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Education and National Development

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Development means freedom, providing that it is the development of the people. But people cannot be developed, they can only develop themselves.

Julius K. Nyerere, President
United Republic of Tanzania
PREFACE

The New England Regional Meeting of the Comparative and International Education Society was held on the campus of Springfield College on April 29, 1977. The Conference was co-sponsored by the Division of Community Education, Springfield College, and the Center for International Education, University of Massachusetts.

The theme of the conference was "Education and National Development". The papers delivered ranged in topics from a global perspective to the use of ethnic and multicultural education to assist in national development. Case studies of specific cultural areas highlighted the conference. The papers provided a format for discussing and recording the experiences and research endeavors of the participants. A total of fourteen papers were delivered.

This publication contains the papers delivered at the Conference. Copies can be obtained from the Center for International Education, University of Massachusetts, Amherst, 01003. The price is $3.50 prepaid.

The chairmen of the Conference wish to thank everyone who participated in the day's activities. We especially want to express our appreciation to Dr. Wilbert E. Locklin, President of Springfield College, for his encouragement, support, and participation in this conference; and to Stephanie Machell for typing and editing this publication.

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It gives me great pleasure to welcome such a distinguished array of professionals in the field of Comparative and International Education to Springfield College. I feel it is significant that this conference is being held on our campus because from the founding of this institution there has been a strong and important tradition of internationalism—in fact, until 1953, the name of this institution was the YMCA International College. Springfield College is still closely connected with the World Alliance of YMCAs whose representatives from many countries of the world regularly convene their meetings here on this campus.

Over the years there have been many overseas affiliations which brought foreign students and professors to this campus, and which resulted in members of this campus community traveling abroad. Lately, we have had rewarding contact with Aruba, with Mexico (the Presidential Scholar Program), and with the government of Saudi Arabia, as you heard earlier today in the report given by Professor John Neumann; our curriculum includes foreign-based study programs in Salzburg, Austria; Chelsea, England; and London, England; this list is being expanded at present to include a program in Salamanca, Spain.

Earlier, you heard Dr. Bernard mention three very important aspects of Springfield College: development of the technique of artificial resuscitation by Reginald Alden, invention of basketball by James Naismith, and of volleyball by William Morgan. In the latter two cases—in order to give credit where credit is due—let me point out that both Naismith and Morgan were international students at Springfield College, having come down from Canada.
Remarks by Dr. Locklin

To those of you who have not visited the Basketball Hall of Fame let me suggest that as this building is only one-half mile away this might be a good opportunity to do so.

The theme of this conference "Education and National Development" is one that I find to be of particular interest—especially in the context of the well known logo of this college which is the inverted isosceles triangle with the words "body", "mind", and "spirit" on the three sides. Even though I do not claim to be an expert in your field, it seems clear to me that the "wholeness" of this concept which we represent by the circle surrounding the triangle, is one that does have applicability to national development. For example, what good will it do to provide education to the children of Bangladesh when there is a national food crisis and mass starvation; then again, can education be considered as the route to national fulfillment in a country such as Uganda or Cambodia where a significant part of the population suffers from traumatic demoralization. Here at Springfield College our idea of "development" of the individual calls for a rounded education which nourishes the mind, strengthens the body, and takes into account the need for nourishment of spiritual values. I would suggest to you that what exists here in microcosm should exist also in a macro dimension to bring about wholesome and meaningful development on a national scale.

We at Springfield College are honored to be the host institution for this regional conference of the Comparative and International Education Society. We commend you for your efforts to investigate and analyze how the educational processes can be improved in ways that will be beneficial to mankind. I hope that your efforts will be rewarding and fruitful.
AN INTERNATIONAL PERSPECTIVE
The condition of Comparative and International Education in the United States today should be considered under two headings: as an idea and as a practical enterprise. As an idea it has never been better; as a practical enterprise, its condition is disastrous.

**Comparative/International Education as an Idea**

A strange McLuhanesque fate has overtaken Comparative and International Education in the United States and indeed in many parts of the world. Instant coverage in living color from distant parts of the globe makes them part of the "international village" while instant coverage in living color within the United States covering the latest riots in big city ghettos and Indian reservations make them appear as remote as any people can be. The medium has carried the message breaking the isolationist ethnocentrism, creating disparity between the thought patterns of established custom and education based on stereotyped thinking and the visual-aural shock of communality with cultures logically supposed to be alien, different, hence antipathetic.

This culture shock through mass communication has gone along with increased economic interdependence, nay dependence on other nations and other peoples for such essentials as petroleum products and vital minerals. The tale of the dependence on Middle Eastern oil alone makes the point of international awareness. International affairs sometimes dominate the daily news, thus almost daily being brought into the consciousness of the average American.

What makes this paradoxical is the fact that Americans are descended from some 165 national groups and so would have been presumed to be the most open of any nation to ideas from outside the country. In reality, instead, a strange sort of mass psychological "reaction formation" has taken place, where millions of immigrants and their children have been willing to shed their national identities and think
like a certain stereotype, the white Anglo-Saxon Protestant, the dominant element in the country some two hundred years ago. Richard M. Morse quotes Santayana to make the point,

In academic America the Platonic and Catholic traditions had never been planted; it was only the Calvinistic tradition, when revived in some modern disguise, that could stir there the secret chord of reverence and enthusiasm.1

It is this frozen Calvinist image that is slowly being thawed away to make way for the new sense of pluralism and multi-lingualism. Where Americans shed their national heritages and lost their children to a totally new personality and self-image, together with a new language, all constantly reinforced with mass-communication and a new chauvinism of national power and prestige—they are now re-asserting their national origins, national racial identities, and even their national languages.

Where Americans were once urged to learn foreign languages at the undergraduate level—after having already shed the languages their parents brought with them—so that they could better understand "the nature of the rapidly changing world in which the United States has been called upon to play a leading role",2 they are now involved in other languages than English in order to better understand the different segments of their own population.3

As an idea, Comparative and International Education has made sense and been accepted as a fact of life in the United States.

Comparative/International Education as a Practical Enterprise

Comparative and International Education in the United States has gone from the most natural of all interests of mankind, that of finding out what the neighbors are doing, to the necessity of fitting into academic categories to warrant expenditure from the public purse. And as a practical enterprise its present condition is disastrous. This has been the case both as a matter of national policy and as an academic discipline.
Comparative/International Education as a Practical Enterprise

With the increasing international role of the United States from World War I onward American education began to be considered worthy of emulation by others, including Europeans, as the first mass educational system contributing to American economic abundance. The once-considered rude and unsophisticated natural man of the new world began to be set up as the prototype of the new mass democratic society. This thought seemed to blow into full flame after World War II when American dominance of the globe seemed set into perpetuity. American educators followed American arms into defeated nations and the stage was set for scenes such as mass gatherings of German and Japanese educators listening to lectures on the intricacies of the American lesson plan, American scientific know-how in the classroom with the opaque projector, American democratic administrative techniques...

The turnabout in Comparative Education in the United States seems to have taken place at the time the Society decided to incorporate "International" into its title. This coincided with the advent of the International Act of 1966. Heralded as the triumph of the Teacher-President Johnson it was supposed to crest to the tune of an annual expenditure of ninety-million dollars a year within three years. Forseeing an era of unlimited American world dominance the Act would invest, with "multiplier effect" in international education through the minds of future teachers who in turn would provide internationally minded future voters of America who would decide on the fate of the world at the American ballot boxes.

The Comparative Education Society quickly added "International" to its title as it joined one-and-all in the melee for the millions soon to pour out of the educational offices of the Federal Government in Washington. Alas none came! What perhaps was a cruel hoax or at best educational and political chauvinism seemed to be timed with the end of American overweening dominance of the globe.

Even at that time voices were heard warning of such overly optimistic enterprises. What was hailed as the budding of Judeo-Greek-Christian culture, the Ameri-
can culture, was challenged as perhaps simply a provincial branch of Calvinistic tradition. American attempts to transfer American educational ideals abroad, properly administered, failed. Such countries as Japan and Germany reverted to inherited practices and showed that they could produce their own wundermirakels.

