. As teachers, my colleagues describe themselves as prompting, encouraging and counselling their students. They see the assessment of their students' work as an important, but subsidiary part of their teaching activity, useful in so far as it helps the collaborative and exploratory nature of learning, unwelcome when it takes on the formal, competitive guise of Final examinations, measuring one student against others instead of with himself.

Yet these same colleagues, when gathered together as in some sense collective representatives of the university, argue in an altogether different way. They now seem preoccupied by the assumed expectations of employers, other universities and professional organisations. They fail to attend to the tenuousness of the connections between formal examinations, global classifications, numerically graded marking, and the teaching-and-learning situation. And even if they set about reforming examinations, they work within a framework which seems inexorably to commit us to exams even more heavily. Thus the post-1970 exam system has indeed reduced the verbal incidence of exams a little, by confusingly and incompletely substituting the word assessment in its place. But the actual incidence of exams, both subjective and objective, on faculty, students and administration alike, has increased to an alarming degree, as the Platt report revealed.

And there is unfortunately little sign that this lesson has been learned, or even taken seriously.

If we are to escape another round of abortive and frustrating reform, we need to tackle the roots of this schizophrenia by asserting the primacy of our identity as individual teachers over our identity as corporate managers. It is after all as teachers and researchers that we are each and all of us appointed. It would be an evasion of responsibility, and a dangerous illusion, to expect students to make our choice for us, by offering them the possibility of opting out individually from an unchanged or even reinforced apparatus of examinations, as some have proposed. For our own schizophrenia simply mirrors the dual identity which we impose on our students, and which means that they are unlikely to challenge the system.

It is we who insist that students should reconcile the irreconcilable. It is we who impose the conflicting demands of developing a personal, creative approach to learning, and of acquiring instrumental, limiting, severely practical exam-passing techniques. On the other hand, we lay down in the "Guide lines" for the B.A. assessment scheme that "assessment should not interfere with the course of academic work in the final year, and a large part of the final term should be kept available for relatively new and independent academic work." On the other hand we observe that this same assessment scheme totally excludes the latter requirement, and that students and faculty alike report that course work seriously suffers from the competing pressures of the new assess-
ment pattern. At just the time when students are most able and most need to work in an unconstrained manner, we stop them doing so. We shall only increase such schizophrenia-inducing pressures if we insist that students have to decide whether to do well in exams or whether to opt out of them altogether at what we have made a critical moment in their careers.

I suspect that such an insistence would lead to a damaging institutional crisis. We would meet a far more radical impasse than the long-standing confrontation over the university discipline scheme. Indeed the language of impasse, struggle, incompatible positions, runs through the recent Union paper: "An assessment of assessment", as it does the Union attitude to the discipline scheme. The issue of exams is graver because so immediate and so central. We do not, in large numbers, routinely throw paint at each other every year. (Now there's an idea!) We do ritually examine, in large numbers, each year. I believe the examination sledgehammer is no more necessary than the discipline catch-all. Once we get rid of it, our relations amongst ourselves and with students can be more honest, and will, no doubt, be more constructively demanding. So whilst I think that the scrapping of exams is a way out of a developing impasse, I do not think it is necessarily an easy way out.

By – Pass

A first step out of the impasse would be to stop confusing assessment with examination. The mislabelling of exams, and their proliferation at Sussex under the name of assessment, must be a minor classic in the annals of university false consciousness. It leads to all kinds of incongruities, unhelpful quibbling, and simple blindness to reality. Thus Christopher Wrigley's excellent article (Focus October 1972), arguing for the abolition of formal exams, begins: "That assessment is in itself an evil, few are likely to deny". Here the word "examination" would avoid an unfruitful ambiguity, as it would in the widely disliked notion of "continuous assessment". disliked because the phrase is used to refer to regular and graded examination, although it could simply describe a constituent element of most guided learning. Those of us who actively desire the end of generalised Finals exams should say so plainly. There isn't a Finals Assessment Board to get rid of, only a terminologically unequivocal Finals' Examination Board.

Another helpful approach is suggested - somewhat unexpectedly perhaps - by the remark of the then pro-vice-chancellor in last May's "Teaching Advisory Bulletin": "What is needed now is not theoretical generalisation about examinations, but argument and persuasion in relation to the particular needs of particular courses." This is useful in that it puts the onus of argument where it belongs - on individual teaching groups. I propose that it should be institutionalised by the requirement that the university may only consent to provide formal examining machinery for a specific paper, or group of papers, after rigorous scrutiny of any claim by a teaching group that there is an overwhelming academic or professional case for formal certification. This body would then make a recommendation to Senate.

Obviously, in view of the educational irrelevance and harmfulness of competitive formal examinations, the scrutinising body should employ the most rigorous criteria. It would certainly not be sufficient for the proponents of an examination to claim the need for checks on whether students have worked hard enough, since the whole Sussex tutorial and tutorial report system provides sufficient guarantee already. Moreover, the recent and highly successful abolition of the Arts preliminary examinations was a sufficient, if overdue, recognition of our ability to run our affairs without recourse to eliminating heats.

In those exceptional circumstances where consent to examine may be given, such consent should serve as notice of the peripheral relation of the papers concerned to the central ideals of the university. In brief, the twin assumptions would be that, at undergraduate level at least, universities are non-examining bodies, but that, in an unduly world, universities may continue to be unduly organised, and produce a number of professionally certified graduates, such as doctors and engineers.

A third positive perspective is provided by the tutorial report form system. Many of the functions held to be performed by Finals examinations are in fact already better fulfilled by tutorial reports. They provide a more important link between universities and the outside world than do Finals results, in that references are usually based on them. They constitute a standardised and practical way of signalling, if need be, that a student is misplaced in a particular course, or has failed to do a significant amount of work. They have the great advantage of carrying clearly subjective judgments, and of being irreducible to mechanically quantifiable or irrationally global expression. Moreover they can be, and already are, used as a means of student self-assessment and of teaching assessment.

Still, a number of safeguards and amendments should be formally incorporated into tutorial reports. In the first place, since the teaching situation is essentially a private transaction between consenting adults, the copyright of any report about such a transaction should be vested in the parties immediately concerned. The student would have his own copy, as would the member of faculty. The normal use of the third copy would be as information to the personal tutor, and to him and others who might be asked by the student to write references. But the student should have the right to opt out of this report. If he believes that references are used in an oppressive way, he should be at liberty to use his tutorial reports as he finds useful, and to prevent their use by others.

As well as having more confidentiality, the reports should have more mutuality, i.e. the report's most important sections would be the student's assessment of the course and of his own involvement in it, along with the tutor's assessment of the course. Such a joint report could well include an assessment of the student by the tutor at present. But only if the student has opted out of the teaching situation itself would the personal report - no longer a joint report - enter into any system of sanctions via the Dean's in-tray, and that in virtue of having nothing to report. Finally, the grading section of the report, already redundant, should be scrapped.

Given this approach to our examination hang-up, what case could be made out for examining in the French Literature and French Studies courses with which I am acquainted? It might be argued that there do exist relevant institutional or professional criteria for an element of formal certification. Certification might be thought necessary for students wanting to do research. However, very few of our students are research candidates, and their abilities are known without formal examinations. Once we scrap Finals, all our students can undertake appropriate projects of an extended and more original kind, perhaps of an adventurous interdisciplinary nature, and which would make a mutual diagnosis of the desirability of doing research that much more informed. Or again, certification might be thought desirable to validate the linguistic competence of students intending to become teachers. But in this case too a student's competence is readily ascertainable without final examination, since language teaching methods are based on a
kind of continuous assessment/examination anyway. Furthermore, certification is not our job, since graduates intending to become teachers have to undertake appropriate post-university training and certification. So I would not expect the French group to request the university as such to provide formal examining facilities. The most we need is limited and ad hoc secretarial and administrative help, as at present, as part of the on-going teaching and learning activities.

