

THURS. 2 APRIL PROF. G.C. OOSTHUIZEN

PIETERMARTZ - HONORARY GRADUAND
BURG.

EMBARGO: 6pm. 2.4.92

GRADUATION ADDRESS : UNIVERSITY OF NATAL : 2 April 1992

Mr Chancellor, Mr Vice-Chancellor, Deputy Vice-Chancellors, members of Council and Senate, colleagues, graduands, ladies and gentlemen:

I have had the privilege of listening to graduation speeches over many years, but I never thought that I would be asked to deliver one at my own graduation. I would like to say how greatly honoured I feel to have been awarded this doctorate by one of South Africa's leading institutions, and I thank the University of Natal and all who were responsible for the decision to confer it on me. I am sure that my colleagues here, Dr Bax Nomvete and Dr Sheila Cussons, would wish me to express their appreciation along with my own.

On a personal level, I am indebted also to my immediate colleagues at this University, who have built up a department of Religious Studies that is acknowledged as a leader in this country and abroad, as well as to Professor Jim Kiernan who has done excellent work in the field of our mutual interest.

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publicly acknowledge the wonderful example that my parents gave our entire family.

I grew up on my father's main farm - called 'Arizona' because of its canyons - and rode to school on the back of a Russian pony. The person who made the greatest impression on me was my teacher at the farm school, Miss Kathleen Newcombe, who came from 1820 stock. I somehow managed to get to university by the age of 16, in spite of having failed English and Standard 5.

As I stood here just now, listening to the head of the department of English, at an English language university, reading my valediction, I could not help feeling that there was a certain irony in the situation. But thank you, Professor Gardiner, for your most kind introduction.

THE CHANGING WORLD AND THE TASKS AWAITING US

This century, which has nearly come to an end, will probably be described in years to come as the century of conflict and human destruction, for both these tragedies have occurred during this period on a scale unparalleled in the history of our world. There is

hope on the horizon, however, for, as we move into the next one hundred years, some are of the opinion that a new era of human civilisation has dawned. One of these optimists, Alvin Toffler, speaks of the various waves of change that have occurred in history. The first came with the commencement of the Agricultural Revolution around 8000 BC, producing a type of civilisation that dominated the earth unchallenged until about 1650 AD. The second wave of change was initiated by the Industrial Revolution and the third, says Toffler, began after World War II, when white-collar and service workers began to outnumber the blue-collar workers of industrially developed countries. He does not name the revolutionary change that constitutes this third wave, but others call it the Information Revolution. Says Toffler: all the high-tech nations are 'reeling from the collision between the Third Wave and the obsolete economies and institutions of the Second Wave' (A Toffler, Third Wave, New York, Bantam Books, 1980, p14).

Many developing countries are feeling the impact of two, even three, quite different waves of change, all moving at the same time, at different speeds and with varying degrees of force. The Third Wave brings with it nothing less than a global revolution, a quantum leap in human history. It has Africa in turmoil, not least South Africa, where the evolutionary processes of economic advancement and maturing human relationships have been stultified by a system that has had

little regard for such important issues. The country was ruled by an ideology and ideologies are the greatest curse of this century.

THE DAWN OF A NEW ERA

All of us here could be the final generation of an old civilisation and the first generation of a new one, but we are worried about what the future will bring. 'When a society is struck by two or more giant waves of change, and none is clearly dominant, the image of the future is factured', says Toffler (*Ibid*, pp.11 ff). But it does seem that the coming era will have respect for true democracy and will be pluralistic. Its values are likely to include decentralised planning - as foreshadowed by Codesa. There will be shared decision-making and collegial leadership style. This new civilisation will be generally non-authoritarian and society will be non-violent - which may be hard to believe. War will no longer be regarded as a civilised way of settling disputes. Changes will take place in our industries too - of necessity, if the earth is not to be irreparably destroyed.

The first generation of this new era faces the challenge of establishing new conventions, not just maintaining the old ones. In every sphere of social life, in our families, schools, businesses, religions, energy systems and communications, the need is felt to create new approaches. Nevertheless, the currently fashionable

'restructuring' of our institutions cannot solve the real problems of our society for they have deeper roots that lie beyond awareness. Reality and truth are still hidden from us to a large degree and our fundamental errors in this direction have led to the impasse in which western civilisation finds itself today.

In the latter part of the 19th century, which was influenced especially by Charles Darwin, the coming 20th century was regarded with great anticipation. What a disappointment it has been! In no other period has humanity destroyed itself to the same extent.

I shall never forget how this was brought home to me in the Second World War when, as a young chaplain of 22, I first joined an airforce unit at the front line in northern Italy. The commanding officer of my squadron, who sat with us at lunch on the day I arrived, was a corpse behind the enemy lines the same afternoon. A feature of the first half of a century that had been anticipated with such optimism by 19th century armchair philosophers, religionists and politicians was the dreadful amassing of war materials and fighting men. Now in its closing years, that 'Great Century' will be remembered mainly for its barbaric destruction of humanity and of the beautiful earth and stratosphere.

THE ALIENATION OF MODERN CULTURE

The creation of modern science in the 17th century was a great, silent revolution in the minds of the few. The great revolutions in thinking, said Friedrich Nietzsche, the great philosopher whose work was abused later by the Nazis, come silently and with doves' feet. The New Science was responsible for separating western civilisation from its religious moorings. In the thinking of humanity the earth lost its centrality in the cosmos - and alienation set in.

The tragedy is that the very structure that exhibits the power of the human mind should lead as a matter of course to its denigration. There is a colossal split between scientific and religious interests, which has to be healed if issues such as human survival are to be addressed with any lasting consequences. The alienation that runs through the whole of modern culture is disguised in so many forms of social protest. It will only be healed if our universe and our world are believed to have some spiritual and moral meaning.