Comparative/International Education as an Academic Discipline

In the Nixon era of cutbacks in educational investment haughty professors of Comparative Education who once delved into German mysticism at the University level to explain the forces of education in the world now began speaking of teacher training as the proper sphere of Comparative Education at a time when teacher training itself was in the doldrums. From the intellectual pursuits of the university scholar

whose study required long preparation, a knowledge of foreign languages and cultures, lengthy and concentrated travel, a more than informal acquaintance with the history and philosophy of education, an insight into the forces, intellectual and spiritual, which have shaped civilization, not only in the West but throughout the world, and a broad and thorough knowledge of all branches of education.

Comparative Education has had to fight for its share in the preparation of teachers at public state colleges and universities, themselves erstwhile normal teacher training schools.

From the learned discourses and writings of trail-blazing professors at Columbia University, New York, Comparative Education has attempted to divine the educational process as it unravelled in all parts of the world. It lived a life apart, shielded from the hustle and bustle of the marketplace of other professors of education. Now these proud organizers of Comparative and International Education began to take stock of themselves in their new environment. Young Turk Comparative Educators, in many cases unable to use their international education experience in their college work, turned on globe-circling comparative educators in their roles of pundit-professors attached to this or that International Agency and questioned their intentions. Leaders of the Society, up till now secure in their pre-eminent positions as they turned out volumes of philosophical and historical treatises on education in other
lands, now began to plead cases for their graduate students in teacher-training institutions, only to be rebuffed by chairmen of departments of education, well-versed in the tooth-and-nail infighting of their positions. With the shrinkage of the need for teachers have come strident voices of academic chairmen disdainful of the pre-eminent value of comparative education for teachers, as the discipline once considered the great avenue for change and reform.

The next desperate step for Comparative and International educators seems to be to redefine "Comparative" as not necessarily international but possibly inter-cultural, within the confines of the new pluralistic view of the United States. Comparative Educators have always welcomed the views of members of academia from other fields; the Comparative Education Review has always been known to have been filled with articles from almost any other field than Education, anyway.

Leading comparative Education writers and professors now unabashedly lead tours of educators to foreign lands as they struggle to maintain their positions in the day-to-day world of credit-awarding.

Alas, perhaps, after all the American public, itself descendants of 165 national groups, within the last 200 years, may see new value in going back to the lands from which they came in a new spirit as those lands themselves prosper and face common problems with them. This nostalgic search might unravel a new value for comparative and international education.

To expect this direction to come from harrassed, beleaguered departments fighting for their very survival in terms of FTE (full term equivalency--a bureaucratic term that strikes terror in the hearts of even the most robust academic) might be too presumptuous.

In the meantime we have to be content with competing professorial teams planning their group trips abroad for teachers during mini-vacations, with full page advertisements in Teacher Union brochures.

The McLuhanesque revolution will have come full-circle when professors of
comparative education will be planning face-to-face trips to the nearest ghetto school and the nearest Indian reservation school to make American teachers aware of the problems that are outlandishly different here at home!

NOTES


Guerra makes the point that it is through lack of knowledge of other cultures and languages that Americans ignored the contributions of other ethnic groups to the making of its history.


While Borrowman finds room for at the most one course of Comparative Education in the preparation of teachers, and that perhaps in the hands of a Margaret Mead, Kazamias and Noah fight back strenuously, the former intimating that Borrowman is a schoolmaster as opposed to a "paidagogos", while Noah finds Borrowman's remarks bordering on the "nasty" while he challenges Borrowman's own discipline of the History of Education, to prove its worth in PBTE(Performance Based Teacher Education).

9 Ibid., p. 367-8.
The central concern of any underdeveloped country is national development, a term explained in a broad meaning at the theoretical level, but defined narrowly in practical terms to refer to economic progress. The basic premise implied in national development is that we give the starving person food so that he will find satisfaction and joy. Though this premise is completely correct, it is quite inadequate in any decision-making process, that may encompass the well-being of peoples all over the world. Such decision-making should take into account the human fulfillment that goes beyond immediate need satisfaction.

Kenneth B. Clark in his book, Pathos of Power, remarks that "The deprived and rejected maintain that to get what they lack will give life substance." The national development seems to be based on such an illusion, and hence every effort is made to obtain better food, water supplies, and medical services. Barbara Ward calls them the trinity of physical renewal which "lies at the root of social modernization as a total process." In the 1960's, when problems related to inner city and minority groups came to the forefront, attempts were made to find adequate housing, better schools, and higher income. During the 19th century there was a general optimism among the people based upon the efficiency of the technological system which in the course of time would produce enough for the needs of the people. In all these instances there is the assumption that when the needs are met with the products of technology the person will be satisfied and happy.
No doubt, the basic needs are to be met, and no philosophising should be engaged in with or about the hungry until they are satisfied to as great an extent as possible. Clark agrees: "Though the biological, the sensual, the material are necessary for life, their illusiveness, emerges with mocking clarity only when they are obtained." The attaining of the economic need is a worthwhile short-term objective, but not an adequate human goal. Adding several short-term objectives one after another cannot provide sufficient goals for humans. The latter shall take into account the unique nature of the human being as a species that goes beyond the material and animal nature.

In a means-oriented society we prefer short-term objectives that can be accomplished fast, instead of human goals which are vague and utopian. However, we need a vision of the whole and a dream of the "impossible" that may guide the tangible achievements of the present and the near future. If not, we will consider economic progress as the end, a danger we find in both developed and underdeveloped countries. As Barbara Ward concludes: "Our concentration on material betterment and economic rewards has given us what we sought—incomparable wealth." She recommends the search for deeper ends and values "which our very achievements have led us to neglect." Today there is a strong tendency for man to become an efficient animal by fulfilling his survival needs.

In all the instances cited above (what people look for in the underdeveloped countries, in the 1960's, and in the 19th century) it seems to me that there is a limited or even a distorted view of the human being. It is assumed that when the wants are met by the products of technology a person will be satisfied and in turn be happy. The
animal nature may be satisfied, but not what is distinctively human.

So we come to the most fundamental question: what is human in us? Who are we? A question being raised throughout life in various contexts. Man has evolved as a unique being with qualities different from all other animals, not only in degree but also in kind. It is believed that new qualities emerge when lower forms of life evolve into more complex and advanced ones. And the new qualities which are manifest at successive stages move in the direction of more consciousness, more freedom, and greater capacity for love. Do we develop these distinct human capabilities in our schools? We study about freedom, though we do not practice it. The two others, consciousness and love, are left to other institutions than the schools.

Among the several distinguishing features of man mentioned in my book, Images of Man, let me refer to a few. One of the qualities which marks man as distinctively human is his insistent quest for the meaning of things. "Man is born into a world of sensations and motor images; he matures into a world of meanings and values." Also man is distinguished as a moral and divine being. He has the capacity to make decisions regarding right and wrong and his ethical responsibility is extended not just to a few others, but to life in its totality. Burtt remarks that every man has a moral capacity and that constitutes his real self. Again the question raised before, to what extent do our schools help in the development of the real self with its distinguishing features along the lines described above.

The real self with its human distinctions may be called the "I" to be distinguished from the "me" with its social roles. It is only for
the sake of study that we try to distinguish the "I" from the "me" as they remain together always, like milk and water. The "I", as the real self, may be called Atman which is identical with the universal self or Brahman. By understanding oneself we get an insight into the whole. Then we come across the mystery of unity. The beauty of the lotus is more than all its constituents as there is an inner perfection that permeates and exceeds its contents.

National developments seem to be interested in the "me"; it sees the basic needs and holds a limited view of the human being. In that place we shall introduce the notion of human development with special reference to the "I"; the higher or trans-survival needs of man, thus recognizing what is truly human. We note the oneness and obtain a glimpse of the whole that would give direction and meaning to the parts and the short-term objectives.

