2nd Inaugural Lecture

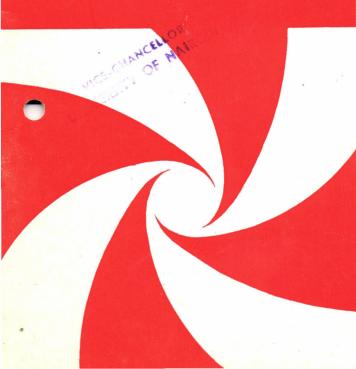
October 8th 1971 Education Centre

> UNIVERSITY OF NAIROBI

A Definition of Teacher Education

Traditional Growth

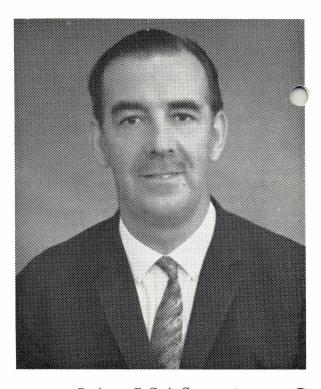
and Future Development



THE INAUGURAL LECTURE SERIES was started by the University College, Nairobi when it was a constituent part of the University of East Africa. It is a tradition that Professors when first appointed to the University of Nairobi are invited to deliver eir first public lecture on topics related to their isciplines and of concern to the specialists and the community in general.

The lecture series are published by the University of Nairobi through grants made available by the University Deans' Committee. Copies of the publications are on sale at bookstores.

In this second inaugural lecture Prof. Francis C. A. Cammaerts, in a life devoted to education, seeks to examine the idea of the teacher in a brief historical sketch. He presents for consideration a definition of teacher education in its dynamic response to social changes and, finally, examines the future of mass education and the challenge of mediocrity.



Professor F. C. A. Cammaerts

Professor F. C. A. Cammaerts, after graduating from Cambridge University in 1937, began his career as a teacher. There were 10,000 unemployed Arts graduates in England at the time. He drifted into teaching like so many of his contemporaries and developed a real feeling for it. The war in 939 interrupted his early career. He was directed to agricultural work as a conscientious objector to military service. He was married and his first child was born on the farm. He decided to join the conflict against fascism and spent three years in France with the Resistance forces. After a short period of International work in Berlin and Brussels he returned to Education in 1948, firstly to encourage understanding trying between peoples by organising International exchanges of students and teachers, subsequently as Headmaster of a Grammar School and then as Principal of a College of Education.

He came to Kenya in 1966. He is convinced that there is much to learn about his own profession by working with students in a different cultural environment.

TEACHER EDUCATION: A DEFINITION TRADITIONAL GROWTH AND FUTURE DEVELOPMENT

The full time trained teacher, as we know him to-day, is very much a product of the twentieth century. There were, of course, full time professional teachers in the nineteenth century and long before that in many countries and in many continents; but the idea that teachers needed a special preparation for their job was limited to the training of the under privileged to teach the under privileged. It was believed that the education of the elite could safely be left in the hands of specialists who, because of their great knowledge or skill, were quite able to teach without any special preparation.

The beginnings of mass education grew with the beginnings of mass production, as a development of the economic need for better communication based on the ability to transmit information

and instructions by the written word.

The preparation of children for their future role in society as adults has been the concern of all societies at all times. Parents, elders, counsellors, members of society having the highest levels of skills in hunting or fighting or farming and in creative arts and skills have always had a duty to work with young apprentices who would carry forward their skills and knowledge for the protection and betterment of their societies.

In this sense education in the past has fulfilled a strictly utilitarian role in man's social organization. The citizens of Athens, the priests of Egypt, the patricians of Rome, the chivalrous knights of the Middle Ages, the clerics, the accountants, the squires, the merchants, the craftsmen, belonged to small groups often concentrated in particular families or clans who handed on their skills and nowledge to their successors carefully maintaining an occupational balance to preserve the basic structure of their societies.

The warrior was often illiterate in those days when fighting was the most important social activity. He learned his skill with the sword or the spear from the greatest swordsman or spearman available. In my own youth if you wanted to reach the summit of achievement in music or painting or sculpture you had to be admitted into the 'studio' of some great artist whose influence would put the seal on your studies.