With the disappearance of the harmony that had existed between the cosmic and the human, the cosmos came to be viewed as a vast and impersonal machine. Hegel, the first and greatest philosopher of history, insisted that history was primarily a history of the mind. Presently all roads lead to the mechanisation of thinking and today's

big question surrounds the extent to which the machine can take over human thought. It is a worrying question indeed because there is a great need for more humanity, not more mechanics, in our thinking. When the metaphysical side of existence is ignored, the human being loses the most important dimension of his/her existence, namely sensitivity and independence of thinking. When this is ignored, the human being is merely part of the collective, easily exploited and abused in the service of some presumed higher social good. Millions were slaughtered by Hitler and Stalin in this way. Ultimately, when the metaphysical is disregarded, there is total empowerment of the state and the individual has no say, as we have seen also in this country.

The temptation to view the human being as another machine in the macrocosmos, the universal machine, has become even more irresistible with the advent of the computer. Here is a machine that can reproduce the processes of the human mind. It could eventually produce original thought and thus replace the human person. However, such a machine would not possess the sensitivity, intuition and pathos of our humanity. Without these qualities, we are less than wise, certainly less than human.

Fortunately, humankind is now reacting against that hard intellectual approach, which does not do justice to the depth dimension of

existence and has led, among other things, to the destruction of our ecology. The soft and more objective dimension of today's post-modern era relates especially to the field of natural science. Increasingly, the earth is being viewed as metamorphic, open, incomplete and changing, basically rational and complex but of great depth; unlimited in qualitative variety; a mysterious reality; a restless, living and growing organism that holds the promise of new developments in the future. With this approach, not only reason but also such elements as intuition, feeling and emotion have a legitimate place in scientific enquiry. Natural science has changed radically; it has become intensely human and personal. With imagination, intuition and creativity, it will bring new horizons to humanity.

THE ROLE OF RELIGION

Let us turn to the role of religion. Arnold Toynbee maintained that religion would become the decisive factor in the 21st century. He stated that challenge and response are basic to all civilisations. If a civilisation does not respond to the challenges it has to face, it declines and disappears. It is thus important to assess what we have to face and how we have to respond. In the past in South Africa we did not face the challenges - rather, we thought that by promulgating a law we would solve the problem.

Marx saw religion as a tool in the hands of the dominant group for keeping the poor subservient. Religion served to legitimise existing structures of exploitation and to calm the poor, like opium, by promising them a better future in the next life, he said. He never rejected religion per se and his early works are worth re-reading. Although never a good economist, Marx was, perhaps, a good social psychologist and he made some very valid comments on religion - if one leaves aside the comparison to opium. If anything is like opium, it must be communism as a system in the hands of demagogues. Marx's theories led to economic destruction - a fate that the people did not understand until it was too late.

Religion no longer explains the cosmos because secularisation has become the encompassing meaning system. Yet, many decades of secularisation have not eradicated religion. Rather, secularisation has placed religion in a position to protect the ultimate ground without which life would be merely mechanical and utilitarian. Such values cannot be ignored, in spite of the fact that people are distancing themselves from institutional religion. Incidentally, although the 'extrovert' West no longer sees religion as a cosmic superstructure, it has not been discarded as such by the Contemplative Orient.

'COMING OF AGE'

What is the principle of unity that holds various elements together in a society? Is it religion? ideology? race? nationalism? State? commerce? The true person of unity is the genuinely human person; the person who lives in an atmosphere of freedom and dialogue. Only such a person can add to the real quality of life; build up a new humanity, a new world. I think this is what we mean when we speak of the human being 'coming of age'. To come of age means to be free from all slavery - whether to one's emotions, to one's negativism, or to one's immaturity. It is difficult for a human being in an ideological situation to 'come of age'. This is why the ideologies of the 20th century have produced a most immature type of human being. Were the actions of Hitler and of the communist leaders of the USSR signs of maturity? Can anyone say that South Africa's apartheid laws, especially those made between 1952 and 1957, came from mature people? - from people who had intellectually, emotionally, psychically 'come of age'?

But now let us hope that it will no longer be necessary for the human being to be slave to anything. We are all in a position to develop and create our own future; free to make changes to ourselves and to the reality we face. Our prime universities have a vital role to play in that process. Let us also hope that, in doing so, they will never allow their standards to be lowered.

FOR THE COMMON GOOD

We at universities have a tremendous task ahead if we are to get away from our ivory towers to be useful. This does not imply that we should be merely pragmatic institutions but, rather, that we should become meaningful not only in our fields of study but also to society. The power of the social sciences to bring about change is intrinsic to the ideal of a changed society.

The same applies to the role of religion. Institutionalised religion has been very ambivalent in South Africa - on the one hand assisting change and on the other helping to retain an unjust status quo. Solid empirical research with the social scientists on the effects of the apartheid ideology on people at grassroots level would have given us a much clearer understanding of its negative impact. But, unfortunately, many social scientists did not have the guts to get into the situation and reveal what they found.

Religion is a prophetic force, a source of vision, of inspiration, of motivation. There is undoubtedly a connection in the Second World between that society's pathetic destruction and its lack of religious outlook. Without its challenging role in the public sphere, society tends to acquire an absolute character, a kind of civil religion with its own myths and rituals. The great task of building a new society

needs the inspiration, dynamism, prophetic force and vision that religion can bring. To this end, it is important that theologians - who in general do not undertake research because they are too busy with what is in the sky - do some in-depth investigations into what is termed the religious factor in society.

In this regard, South Africa is unique for many of our religions have already worked together in various symposia on such issues as tissue transplantation, euthanasia, abortion, in vitro fertilisation, clinical experimentation, professional secrecy and the population explosion. It is essential that we all overcome negative feelings, not through violent action but through involvement with others whose action programmes are for the benefit of all. Politics and the State should play a much more limited role in the life of the community than they have done in the past.

As an integrative force, religion will bring mutual enrichment to the secular, multi-religious, democracy at which we aim. We could start by ensuring that religious broadcasts on the TV, for example, take account of our religiously pluralistic society and are less emphatic about their individual bias. At the University of Durban-Westville, we have already liberated the other religions from being studied under Christian theology.