NOTES

3 K.B. Clark, op. cit., p.4.
5 Ibid.
ITEM: A 1936 publication titled *Savage Patrol* written by an officer of the Australian constabulary in Papua and New Guinea describes how natives raided the supplies of an isolated miner at a Remote location named Twisty Creek. Along with shovels and other mining tools, the unknowing natives carried off supplies of explosives. The author recalls seeing an unexploded blasting cap, an unstable and dangerous device normally used to detonate a charge of dynamite, thrust for decoration through the hole in a man's nasal septum.

ITEM: By 1954 more than fifty automobiles of various makes had been disassembled and carried on the backs of porters over an 8,000 foot mountain pass into the Katmandu valley, there to be reassembled for use of the Rana's of Nepal, even though Nepal as yet had less than a mile of suitable roads.

ITEM: A building contractor in Taiwan was brought to trial in 1976 after a multi-storied reinforced concrete building erected by his company collapsed in the city of Kaohsiung, killing many of its residents. In an attempt to save money, he had instructed his workers to refrain from using steel reinforcing rods in the building's concrete superstructure.

ITEM: A New York Times special supplement extending bicentennial congratulations to the United States from its old friend, Nationalist China, describes in several articles the economic progress being made in Taiwan. One article boasts that the ten most prevalent diseases in Taiwan are now nearly the same as the ten most prevalent diseases in the most economically advanced countries.

The annals of national development are filled with such instances. Experts have come to expect them as normal occurrences. But they re-
present more than occasional comic or tragic episodes along the course of national growth. They are indicators of the role which values have always played in shaping the use of technology.¹

Different cultures bring with them distinct value orientations. Kluckhohn and Strodtbeck (1961) conducted extensive surveys among five ethnic communities within the United States: Rimrock Navaho who lived off the reservation, Pueblo Zuni living on the reservation, residents of a Spanish-American village, members of a Mormon village, and a recently established village of Texan and Oklahoman homesteaders.

They measured values pertaining to time, activity, human relations, and man's relation to nature. Time orientations measured were either past, present or future. Activity orientations favored either being or doing. Human relations were either individual, linear, or collective. Man's relation to nature varied among orientations in which man was seen as subject to nature, working with nature, or master over nature.

The different ethnic groups displayed significantly different value orientations. Kluckhohn and Strodtbeck comment that such orientations are the patterned outcomes of the interplay among cognitive, affective and directive elements, and that these elements "give order and direction to the ever-flowing stream of human acts and thoughts as these relate to the solution of 'common human problems'" (341).

Bronowski (1965) has argued that science brings with it its own set of values. These may be at odds with indigenous cultural values or may run counter to value orientations as described above. Bronowski states that the very process of scientific discovery involves thought which is mediated by symbolic concepts, implying the presence of specific cognitive processes mentioned again with reference to Luria's work below. He says that the laws of science we formulate are subject to a "test of truth" (38) by means of which we ascertain through experiment the validity of a hypothesis. Science, then, brings with it its own criteria for validity, criteria which constitute intrinsic values. With science, the mere opinion of any individual is no longer the yardstick of truth.

The result is a value system in which transcendental truth has been
largely replaced over the centuries by notions of accuracy and objectivity, and in which the citing of authorities such as Aristotle or the Bible have been exchanged for the measurable results of the empirical method. (No wonder our age lacks heroes like those of the Iliad.)

This paper will briefly explore ways in which indigenous cultural values might be affecting technological development. The term "values" is here extremely broadly defined, and includes everything from social attitudes to fundamental unquestioned beliefs about the nature of the physical universe. One example below, that of the New Guinea "cargo cult", involves what Rokeach (1968) termed "primitive beliefs"—beliefs which are based on the direct experience of the individual and which are reinforced by unanimous social consensus. These include "basic truths" which are assumed to be true about physical reality, social reality, or the nature of the self (6). The adage "what goes up must come down" might be an example of such a primitive belief. Such beliefs often take the form of unquestioned assumptions that everyone within a culture takes for granted. Rokeach calls them "primitive" because they are similar in function to axioms in geometry; they are primary and constitute the basic granteds from which other beliefs are often derived.

At the other end of this value spectrum are beliefs which are derived from others in authority, and personal opinions. Social attitudes are examples of generally held derived beliefs (11).

There follow instances which demonstrate how cultural values can on the one hand catalyze technology change and on the other severely impede its progress.

The values at play in the following examples are not of a single sort. A complicated mix of social attitudes, "primitive beliefs", anti-colonialist cultural reactions and even opinions are involved. It is not the intention of this paper to define categories of values. Rather, its purpose is to make the point that certain values can impel technological development while others can impede it, and that the domain of values should be a central concern in development education. The goals and processes of development convey their own values.
In order to achieve development goals or otherwise reform them into more realistic and humane expectations, it may in some cases be more important to focus educational efforts on values than on the skills and capabilities that are so often taken to be barometers of technological development.

Dramatic examples have been chosen in order to clearly illustrate this point. While it is recognized that cases as dramatic as certain of these are increasingly scarce, values continue to influence development choices. How they do so must continue to be a matter of concern to educators.

**Convergence of Values and Technology Change**

Can values facilitate technological development? Mead (1956) documented what to her seemed the successful transition of Manus in the Admiralty Islands from the Stone Age to the modern era. This transition took place as a result of total immersion of the entire island in the new technology plus a convergence of social values between the Americans who introduced it and the natives. Over two-hundred thousand American troops plus paraphernalia had been based on their island during the war. Mead makes the point that their adjustment was made successful as a result of cultural predispositions, and asserts that a favorable response was even predictable. She states:

[The Manus people's] delight in mechanical things, their sense of organization, their tendency to treat human beings both humanly and mechanically, their flexible here-and-now approach, their zest and optimism, their concern for children—all these were elements which would predispose them to appreciate American culture (370).

The similarity of social values between the Manus natives and the American troops facilitated native adaptation to American technology. In addition, the saturation of Manus with troops and equipment was complete; all facets of the utilization of the new technology were open for all to see.
What happens when indigenous cultural assumptions are at odds with the values of science?

In 1937 Ogburn commented on the stress exerted on a society by the introduction of scientific discovery and novel technology. He stated that:

> These acute tensions become eventually smoothed out, but for the time there is a serious maladjustment, usually for the part of culture which receives the force of invention, social or mechanical (1964: 12).

Ogburn stated that culture is composed of various parts, and that change in one part at a different rate than change in another produces internal tensions within a culture. He gave as an example the relationship of science to religion which has been "disturbed" at various times in the past by scientific discovery, gradually to be brought back into balance by corresponding changes in religion.

More recently Williams (1972) has formulated culture as containing at least four subsystems similar in many ways to Ogburn's parts: social relations; language; technology; and ideology. It is with all of these, but primarily with the influence of indigenous ideology on newly introduced technology with which we are here concerned.

To get some idea of how indigenous values can affect adoption of a new technology we now embark on an extended example of acculturation and technology change from New Guinea. It is important to note that in this example, unlike in Manus, relationships between European colonial masters and natives were far from satisfactory from the native standpoint. Nor was there any in-depth native exposure to all the facets of the new technology as was the case in Manus (see above). This example involves people with a radically different ideology and even different assumptions about the nature of the cosmos than those entertained by the Westernized world. It shows how people can react to an alien technology when inadequately exposed to the manufacturing processes which produce it as well as to the values which govern its development and use.
Peter Lawrence (1964) has written an historical account of the "cargo cults" in the Madang District of Papua New Guinea. He describes native reaction to European technology as a consequence of fundamental differences in "epistemological assumptions". His book, Road Belong Cargo, recounts the course of native reaction to European intrusion from first contact in the nineteenth century through the end of cargo cult activity in the early nineteen-fifties. The book is an in-depth study of acculturation and reaction to newly introduced technology, and provides an unusual perspective on the role of values in technological development.

The key to understanding the native response in the Madang District to foreign technology lay in native assumptions about the nature of the world and of technology. Lawrence says (30-1) that to natives of this area there were two kinds of recognized knowledge: secular or empirical knowledge, which governed the manufacture of their own tools and artifacts, but which they considered unimportant; and sacred or religious knowledge, which had no empirical foundation, and which was considered by far more important than anything else. The latter form of knowledge was thought to be revealed to men by deities. The well-being of the social group, the curing of diseases, the downfall of enemies, the abundance of each year's harvest—all were accomplished by means of rituals and esoteric formulae taught to men by the gods. The dances, rituals and incantations which comprised this knowledge were bought and sold because it was these—not work—which insured safety and prosperity.