Throughout man's history the training of skills held higher status than the training of wisdom and logic. From Socrates to Erasmus the

study of philosophy was a dangerous occupation of little social value and of great personal danger. Society's delicate balance was maintained by a combination of orthodoxy and a balance of employment.

The quiet evolution of man's society provided few problems of competitive employment. Basically for the first 2,500 years of modern history the teacher was a part time teacher. There are of course exceptions to this general principle. There were tribes and groups who picked out individuals of great merit to guide the growing young men and women in their general progress. They were more counsellors than teachers.

This general historical background shows that the concept of a teacher has grown over a great period of time as the picture of one who can do something, and the apprentice by watching an asking questions can learn. So the smiths, the tailors, the goldsmiths, the bowman, the swordsmen, the scribes, the illustrators, the keepers of records, the clerks, the accountants. Each skilled man produced a small handful of other men who learned from imitation. In addition there grew up the notion of the selected, generally elderly man or woman who guided the steps of the young in their progression from childhood to maturity.

One other group of people of immense importance fulfilled a teaching role on behalf of a stable society during those two millennia; these were the teachers of the predominant religion. They kept heresy at arms' length and ensured continued conformity — the precise notion of 'instruction' as used to-day in the Roman Catholic Church is a clear example of an educational 'system' established to maintain conformity.

The first ideas about the 'teacher' of today come from the first breakdown of the authority of the Roman Church in Europe and the slow emergence of lay schools. But the growth of this concept was slow. I was myself, for ten years, headmaster of a school with 400 years of recorded history. For 350 of these years there had been more pigs than pupils on the premises and the function of the teachers had remained very much a part time one.

The emergence of the lay school did little to cause a sudden revolution in social order—far from it, but it did permit the spreading and dissemination of the ideas of non conformist European philosophers of the seventeenth and eighteenth centuries.

Not until half way through the nineteenth century was the notion of mass education a live one, and not until that idea developed did the new role of the modern teacher emerge.

Until that time the basic image of the teacher was the master craftsman, a learned scholar who transmitted his skill or his knowledge by example or precept, normally to very small numbers of 'pupils'. When I was an undergraduate in the 1930s the basis of my teaching was the tutorial; it was quite accepted that two hours a week was all the 'teaching' I required. Lectures were voluntary and hardly part of the teaching structure.

The assumption that the man of high ability or of wisdom could transmit his skill or his knowledge was based on the motivation of the learner. Initially man's acquiring of skills was necessary for survival, the skills of the hunter, the farmer, the fighter, these gradually changed to acquisition f those areas of ability and knowledge which would fit him to occupy his place in society in the nobility, in the guild or as the serf. The student who failed to acquire his level of skills and knowledge failed in his social role. There were few, if any, to take his place and so the whole of society was weakened. The need to be adequately equipped for your predetermined role in society was in the interest both of yourself and of the conservation of the whole social fabric.

The first mass educators were the teachers of elementary skills. Urban organization was simplified by literacy so the first skills of reading and writing were to be passed on by the first 'full time teachers'.

The difficulty, if not the importance of this role was recognized in nineteenth century Europe and America. Simple people were to be taught how to transmit simple instructions to other simple people.

Reformers and idealists, non conformist revolutionaries, and radicals realized from an early date he potential significance of the new trade. So did the conservatives. In 1863 the period of training of elementary teachers in England was reduced from three years to two. The debate in parliament made it clear that the main motive behind this change was to ensure that these poor people did not get ideas 'above their station'.

The growth of normal schools and teacher training of student teachers followed very similar patterns in industrial Europe and America and in Africa or Asia. The missionaries played a very central role wherever the movement was growing. They wished to ensure a supply of apprentice instructors to help them in their teaching role.

What was being taught to these first teachers? What was the 'corpus' of knowledge which lay behind the need to give them full time education for the job? Again the picture is familiar. They had to acquire a little bit more of the basic material to be transmitted to their pupils and they had to acquire certain skills in the exercise of patterns of repetition, elements of discipline, knowledge of how to use the blackboard.