ROAD CLEAR?
Post-feudal society has educated and examined the increasingly large non-productive sectors of society thereby creating, firstly, the concept and reality of the "child", and later that of the "adolescent". More recently, we have seen the enormous growth of the post-adolescent "student" category. The function of university examinations in this context is related to society's need to justify and reinforce the sub-adult position occupied by this category until it has passed its trial by ordeal. But countervailing pressures are now I believe getting the upper hand. Students' attitudes have shifted: they are increasingly unwilling to be moulded, processed, manipulated and degraded by mystifying social practices. In society at large, we are all adult citizens at age eighteen, respectful of each other's autonomy and individual judgment. At Sussex in particular, the tutorial system, student representation, and the creation of the community services network have shown our willingness and capacity to respond to this evolution, and to push it further.

Now is the time for Sussex once again to assert its relative independence in the pursuit of educational reform. The social relations of education we should publicly abandon, and encourage schools and other universities to abandon, are those supporting elitism, division, hierarchy, privilege and competition. Now is the time, because universities face a period of relative stagnation which might lead us, as we age, to drop innovation and to become inward looking. Now is the time, because our present post-1970 exams system is proving increasingly burdensome, and inimical to learning. Now, because, as library facilities come under increasing pressure, as vacation grants are cut back even further, as staff-student ratios worsen dramatically, the task of setting, writing, and of competitively grading a multitude of dissertations is likely to make us defensive, bogged down in administration, and unwilling to experiment.

Let us now concentrate on how we elicit, understand, and foster through our teaching our students' urge to study: let us aim to develop their autonomy, confidence, and sense of skill and competence. Formal exams stand in the way of these objectives. It is time to stop passing the buck. I suggest that we now can, and that we now must, degrade examinations, before they further degrade us.

Chris Baxter

EXAMENS DANS L'ORDRE

Well regulated Examinations
1968 stamp: Passport to Unemployment
(Marseille poster 1968)
9. Science and Education—a Critique

'Of course, it is a narrow and rigid education, probably more so than any other except perhaps in orthodox theology'.

T.S. Kuhn, The Structure of Scientific Revolutions.

Science is in trouble. The 'swing away from science' which is causing such panic in universities is, almost certainly, both a reflection and a part of a much wider 'anti-science' movement. To deal with it, suppose that it can be dealt with, will require far more than a reform of science education, though this is clearly where we must start. Even this, however, will not be simple. Although it is a truism to state that the nature of the education within a subject is determined by the nature of the subject (and vice versa), the statement is still worth making since it emphasises the difficulty and scale of the problem. It means that we cannot understand, criticise or reform scientific education without understanding, criticising and reforming science. We are thus confronted by the classic Marxist question, 'Who is to educate the educators?' The answer, as always, is that we must educate ourselves. We can make a start by taking a very critical look at science courses, considered as courses of education, in relation to modern science. This is the aim of the present article.1

Let me start by presenting a very brief and much simplified account of Kuhn's analysis of modern science which can serve as a context for the subsequent critique of scientific education. I believe this analysis to be substantially correct, though far from being the last word on the subject. In Kuhn's view, 'normal' (i.e. everyday) science consists essentially of solving relatively trivial puzzles within the context of an accepted conceptual framework. Once a science has reached a certain stage of historical development only one such framework will exist or be widely accepted within the scientific community; in such a state the science will be almost totally unphilosophical and will not feel the need to question its basic principles. This framework, which is basically an analogy, is usually taken to be a matter of fact and, therefore, immutable; it is not subjected to criticism or questioning. The framework functions roughly as a 'world view' and enables its possessor to recognize those phenomena which can be dealt with as puzzles within the framework and to exclude those which cannot; some phenomena can be 'forced' into the framework but suffer severe distortion which usually goes unnoticed. The framework also provides a means of solving the puzzles in the form of techniques, examples of successful solutions which can be copied, etc. Progress occurs as more and more puzzles are solved, but this very progress generates anomalies, contradictions etc. which cannot be resolved within the framework, and which accumulate until a 'crisis' is reached. The science may become philosophical at this stage as it is forced to reflect upon what is wrong. The 'crisis' persists until a new conceptual framework appears within which the anomalies and contradictions can be dealt with. A 'revolution' then occurs in which the new conceptual framework replaces the old one; it should be noted that this change is not caused by new 'facts' but by new 'theory'; Kuhn compares it with a Gestalt perceptual switch since the new framework provides a new way of seeing the world. Many scientists are so wedded to the old view that they are incapable of making the switch, of re-educating themselves for the new world. After the 'revolution', history is 're-written' so as to make it appear that 'pre-revolutionary' scientific knowledge, which in fact was quite different in kind, was really the logical antecedent of the 'new' knowledge, so that the occurrence of a revolution is effectively disguised. History is thus made to appear as a logical linear progression in which all scientific change occurs as a result of puzzle solving and advance is by incremental addition at the frontiers of knowledge.

Kuhn's analysis is intriguing, but also depressing in its emphasis on the unconscious, trivial and conformist nature of much scientific activity. Of course the analysis is susceptible to criticism, but it is supported by enough historical and contemporary evidence to make it worth taking seriously. Moreover, it is also supported by, and itself illuminates, an analysis of scientific education.

Virtually all science education is vocational training, that provided at Sussex is no exception.2 The aim of vocational training is to produce a person equipped with the knowledge and skills required to carry out particular tasks; it is supposed that these requirements can be fairly precisely specified. In the Kuhnian analysis the person's task would be that of solving puzzles within an accepted conceptual framework and his training, therefore, requires that he be provided with this framework in such a way that he will accept it. The form and content of science courses are determined by these overall aims.

Since the educational process is seen as a means to an end, it is not regarded as being of any particular value in itself. Attention is therefore devoted to the most efficient way of attaining this end in the time available. The solution in Biology is the 'integrated core curriculum', in which, starting with the most abstract and therefore supposedly 'basic') subject matter, and taking great pains to avoid repetition (since this would be inefficient), one course follows another in a rigorous, logical and linear progression for two years. That the 'integrated core curriculum' bears a remarkable resemblance to a production line should not be too surprising since the aims of the designers of the former and of the latter are very similar, i.e. to turn out a quality product to a specification (see below) within a limited amount of time. That this process bears little relation to the way any normal human being actually learns anything hardly needs pointing out.

It is considered important in vocational courses that
they should be up-to-date, and, reasonably enough, that the student ought to have at least some idea of what are the unsolved problems at the 'frontiers of knowledge'. This means that there is a lot of material to get through. The most efficient way of imparting large quantities of knowledge is by means of formal lectures, and this of course is the method used throughout science (in Biology the 'official' role of tutorials is to 'back up' lectures i.e. to ensure that the knowledge imparted in the lecture has actually been assimilated). With the best will in the world, such a system is apt to result in knowledge (especially when presented in large quantities) turning into a dead 'body of knowledge'; anonymous, existing outside time and space (it is not usually taught historically), it is apt to be regarded as established, immutable and insolent to criticism. It is precisely this which makes Kuhnian 'normal' science both possible and the norm, for it is within this 'body of knowledge' that the conceptual framework is presented in the form of examples. The whole teaching and learning process and the pressure of time discourage any real critical questioning of the framework and it is therefore accepted by the majority of students as a matter of fact.