A BROAD HUMANISM

The central piece of the whole jigsaw is the human being. We need to develop a broad humanism. We must be free to be ourselves, to live in our own culture, to follow our own faith convictions, to satisfy our needs, to plan our future, to respect and relate to each other without emphasising and relishing the differences. We must be involved in the community and ready to assist the disadvantaged. It is a question of awareness, something that is not simply learnt but experienced, discovered. We must have trust in each other and in our humanity. We must be ready to listen as well as to talk, to trust in persuasion rather than domination and to be open with each other. We must have hope in the future, undaunted by the past. We must be prepared to do our share in the fashioning of our new society.

This is a role that the university student population should take very seriously. It is time for our future leaders to replace their tremendous negativism with a positive approach.

THE AIC

At this point I would like to say that in all my wanderings among the various groups in this country I am always impressed by the wonderful goodwill that exists.

There is a lot of listening to be done in South Africa and we could do worse than examine the example offered by the African Independent/Indigenous Churches. AIC members are usually poor - often the poorest of the poor - yet they refuse to be part of a proletariat. They use their meagre incomes with care and their standard of living and health conditions are gradually improving. In fact, they seem to be the healthiest group within the black population. They practise a definite sharing democracy and their optimism is contagious. Out of ten million AIC members in this country, only about 5 per cent enjoy the use of church buildings. The AIC is a house movement; a substitute for the extended family. Each member contributes as a person to the combined efforts of the congregation. He/she is a valued part of a caring group who act in unison and use the power this gives to each, in the best possible way for the common good.

The AIC phenomenon is a concerted effort among blacks to retain the personal, human, inter-related aspect of existence. This could only be achieved by utilising cultural aspects that are closely related to the African concept of being human. The image of a black marginalised proletarian does not fit into that concept. A measure of the success of the AIC movement is its rapid growth. In 1950, members comprised 9 per cent of South Africa's total black population. Today, they comprise nearly 40 per cent. In 1950, more than 80 per cent of blacks who subscribed to Christianity belonged to the so-called 'mainline'

churches. Today, this figure has been reduced to about 50 per cent. By the end of this decade, the AICs will predominate.

The implication that the AICs are archaic, in fact contra-revolutionary, and that they react against political and economic action which brings forth real development is a superficial assessment. They have not slavishly followed authorities with whom they disagreed. Although most of them are not politically active, they believe that if they live respectable lives and are helpful to others, they will make a positive impact on society. This they do.

The development of the AICs in this country says much about what can be done when there is a willingness to assist one another, to succeed, to be meaningful. I see it as a pointer to what should take place in the other South Africa and what should be emphasised in our educational system, in the workplace and in our society.

I envy you, the graduates of today - that you have so many years still ahead of you. Much of the time of my generation was spent in futility. As a result, we are all now in an uncertain situation which could have been different if we had listened to the voices in the wilderness. But now we have the opportunity to consciously develop a reconciled South African tradition which will provide satisfaction

for everyone who makes positive use of his/her potentialities. It is something that can only be achieved with active involvement from us all.

It is important to mobilise all our people, for the common good as well as for their own well-being. In the process, we must look closely at the attitudes in our universities. We have to reassess what it means to be at university and put our heads down to tackle the tremendous task that awaits us. Together, we CAN go hand in hand to a happy, peaceful South Africa.

Note

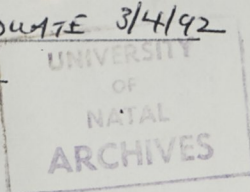
GRA 3/2/7

GRADUATION SAT 4/4/92
WHP

COLONEL JACK VINCENT

SPEECH GIVEN 'OFF THE
CUFF'

See NU Focus



ADDRESS AT GRADUATION CEREMONY FOR

**FACULTIES OF LAW, EDUCATION AND
COMMERCE**

UNIVERSITY OF NATAL, PIETERMARITZBURG

3 APRIL, 1992

Professor S S Sangweni

THE UNIVERSITY MISSION

TO EMPOWER PEOPLE SO THAT THEY CAN BE MASTERS OF THEIR OWN DESTINY

Professor Leatt - the Vice Chancellor and Principal

Parents of Graduating students and distinguished guests

Members of the University Council and Senate

Members of the Faculties of Law, Commerce and Education,
and Dear graduates and students.

- 1 On this occasion of the graduation ceremony for the Faculties of Law, Commerce and Education I would like to share some thoughts with the graduates on the theme:

The University mission to empower people so that they can be masters of their own destiny.

2 This message derives from the University Mission Statement issued in 1989 in which the University declared its policy of commitment to the service of the South African "community in all its diversity" and to all the peoples of that community, whether they are developed or developing and whether they are urban or rural. In that statement the University further committed itself to devote its resources, teaching and research, to development needs of the broad community of South Africa. The University also affirmed its commitment to preservation and protection of natural resources and the environment of South Africa. I believe this policy instrument is a very significant milestone in the life of the University since its inception in 1910.

3 To translate that policy into action the University has decided, among others, to establish a School of Rural Community Development and has assigned the school three major objectives in that task of rural transformation. These are:

- i) Development of human resources,
- ii) Transfer and application of science and technology, and
- iii) Strengthening of rural community organisation.

The School will implement these tasks through training programmes, both academic programmes within the University and non-academic informal programmes outside the University. The focus of my brief address on this occasion of the graduation ceremony is on the latter programmes, namely, the non-academic informal training programmes, better known as adult education.