At this point of growth there was no body of knowledge behind teacher education, nor was there any notion that this training for a new skill was, eventually, related to the transmission of scholarly knowledge and of sophisticated arts.

The origins of 'mass education' lay in a divided motive. On the one hand the practical convenience of developing some kind of mass communication in governing an urban and industrial society, and on the other hand the 'liberal reforming' notion of the enrichment of man's life through education regardless of his future role in society.

These two ideas though running side by side were often in direct conflict, the liberal reformers were often easily 'conned' into accepting educational theories simply because they fitted an existing social pattern.

So in England, for instance, during the nineteenth century, education for management was restricted to some 10 per cent of the people. The education of the 90 per cent was kept to a minimum so that they should not be discontented with dull repetitive occupations. From this structure a notion grew up that only about 10 per cent were capable of achieving high standards of education.

As the idea of equality of educational opportunity began to dawn on people, the idea that everyone could aspire to a 'place at the top' seemed so anarchic that the notion that the nature of man was such that only a few were equipped for leadership was widely and enthusiastically accepted. As late as the middle 1950s the 'Beloe' report in England stated that only 20 per cent of the age group in England were 'capable' of passing 4 subjects at O level.

So we moved into the era of mass education with a large number of fallacies which had grown up from many centuries of educational practice. The main fallacies were firstly that there was a limited 'pool of ability' in every society consisting of a minority of gifted people who were capable of benefiting from a high level of education. Secondly that those who had sufficient skills or knowledge could communicate these without any special preparation in the arts and science of

communication. There were also three pictures of the teacher; on the one hand the great master in his studio, his university room, his workshop, who would, when he could spare the time, transmit something of his greatness to the few who were privileged to sit at his feet; on the other hand the poor hack, the buffoon who figures as a comic and pathetic character in world literature from Chaucer and Shakespeare onward, the full time teacher who was not good enough at anything to do anything else and finally the poor elementary teacher, the man from an oppressed class who could be allowed to teach a little to his oppressed peers.

These fallacies and these images dominated the early years of mass education well into the middle of the twentieth century.

While everyone was obliged to give increasing eight to the idea that education was no longer a purely utilitarian function of society but was a fundamental human need and, indeed, a fundamental right of man, two distinct schools of thought and action emerged. One we may call the Socratic or Athenian school who believed intensely in the preservation of 'quality', or of what they defined as quality, in education in the face of the mass invasion of their territory. They were, largely, the believers in the education of the elite and their strongest supporters were found in the universities and selective secondary schools. They believed that they had to retain small numbers and high staffing ratio at least for the 'best' pupils and students. The others were those we might call the 'Rousseauists'; they had the backing of the great educational reformers from Dewey onwards, also increasingly of psychologists and educational researchers throughout the world. They believed that the concept of the 'pool of ability' was false and that excellence could and should be achieved throughout the whole educaional field.

For a short time in the 1920s it was thought that the use and development of Intelligence Quotient tests could bring the two groups together. If in fact we could determine the latent abilities of children at an early age so that we could give them all a fair start in different kinds of schools then it might be possible to reconcile the two opposing views. However it was soon possible to see the fallacy in this optimistic view of thing. The influence of environment and particularly of socio-economic conditions on I.Q. test performances revealed at an early stage that so simple a solution of the problems of mass education was invalid.

Against this background the process of teacher education was growing up.

A vast field of knowledge about education based on the work of psychologists, philosophers, historians and methodologists was being fed into one of the most rapidly growing fields of tertiary education, the study of the process of education and the training of professional teachers.

Not surprisingly the area of Primary Teacher education was the first to benefit. The greatest scholars and thinkers from Dewey to Piaget had given their attention to the development of the child. Primary Teacher Training was a recognized activity and so we saw at an early stage a revolution in handling mass education in primary schools throughout the world. Kenya received its own New Primary Approach and was perhaps the first developing country to feel the benefits of the new knowledge actually in the schools.