This is not to say that students are not encouraged, and provided with the opportunity, to be critical. Indeed they are, but only on current attempts to solve the puzzles which exist at the 'frontiers of knowledge'. In Biology, for example, students read quite a lot of original, contemporary, research papers. However, as indicated above, because of the nature of 'normal' science, many, perhaps most, of these papers will be relatively trivial and concerned with relatively simple problems which are susceptible to solution within the accepted conceptual frameworks. Such papers will almost never be philosophical (i.e. concerned with reflection on basic principles and assumptions) nor will they offer any real challenge to the current framework. As a result of this exercise, some students, at least, become quite good at critically discussing trivia but are not very good at getting to grips with real complexity; more important, they sometimes become actually incapable of seeing the value of new concepts which challenge the existing orthodoxy. Hence the possibility, as Kuhn suggests, that at times of real 'crisis' and 'revolution' many scientists are incapable of making the 'switch'; their education has not equipped them with the flexibility required to 'see' the new world.

The concept of vocational training with its notion of the defined end-product also has considerable effect on the breadth of science courses and the possibility of a choice of courses within them. The teachers draw up the specification of the product which enables them to say 'Biologists need X, Y and Z; they do not need P, Q and R'. Students do not know what they need (how could they?) in order to acquire the coveted label 'Biologist - made at Sussex' and, therefore, there is no question of a choice of courses in the first two years. It is true that Biology students can choose courses in their third year but one suspects that this occurs not so much because it is regarded as educationally desirable but because of the sheer quantity of biological knowledge available; they simply could not get through it all in three years, though I would guess that at least some of their teachers feel that it would be better for them if they could. These attitudes lead to an indifference, if not a downright hostility, towards radical inter-disciplinary work in science (MAPS seems to be an exception here). Once again the criteria of 'needs', 'requirements' and 'relevance' are brought into play. The hostility towards the Principles and Perspectives of Science course is a good recent example of the consequences of these narrow educational aims. This course, which is one of the very few in science which attempts to be genuinely inter-disciplinary, has been described as 'irrelevant', 'academic slueth', 'subersive' etc. The shabby treatment of the History and Social Studies of Science group can, in part, be explained as a consequence of these attitudes; the genuinely inter-disciplinary contribution which this group could make to science teaching is not seen as relevant to the vocational needs of the Science schools.

There is no doubt that as a vocational training for Kuhnian type scientists the courses provided at Sussex and elsewhere are very successful. But is this the sort of science we want? There is equally no doubt, to my mind at least, that educationally they are a disaster and they are not saved from this verdict by the observation that some resilient souls survive and manage to acquire the rudiments of an education in spite of the system to which they are subjected. A training in the puzzle solving of 'normal' science can, at best, produce minds which are capable of a painstaking thoroughness and a concern for the details of evidence - no bad thing. At worst, however, it produces people who are obsessed with trivia, with scholastic hair-splittings and who, because they have been taught in such a way that they accept unquestioningly much as established and immutable, are essentially conservative and inflexible, unable or unwilling to consider real novelty or radically to criticise received ideas unless they are small in scale and insignificant in consequence. The authoritarian method of teaching by lecture reinforces these attitudes and perpetuates the unhealthy respect for authority instilled in schools. A lecture method also encourages passivity in students; knowledge is imposed upon them from outside rather than acquired as a result of their own active efforts to find out, to evaluate and to assimilate. The idea that the student can not really function as a scientist until he has acquired a vast amount of factual knowledge (a relic of the philosophy of induction) also encourages passivity and often leads to a feeling of frustration and resentment among the more active students (particularly those who have had some experience of Arts teaching); a feeling that they can not themselves contribute anything of value but must simply 'be still and know'. All these features, together with the lack of choice in courses (i.e. the absence of any need to take decisions) and the student's consequent lack of control over and responsibility for his own pathway of intellectual development, result in an education which might almost have been designed to produce non-autonomous and inauthentic minds. Finally, the lack of any real breadth, of any radical inter-disciplinary study, can be criticised not only from an educational point of view but also from a vocational one. Insofar as major scientific advance ('revolution') involves discovering new analogies which can be used as new conceptual frameworks, it is self-evident that a broadly based and wide-ranging education would be superior to a narrow vocational training in producing genuinely creative scientists.

It will be fairly obvious from the above analysis what sorts of changes are required to transform science courses so that they become genuinely educational. A first step would be to abandon the idea that the whole of such courses is to turn out, at the end of three years, a rigidly specified, quality controlled product. Although this means abandoning the idea of vocational training as presently understood as the normal undergraduate education, it would not, in my view, result in the production of graduates who were incapable of subsequently
learning how to 'do' science, though I have no doubt that the science they would do would be rather different from Kuhnian 'normal' science. Such a move would allow real educational reforms. The relatively superficial study of large quantities of highly specialised knowledge could be replaced by a genuinely critical and philosophical study in depth of small and selected areas. Courses on the whole could become much broader in scope with a wider range of interdisciplinary and contextual material (following the Arts pattern). Flexibility would be increased and a choice of courses would be possible, allowing the student to follow his own pathway of intellectual development; in such a situation he would be permitted, indeed forced, to become active, autonomous and responsible for his own education. The overall aim of such courses would be for the student to learn the method of critical inquiry by using critical inquiry as a method of learning – this is what science is about.

All this is simple to state, though of course its practical realisation will raise problems. However, as I implied at the beginning of this article, I do not think such a radical reform of science education will be easily achieved. The difficulty will arise, not so much from the opposition of conservatives, but as a consequence of the very nature of modern science. Under the influence of a complex of social forces (internal and external), science is being transformed into an industry. Scientific research is becoming, in some areas at least, 'big business' with all that entails; increasingly concerned more with material production than with philosophical reflection; with a competitive atmosphere which is resulting not simply in Kuhnian 'normal' science becoming the norm but, more important, in its being increasingly seen as the only possible and proper scientific activity. This transformation is having its effects in universities where, increasingly, one feels, the things that really count in science are money, machinery and logistics; where educational values and ideals are of less interest than the well-being and growth of research 'empires'. Unless these tendencies can be opposed, the chances of bringing about radical educational reform in science seem fairly remote.

Footnotes

1. Perhaps I should emphasise that this article makes no claims to be either 'objective' or 'value free'. Firstly, it is based almost entirely on my own experience in the School of Biological Sciences and may, therefore, seem to many physicists, chemists, engineers etc., as a caricature of their own subjects and schools; it will no doubt appear in the same light to at least some Biology faculty but not, I suspect, to many Biology students judging from my conversations with them. I would argue that even caricatures have their value; by the use of exaggeration and even distortion, they draw attention to essential and characteristic features. The science schools at Sussex are, no doubt, different but it would be most surprising if they had no features in common. Secondly, this article is written in the belief that education has goals which transcend the acquisition of specialised knowledge and skills, goals which involve the attainment of maximum personal development, the acquisition of intellectual autonomy, authenticity and flexibility, and the ability to engage in radical critical activity. These are not revolutionary aims but correspond fairly closely, I think, to the ideals of the founders of this University.