4 A profound concept of education would look upon education as an instrument to unlock life to all the people. I would like to suggest that the University, through the policy initiatives and decisions I have referred to, has made a bold statement of embracing this concept of education. The University has sent a clear message and signal that it is engaging in a conscious act of taking education out of the Ivory Tower confines of the lecture rooms and laboratories. It is extending that education, both in its formal and non-formal contexts, to the service of farmers, fishermen, farmworkers, practitioners in the various field programmes of rural development; to the leaders in rural communities, and generally to the disadvantaged members of the rural black communities. Education is to be used as an instrument for unlocking what appears to be mysteries of life to these people - the mysteries in their environment: the soil, water, vegetation, and all other forms of biotic life around them. The mysteries in their society, that is in the financial, political and social engineering institutions they live in. This is adult education - an education for living. We are embarking on a programme of adult education that is focused on human problems, and we want to be able to say frankly to the people that if their situation does not change, that will be due mainly to their own default.

5 This is a new role for the University, a role that is very much in keeping with the emerging new South Africa, a role designed to contribute to creation of a new order in our land. The establishment of a programme of adult education for rural community development is in fact an expression of a social philosophy, a recognition and concern with the plight of a people who have lived and suffered the onslaught of apartheid. More than anything else, the institution of a rural community development programme as a permanent feature of the University is re-affirmation of the University's conviction that the old order under apartheid was simply not a good order because:

- it was unkind to man;
- it was insecure;
- it engendered a spirit of hate;
- it bred people who made themselves great by making others small; and
- mans great achievement was at the expense of enslaving his fellow-man.

The men and women of the University who are moulding this new programme of adult education are all inspired and moved by one thought: that there is life for all in South Africa, man should not knock down their fellowmen in order to get life for themselves, rather, man should free themselves in the true freedom of all human beings.

6 A question may be asked if it is the University's task at all to involve itself with adult education and rural communities. Some would even argue that adult education is not education, at least it is not University education. Furthermore, the rank and file of the masses are not capable of absorbing education provided by the University. The traditional role of the University is that of assembling students on the campus and training them in sciences and liberal arts. This is the first function of a university of course. But this is one way, conceivably the old way. It is not certain, however, that if the universities of the middle ages had all the facilities for communication of information and knowledge which we possess today, university education would have been confined to the campus. It is precisely this possibility today which is the foundation for the second function of university: that of engaging in adult education.

Universities in Canada and the USA ventured into this area more than sixty years ago. It is instructive to observe that some universities, like St Francis Xavier University in Eastern Canada, got into adult education in response to social and economic upheavals of the time. For instance, it was the great economic depression that hit Canada and the USA in 1932 which prompted the university men and women to turn out innovative adult education programmes to address the problems of poverty, misery, fear and insecurity faced by more than a

million unemployed rural and urban people thrown into that plight by the spectacular depression. That situation was comparable to that obtaining in South Africa today, except that ours is made even more ghastly by the spectre of violent conflict, environmental breakdown and death.

7 I submit therefore, it is the grim situation obtaining in the rural areas of Natal/KwaZulu and beyond, where people are unable to concern themselves with anything else other than the desperate struggle to keep body and soul together, that has promoted the University of Natal to rise to the challenge. In this we are greatly inspired by the experience of similar institutions in Africa and indeed elsewhere in the world, where it has been demonstrated that people can be mobilised to pull themselves by their bootstraps out of the most dehumanising conditions.

To you students graduating into a new phase of life today let me say:

There is no doubt that problems of the rural populations in South Africa can be addressed through the discipline and expertise of law, education, commerce, as well as agriculture, sociology, geography, engineering and indeed all other disciplines offered at the University. This is a challenge not only to the University, but to all students and graduates. A new South Africa will have to be built on education for all, but not the kind of education which produces a social order reeking of injustice and distorted values. Avail yourselves, therefore, of any opportunity open to you to serve your community with your training; do not consider that a failure after you have attained a University degree. Education of the

masses is also good business in this age of mass production. In this technological age, the people must have a high standard of living if the industrial machine is to function smoothly.

8 Finally, I should put on record, our profound appreciation for the support and the proactive role played by the business community, both here in South Africa and internationally, by providing material assistance to enable the University to carry out its mission and leadership beyond the campus. It is through this generous support that men and women of the University, committed to the course of the large masses of people in the rural communities, will be enabled to lift them to new economic, social, cultural and scientific levels. The School of Rural Community Development on its part, will galvanize this daunting task in the full knowledge that out there, there are millions of people proud enough to want to be masters of their own destiny.

Thank you and good luck.

GRAD 3/2/92
EMBARGO: 9.4.92.

6 pm.

GRADUATION ADDRESS

UNIVERSITY OF NATAL, SOUTH AFRICA

THURSDAY 9TH APRIL 1992

by

BAX D. NOMVETE

Mr. Chancellor,
Mr. Vice Chancellor,
Members of the Senate and Council,
The Academic Staff,
Ladies and Gentlemen,

Let me begin by saying how very deeply grateful I am to the University of Natal for having done me the honour of awarding me the degree of Doctor of Economics. I would also wish to thank the Vice Chancellor and Principal, Professor Leat, for the great compliment he has paid me in inviting me to present the Graduation Address on this occasion. Having started my career in the economics department of this University some forty-seven years ago, it is with a sense of fulfilling homecoming and heartfelt appreciation that I stand here today, to speak on a subject of my choice. I should thank the Vice Chancellor for allowing me to choose my subject.

As my audience comprises primarily graduates in the field of economics and allied disciplines, I have decided to throw up some thoughts on current trends in international economic relations, particularly the growth of economic globalism and regionalism and the decline of the nation state as a viable vehicle for economic restructuring and modernisation; and assess the impact of these developments on African economic growth, mainly of Africa South of the Sahara. I will then conclude by suggesting lessons which I believe could be drawn by Africans from these developments. That will be by way of a challenge to you, Ladies and Gentlemen, as you launch yourselves into your careers.