The benefits to other areas of education were slower to come. First of all with the rapid spread of secondary education a category of teacher was introduced who had not had the privilege of university education. Since these teachers had to have some education beyond their own secondary schooling they were admitted to Teachers Colleges. Research and study changed from its emphasis on child growth to the study of the adolescent and the role of the adolescent in society. America had established an immense lead over the rest of the world in serious study of post childhood educational problems. In Europe and even in Russia the change in emphasis did not really have a serious impact until the end of the Second World War.

Mass education was still largely restricted to the primary level up to 1939. Russia, for twenty years after the Revolution, was forced to retain the strictly utilitarian nature of its education in preparation for the 'inevitable struggle' ahead. When I started to teach in a secondary school in 1937 and wished to get first hand information of primary school practice in the neighbourhood of my school I was rebuffed by my primary school colleagues who did not consider that I was in any sense a member of the same profession.

As soon as man's energies were released after 1945 for more constructive activities, the flood gates of mass education swept through the secondary field and rapidly those with secondary education were demanding university and other forms of tertiary education. In 1967 when I visited the privileged suburb of Newton Massachusetts in America the superintendent of schools estimated that 90 per cent or more of the whole age group

in that area were still in full time education at the age of twenty.

Already in the 1930s President Roosevelt had encouraged the extension of full time education as a means of reducing the immediate severity of unemployment in America. Here was indeed a tremendous departure from the strictly utilitarian concept of education. The impact of this vast growth in mass education beyond primary school did not really hit Kenya until after Independence but when it came it was all the more overwhelming, manifesting itself in the splendid, if somewhat unplanned, example of mass self sacrifice—the building of 600 Harambee Secondary Schools.

Against this background we have to define Teacher Education to-day.

Teacher education, like all education is not a finite process. An initial course cannot produce a complete teacher and it would be a very poor teacher if it tried to do so. It must introduce a teacher to the existence of wide areas of knowledge in which the future teacher must search for what is helpful to his work in hand. It must give him the confidence and knowledge and taste for enquiry which will start him off on his experiences from which he will continuously learn more about the art and science of his profession.

For two years the Department of Education of this University struggled with its search for a definition of its task which would suit both the courses it taught and the broad areas of research. An expression was finally arrived at which seems as good a definition as can be reached at present. It was decided, largely on the basis of a paper presented by Dr. James Burkhala, that a future faculty of education had to equip itself to answer four major questions. Firstly why do we need formal education at all? This requires the contributions of philosophy, sociology, history, comparative education and similar studies which are often collectively referred to as Foundation Studies. Secondly it must answer the question of what should be studied within the structure of formal education? The whole area of curriculum analysis of development and administration comes under this heading.

Thirdly, having decided why you need education, and what you should teach, you must answer the question of how you teach it, which involves the whole area of methodology. Finally you have to enquire into the nature of those whom you teach, which involves educational psychology and the whole process of human development.

If you can answer these questions successfully and continue to investigate all the issues surrounding these questions you produce one of the essentials for every teacher, the ability to say why he is teaching certain things to certain pupils at any given time without resorting to the last ditch answer of 'helping his pupils to pass an examination'. The examination being part of the process of learning and not an excuse for the activity of teaching.

This definition, if it has any validity must apply to all teaching/learning situations whether they occur in the home, the school, the college or in technical and adult studies.

Having considered the background and the definition it is now necessary to look forward in time. Teachers have to be able to look into the future. If they are helping their students to adapt to the society in which they live, then, they must be able to see the potential changes in that society ten or twenty years ahead. Likewise teacher educators need to be able to look ahead at the possible future developments of the whole educational scene.

The process of change from utilitarian education to mass education is far from being complete anywhere in the world and the process will not be stopped. What is happening now and what may happen in the future? To start with as mass education moves from the primary to the secondary sphere and later to the tertiary sphere we are using up every year at an alarming speed our manpower resources and our resources of money in training and maintaining a vast army of full time teachers. As tertiary education explodes around us we are diverting more and more of the time of full time scholars from research writing to the immediate and urgent problems of teaching. One of the great difficulties of African education to-day is that African scholars simply have not got the time to prepare the relevant materials for teaching in schools and colleges.