2. In spite of all the talk about new maps of knowledge, the educational advantages to be gained by the replacement of departments by schools, the combination of the best of specialist and generalist degrees etc., the fact is that many of the science courses at Sussex are thoroughly traditional in form if not in content. The Biology major for example is no different in form from the zoology degree which I took at the end of the 50's; it is not radically different in content either, apart from the fact that there is more of it and that it is more up-to-date.
10. Decision-making in Science

Very few people in science at this university know how the science side is really organised and what is happening at any given time. Of course this is common throughout the university and not confined to science. In most universities one would take the situation for granted, i.e. the university is a hierarchical organisation, power is defined and vested in the various positions and some secrecy is fundamental to the maintaining and functioning of such an organisation. As the Vice-Chancellor has said many times, Sussex is different, we are a very open university. By comparison with others this is no doubt true and many of us are pleased to be here for this reason. However, the university (meaning the Vice-Chancellor and other spokesmen such as pro v.c.s, deans, certain professors, etc.) has tried to persuade us that we have really true faculty and student involvement with a well-defined organisational structure that is amenable to influence by any member of the university. The university committees, for example, are made up of representatives of various interest groups, e.g. deans and subject chairmen on the science committee, plus elected representatives. Such a system should be responsive to faculty at the lowest level and everyone should be able to play his part in the running of the university. However, there are some faculty, including myself, who feel that there are serious problems with faculty involvement in the university and who would prefer a much more democratic system. In addition, amongst the general body of faculty, I believe, there are many who see through the sham of participation and to whom it may not be a great issue but who, nevertheless, have been aware of the contradiction between what the university says it is and how it actually is.

In this article I shall discuss the organisational structure in science and consider a number of issues in science which reflect the decision-making process. The formal science structure of the university might be represented as follows:

The science committee consists of the pro v.c. (science), the pro vice-chancellor, the four science deans, eight subject chairmen from the science schools, one elected representative from each of the four schools, the arts committee representative and the education committee.
representative.

Theoretically the science committee holds the power to make decisions at the higher level as the schools do at the lower level, but things are not that simple. Let us start with the schools. The deans in Science wield great power, for they are basically the managers of the schools. Although they are formally responsible for the day-to-day running of the schools, their power goes much further than that. They are in a unique position to control schools, because they have become accepted by faculty as managers in the industrial sense (i.e. their authority is almost never directly challenged); they also have access to information from the science deans committee, the pro vice-chancellor, and the science committee.

The school meetings ought to be the decision-making body of the science schools, but they are inhibited in several ways. For example the agenda is made up by the dean, who also chairs the meeting; he introduces the topics for discussion and is in an ideal position to strongly influence the meeting. Most faculty just accept this as the way things are. At times when dissent grows within a school it needs both determination and persistence to bring out into the open issues which challenge authority in the school, which is centred around the dean. The school meetings are too often just a part of the business side of the school, dealing with business that has come down from the top, and many of the vital issues, such as admissions policies and school development, are never properly discussed.

Many of the problems found at the school level reappear at the science committee level. Again the situations are very much open to manipulation by the pro vc (science) and the science deans. Control rests largely with this group through the science deans committee which, although it is not formally constituted for the power it holds, usually discusses the really important issues before they come to the science committee meetings. Frequently the science deans committee presents to science committee complete sets of proposals for approval. Inevitably it takes much determination to resist such proposals since (a) science committee is quite a heterogeneous committee and members do not meet to discuss issues or align themselves outside of the meetings, and (b) the dean of each school is of course involved in the science deans proposals. Consequently the discussion that takes place on controversial issues is likely to occur in the science deans committee rather than in the science committee.

Frequently members of science committee find it difficult, if not impossible, to understand how figures presented in papers at their meeting have been derived. Sometimes, important information prepared by administrators goes to the science deans committee and never appears at the science committee meeting. Naturally, the more the calculations remain in the domain of the science office the less likely are the proposals of the pro vc (science) to be challenged. The result of all this is that in rather subtle ways the science committee is managed just as the schools are managed.

I would now like to turn to a number of issues which I hope will throw some light, perhaps more directly, on decision-making in science.

a) Allocation of faculty and financial resources

If anything is pertinent to the faculty in the science schools it is the allocation of faculty and money - yet there must be very few people in science who have any idea what has been done and how it is done. The science school funds now total approximately £200,000 per annum and there is a similar sum for the funding of equipment; so the subject is of considerable interest. The schools have never had any say in the method for allocating resources nor in the result of allocations. This can lead to trouble.

Let us consider the so-called science freeze which started in 1968. At this time Professor Eaborn became the pro vice-chancellor (science) and there were some disputes in the science committee over allocations. It was decided to base future allocations on those relevant to 1968-69, rather than use the agreed formula. The freeze, however, went on for five years, much to the disadvantage of Biology and Applied Sciences, who had started later than Molecular Sciences and MAPS. Those allocations, based on the 1968-69 numbers, are now completely erroneous with the undergraduate numbers of Biology and Applied Sciences growing and those in physics and chemistry declining. The so-called imbalance must have been clear to the reigning pro vc (science) (a molecular scientist). This policy, which was opposed by many administrators but which was never challenged in the science committee, has led to many of the present problems in science. This could have been avoided by ending the freeze long ago.

b) Science student numbers

Last year there was a great panic when science student numbers went down for the first time. Sussex was finally experiencing a shortage of students. Now, there is no great desire among scientists to teach more and more students, rather the panic reaction came because it is 'known' that if science doesn't increase its student numbers then it cannot expect increased UGC funds for research in the next quinquennium. This position was reinforced by the quinquennial settlement which effectively increased the student: staff ratio. This meant that to increase the

c) The interests of science as a whole

Today there is considerable autonomy of the science schools. In many ways this is an admirable thing, since decisions are made closest to the level at which they are experienced. However, there is a problem, in that the only structure uniting the science side is the science committee and the science office. One of the most striking features of the science committee is the fact that most people are there to represent their schools; no-one is there specifically to look after the whole interests of science (except the pro vc (science)). This balancing of school forces has its disadvantages when issues arise which span the whole of science. For example, a new science and society school was proposed for the 1972/77 quinquennium, to develop the work of the science policy research unit and the history and social studies of science group. This was killed dead by the science committee who, given the limitations of expansion, wanted all further development of science to take place in the present four schools. Similarly, the science committee recently refused to give support to the claim for a post to make the HSSS subject group viable (it currently has two posts). Although excellent work has been done by HSSS in presenting to science students, both an historical and social perspective to their studies, and although it is preparing minors in all the science schools, this carried little or no weight in the
science committee, which recommended that the six pool posts should go to biology (4), astronomy (1) and computing science (1). (When this issue was raised at Senate during a discussion of the Planning Committee’s recommendations for the ‘pool posts’ the Vice-Chancellor objected to a motion which asked that one of the five posts given to biology should be allocated to HSSS and said that such a motion from the floor was contrary to good university planning.)

On a much larger scale there are issues like the shape and size of science which are never directly discussed but which significantly affect subsidiary issues. Consequently they are only handled in an indirect piecemeal fashion with the vested interests fighting it out, faculty numbers, or even to hold the present numbers, science student numbers must be increased. Despite the fact that the applicants in science have declined across the board by nearly 50% in the last four years, the science side is planning to expand its yearly intake by almost 50% from 453 students in 1972 to 659 in 1976. To give some idea of the decline of applications to science, figures are given below for four majors which are quite typical of the other science majors.