The cosmos to these people was finite and anthropocentric (9), and they could not conceive of the cargo brought by the white man as the product of human endeavor and skill (235). Everything they produced, even a melody or a dance which one or another composed, were the products of the beneficience of dieties (31). People simply did not "work" for a living. Rather, they engaged in ritual (9).

When the white man first arrived in the person of a Russian anthropologist named Maclay in the latter part of the nineteenth century, the obvious explanation was that he was a god—no more or less real than
the many gods with whom they interacted from day to day. With the
coming of the German colonialists before the turn of the century a
new cargo belief, which stated that the ancestors had mistakenly for-
gone the rights to the technology and power which the Germans then
acquired by default, became prevalent. The interpretation of the newly
imported technology was still strictly traditional; the cargo was pro-
duced by the gods through exercise of a ritual over which the Germans
had sole control. One major adjustment from the first cargo belief
that Maclay was a god had taken place. The whites were now seen as
merely human, not divine. Their cargo came from rituals which control-
led superior gods. The cargo itself, however, was still thought to be
produced by deities.

Prior to the First World War a native rebellion occurred. This
rebellion represented an attempt by the natives to redress what they
thought were the gross inequities of cargo distribution. It was ruth-
lessly quashed by the Germans. Afterward, the natives appeared to en-
ter on a period of placid cooperation. Missionaries remarked that at
last natives had begun to see the light. Many converted to Christian-
ity. Only in the early thirties did it finally become apparent to the
missionaries that the natives had joined the Christian religion to ac-
quire control over cargo rituals. The superior strength which the Ger-
mans had shown so many years before in putting down the native rebellion
had convinced the natives of the superiority of the German religion.

Since their own rituals which controlled their gods and thus produced
their livelihood had come from their religion, the source of European
cargo and the power it brought must come from the rituals of the Euro-
pean religion. Natives began showing frustration at not being able to
acquire complete translations of the Bible. They felt that the source
of cargo was yet again being concealed by shrewd and calculating mis-

The fourth cargo belief represented a retreat from Christianity.
Instead, new syncretic rituals were formulated in order to acquire
the cargo. In these beliefs, Jesus Christ was thought by the natives
to be identical with their own traditional culture heroes. The fifth
and final belief, ending around 1950, was once more totally pagan.
Disillusioned with European religion and discouraged by their failure
to acquire the cargo which they felt to be rightfully theirs, they
rejected European beliefs entirely and returned once more to indig­
enous rituals in an effort to coerce the gods to divulge the cargo.

For seventy years the natives of the Madang District interpreted
the superior technology of the Europeans as the consequence not of
secular empirical knowledge and human manufacture, which in their own
culture were thought to be unimportant. Instead, the new technology
was the product of ritual formulae kept secret from them by scheming
Europeans. These impressions were reinforced by their never having
seen Europeans work. Europeans only sat behind desks, scribbled mes­sages on pieces of paper and, at a time which somehow seemed right to
them, would go to the sea to look for a ship which would invariably
arrive as expected (235-40).

Even Yali, a native leader who had distinguished himself during
the Second World War and had consequently been chosen by the Austra­
lian authorities to intermediate between government and natives during
the era of post-war reconstruction, failed to see otherwise—even after
briefly being conducted through a factory in Sydney. Lawrence says
Yali could only speak Pigin, and no one attempted to explain to him
what was going on in the factory. Furthermore, he was reinforced in
his own native viewpoint after having visited an Australian museum
containing artifacts from his own homeland, and stuffed animals as well.
One was a stuffed ape. An Australian friend attempted to explain Dar­
win's theory of the evolution of the human race. Thenceforward, Yali
interpreted these stuffed animals as totemistic ancestors of Europeans,
and felt reinforced in the legitimacy of his native views.

Yali returned home from Australia much sobered. He gradually gave
up his Christian affiliation, and himself sponsored a new cargo cult
which resulted in 1950 in his downfall from power and his imprison­
ment (245-50).
This example shows that concepts of causality stem from fundamental beliefs and assumptions about the nature of the world. The role of religion to the natives was quite different from the role of religion to the colonialists. The educational problem in this case was not merely knowledge of the nature of modern manufacturing. The problem stemmed from radical differences in the conception of the world and of the nature of human activity. (Recall that Kluckhohn and Strodtbeck, cited earlier, measured distinct cultural differences in conception of human activity.) Needless to say, European values vis-a-vis technology contrast sharply with the native beliefs noted above.

Selvers (1974) describes the traditional Indonesian world-view as "mystical" rather than rational, and says that nation's experiences in development can only be meaningfully interpreted in light of the influence of this traditional view on modern development efforts. Summarizing Indonesia's recent problems in national development, he states:

More grievous than any mere [economic or political] obstacle... is the pervasive lack of a modernizing mentality, except in the leading sectors of the ruling elite...

Indonesia may not after all really want to modernize (316).

A final example comes neither from a New Guinea emerging from the Stone Age nor from a country beginning to industrialize, but from the United States. The enormous overconsumption of natural resources in this country is a good example of how a culture can fail to cope with the consequences of technology change. Current marketing practices place a premium on manufacture of more profitable but more wasteful products rather than longer lasting, more efficient ones—witness the American automobile industry. Nor is industry solely to blame. The American buyer, flouting predictions of ever scarcer and more expensive oil, is currently buying more full-size cars than ever before.

In contemporary American society, science is still often thought of as either a miracle worker or a demon on the loose. Superstition is prevalent enough that many skyscrapers lack a thirteenth floor.
The Values of Modern Technology

Modern technology brings with it not only new scientific beliefs regarding the nature of the world—beliefs that nature is characterized by unchanging laws that can be manipulated but not superceded. It also makes necessary certain changes in social custom, social values, and in the conception of human activity as well. For example, decisions regarding the use of technology can no longer wait for an astrologically propitious day if machinery is to be operated economically. Bronowski (1973), commenting on the changes in life-style wrought by the industrial revolution, says:

...it was the domination of men by the pace of machines. The workers for the first time were driven by an inhuman clockwork: the power first of water and then of steam... A new ethic was preached in which the cardinal sin was not cruelty or vice, but idleness. Even the Sunday schools warned children that Satan finds some mischief still
For idle hands to do...

The change in the scale of time in the factories was ghastly and destructive. But the change in the scale of power opened the future (280).

Many third world politicians and bureaucrats want this industrial power without a "dehumanizing" change in traditional decision-making patterns, and continue to expect a competitive operation in spite of such policies. Changes in social values are often not seen as inevitable attendants of technology change.

Although the cultural contexts in the preceding examples are different, the problem remains the same—the problem of somehow getting technology, and ideology or social values, to mesh.

Cognitive Consequences of a Changed Technology

People initially attempt to assimilate new technology to their beliefs and values which are culturally transmitted. It appears that only if exposure to technology is relatively extensive and complete, as in Manus, can cultural structures—in this case ideology and all
the behaviors ideology affects—be expected to accommodate to the new technology.

Traditional beliefs persist tenaciously. In tests conducted among students at the University of Ghana to determine prevalence of traditional supernatural beliefs, Jahoda (1970) found that two-thirds of the university students tested thought the future could be foretold, and that there was "massive consensus that witchcraft may be a real power (146)". Prophet-healing cults which he began studying in 1954 had by 1968 increased in number. Their adherents in 1954 had been almost exclusively restricted to the illiterate and semi-literate. By 1968 adherents included many members of the intellectual elite such as doctors and lawyers. Jahoda speculates that this pattern represents an at least partial return to traditional West African cosmological notions (156). Such social phenomena are similar to the return to totally pagan cargo beliefs noted above and to the astrology fad that still lingers in the United States, and represent reactions to imposed values.