The Association for Teacher Education in Africa is at present engaged in trying to revise all the basic conceptions of studies in education which have been imported from abroad and which require revision and rewriting for our own use. The Association has suggested that the only way to tackle such a vast undertaking is to provide centres where scholars can prepare materials while visitors from outside Africa temporarily fulfil their teaching roles.

We may, I think, go a step further by looking back into history. Are we wise, are we right, to

conceive of meeting the challenge of mass education on the basis of nothing but a full time teaching force? There is a lot of evidence from all over the world that we are failing to keep up with the challenge, both in the quality and quantity of full time teachers and in the balance of their subjects of major interest.

It is not only Kenya who lacks teachers of mathematics, of science and of technology. This is a world wide problem posed by the development of the second industrial revolution, the revolution of technology.

Certain professions have retained the principle of the part time teacher and have recognized all along that you cannot base the preparation of doctors, lawyers, engineers, veterinary scientists and architects on the basis of a full time teaching orce. Can we not accept this principle as going much further than that? We need the help both in the secondary and the tertiary spheres of a great army of men and women with skills and knowledge who will be required to spend part of their time transmitting their knowledge or abilities to the young.

I would suggest that, at least for the present, the great success of the development of primary education may well indicate that this is an area of educational activity where the full time professional will largely dominate the field in the future.

Beyond the primary stage we will certainly need large numbers of full time 'Masters' or 'Master teachers' whose interest and ability indicate that they should spend their full time teaching. I would suggest that both at the secondary and tertiary level we need full time trained teachers, one of whose major jobs will be to organize the full use of available non-teachers who can help either on the basis of some hours a week or some veeks in a year or years in a working life to help satisfy the voracious appetites of the young.

The conservative and vested interests of the full time army of teachers may well militate against this kind of development in the so-called 'developed' countries. But it is not too late for the third world to show in its own practice that its need not, at least in this respect, follow in the faltering footsteps of the rest of the world.

Here are some statements for your consideration.

"A school is worse than a prison, at least in prison you are not forced to read the dull books written by the warders". "Schools and teachers afford the sad spectacle of ignorance engaged in the stupendous fraud of self perpetuation at the public expense".

"The school system is regarded by many political and educational leaders as a means of disorientating children from the realities of life as it is".

"Schools school students to confuse process with substance, teaching with learning, grade advancement with education, a diploma with competence and fluency with the ability to say something new".

"A good educational system should have three purposes; it should provide all who want to learn with access to available resources at any time in their lives; empower all who want to share what they know to find those who want to learn it from them; and finally to furnish all who want to present an issue to the public with an opportunity to make their challenge known".

The first quotation is from Bernard Shaw who in 1910 was already 'knocking' the danger of compulsory education. The second is William Franklin Phelps of Minnesota who is a professional teacher and has been elected president of the National Educational Association of America. The third is from an article by Mr. Senteza Kajubi, Director of the National Institute of Education in Uganda. The fourth and fifth are from Ivan Ilyitch, the leading thinker in the rapidly growing movement called 'de-schooling' in America.

These quotations were gathered together by an English teacher Mr. Ian Lister in a recent article on some of the deficiencies in the reaction to mass education.

I don't wish to endorse every word of all these statements, they are all however helping to make a point which, I believe, is indisputable. Everyone, both teacher and taught in the prosperous countries of the world, is profoundly dissatisfied with the state of affairs produced by the response to the movement towards mass education.

Whatever facet of the evidence we like to consider, whether it is student unrest and violence, whether it is 'drop outs' from 'the system', whether it is the 'flight from Science studies', we are faced with a picture of disillusionment and imperfection. This is not a peculiarity of what is commonly called the 'west'; similar evidence has appeared in Soviet Russia and Japan. One of the major, perhaps the major reason for the disillusion is that we hoped for so much from the magic of formal education. It was to break down the barriers between the privileged and the underprivileged, it was to cause universal equality of opportunity;

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the truck driver with a degree in philosophy was to have an enriched life with beautiful thoughts whiling away the tedium of the motorway, and little or none of this has happened.