Talking of economic growth, I am making a distinction between long-term growth (ten, twenty, forty years) which I am going to talk about, and short-term growth, (two, three, five years). In the short-term the emphasis would be on the diagnosis of the gap between the economy's output and production capacity. Growth forecasts would be arrived at by estimating business confidence and consumption trends, based on estimated changes in prices, interest rates, exchange rates, stockpiles, supplies of inputs and production costs, and so on. For long-term growth, what matters is not the present gap between output and existing production capacity and measures to improve capacity utilisation; but the expansion of capacity itself. The thrust of my talk will therefore be on the relationship or association between the processes of globalism and regionalism and the engines or forces that generate sustainable growth, over time.

I will not make a discourse. Time does not permit. I will merely sketch the main themes.

In many ways, economies everywhere have been moving closer to each other since 1945. Economic interlinkages and interconnectedness are getting stronger. My reading of events is that this is a persistent, if imperceptible development. And what might be of particular interest to students of political economy is that the growing economic interdependence among world economies, ^{would} might suggest that economic reality is perhaps moving closer to the theoretical concept of orthodox or neoclassical economists, which envisages the world economy as an integrated system in which different countries have specialised roles. Therefore the pace of economic growth and development in individual economies would depend on their open and operational participation in the global process of development. If economies are closed and not fully integrated in the world system, or are marginally linked to the globalisation process, their growth would be negatively affected. In fairness, it should be noted that there are radical economists who would not support the neoclassical concept. To them, the notion of an open world economy in which all economies irrespective of their level of economic development would freely trade and do business, would not be in the interests of developing countries. They would argue that Third World economies, African economies in particular, would be better off as inward-oriented or partially closed economies, operating independently of the rest of the world; in economies where development would be mainly generated internally through structural change within an expanding home market, rather than through interaction in a world economy

within which individual countries are interdependent and interlinked participants and contributors.

Whatever the merits of the neoclassical or radical concepts, the process that one sees in the real world of today is that of a worldwide economic system that gives emphasis to openness and interdependence, underpinned by a general political consensus on a world scale, on such issues as the need for promoting market-based economies, loosening of state control (not necessarily state-guidance) in economic management, and encouragement of free enterprise, etc. Some of the major developments in this regard which might be highlighted are:- The collapse of communism – to be more precise of the Russian and Eastern European closed state capitalist economies, which had no market mechanism; second, the managed introduction of private market-based enterprises in Communist countries such as China; third, the agreement by Western nations to open the doors of the major financing institutions such as the World Bank and the IMF to former Soviet Republics, and the massive financial and technical assistance that the market economies of the West have now pledged to Russia; fourth, the economic success of the market-based but state guided South East Asian countries, followed by other Asian and some Latin American countries and the swift rise in the exports of manufactured goods by all these countries, to developed countries; and the de-regulation of large Third World economies such as India, Indonesia and most of Latin America. These developments have opened the way to greater worldwide economic interaction; narrowed the ideological divide between the first world and developing countries and thus virtually made the "Third World Concept" which emerged in the early 1950s, obsolete., and have also facilitated the global dispersal of forces of growth to the benefit of all economies that are integrated in the process, ~~and provide~~ the required environment and are producing goods that would be marketable in world markets.

The critical forces of growth in this context are: trade (international trade); financial flows (private and official); technology; technical and management skills and investment, especially foreign direct investment. Foreign direct investment is of special importance because, as has been demonstrated in studies recently carried out by the UN, it is associated with financial flow – private and official and with technology transfers through trade and capital goods, especially high-tech goods and also through technical and management skills, ~~and methods or organisation~~.

As demonstrated in the newly industrialised and in the rapidly industrialising economies, the worldwide growth generating forces also play an important catalytic role in facilitating, within a developing economy: the mobilisation of domestic savings, the development of a local entrepreneurial class, formulation and implementation of income and wealth distribution programmes, ~~and~~ ^{including} promotion of social investment in human skills and welfare. These activities are, in themselves, powerful engines of growth and growth-oriented facilitating mechanisms within a domestic economy.

The pervasive impact on global economic development of the major growth forces, is well illustrated by trade flows and trade related activities during the last forty years or so. Successive rounds of world trade negotiations which began in 1947 under the auspices of the General Agreement on Tariffs and Trade (GATT), have lowered international trade barriers in manufactures from around 40% to 5% over the last thirty years. Tariff reductions, buttressed by lower production and transport costs resulting from technological developments, increased the volume of trade faster than output for the greater part of the post war period. Trade-related and trade-induced economic activities, such as Trans-national investment (in particular direct foreign investment), international technological transfers, linkages and complementarities in production activities in different economies, financial flows as well as the growth of the international market for equities and government and corporate debt, have all contributed to the processes of globalisation and modernisation of the world economies since the second World War.

An important adjunct of globalism is regionalism. It provides a narrower economic space, within which closer economic interdependence and integration can be promoted among the

participating countries. Economically, this has great advantages. Within an integrated regional economy with widening scale economies and harmonised development programmes, the critical twin forces of growth, i.e. trade and foreign investment, will have a greater impact on the generation of sustainable economic development and on the improvement of economic social welfare. It has been suggested that regionalism might lead to parochialism and weaken the process towards globalism. This does not seem to be borne out by the facts. Regionalism, by stimulating greater and more competitive economic activities, should be seen as a facilitator of the globalisation process. For example, the EC is attracting a surge of investment into Europe attracted by a bigger market, and Europe is also investing in other regions. There is also evidence of an increase in competitiveness and rationalisation of production and distribution worldwide, within and between the major regional blocks.