<table>
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<th>Year</th>
<th>Biology</th>
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<th>Physics</th>
<th>Med. Eng.</th>
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<td>384</td>
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<td>422</td>
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<td>1971</td>
<td>421</td>
<td>340</td>
<td>320</td>
<td>319</td>
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<tr>
<td>1972</td>
<td>430</td>
<td>279</td>
<td>266</td>
<td>249</td>
</tr>
<tr>
<td>1973</td>
<td>365</td>
<td>218</td>
<td>231</td>
<td>190</td>
</tr>
</tbody>
</table>

Despite the decline in applications, the science side has never had a full discussion of the changed situation, although this is by no means a sudden change. Instead, there is an automatic response in the science committee, and in the schools, that we must simply increase our numbers; our scientific empires depend on it. Surprisingly enough, it is possible to increase your intake numbers even when applications are going down. Instead of interviewing students, we now ‘sell’ applicants the university on ‘open days’. Public relations is what it’s all about. Also we make them lower standard A level grade offers. Applied sciences now asks for a C and a D, and Molecular Sciences for three D’s. Already the A-level mean of the biology intake group has declined and we can expect to see this continue on the science side, if we pursue the numbers we are chasing. The implication for such changes may, I believe, be quite momentous. We cannot expect that there will be no repercussions if we continue to teach the same kind of courses, and give the same type of exams to students having poor A level grades. The drop-out figures in science are already disturbing and they could get much worse. There are, of course, convincing arguments for an expansion of higher education—this most radicals would support—but the science expansion is no longer attempted for these reasons.

One of the most unfortunate aspects about admissions is that the same kind of activity is occurring in other universities. What we gain, others lose, and vice versa. There are thousands of spare places in sciences and yet we all expect to expand. The UGC must take some responsibility for this ludicrous situation in that it is planning a 26% increase in science places for the quinquennium despite the fact that there is no reason to expect such demands by applicants.

My reason for including this information on admissions is because it shows the absence of any coherent analysis of the situation at Sussex by members of the science committee, even when good statistics are provided by the admissions office. Instead the science schools are reacting to protect and increase their own interests (particularly their research interests) rather than considering educational implications.

Conclusions

It is impossible to discuss in any depth decision-making in science at Sussex in a short article. The main points—however, are concerned with the use and abuse of power, the avoidance of open discussions of major issues, and the dominance of the sectional interests in science. Below are suggestions for a more democratic system.

1. Deans of science schools and the pro vc (science) should hold offices for shorter periods.

2. Meetings of the science committee and schools should be chaired by an elected person who is not the pro vc (science) or dean, respectively.

3. The science deans committee should cease to exist. Ad hoc subcommittees of the science committee should be set up for special purposes.

4. The science committee should be much more active in asking administrators for information to be presented at meetings, rather than waiting to see what is offered.

5. Important issues, such as deciding the formula for determining the allocation of resources, should be discussed over a period of time, so that new ideas can be formulated and positions adopted. In this process the schools should be fully involved.

6. The science committee papers should be circulated before meetings to people in the science schools who wish to see them.

7. The science committee’s elected contingent should be enlarged from 4 to 6 and these should be chosen from, and by, the science faculty, rather than being merely representatives of the schools. In addition one undergraduate student from each science school, and two postgraduate students, should be members of the committee.

8. When topics come up at meetings affecting particular individuals or groups, those individuals, or the representatives of groups, should always be invited to attend for discussion.

E. Lilley
II. Institutionalised Relations in Education

This article is about the way in which people and the relations between them are, and could be, defined by educational institutions. It falls into three parts, none of which claims originality. The first looks at present relations in a given institution, Sussex University. The second is a frankly Utopianist sketch of the way education might be organised in a hypothetical society of the future, and the third suggests action in the immediate perspective. It goes without saying that none of the structures envisaged in part two are conceivable under capitalism. Also that within a truly socialist framework it is no longer possible to talk about the university, or even higher education, in isolation.

* * *

Institutions define relations. As they stand, they breed false relations and false consciousness. They provide a total environment whose influence, unnoticed because all-pervasive, goes deeper than attitudes acquired by more consciously formative processes (telly-watching, reading, discussion). The structure at Sussex University, like that of most institutions in our society, is hierarchical-divisive. To begin with, language, not only across institutions but within them, provides countless grids by which groups delimit their particular identity and field of competence. A university student listening to a student from the College of Ed., an "Arts man" listening to a scientist, even a literature man listening to a sociologist or an educationalist, is aware of a whole range of linguistic signals which, because they link with a set of certainties and assumptions different from his own, evoke an incipient impatience or require an effort of adjustment. And the more specialised our training, the more our linguistic programming confines us within a particular field of discourse. These limits to communication can of course be broken, but they constitute already a pre-disposition to separateness. And this is strongly reinforced, in the working situation of a teacher at Sussex, by the architectural environment.

Architecture is a great unconscious conditioner. Now wonder reactionary professors say, and believe, that the university exists apart from society, when it is sited so far from the town centre that a lot of Brighton people don’t even know where it is, still less what it’s for. And for who but a leisurely elite, the meritoricocratic heirs of eighteenth century country gentleman, could Basil Spence have designed those brutally unfunctional concrete arches with their crude reference to the "eternal" (i.e. public school/Oxbridge) values of the Graeco-Roman tradition? But it’s the plan more than the style of the buildings which defines internal relations. The best thing to have happened in this respect is the creation of the school common rooms (not part of the original design). The worst thing is the division of the space into all those separate little rooms, defining academic work as private and non-collaborative.

This is based on the famous idea of the "tutorial university" which, thrown up in the rapid and euphoric planning of the place by the academic jet-set around 1960, was quickly immutabilised in bricks and mortar. As with Spence’s dream of the modernized Roman arch, this was a superficial updating of the medieval-monastic ideal of corporate cellularity. Everyone does his own thing, while the proximity of other tutor’s rooms (unsoundproofed!), the interlinking of buildings and the existence of quadrangle-type spaces, provide the required sense of a community of brilliant individuals. Many people see nothing wrong with this, and of course academics do sometimes produce books in collaboration. My point is that the cellular division of space subtly and deeply reinforces the idea of academic work as individualistic and competitive. Books are private property, produced to further one’s private reputation and earning power.

The basis of the "tutorial university" is that teaching generates, and also arises from, a personal relationship between tutor and student. Although this is still seriously believed by men of good will and does make some kind of sense in contrast to the magisterial system of the Continent, it is staggeringly at odds with reality. This is not to say that personal relations are impossible between faculty and students. But where they do exist, it is against and outside a system which was not, in the fullest sense, designed for them. The teaching relationship itself, as internalised from the structure of the institution, in fact militates against the equality and trust on which personal relations are built, and here again architecture is a determinant. The door to a tutor’s room delimits an area in which he dominates. The odds are weighted against equality, and against a learning process derived from the student’s personal needs and problems. But the tutor in his turn is constrained. The “teaching situation” is in many cases pre-determined by an arbitrary syllabus. And even if the tutor has been able to devise within the syllabus a course which is a personal growth-point, he and the student are still bound by assessment. This works in two ways. - The fact that each term the tutor has to give a written judgment (which may be secret) on the student, but not vice versa; that this judgment is addressed, not to the student but to other people, so that they can judge him in their turn; the fact that any course-evaluation takes place outside this official process - the whole
report system implies an authoritarian view of education. Those who don’t hold this view—I would guess a majority—are continually obliged to twist themselves partly out of the intellectual and moral posture which the institution, with its blind cunning, urges on them. It is time we made a collective stand against this.