Jahoda also comments that West African cosmological notions, like those of the Madang District of Papua New Guinea, visualize no dichotomy between the supernatural and the material as do Western cultures. This refusal to draw distinctions between the empirical and the chimerical can be expected to influence technology change.

Luria (1976) states that basic cognitive processes are to a large degree culturally and socioeconomically determined. He attributed the "backwardness" of peoples in certain areas of the Soviet Union to archaic and stifling beliefs that had "held back the development of independent thought through subjecting people to religious dogma and rigid behavioral standards (14)." He states that the cognitive skills of generalization and abstraction, deduction and inference, reasoning and problem solving all rest upon social and cultural foundations, and that cultural differences engender cognitive differences. Hence the need to take note of values and world-view when dealing with the process of technology change.
Conclusions: Implications for Education

If it is true that values affect the progress of technological development and even exert an influence on cognition itself, then values and the process of values change must occupy a place of greater importance in education within developing countries.2

Values such as the "primitive beliefs" described by Rokeach (1968) tend to remain unquestioned. Few people as yet view their options in terms of values. The examination of the social and cultural impact of decisions to adopt a new technology is a necessary step in technological development. This cannot be done without making values explicit. Educators must become increasingly aware of the values and value systems adhered to by the populations with whom they deal. If education is to provide greater choice, those populations need to know how their indigenous values will alter through the process of technology change as well as how technology itself will bring new values along with it.

For educators this means more attention to indigenous value systems as well as a good deal of reflection about their own values regarding technological development.

For clientelles of development education, techniques might include forms of consciousness raising aimed in this case not at increased political awareness but rather at heightened awareness of the cultural, economic and ecological consequences of a choice for technology change.

Bureaucrats and politicians in developing countries (and in industrialized countries, too) might also be considered to be an important target population for such educational efforts, as their decisions have a stronger impact on development than those of the common citizen.

Rokeach has argued that certain categories of values--"primitive beliefs", for example--can only be changed through education. Persuasion alone is inadequate. On the other hand, suitable adaptations of the values clarification techniques outlined by Simon (1972) might prove useful in dealing with less fundamental "derived" beliefs among educational decision makers.
It is, of course, impossible to anticipate all the changes which will ensue from a new technology before those changes actually occur. Nor is it possible to predict precisely how a society, much less its individual members, will react to technological innovation. Yet if people are to retain an acceptable degree of control over their own destinies (a value admittedly absent from a good many traditional societies) awareness of the consequences of technological development becomes a necessity.

Presently, the issue of values change is often left undiscussed. For either diplomatic or tactical reasons, educators and bureaucrats often allow it to go unexamined. But if education is to bring maximum choice to greater numbers of people, the implications of technology change for traditional value systems must somehow be addressed by education both if technology change is to be successful and if people are to become increasingly aware of the forces that are shaping their lives. Not only skills, but values and beliefs too, are the proper domain of such education.
FOOTNOTES

1. In the case of the building that collapsed in Taiwan, traditional values may well have played a part. In traditional Chinese folk religion nature is seen as a tool in the hands of fickle, even bribable gods (Eberhard, 1967). Such beliefs contrast starkly with the modern view of nature on which contemporary Western technology is based, a view that asserts that the laws of science are universal and immutable. It could well be that the building contractor thought that the laws of physics, like the traditional folk gods, could be fooled.

2. As the focus of this paper is technological development, countries of the first and second worlds have not been considered. However, as seen from examples cited earlier in this paper (page 9), values are an important focus for the more industrially advanced countries as well.
REFERENCES


French sociologist Emile Durkheim called it *anomie*--rootlessness, namelessness, identitylessness. But he was focusing upon the mental-health problems and the emotional problems of individual, isolated persons, rather than of groups or of larger societal components. Writ large, in a form of socio-cultural integral, as it were, analogous to a mathematical summation-integral, the concept of anomie could well apply to an entire society or culture. Correspondingly, if it could be demonstrated that a society had overshot the bounds of "healthy" socio-cultural pluralism, and had lost its sense of shared differences, of shared respect, and truly were incarnating, in multiple fashion, Stephen Leacock's fictional character who flung himself on his horse "and rode wildly off in all directions at once", then, it would seem, such a culture could be described also as in a state of socio-cultural entropy.

The following discussion is predicated on the hypothesis that socio-cultural anomie and entropy are, in fact, taking place within the United States at the present time.

A few vignettes from events of recent months may serve to illustrate this concept--hyper-pluralism. The first is, literally, an illustration: it is the cover of the December 13, 1976, issue of the *New Yorker*. And the cover-illustration carries its message more powerfully than words ever could convey, which was precisely the reason, I assume, why it was on the cover of one of the intra-house publications of one of the Western world's most visible and influential centers of culture. I won't spoil it by talking about it! It's worth taking a look at.

The second exhibit comes from a friend of mine, a medical doctor, and relates to one of his friends, a psychiatrist. Seems that the psychiatrist was himself in poor mental health, depressed, unhappy. He was depressed and unhappy because he was genuinely concerned about the mental health of his patients, those patients in
particular whose course of therapy at his hands he felt confident had been successful. "I regard myself as a well-trained, professionally competent psychiatrist," he confided to my friend. "Yes, with proper diagnosis and with proper therapy, I will be able to re-integrate the psyche of a patient who comes to me in mental and emotional disarray--disintegrated, disorganized. But, now, it is I who suffer deeply disturbing crises de conscience: I knew what had to be done for these patients; I did it; I restored them, I made them whole again. But I know, too, what else I have done to them: I have returned them, sane and whole, to an insane and schizoid world out there. Yes, it is I who have a mental health problem."

The third vignette or, if you will, opening gambit to my theme--I cannot call these exhibits hors d'oeuvres to the main course of the topic, because I do find them distasteful--is an Associated Press report of an incident in San Francisco three weeks ago:

An angry mob swinging hatchets and tire irons smashed up the Rudolph Hess Bookstore five days after the Nazi shop opened, police said... The presence of the Nazi store, within sight of a synagogue founded by German Jews who had survived World War II, seemed to inflame the neat middle-class neighborhood on the city's western edge. The store opened Monday to the sound of martial music and the sight of young men wearing Nazi stormtrooper uniforms with swastika armbands.3

To judge from these vignettes, our culture may be having some problems. True, our society has always had problems throughout its history, but, I submit, not—with the exception of our Civil War—on such a massive and pervasive scale, nor of such across-the-board variety in manifestations; and now, of course, in living color, to bring us immediate ring-side participation and adrenalin-rising involvement.

So I am suggesting that United States pluralism—which we have always prided ourselves on as being one of the unique characteristics, perhaps even the hallmark, of our culture—is entering a new and critical phase, a phase in which the house-rules and coping-behaviors are not only unclear but unknown, for the reason that our country's three and one-half centuries have not provided us with the kind of experi-
ences and protocols which would provide the security that comes of confidence in knowing what we are doing.

For lack of a better phrase, I have termed this new phase hyper-pluralism, and the thrust of this argument is to demonstrate that it makes absolutely no sense to talk about "principles of education" before one gives considerable attention to identifying and to analyzing the underlying socio-cultural parameters. One might hazard the guess that when one gets to the bottom line, one will find that many current problems and crises in education are direct manifestations of, or dependent variables of, socio-cultural parameters which are in essence culturally pathological. One such culturally pathological dimension is hyper-pluralism.

Let's not belabor the fact that educational institutions, curricula, even principles, are reflections both of current values and of current pressures in greater society. Numerous writers have commented lucidly and succinctly on this point. Werner Jaeger's classic study of classic Greece, Paideia: The Ideals of Ancient Greece (1939) is one illustration. T.S. Eliot's Notes Towards the Definition of Culture (1949) provides an extensive analysis; and this same theme is a focal point in John Gardner's book Excellence: Can We Be Equal and Excellent Too? (1961). The opening sentence of Lawrence Cremin's The Genius of an American Education bear specifically upon this relationship of popular education to human polity, a theme on which the "classic treatise," Cremin notes, is Plato's Republic.