It is because of the economic benefits of regionalism that regional blocks have been growing at a fast rate since the 1960s. The most advanced and rapid developing and expanding regional bloc is the European Economic Community (EC). This year, it will be upgraded into a single integrated market. It is set to be extended northwards, eastwards and southwards. Last October Agreement was reached to set up a Free Trade Area in 1993, between the EC and the seven national European Free Trade Area, thus creating a European Economic Area of 19 countries. Turkey, Cyprus and Malta are interested in EC Membership. In the East, on the threshold of EC Associate Membership, are the ex-Communist countries led by Czechoslovakia, Hungary and Poland. The Community might also be the centre of a free-trade cluster of three non-European Economic Associations, in the Middle East and North Africa. The five major countries of North Africa have proposed a preferential trade area between them and the EC. The six states of the Gulf Co-operation Council are also proposing a free-trade association between the Members of the Council and the EC. In December 1990, the EC and members of the Arab League had exploratory talks on co-operation. Under the ACP-EC arrangement most African countries South of the Sahara have preferential trade links with the EC covering specific products. In the Americas, including the Caribbean region, the USA/Canada Free-Trade-Area is being expanded to include Mexico. Further enlargement of co-operation between North and South America is envisaged in President Bush's "Enterprise for the America's Initiative". The intention is that with the USA/Canada/Mexico free trade area as the centrepiece, co-operation will be extended to the whole of Latin America and the existing or planned Latin American co-operation arrangements will be incorporated into a wide arrangement covering North and South America. In the 1960s Latin America led developing regions in the promotion of economic co-operations. In the late 1970s and 1980s the process slowed down. There are now indications that the regional spirit of the 1960s is being revived. Under the Asuncion Agreement of last year, 4 large Latin American countries - Argentina, Brazil, Paraguay and Uruguay - are to establish a Common Market. The Central American Andean Group is back on the agenda. In the Caribbean, a technical group has been set up under the auspices of Caricorn (The Caribbean economic Co-operation Arrangement), to work out a regional integration strategy that will include North and South Americas. In Asia, the Asean group of six counties (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand) have, after twenty years of a loose association, decided to create a free-trade-area which will include four other Asian countries - Burma, Cambodia, Laos and Vietnam. The formation of the South Asian Association for Regional Co-operation comprising India, Pakistan, Bangladesh, Sri Lanka, Nepal, Butan and the Maldives, is being discussed; and the Common Economic Co-operation organisation of Central Asia consisting of Iran, Pakistan and Turkey, and which has been dormant for some time, is being re-activated and enlarged to embrace the Muslim speaking countries of the ex-Soviet Union. Finally, in the Pacific Rim a "Co-Prosperity" grouping is being firmed up. Its members include China, Taiwan, Hong Kong, North Korea, Japan and South Korea in North East Asia; the USA and Canada in the Pacific Eastern Rim; Australia and New Zealand in the South and the Asean group of countries in the South East.

How does Africa fit into these developments? Is Africa actively participating, to her advantage, in the regional and globalisation processes? The short answer is that while the world economy

- regionally and globally - is moving towards greater integration, the Africa Region is on the margin. The key twin determinants of growth - trade and foreign investment - are not yet harnessed to Africa's advantage. And internally African countries are not deepening their growth capacities through domestic savings and social investment.

The scope of World Trade has narrowed to the virtual exclusion of Africa since the 1940s. 75% of the international trade is polarised on the three most developed world centres: Western Europe, North America and South east Asia (mainly Japan). The United Nations has christened the three centres the "Triad".

Regionally, Africa is also being pushed out. 59% of EC trade is with other member states of the EC. This has risen from 53% in 1989 and is expected to increase as the integration process develops. Intra-American trade accounts for 36% of the region's total trade and the forecast is that it will increase significantly as a result of the pending Free Trade Agreement between USA, Canada and Mexico. Even in developing countries, except Africa, the volume of intra-regional trade is going up. East Asian countries buy and sell from each other 37% of their products. In Latin America the trend is towards a greater volume of regional trade. Africa is the only region in the world which trades very little within itself and marginally with the rest of the world. Regional trade accounts for only 5% of official trade. This has been the case for decades. Africa's trade with the rest of the world is declining. The problem is that African exports - mainly primary products - are marginalised by low demand and supply elasticities and adverse terms of trade. In the developed countries: protectionism; changing patterns of consumption; decline in the use of primary inputs as the main growth sector, ^{and} move away from manufacturing; have shrunk the market for African exports. This is worsened by the fact that developed countries compete with Africa in the production and export of primary products. Developed countries dominate world trade not only in manufactured goods but also in primary commodities.

Investment and technology flows are also bypassing Africa. Here again, concentration is in the Triad, between the three Triad Centres and within their regional economic blocs. The balance goes mainly to Asia and Latin America. Since 1985 Asia has been the Third World's largest recipient of foreign investment flows. Latin America comes next. Africa last, and very little. Investment flows into Africa have remained, since 1985, about 0.7% of flows to the developing world. Financial flows also tell the same story. A recent World Bank report shows that Africa South of the Sahara has now a financing gap of \$3-4 billion per annum, and this is expected to rise to as much as \$7 billion by the year 1995. According to the Bank, Africa is the only region in the world not to have benefited from an increase in overall financial flows in the 1990s.

To conclude. The urgent message to Africa from global economic events is:

First: The nation state has weakened in favour of wider economic interdependence. It would

~~ence.~~ It would not be feasible ~~now~~ for one country, particularly an African country, to generate self-sustaining growth through inward-oriented import-substitution strategies, indepently of the rest of the world. Small African countries cannot afford high protective tariffs as they are far from being self-contained in factors of production and have low levels of integration in their internal economies. Within each state higher levels of inter-sectoral linkages should be established, and sub-divisions along ethnic, racial or colour lines would be economically unworkable and disastrous. This underlines the importance of market integration and the urgent need to institute measures for the resolution of problem areas that have frustrated African integration movements; in particular, the tendency of the market to polarise the benefits of intergration in the relatively more advanced countries within the economic ccoporation arrangement.

Second : Commodity-based economies have no future. Fundamental structural developments in the global economy brought about by the changes in production and consumption patterns/compounded by protectionism and the dispersal of manufacturing capacity worldwide, have brought to an end the phase of commodity-dependent economies. Specialisation in manufacturing holds the key to development in the future.