Then there are exams. To justify public expenditure courses must be examined. To be examinable they must be packaged. And because a tutor’s time and ingenuity are limited, there has to be some uniformity of packaging among a given group of students. At the same time, just as the private-room system encourages tutors to plough their own exclusive furrows, so grading forces a student to measure himself against the others, so that self-awareness is inseparable from a sense of inferiority/superiority. Again, it is time we refused these phony imperatives. Thus even if a tutor has achieved partial liberation within the institution-as-syllabus, the requirements of the institution-as-grading-factory push him back towards an authoritarian posture vis-à-vis his students. He wants to be one kind of person: the institution, subtly and persistently, forces him to be another.

Anyone who has tried to develop courses based on his own and students’ interests while staying within the syllabus will know what a frustrating and contradictory experience it can be. On the other hand, the example of Prelim courses on the Arts side is that for tutors who have not been afraid of the new freedom afforded by an unexamined and ungraded syllabus, a totally new kind of learning/teaching situation has become possible. Limited only by an agreed area of inquiry as a starting-point, tutor and student can become for the first time equal partners in exploration.

I have focussed this part of the article on the relation between tutor and student, because that is the one which concerns me most immediately, and because it completes the structure of an educational system whose purpose is not to lead from the self to an understanding of society, but to condition people for particular roles within a capitalist state which depends for its survival on the belief that, because of ‘inevitable’ social and/or genetic inequality, only a few people are capable of being fully educated. Yet in the end this relation is the least important. Both teacher and taught belong, either actually or potentially, to the same elite of managerial workers whose leisure, self-cultivation and intellectual autonomy, (at once the qualification for, and the privilege of, their position,) prevent them from identifying with the interests of other workers, and obscure the power-structure of capitalism. What matters most is the relation of this elite, including ‘faculty-grade’ administrators, to the others on campus: the junior administrators, the library workers, the clerks and secretaries, the technicians, the demonstrators, the maintenance and catering staff, the grounds staff and gardeners, the porters, the cleaners and the cooks. The broad difference between the two groups is shown brutally in the fact that one lot has to work from nine to five-thirty (plus necessary overtime for many), while the other lot (excluding administrators) can do their work when they like and, up to a point, if they like. This difference, at its most marked in a university, is in fact an important part of the social conditioning process of ‘higher education’. For faculty it is institutionalised in the segregated facilities enjoyed by the SCR in Falmer House.

So there is another article to be written about the false relations between these two groups. That we who believe in social equality should continue to accept a situation where the intellectual autonomy of the highly paid few is dependent on the often unrewarding labour of the badly paid many, is an institutional scandal which we should surely organise to combat.

WHAT THEY LEARN AT SCHOOL

Geogie Best
Super star
Wears frilly knickers and a see-through bra
(To the tune of ‘Jesus Christ, super star’)

— Wo took you out in the boat?
  — Inspector Willy.
— Who brought you back in the boat?
  — Inspector Willy.
— Who took you up in the lift?
  — Inspector Willy.
— Who brought you down in the lift?
  — Inspector Willy.
— What’d you do if you went to see the Queen?
  — Inspector Willy.

My brother Billy
Had a ten-foot willy
And it reached to the girl next door—
She thought it was a snake
And she hit it with a rake
And now it’s only four foot four.
A SKETCH FOR EDUCATIONAL ORGANISATION IN UTOPIAN BRITAIN

The principle of education in a free socialist society would be that it was sought and not imposed. Compulsory attendance at specialised institutions would be abolished. After, say, the age of ten, the notion of education by age-group would also go. Till around ten, some optional attendance at nursery and primary schools, organised perhaps in community centres on a co-operative neighbourhood basis, would probably be retained, if only for the minimal purposes of early socialisation and learning the three Rs. It is during this period that children learn to relate to the wider society outside their home. At present, what they are taught is a blind respect for authority in all its forms; they imbibe a conservative ideology which conceals the oppressive nature of society and thus prepares them to accept it. The object of early socialisation in the new society would be, hopefully, to introduce the kids to a sense of what was actually going on, building out from their own questions, their own experience, their own sub-culture (which should be given room to expand, rather than being repressed), and preparing them to relate consciously to a system which was no longer oppressive. Those who taught in these institutions would be the most gifted and talented people available.

From age ten to death everyone would have access to education. Education would be genuinely comprehensive in the sense that there would be no division into age-group phases. The institutions we know, which exist only to process particular age-groups, would go. All available resources, in terms of buildings, libraries, museums, schools, HE institutions, the Open University, CCE, the media, etc., etc., would be drawn together into a single system of educational resources open to everyone at all times.

But why separate education from recreation? Learning something because you want to is a form of leisure. One of the saddest things in our society is to see men fighting for the right to work instead of being able to insist on the right to leisure. In a technologically advanced society where the means of production were owned by the community and production was rationally planned for the benefit of all, the right to leisure becomes a reality. Everyone could have, say, four free years on full pay in a working life-time, to be taken in one or more longish stretches, or continuously on a system of day-release. But there’s no reason to suppose that the advent of socialism is going to make everyone bookish overnight.

Some people would want to play football or make TV programmes, or visit foreign parts, or be with their children, or just do nothing. And facilities for all kinds of activity could be enormously developed. Conversely, education shouldn’t be confined to the institutions set aside for the purpose. Education, and particularly the acquisition of industrial skills, would involve learning from people at the place of work. In short, education would be integrated with other branches of life.

All this involves de-schooling society in the sense of dismantling a centralised, state-controlled system of indoctrinating people from age five to age fifteen and beyond. Not in the sense of abolishing these institutions physically (Sussex University as ghost town, what a nightmare!) And not in the sense of abolishing all organisation. Rather, we should set up integrated facilities within which people could relate to each other freely and creatively. This could best be done on a regional basis. Reception arrangements for intending learners and teachers could start at grass-roots level (the neighbourhood community centre) and feed into a regional centre or centres drawing on computerised information about available resources of people and materials, and staffed by full-time\(^1\) advisors who were well versed both in the technicalities of the system and in the subject-areas they were in charge of. Bureaucratic centralism and impermeability would be obvious dangers, but in the case of small groups it would be enough simply to put people in touch with each other, provide the necessary help in booking rooms or equipment, and let them get on with it. Clearly the system would need to be flexible and over-lapping, so that learning activities could be conceived from the beginning in terms of the learner’s specific combination of interests. These learning activities, then, would be structured by demand, rather than the demand being channelled into the courses available as at present.

Thus there would be a pool of people living locally who were prepared to give courses and guide programmes of study in their own field. Some would be full-time, others part-time, others on call. As for who got paid on a full-time basis, that would simply be decided by demand and availability. The popular teachers would have the possibility of teaching full-time if they wanted. There is no reason to suppose that academic standards would drop. There would still be people who would be dedicated to the business of consuming a large number of books and becoming authoritative about this or that, for its own sake and out of their own interest. And there’s no reason why such people shouldn’t run highly structured courses. In practice, the old distinction between teaching and research should wither away. (There might be a case for paying some people as “pure” researchers, but I doubt it.) People would be working together, with the more knowledgeable guiding the beginners. I don’t know whether this system would produce outstanding individuals, but if it did, they would be people whose knowledge and commitment led spontaneously to communication and discussion. Finding out about, and telling about, are often synonymous, and this is what should be developed. So the question as to the degree of professionalisation which should be encouraged, and how the direction of a given group was organised, should be left open.

Footnote: This is a sketch, not a blueprint. Many questions are left open. But it seems to me imperative to have something, in our present action, to work TOWARDS.