A fifth commentary I found particularly helpful in support of this first try at defining hyper-pluralism was in the writings of that renowned Spanish social and educational philosopher, Jose Ortega y Gasset. Just by chance, while re-reading, a quarter of a century later, his Revolt of the Masses (1929), I came across a word which I had not noted in my first reading--hyperdemocracy. "Today," wrote Ortega y Gasset in 1929, "we are witnessing the triumphs of a hyperdemocracy in which the mass acts directly,
outside the law, imposing its aspirations and its desires by means of material pressure."
It was at the hands of this kind of mass-mind—the kind of demos-mind which Plato was
fearful would unseat his Republic—that Ortega y Gasset's Western world of 1929 was,
he was convinced, in the throes of a "grave demoralization".5

In another of his writings, The Mission of the University (1930), Ortega y Gasset
states:

The school, when it is a truly functional organ of the
nation, depends far more on the atmosphere of national
culture in which it is emersed than it does on the ped-
egogical atmosphere created artificially within it.

The words "functional" and "atmosphere" deserve a comment. With increasing frequency,
it seems, we see the word "dysfunction" applied to numerous aspects and facets of our
society's behaviors and activities. Now, if a no-holds-barred analysis of contemporary
culture should indicate that in many of its components contemporary culture is, itself,
not functional but dysfunctional, then the macabre thought occurs that an educational
system operating dysfunctionally, in realtionship to a functional society, might con-
ceivably wind up fulfilling the functions embodied in that dream of yours, George
Counts, back in 1932, when you wrote, Dare the Schools Build a New Social Order?.
It may not be an idle thought.

Ortega y Gasset is the only writer I know who uses that word "atmosphere" in
this context. Good word: has to do with the cultural environment which we breathe
unconsciously, naturally, taking it for granted because we are surrounded in it;
perhaps something we, inadvertently, have taken too much for granted.

It could follow, then, as one logical scenario, that this kind of tacit inat-
tention, or inadvertent inattention, to the problem of pollution of this atmosphere
would yield the result that today, in 1977, our collective vision, our collective
certainty, our collective agreement about current cultural values and purposes would
be hazy, infused—if you will tolerate my stretching the metaphor—with smog; form-
less. And if it is also true that current pressures upon our society are greater
and more multi-faceted than ever before, then it should follow that there will be
uncertainty, and insecurity, and even chaos, in all socio-cultural components such as family, politics, law, education, and the rest.

Speaking of uncertainty, I hope one day to find in my notes the name of that historian-wit who summed up three centuries of our country's experience as progress—if one wishes to call it that—from "certainty concerning the nature of the Devil, to uncertainty concerning what the devil the nature of anything is." It is a fact, of course, that there was, indeed, precisely this kind of certainty in our colonial period: witness Massachusetts' earliest legislation on the subject of education, the laws of 1642 and 1647, the rationale for the need of the latter law being that it was "one chiefe project of ye ould deluder, Satan, to keepe men from the knowledge of ye Scriptures."

For a moment, let's repress that prefix hyper and look at pluralism. I know of no other example of pluralism at its best in our country, in its halcyon days, and as a dynamic, positive, and constructive force in the development of the United States than that relatively brief period of some three decades, commencing, say, the founding of New Harmony, Indiana, in 1825, and extending to around 1860. One could characterize these decades, in this part of the country, as "Ohio River Eclecticism"—a truly eclectic culture, a culture honoring, supporting, and making productive use of, the contributions and attributes of the many varied ethnic-cultural-social streams that converged on this unique boulevard to "the West".

Some of us still like to believe that those "Boy Scout Virtues", "Girl Scout Virtues", "Horatio Alger Virtues", are what our country stands for, morally, and ethically—"what made our country what it is today". Well, don't forget to include the "McGuffey Reader Virtues"! William Holmes McGuffey provided for this Ohio River Culture a series of six "graded" readers, the first appearing in 1836, in Cincinnati, Ohio. The series was adopted almost universally throughout the developing Midwest, over a period of some 70 or 80 years. And millions of school children (total sales of McGuffeys ran to over 125 million copies) had stamped indelibly—and, very probably, with the help of a birch rod, seared—upon their brains a language—
an arts course of study infused, nay, saturated, with very clear and very specific instruction not only concerning how to lead the moral, virtuous, and religious life, but also concerning the clear and specific rewards and "reinforcements" which would accrue to the boy or girl who led the "good life"...and, contra, the clear and specific penalties that would arise, as the sun in the morning, if one's daily life did not manifest these virtues.

The main title of the series, The McGuffey Eclectic Readers, gave tacit recognition to the numerous and varied streams which converged on this region, as well as the tacit advertisement that here, in these texts, this potpourri of backgrounds, linguistic patterns, tastes, and customs all would find acceptance, even as all would find healthy cultural accommodation, and even as all would be assured that they would be fruitfully assimilated under a very special kind of socio-cultural umbrella. Well, no; not an umbrella, a banner: a Fourth of July banner, with flags, and speeches, and bands, and solidarity, and a sense of solid accomplishment, and of solid accomplishments to come—a "Norman Rockwell 4th". Nostalgic—Isn't it?

The melting pot—that invisible symbol that the Statue of Liberty is holding in her other hand...But be not deceived: Look closely at that melting pot. Something strange happening? Could it be that it is a melting pot—it is beginning to melt? Is it losing its form, its substance, its structure? Was it conceivably made of wax, and painted over to look like iron? Is it possible that it is eroding before our very eyes and, yes, even at our very hands? Did you, Thomas Jefferson, and your founding-father colleagues inadvertently choose socio-degradable materials as you strove to give form and substance to your vision of the good life, the good way to live and work together to build a good country?

In those Ohio River days, they lived pluralism. Today, it seems, we have first to study it, so we can cope with it. At the University of Chicago, for
example, there is a Center for the Study of American Pluralism, and the director, Andrew Greeley, recognizing that ours is a culture of "unstable pluralism", suggests that "perhaps the alternative to a society tearing itself apart through excess polarization is not homogenization but harmonization."

The first time I was introduced to this concept of polarization, as it applies to societal breakdown, was when I was a student in the classes of Harvard sociologist Pitirim Alexandrovich Sorokin, whom I regard as our country's counterpart to England's Arnold Toynbee or Germany's Oswald Spengler. In October of 1941, right on time, so to speak, appeared his scenario of cultural disaster, The Crisis of Our Age, a book analogous in many ways to Toynbee's Civilization on Trial, which came out in 1948. The Crisis of Our Age prophesied—and it goes without saying, to judge from his title, that Sorokin was a gloomy prophet—that with increasing fervor and banality our Western culture, epitomized not just by materialism but, in Sorokin's words, by "decadent, sensate, quantitative colossalism", would grind itself to a halt—mired: "wallowing in its socio-cultural sewers", I recall his saying in class. And those were the days, back in the 1940's, when—to cite but one example—Boston's Scollay Square, even in its wildest dreams, could not envision its extrapolation, uptown, to the Combat Zone.

Sorokin's scenario included the inevitable reactions and outcries: pleas for a return to "the good old days"; demands for increased license for individual expression; pressure to "do something" about the laws, the courts, the ethical system, morals; adoption of alternate life-styles; withdrawal from it all. One might be inclined to argue, then, that the "pendulum" appears to be swinging the other way. Sorokin's argument, on the contrary, asks us to observe that the crucial, critical feature is that all the "pendulums" are swinging—actively and with full force, violently, all doing their own thing—oblivious, indifferent, even antagonistic, to the existence and claims of the others—and therefore polarized: a socio-cultural "congeries" with no web nor net nor matrix of meaningful socio-
cultural relationships. Polarized, antithetical, anatagonistic, paranoid, violent--hyper-pluralistic. Now, in a manifold crisis-situation of these dimensions, the concept of "culture" no longer would apply. He might say to me, therefore, as he moves into a check-mating position: "You are forced to conclude, Osgood, that that phrase of yours, 'hyper-pluralistic culture' is meaningless, a contradiction in terms." Perhaps. But perhaps not: perhaps, like Rousseau's phrase in *Emile*, "well-regulated liberty", it is an attempt at the Greek figure of speech oxymoron, by means of which one is enabled, in a way, to look simultaneously at both sides of the cultural coin, and thereby gain some measure of awareness of the immanent, stochastic process of socio-culture.