Third: The corollary is that Africa should now promote export-oriented development based on carefully selected high-value exportable crops and, in particular, on manufactured products. The assumption that the comparative advantage of Africa lies in the export of primary commodities, and then proceed to argue on the basis of ~~that~~ assumption that Africa countries, through their policies on prices, exchange and interest rates, government trading and subsidies should give priority to growth led by primary commodity exports is, at least to me, not valid. From 1960 the proportion of African exports accounted for by primary products has been between 90 and 95%. This contrasts with South Asia where primary exports have declined and been steadily replaced by manufactured goods. We have witnessed the rapid expansion during the last forty years of the economies of South Asian countries while Africa has stagnated or declined.

Fourth: Export-oriented growth would require marketing expertise; technical and managerial skills; and capacity to obtain and use modern technology. Hence, in order to succeed in the generation of export-led growth based on the industrial sector, African countries would have to create favourable conditions for foreign direct investment. In ~~A~~ ^{Latin} ~~Asian~~ America direct foreign investment has stimulated exports in manufacturing industries by bringing in technology, skills, marketing expertise and finance.

And finally, if I may ~~emphasize~~ ^{repeat} at our level of economic development, and in the backdrop of current international developments; the restructuring and reorientation of African economies through harnessing the forces of growth could be achieved, in my view; only through economic integration. And faster integration at that. It is thus urgent that the existing African economic cooperation arrangements should be strengthened and rationalised and that there should be greater clarity on the kind of cooperation arrangements African countries wish to establish. ~~There are~~ ^{For thinking is fuzzy} many organisations. For example, in the Southern part Africa there is SADCC; the CMA (Common Monetary Area) and SADC (Southern Africa Customs Area.) In Eastern and Southern Africa you have ~~all~~ ^{these} the organisations I have mentioned plus the PTA, Kagera River Basin, CEPGL, PTA Bank, ~~and~~ ^{plus} East African Development Bank and ISADD. In West Africa you have over thirty five organisations. And then there is the ~~Pool of~~ ^{Falls} African regional growth points. The Southern ~~fortun~~ ^{Fortune} centred on South Africa,

the Eastern and ^{Central} ~~Southern~~ African cluster centred on Kenya,

the Northern centred on Egypt and the Western centred on Nigeria. All this creates confusion and holds back the regionalisation of the African development process and hence faster economic growth.

Experience indicates that co-operation would be relatively easier when the economies of the participating countries have reached a minimum level of activity. Therefore, the structural adjustment programmes aimed at improving the performance of national economies should be vigorously pursued. Priorities should include capacity-building-: particularly the generation of entrepreneurial and skills capabilities; social investment in formal and non-formal education to raise proficiency and literacy standards of the majority of ~~the~~ citizens; and in countries such as South Africa the economic adjustment programmes should also give high priority, if higher growth rates are to be achieved and maintained, to a more equitable distribution of income and wealth and the integration of the majority of South Africans into the political economy of the country in all sectors- agriculture, mining, manufacturing and services- and in each sector- at all levels from the shop floor to management and ownership categories.

That is the challenge I put to you, Ladies and Gentlemen, as you leave the University for the world out there.

ADDRESS GIVEN BY DR W P VENTER

AT THE GRADUATION CEREMONY ON

FRIDAY, 10 APRIL 1992

Vice-Chancellor Leatt, Members of Council and Senate, Honoured Guests, Fellow Graduands, Ladies and Gentlemen -

It is indeed with a sense of deep gratitude, but also compelling humility, that I accept the great honour bestowed on me tonight by this University. That the honour should be vested in the field of Engineering, to which I have devoted the greater part of my working career in the Electronics and Electrical Industries, fulfills a life-long ambition. Furthermore, that I am able to share this ceremony with so many successful young graduands and their tutors who are themselves reaping the harvests of more formal academic labours, makes the occasion doubly joyful for me.

Those of you who are familiar with the bible may recall the fourth verse of Proverbs Twenty: "Those who will not plough when it is cold, must not expect to eat at the harvest". I congratulate all my fellow granduands this evening, who would doubtless have ploughed their formal passage through many cheerless climatic extremes, and who now thoroughly deserve to share in the fruits of this splendid harvest. However, I would encourage them to remain mindful of the lesson from Proverbs, because no harvest is an end in itself. It is merely a point of celebration in an endless cycle and there will always remain much ploughing to be done.

Despite the specific disciplines of engineering being accorded recognition here this evening, the achievements of the graduands are not limited to engineering alone.

Throughout the 50 000 year history of the development of civilized man, education in one form or another has played a fundamental role in shaping the nature and course of society. Whether it be the simple handing down of values from father to son or the formal transfer of knowledge from tutor to student, education has always been the primary function of society - the means by which humanity's inheritance is transmitted from one generation to another. The integrated circuit or microchip, which we regard today as the signal invention of the 20th Century, cannot attribute its existence entirely to the genius of the present age. It is merely the climax to a process which has been going on for thousands of years - a process which we can trace back through the inspirational disciplines of Leonardo Da Vince to the student philosophers gathered at the feet of Socrates in ancient Greece.

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Certainly, without a history of challenge always to improve and excel, and a system for recording that progress, enabling it to be handed down to succeeding generations for extension and refinement, neither you, nor I, nor for that matter, the microchip which drives our technological environment, would be here today. Thus, formal education has become the sustaining life-line of modern civilization and the challenge is that we are always one generation out of date because we can educate only by the standards of our own generation, not by those of the next.

Too often, however, we limit our perception of education to disciplines of the intellect alone. We think only in terms of intellectual pursuits. The late Joseph Addison, Editor of 'The Observer' expressed the view that: "What sculpture is to a block of marble, education is to the soul". I believe it is important for us to acknowledge that education in its cumulative effect on society, is far more than a series of intellectual manipulations; it is a way of life; it is culture; it is the very essence of civilisation. It is fitting therefore to pay tribute, on this occasion, beyond the Faculty of Engineering, to this fine institute of learning - the University of Natal - for the environment of inspiration and culture it has sought to maintain through increasingly difficult times.