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ACTION IN THE IMMEDIATE PERSPECTIVE

Between present and Utopian institutions the gap is obviously enormous. In the first, people are conditioned to be separate; in the second, they would be conditioned to be equals. Knowledge would no longer be a means to power, it would be a means of communication. It may be that a total revolutionary strategy would involve an interim period when knowledge is still applied manipulatively through a centralised, compulsory education system, but works to create a generalised revolutionary consciousness. Such a strategy seems at the moment to be impossibly remote. So what can we do, immediately? It seems to me that to work for radical change within the institution, provided we resolutely dissociate ourselves from the kind of liberal reformism which reinforces the status quo, is an act of faith in a possible socialist future. It may be that in the short term we can’t actually change ourselves and the way we relate to others. But we can start to replace the present system of relations by one which provides a model for socialist equality. The ways in which we can do this are listed in our “action programme” at the end of the magazine; I want here to focus on five points (the last three all belong together).

1) We should campaign for the SCR facilities in Falmer House to be made open to everyone.

2) Tutors can negotiate with a group of about ten students each (reflecting the staff-student ratio) a rotating use of their rooms for the duration of the student’s stay here.

3) (a) We can start campaigning immediately for an equalised pay-scale for all workers on campus, i.e., pay-scales to be decided by the same criteria for everyone, whatever their present status. This is possible (unless students are regarded as wage-earners) by a redistribution of the UGC grant. There are, of course, problems which would need to be resolved before action was undertaken. Should student grants be considered as a separate issue? Should the high-paid be asked to take a drop in salary, with due warning so they could move elsewhere if they didn’t want to, or should equalisation be phase I in over a longish period so no individual suffered? What would be the attitude of local trade-unionists, with whom we should have to talk? If pay is to be scaled to individual need, how is this to be done?

3) (b) To further (a), some kind of inter-union organisation needs to be set up on campus, linking or replacing the AUT, ASTMS, NALGO, NUS, etc. The aim would be to break down the professional and social strata which present institutions have created and to bring people to a sense of their solidarity as wage-earners in the capitalist system. This could lead to a further drive towards the redistribution of wealth in society at large, a much more important struggle in which the local action could be seen as a first step.

(c) In a socialist society, there is no division of labour into menial/irresponsible and managerial/responsible. We must devise some way, at Sussex University, of breaking this down. This is tricky, and needs a good deal of thought. There would be resistance to the idea from all quarters, not only from “above”. That faculty have been taught to think they are too important to copy-type, clean out the moats or empty their ash-trays is perhaps less of a problem than that (some) porters have been taught to think they have no aptitude for reading books and talking/writing about them. We could perhaps start with a symbolic exchange of roles between individuals, for a week or so, which would be the occasion for discussion, teach-in, leaflets etc.

Obviously, to change the university is not to change society. But if we do achieve some of the above aims, we will have become an educational institution in a truer and more revolutionary sense; we will have taught people that you can begin to challenge and rebuild a system within its institutions. If we fail, at least we will get a closer feel of the conservative constraints which support injustice.

Nick Osmond

1 Not necessarily life-long. The whole point of a society like this would be that people could easily retrain and change jobs.
# TABLE OF FEES

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<th>Description</th>
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<td>Vault opened for repairs</td>
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<td>Funeral in Vault</td>
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<td>Funeral in Brick Grave</td>
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<td>Monument in Church, exclusive of the Chancel</td>
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12. The Idea of an Open University

The failure of what should have been a popular summer season of plays at the Gardner Arts Centre at Falmer and the success of the Queens Park Spa issue in Brighton in arousing local anger about the misuse of public land - these two seemingly unrelated events of the past year illustrate with painful, even vulgar clarity how the simple geographical isolation of Sussex University from the surrounding towns has at best neutralized and at worst made totally invisible the equally shameful exploitation of land, buildings and services which the current use of the University perpetuates. The debacle of the Arts Centre demonstrates how empty and unsuccessful the liberal model of town-gown relations has become, and the Spa issue provides a rich series of metaphors for the failure of the University to serve the immediate community, as well as the larger society, in a radical way.

Let us start with the Theatre, the only building and service aside from the Sports Centre on the Falmer site which was designed from the beginning to be open to the general public, designed indeed to attract local residents and tourists to the new university, and to vie with Chichester as a provincial mecca for the arts. Its aims were hardly revolutionary; in a sense it was an elaborate and expensive piece of public relations behind which the closed, elite university could pursue its private functions with an easy conscience. It was never seen primarily as a resource, educational or otherwise, for the university or the larger community, but rather as a high class provincial rep, a source of prestige which would demonstrate to the middle-class taxpayers of Sussex the virtue and necessity of the professionalization of culture. Although in this sense it was actually a direct advertisement for the Arts side of the University, a constant reminder that the production of a class of professional aesthetes was a desirable social objective, it was often made difficult for students and other amateur groups to use its facilities. The Friends of the Gardner, a dues-paying organisation open to anyone interested in the arts, tended to draw its membership both inside and outside the University from that portion of the local population who provide the audiences for the Theatre Royal and the Brighton Festival. The theatre and its administration did not seek, through policy or choice of plays to widen the class nature of its audiences. Economically protected by the University it did not need to haggle with philistine town councillors about the nature of its fare, a process which at least connects both good and bad provincial theatres with a part of the population which supports them. Its internal squabbles, in part a result of bad notices and poor houses, reached the public only briefly and as highly personal quarrels. Yet in large part its present difficulties had its sources in its initial conception. Like the University itself it did not choose to conduct any meaningful dialogue with the public about what should go on its stage and why. In its perfect freedom to select its own cultural objects for display and its seeming indifference to open discussion about the value and interest to the whole society of those objects, it was a fair replica of the University schools of study as they developed.

Protected from the vagaries of the market, unfortunate in its administration, it has not, up until now served as an attractive side-show for the idea of a new University. When Gordon McDougall, a talented young director who has successfully run two off-beat theatres in the heart of British cities, tried to draw non-university audiences to a popular summer season he failed miserably, and apparently advised the administrators not to try to use the theatre as a repertory company out of term. The late history of the Arts Centre suggests that culture, even glossily packaged culture, may not be all that easy to sell when associated however loosely with the remote and very privatized image of higher education. It is difficult to predict how much more successful a more radical open door policy in relation to buildings and services would be. Would Brightonians, particularly working people, make the after-hours journey to Falmer to use the library, labs and lecture halls? Certainly, in equity, these facilities ought to be open to the public round the year and round the clock, but there are good
reasons why they might be as empty as the theatre. The enlargement of privilege, the democratizing process of liberal societies, has built in safety factors which effectively limit too many people from taking advantage of it. Set off as the University is from the towns themselves, its geographical isolation simply emphasizes the elitism of its conception and function and the degree to which the members of the University are expected to operate as private political citizens in whatever way they choose, but in their public capacity to protect and enhance the isolation of the institution they serve.

I might prefer my lecture audiences to contain working people and housewives as well as full-time students but I cannot take my paid lecture out into the factories or the streets. At present I can offer night courses to non-students through the structure of adult education. In a conceivable future after a long, hard, but vitally necessary lobby, I might succeed in altering admissions policies and making ordinary university lectures open to the public. The physical and political structure in which I teach will still be highly elitist. I will still be asking the public to come to me. I must assume that the importance of my subject or the issues I discuss should attract the deserving poor to my lecture hall, to seek books from my library, to hunt for my version of culture up the unaccommodating ramps and down the soulless corridors of Arts A. To come to my university the public will have to make an effort of will and a considerable outlay of cash fares in order to sit passively in front of an informant whose whole education and experience have worked to alienate him from the experience and educational needs of his new audience.