Andrew Greeley also mentioned the concept of "harmonization"; and on this less-than-lugubrious concept I shall conclude. Harmony was the cornerstone of Plato's *kosmos*, was it not; and without its cornerstone, no socio-cultural edifice could be expected long to stand. T.S. Eliot, too, had a word to say about socio-cultural harmony. In *Notes Towards the Definition of Culture*, he stated that it is unrealistic to expect the schools alone to transmit the nation's culture to the hands of the next generation.

For the schools can transmit only a part, and they can only transmit this part effectively, if the outside influences, not only of the family and environment, but of work and play, of newsprint and spectacles and entertainment and sports, are in harmony with them.10

Sorokin would add that this kind of harmony, within a society or culture, would be achieved if and only if each component, each facet, each manifestation of the culture had meaning—not merely meaning in and of itself—but meaning in relationship to all of the other components. Such a society would be socio-culturally "healthy"; its numerous parts would be, as in a healthy human body, in a state of productive, functioning homeostasis with one another. Such a culture would be integrated in all its parts; it would, therefore, manifest an outward integrity; as a totality, it would make sense. In this vein, Eliot posits that
"it is only by an overlapping and sharing of interests, by participation and mutual appreciation, that the cohesion necessary for culture can obtain." By the same token, he adds, no individuals, groups, or activities logically may regard themselves simultaneously as components of the socio-cultural totality, yet also as "distinct and exclusive" entities. Such an "overlapping and sharing of interests" provides, then, the cement or the matrix which make possible the shape and form, the Gestalt--of culture. Without this phenomenon of sharing, the shape corrodes, dissolves; the sharing-lime is eaten away by the acid-indigestion and vitriol of the non-stituent parts.

John Gardner, too, offered some suggestions for cooling down the over-heated contents of the melting-pot before it loses its shape completely; and I infer that he thinks it might be wise to move quickly, while there is still something to move. To Eliot's emphasis on "shared interests", John Gardner adds a teleological element--the concept of purposes:

...no society can solve its internal conflicts unless its members are lifted above the tensions of the moment by powerful shared purposes...compelling goals that are shared by conflicting parties.12

Remember that Gardner wrote these words in 1961. One other passage ends on a truly prophetic note:

America's greatness has been the greatness of a free people who shared certain moral commitments. Freedom without moral commitment is aimless and promptly self-destructive. It is an ironic fact that as individuals in our society have moved toward conformity in their outward behavior, they have moved away from a sense of deeply shared purposes. We must restore both a vigorous sense of individuality and a sense of shared purposes. Either without the other leads to consequences abhorrent to us.13

Subsequent years have demonstrated adequately, no doubt, that our country's lack of shared purposes throughout the tempestuous course of the Vietnam War, with predictable ripples through the Watergate, and foam in Academe, proved sufficiently hyper-pluralistic as to lead to "consequences abhorrent to us."
John Gardner extended his logic one step beyond mere "shared purposes" when he talked about "sharing certain moral commitments". Purposes, goals, objectives will always be scrutinized and challenged by those who want an answer to a prior—or, in this case, an ultimate—question: Why these purposes? To what ultimate end? In the service of what conviction? Of what ideal?

Thus—shared interests; shared purposes; shared values. And so, Pitirim Sorokin, a socio-cultural system meaningfully integrated, and integrally meaningful—a nation and a culture indivisible. Would that day come, when we wave those flags, and when we say "indivisible", that we really do believe again, Norman Rockwell, what we do and what we say!

**Epilogue—April 1977:** "We are coming into a time that will do much more than test the leadership of President Carter and Congress. The forthcoming battle over energy will also test the character of the American people and the coherence of the American nation." So wrote columnist James Reston in the *New York Times* two weeks ago. When one considers, he continued, "the means and the sacrifices necessary" for this country effectively to confront the fact that "the security of the nation is threatened by our present reckless consumption of fuels that are limited", one finds that "there is no general agreement but a wild clash of conflicting ideas and special interests." Reston stops there, as far as scenario-writing is concerned. But a scenario predicated upon hyper-pluralism might predict a series of increasingly violent societal crises and convulsions; a series of unending confrontations requiring, sine qua non, the utmost of goodwill, accommodation, understanding, cooperation, compromise, tact—the entire panoply of our nation's "harmonizing" impulses and talents. Character-building.
NOTES


2 At the Regional Meeting, it was possible to circulate this cover among those present. For readers who may not have access to this particular issue, the cover depicts a typical front door, as seen from the interior of a house or apartment. Several Christmas-season greeting cards lie on the floor, having been pushed through the mail slot. The front door, however, is heavily secured by three different sets of locks, replete with glass peep-hole.


9 Crisis of our Age was an abridgement of Sorokin's four-volume work, Social and Cultural Dynamics (New York: American Book, 1937-41).


11 Ibid., p. 22.


13 Ibid., p. 137.

EDUCATION AND DEVELOPMENT:
CASE STUDIES
Whether we conceive of nations as sovereign states that exercise control over bounded portions of territory, or as aggregations of persons who are aware of sharing common traditions, a language and a "manifest destiny", national development is on many people's minds in these closing decades of the twentieth century. Three factors seem to best account for this observable phenomenon. First, many formerly viable colonial powers such as France, Great Britain, Italy, and the Netherlands now find themselves in straightened circumstances. Their energy sources have constricted, inflation rolls on, productivity declines and markets shrink. It is not surprising that these states regard national development, or even reconstruction, as essential to their survival. While the magnitude of the crisis may be somewhat mitigated for the United States of America, the motivation toward national development in our society is hardly less compelling. Second, are the states which achieved their independence in recent years; the "Third World" in particular. Finally, with ever-increasing urgency there are the "nations" whose homelands are not free, ranging from the Palestinians to the Taiwanese, from the Quebeçois to the Puerto Ricans, to the Scottish and Welsh nationalists in the United Kingdom and Black and Chicano nationalists in the United States.

Clearly, when we address such a range of aspirations and agendas no single concept of "development" is sufficient. In the first place, today no nation, not even those considered to be superpowers, is self-sufficient. Autarchy has become functionally archaic. Universally, also, the mentality that was associated with mercantilism and political or economic imperialism is being challenged and rejected. The old techniques of manipulation that utilized processes of assimilation, systems of caste and inherited privilege,
and cultural domination have ceased to be as effective as they once were. Today, hardly anyone is ready to consider development purely on economic grounds of the statistical cost/benefit ratio to be obtained. Everywhere, the taxonomy of development that was once widely acceptable is now questioned or rejected.

Development has been thought of as the results of processes that expand or realize the potentialities of a person, an institution or a society. Often, development has been conceived of as progress from earlier to later, or from simpler to more complex stages of evolution. It is this second paradigm that is now unacceptable to many, assuming, as it does, the superiority of the earlier industrialized and technologically sophisticated societies. Whether wielded by capitalist "free enterprise" economists, or the rhetoricians of dialectical materialism, this type of development ideology asserts that certain patterns or structures recur in all cultures. Upon their emergence depends both growth and development.

Linked with this key paradigm in many theories of development is a dichotomy between "coping" nations--countries that have developed useful resources and have been able to utilize the income which they derive from them in order to accelerate their per capita economic growth--and the "non-coping" or subsistence economies. This fundamental categorization is generally expressed by using a three-tiered model:

DEVELOPED

Societies that possess a "modern" economic and social infrastructure, have high production rates and large per capita incomes.

DEVELOPING

Societies that are bringing a "modern" infrastructure into being and raising their gross production and per capita incomes.
UNDER-DEVELOPED

Societies that little utilize their resources and maintain "primitive" or traditional styles of life, resulting in low gross products and small per capita incomes.