The third world places perhaps even more unquestioning faith in the benefits which will arise from the spread of education. I do not want to suggest that African students will react in the same way to the evident disillusion that will come, but I want to suggest that we must do something about it.

I believe that we can neither afford a comprehensive army of teachers of secondary and tertiary subjects, and if we do attempt to solve the problem in this way we will fail because the majority of the army will be those who reluctantly enter teaching for want of the ability to do anything lise.

I return to Ivan Ilyitch's "good educational system" which should "empower all who want to share what they know to find those who want to learn it from them". We may even have to go further than that and say that it must be a duty of those who have acquired knowledge and skills to transmit them for part of their career to those who want to acquire them.

I am also sure that we must not return to that most frequently proven fallacy that it is enough to be able to transmit. These part time teachers will need counselling and advice from those master teachers whose whole life is devoted to education, and the master teachers themselves will need a longer period of preparation for such added responsibilities.

As I suggested recently to a gathering of Secondary School Heads in Central Province we can start with what we have got, clerks and bursars in schools can teach the preparation of accounts, estimates and bookkeeping; catering managers can teach nutrition and maintenance men can teach fuse mending, plumbing and carpentry; mechanics can teach the function of the internal combustion engine.

I know that this is called an inaugural lecture and in 1966 I would certainly never have dared to suggest that even within the sacred halls of the University we might have master teachers to look after the special problems of conveying our great range of knowledge to our students.

I certainly see an urgent need for the rationalization of our manpower organization in secondary and tertiary education. I have the greatest respect for the wisdom of the members of the Ndegwa Commission in encouraging scientists to become teachers and in giving incentives to those charged with teacher education, but though we may alleviate for a short time the lack of balance between subjects studied by teachers I don't believe we will solve the shortage of mathematicians and scientists in our profession solely by these means.

If a man is trained as an engineer he will want to practise his professon and only after a substantial period of practice will he want to teach on a full time basis. My experience is that many people who would never dream of becoming full time teachers would welcome an occasional experience in teaching. I was discussing this with some agriculturalists in Kitale recently and they agreed most warmly.

One of the best educational institutions I know is the Working Men's College in North London. Apart from a small full time staff, one of the only rules of the college is that the teaching will not be done by full time professional teachers. Civil servants, engineers, doctors and others spend an evening a week in a refreshing experience of evening teaching which would only be jading to a full time teacher.

Our problems are immense but we must not say that they are so great that we must slow down the process of mass education. This, in any case, would be impossible in the long run. We must turn our eyes to a reconsideration of the nature of our resources and use them in a way that will make education a self multiplying process.

At Independence the teaching profession provided a large pool of management manpower to the government for senior executive posts and very often to provide parliamentarians. The time may have come to invite some of these excellent teachers to return for short periods to the classrooms, the laboratories, the lecture theatres. I am sure that there are those present here to-day who frequently feel a nostalgia for the classroom. Some developing countries have tried out experiments in national service in teaching but we may not get the best results from compelling the young to come into the classroom. Permanent Secretaries, managing directors of banks, of private industry and commerce, architects, doctors, lawyers (don't let us be too modest in our demands), can be drawn back into playing a part, however modest, in our national educational effort.

For many of these men a short return to teaching would be a relaxation and in the best sense a recreation which would refresh and inspire them in their day to day work, whose tedious demands are often frustratingly fatiguing.

Let us look also at the age of retirement. At 55 many men and women are still active and full of working ability. I hear people saying that we must make the retirement age younger in order to encourage young men and women with the hope of promotion. Can we not retire some of our leading men and women back into teaching?

If our great and more distinguished citizens have a role to play so do many with more modest attainments. Mechanics and craftsmen, nurses and caterers, secretaries and bookkeepers—there are so many areas of skill and knowledge that can help in an invigorated and reformed curriculum.

There was much that was good in the old system of transmission of skills and knowledge. We can look back to the healthy days of technical education when it was not a poor relation of the academic world and learn from its example.

Education is part of the very life blood of society and its present uneasy and vulnerable position will not be improved except by the total involvement of all society.