It seems clear to me that to counteract the isolation of the University and its members, geographic, social and psychological, the opening of doors must be part of a two-way traffic. As individuals, University faculty have in the past been admirable in their relations to the communities in which they live. As active socialists they have influenced the social services and the Trades Council, they took part in the now defunct Archways project and the Combination and with the students they organized support, and shelter for the squatters. Most recently they have been a force behind agitation to turn the abandoned German Spa in Queens Park into a much needed nursery school instead of allowing the Corporation to turn it over to speculators who wanted to use it for a casino-restaurant. In these roles they have often thought it desirable to submerge their professional status, because it was felt that the ideas and positions of academics were automatically suspect to a large section of the community. However if we want to open up the University we must be prepared to put our collective professional skills at the service of the community, in the community.

There are various ways in which this can be done. Some precedents already exist. In the early years of the university there was a lobby for the purchase of the old Paris Cinema in New Road which would have served as a cultural center in the town. It failed. Let us try again to get the University to buy or lease a property in Brighton (and perhaps in Lewes also) which could be used by all members of the community for seminars, lectures, films and other entertainment. It might house a resource office run by interested faculty who would put their own skills and knowledge as researchers at the service of any local group who needs them. Out of issues like the Spa, community based research projects might develop with academics among them to produce local collective studies of the relation between community needs and the decisions of local government. Even at the University itself there are far too few self-educating

groups which stage seminars and teach-ins for issues not touched on in the curriculum. One such group, The Society for the Study of Labour History has been meeting for over two years now in the local Labour Club. The format of its meetings is still too close to the academic model to attract a large number of non-University people, but it is encouraging to see that it has survived and grown outside Falmer. Perhaps a radical caucus at the University, whose nucleus could be the group that has produced this edition of Focus, ought to start in a small way with or without the blessings of the Senate and Council. Let us encourage more voluntary groups to hold their meetings in Brighton and advertise them widely. At the same time as we lobby vigorously for opening the facilities at Falmer to all residents of the surrounding towns and villages without cost, let us at least begin by offering our skills without cost in the towns and villages.

It would be self-deceiving to think at this stage that any widening of admissions, opening of lectures and films and other facilities to the public including the penetration of the towns can be a part of a final solution to the ultimate elitism of the degree-producing educational establishment with the university at the top. What such a process might begin is the deschooling of faculty and students which would include the development of a new context for the rethinking of "syllabus" and "disciplines". For students and faculty in Berkeley, California and New York City's Columbia University crises develop around the use of University-owned property in the urban areas have had an educational impact on the University communities. By a wise isolation the founders of Sussex have avoided such crises. No "townies" scream for the empty theatre, or mothers for the unused splendours of Sammer. Without a broad concept of the re-integration of the University and the community it is doubtful that they ever will. The members of the University are, in effect, citizens of two communities where the social services are poor, and land and services likely to be reserved from above for the use and profit of a few. Groups in both communities must tackle such exploitation collectively.

No fortress, founded, funded and garrisoned as English Universities are at present can turn itself overnight into a nursery school for the new society. If we recognize that the setting down of a drawbridge is only a beginning, we may have the imagination and stamina to learn what map it is that needs to be redrawn.

Cora Lushington

1 At this point exception must be made for the productions of the Schools' Tour run first by Sara Yeomans then by David Macdonald, which have used material written by local schoolchildren on themes like 'The generation gap' and 'It is our world, what are we going to do with it?' This has been a community venture of real value but although partly financed out of the Arts Centre budget it was treated as little more than a marginal activity and few people at the university knew of its existence, let alone of its success.
ACTION PROGRAMME

Summary of Main Proposals

THE UNIVERSITY AND THE COMMUNITY

1. PEOPLE FROM OUTSIDE THE UNIVERSITY TO HAVE OPEN ACCESS TO LECTURES, FILMS, SEMINARS, THE LIBRARY, THE LANGUAGE LABORATORY, MEDIA SERVICE UNIT ETC.
2. THE WHOLE UNIVERSITY, AND NOT JUST A PART OF IT, TO BE A PLACE OF CONTINUING EDUCATION.
3. FACULTY TIME TO BE AS AVAILABLE FOR EDUCATIONAL ACTIVITIES IN THE COMMUNITY AS FOR NORMAL TEACHING WITHIN THE UNIVERSITY.
4. THE UNIVERSITY TO RENT OR BUY A PLACE IN BRIGHTON TO SERVE AS AN EDUCATIONAL CENTRE AS WELL AS USING EXISTING COMMUNITY CENTRES, PUBS, FACTORIES ETC FOR EDUCATIONAL ACTIVITIES.

INTERNAL RELATIONS, STATUS AND PAY

5. NO STATUS DIFFERENTIALS AMONG OR BETWEEN FACULTY, ADMINISTRATORS, TECHNICIANS ETC. (I.E. ABOLITION OF LECTURER-READER-PROFESSOR DISTINCTIONS AND THEIR PARALLELS ELSEWHERE).
6. STUDENTS AND ALL UNIVERSITY EMPLOYEES (ACADEMIC, CLERICAL, MANUAL ETC) TO BE REGARDED AS EQUAL MEMBERS OF THE UNIVERSITY COMMUNITY.
7. NEW CRITERIA FOR PAY BASED ON NEED AND APPLICABLE TO ALL UNIVERSITY EMPLOYEES.
8. NO AREAS SEGREGATED ACCORDING TO STATUS WITHIN THE UNIVERSITY.
9. MORE COMMUNAL USE OF TUTOR'S ROOMS.

COURSES AND COURSE-CONTENT

10. ONE YEAR COURSES, AS WELL AS THREE AND FOUR YEAR, TO BE MADE AVAILABLE.
11. MORE INTERDISCIPLINARY COURSES (MODULES) WITH ARTS/SCIENCE CONTENT.
12. MORE NON-VOCATIONAL SCIENCE COURSES WITH HISTORICAL AND PHILOSOPHICAL DIMENSIONS.
13. COURSES ON, FOR EXAMPLE, CONTEMPORARY SOCIETY COMBINING STUDENTS AND PEOPLE FROM THE COMMUNITY IN PLACES OUTSIDE THE UNIVERSITY AS WELL AS INSIDE.

ADMISSIONS AND EXAMS

14. POSITIVE DISCRIMINATION IN ADMISSIONS AGAINST INDEPENDENT SCHOOLS AND IN FAVOUR OF APPLICANTS FROM OCCUPATIONAL GROUPS, LOCALITIES AND SCHOOLS WITH LOW PERCENTAGES OF UNIVERSITY ADMISSIONS.
15. MORE ADULT ENTRANTS.
16. NO COMPELLSORY OR COMPETITIVE EXAMS. CERTIFICATION ONLY IN EXCEPTIONAL CASES.

LEARNING AND ASSESSMENT

17. MUTUAL REPORTS BY STUDENTS AND COURSE TUTORS.
18. NO GRADING OR CLASSIFICATION IN REPORTS.
19. MORE COLLABORATIVE WORK AND COLLECTIVE RESEARCH.
20. MORE OPPORTUNITY FOR FACULTY TO LEARN AND TEACH NEW SUBJECTS: LESS JOB SPECIALISATION.
21. COMMUNITY PROJECTS TO BE SEEN AS LEARNING SITUATIONS EQUAL TO LIBRARY AND LABORATORY WORK.

We intend to bring these proposals before meetings at all levels of university administration in detailed, timetabled and costed form. Meanwhile we reiterate our call for a General Council meeting as the first stage in the open discussion of fundamental university change.