Given the recent history of our country, its socio-political heritage and the legacy of disadvantage visited on so many of its peoples, the role of the University in our society has assumed even greater significance than it had in the past. Simultaneously, the position of the student at university has become one of immense privilege.

Let this latter aspect of privilege never be forgotten. The anxieties of our changing times should never justify excesses of behaviour which, in the guise of liberation, or masquerading as the prerogatives of freedom of expression, are in fact little more than imposters seeking to tarnish the edifice of culture and civilisation.

The turbulence of our times is not a new phenomenon in history. A hundred years ago the English novelist Charles Dickens wove a story around events which had taken place in France some hundred years earlier. You will be familiar with the opening lines of A Tale of Two Cities: "It was the best of times; it was the worst of times; it was the spring of hope; it was the winter of despair".

That scenario is not altogether unfamiliar to us today. What you may not recall quite so clearly is that Dickens continues to describe France thus: "She rolled with exceeding smoothness downhill, printing paper money and spending it". Of England, he says: "There was scarcely an amount of order and protection to

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justify much national boasting. Daring burglaries by armed men and highway robberies took place in the capital every night; the mail coach was waylaid by seven robbers, and the guard shot three and then got shot himself by the other four - after which the coach was robbed in peace. Musketeers went to St. Giles in search of contraband goods, and the mob fired on the musketeers and the musketeers fired on the mob; and nobody thought any of these occurrences must out of the common way".

You will see then that the crises of social and economic challenge facing our society are not entirely new. History is a series of triumphs over crisis. And we should remember that in Chinese writing the symbol for "crisis" comprises two characters - the one symbolizes 'danger'; and the other, 'opportunity'. Together they spell crisis. We must guard against allowing the dangers of our time to eclipse the opportunities that abound. As engineers and scientists we have an important role to play in addressing them, because the salvation of our future lies significantly in the development of technology, and more particularly in innovative, job creating technology.

It is often theorized that under-developed and developing countries cannot afford extensive technology development since, by its basic principle of optimisation, technology is a net eliminator of jobs. This is fallacious argument. While technology may initially cause rationalisation within the labour force because of accelerated efficiencies, spin-offs are generated which ultimately lead to technology becoming the net creator of new jobs. For example, the advent of the fax machine may have caused a drastic reduction in the number of postmen hand-delivering letters, but just think of the number of jobs created in the paper and electronic mail industry to sell, service and repair the huge installed base of fax machines around the world.

Despite its well established First World sector, South Africa has a large and aspirant Third World component, whose ambitions of social upliftment will rest significantly upon the shoulders of the engineering fraternity for fulfillment. It is disturbing therefore that, for the first time in almost a decade, the number of first-year, first-time enrolments of engineering students at South African universities has shown a decline. From 1984 there was a fairly steady growth in numbers from one-thousand-seven-hundred-and-fifty students per annum to two-thousand-five-hundred in 1990, but here the enrolments remained static for a year. Now, in 1992, we have seen a ten percent drop to only two-thousand-two-hundred-and-fifty new enrolments. Furthermore, it is disturbing that at present, forty-six percent of students enrolled in the first year of engineering, never seem to complete their studies. Of even greater concern is the fact that, in a country where people of colour outnumber the white population in the order of five-to-one, fewer than two percent of our engineering graduates are black.

The need to promote engineering as a career, the need to market it vigorously as a profession, becomes even clearer when one considers that, of the total number of graduates produced each year by our English speaking universities, only eighteen percent come from the engineering field. Although this is not far off international standards, we must remember that South Africa has reached a vital stage in its development and the exciting New World we hope to create will depend largely on the ready availability of trained engineers and scientists who are theoretically competent, computer literate, equipped with appropriate management skills and driven by a compelling work ethic.

In the most recent edition of its science publication, the Foundation for Research and Development makes a strong plea for universities and other responsible agencies not only to increase the number of students graduating from engineering faculties but also to improve these students' managerial skills.

This view is endorsed by the Bureau of Economic Research based at Stellenbosch, that the only hope for real growth in the South African economy lies in "an autonomous supply of vigorous enterprise, entrepreneurship and a managerial renaissance".

A recent international survey has shown that two-thirds of senior management in the top 100 Japanese industrial corporations have a qualification in engineering. The Japanese miracle which transformed a war ravaged island into an awesome industrial power is already well recorded. A study done in the mid-1980's, showed that in German industry, the majority of senior managers had a strong engineering bias. In addition, about 60 percent of the members of the Boards of Directors in German manufacturing industries have engineering qualifications.

Engineers clearly dominate the management and production function in Germany. We are, of course, well aware of the West German success story.

In the United States, only thirty percent of top management now has a technical background, the balance coming typically from the marketing, legal or financial professions. The decline of America as world leader in the manufacturing field is well documented. These statistics tell a story we would do well to emulate. While technological literacy of top management is vital for successful global competition, by far the majority of key management positions in South Africa today are held by accountants and marketing men. Regrettably, only about thirty-three percent of South Africa's most senior management emerge from engineering and the physical sciences. Clearly, we must all strive to correct this imbalance if we are to become a global player in the industrial world. Contrary to another recent survey, which places

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the management of human resources low down on the scale of priorities, for engineers, I believe that in the New South Africa, engineering enterprise and entrepreneurship will have to go hand in hand with greater sensitivity for human inter-action and improved communication if it is going to be productive and successful.

And now, fellow graduands, capped and gowned as we will leave here tonight, our work has only just begun. You, the young graduands stand on the threshold of your careers in engineering. I have reached another milestone in mine. Despite the present cold, we must plough if we are to east at the harvest. And in each of you lies the power to generate a great feast in time to come. Harness your skills and embark on a quest to force a successful future, not only for yourselves, but for all the peoples of our country.

And if you wonder what success is, and how one achieves it, recall this quotation:

"Success, like the Holy Grail, seldom appears to those who don't pursue it."