The premise that "modern" economic processes and social structures are preferable to "ancient", "primitive", or "traditional" ones can be clearly discerned in this model. By "modern", its advocates seem to mean contemporary, current or in the present; but an interesting leap of logic seems to occur. The criteria of social modernity aren't the presence of any set of functional and satisfying variables. Few development economists even offer a set of semiotics by which indigenous social processes can be assessed in order to judge their appropriateness or degree of success in a given context. Rather, being "modern" is equated with the technology that is normative in a society. Thus, a truly modern nation--a "thoroughly modern Millie" in 1977--must be post-industrial, an alter-image of the affluent West. It must have left behind it the megasystems of production and distribution that have commonly occurred during industrialization, even if this aggravates already critical problems of un-and under-employment. Most of its citizens are supposed to be engaged in either service or recreational pursuits, even if the basic necessities are still lacking. This powerful ideology has produced the phenomenon of MacDonald's on everybody's street corners. Every metropolis must have its Hilton Hotel aboveground, and pipelines that lead to multinational corporations such as the Gulf and Mobil Oil Companies, beneath it.

ETHNIC AND MULTICULTURAL MUSEUM EDUCATION

It is to this convergent type of development theory, with its ideology of functional rationality manipulated by Soviet or Western technocrats, that ethnic and multicultural museum education is addressed, admittedly like a miniscule David confronting gigantic Goliath. The proposition of museum educa-
tors of this type is that all peoples have authentic heritages that should be protected from cultural imperialism by a few powerful groups. By investigating and reflecting on the actual situation of each ethnic community, it is possible to identify their problems and potentials. The value and appropriateness of their customs and traditional style of life can be appraised in terms of their current aspirations and context.

Rather than the themes that are emphasized by development economists; social historians in the ethnic and multicultural museum education movement stress central threads around which the past, present and future of their peoples revolve. Concerning American Negroes in 1914, for instance, the pioneer black sociologist, W.E.B. DuBois, conceived that "the Economic development of the American Negro slave" was the central theme of Afro-Americans. In A History of the Scottish People: 1560-1830 (London: William Collins Sons and Co., Ltd., 1969) T.C. Smout tests the hypothesis that the Scottish people confronted social disorder in the fifteenth century, which by a variety of means they gradually brought within orderly bounds by the nineteenth century. There are certain similarities in the threads of national historic experience, but theorists of this ilk reject the globalism of development economics. Rather, they stress both commonalities and uniquenesses, also advocating holistic approaches to social development that do not exclusively focus on economics.

Museum educators are generally historical revisionists who aim at expanding our horizons and seek to democratize the past by bringing back to remembrance people, groups and classes who would otherwise be forgotten. One of the chief vehicles of museum education is commemoration. Bernard Lewis in History: Remembered, Recovered, Invented (Princeton: Princeton University Press, 1975, pp. 4-7) draws attention to two Middle East commemorations. Iran celebrated the 2,500th anniversary of the founding of the Persian state by Cyrus the Great and Israel uncovered Masada where in A.D. 66 a remnant of
Jews who had revolted against Roman tyranny heroically defended themselves to the death. Both of these commemorations utilized recovered history in order to counter the assimilationism in the ideology of corporate development.

The 1976 Bicentennial celebrations in the United States of America were to some extent a similar commemoration. In many cases the Anglo-dominated "melting-pot" theory of national development was reinforced by the Bicentennial activities. But a number of ethnic and multicultural programs of museum education were also initiated. The most impressive of these was the magnificent "A Nation of Nations" Exhibition, prepared by the Museum of Natural History and Technology at the Smithsonian Institution in Washington, D.C. Its orientation indicates that at least some arms of the United States government have adopted the alternative "mosaic" or "kaleidoscope" image of cultural pluralism in American society.

THE ROLE OF MUSEUM EDUCATION IN NATIONAL DEVELOPMENT

This type of museum education, this article will contend, contributes to national development in three significant ways. In the first place, it depends upon historical research and scholarship which, to again use Lewis' diction, supplement and complement remembered history with history that has been recovered from oblivion (pp. 11-12). This is historical revision at its best, making available new evidence and information to interpret, solve problems and synthesize meaning.

Secondly, museum education of this type also fosters a new national sense of direction—an ideology. This function is perfectly clear in Lewis' examples from Israel and Iran, and if the process was not quite as successful during the American Bicentennial, at least the notion of cultural pluralism or a "mosaic" or a "kaleidoscope" was powerfully communicated by the "A Nation of Nations" exhibition and many similar displays.

In the third place, as the "Roots" phenomenon has demonstrated, actively investigating a heritage can be contagious. Ethnic and multicultural museums
are seldom simply displays to be passively observed. Almost always, they engage the viewer, frequently involving him or her in activities that eventually become either vocational directions or avocational passions. Frequently too, as it did for Alex Haley, placing one's hands onto history results in historical invention, which I do not use in a perjorative sense. I simply mean that it makes a difference how we perceive ourselves and with what cultural past we choose to relate. Museum education can facilitate using history for purposes that differ from the previous purposes for which it has been used. Until the last decade, for instance, the history of Connecticut worth thinking about, or worth collecting in the Connecticut Historical Society, has almost exclusively been considered to be that of the English colonists and their progeny. Unfortunately, this alienates the majority of Connecticut's present citizens, who had no part in this historical thread. Also, this kind of history is virtually useless as far as giving us any clues about the present interrelationships among the people of our state. It does not help us to understand who now has authority and how they got it, who wields power and why or where political decisions are being made in 1977 (or will likely be made in 1987 or 2007). In short, it is distorted history because it is not addressed to making a contribution to developments in Connecticut. In this sense, we would claim, it has no role to play in national development. Inversely, museum education that is geared to questions that people ask and addresses people's real concerns is development-oriented because it provides new options of self-images, devises from remembered and recovered history new interpretations that can be the basis of action and constantly raises new questions in order to redirect and revitalize inquiry.

Rather than uncritically accepting the conceptual framework offered by developmental economists, which, as Howard Zinn pointed out in The
Politics of History (Boston: Beacon Press, 1970) is really a rationale for the going order (p. 45), museum educators can conceive of inquiry as a tool and knowledge as a form of power. Look, for example, at DuBois' plan for studying American blacks on repeating ten year cycles:

1. Population: Distribution and Growth
2. Biology: Health and Physique
3. Socialization: Family Groups and Class
4. Cultural Patterns: Morals and Manners
5. Education
6. Religion and the Church
7. Crime
8. Law and Government
9. Literature and Art
10. Summary and Bibliography

Imagine generating research questions on each of these ten aspects of the total Negro experience and then carrying out the research to answer them. DuBois, himself, was able to complete only one cycle of the study, with very meager resources, but he demonstrated its potential. The same ten dimensions could become focal points for organizing a museum presentation or cataloging an ethnic archives.

A COMPARATIVE ANALYSIS OF FOUR ETHNIC AND MULTICULTURAL MUSEUM PROGRAMS

Having visited a dozen ethnic and multicultural museums in four societies (Canada, Israel, Turkey and the United States) during the last year, this part of the presentation will be a comparative analysis of four programs that illustrate a wide variety of approaches. They are:

The Acadian Museum
The University of Moncton
Moncton, New Brunswick
Canada

The Amistad Research Center
Dillard University
New Orleans, Louisiana, U.S.A.

The Balch Institute
18 South Seventh Street
Philadelphia, Pennsylvania 19106, U.S.A.

Ha-Aretz Museum
Ramat-Avim
Ramat-Avim, Israel
# Chart One

## A Comparison of Four Ethnic and Multicultural Museum Education Programs

### The Scope

<table>
<thead>
<tr>
<th>ACADIAN MUSEUM</th>
<th>AMISTAD RESEARCH CENTER</th>
<th>THE BALCH INSTITUTE</th>
<th>HA-ARETZ MUSEUM</th>
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<tbody>
<tr>
<td>1. Single Ethnic Focus</td>
<td>X</td>
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<td>1.2 &quot;Minority Groups&quot;</td>
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<td>1.3 National Multicultural</td>
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<tr>
<td>1.4 Transcultural Multicultural</td>
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<td>1.5 Immigration/ Settlement</td>
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<td>X</td>
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<tr>
<td>1.6 Traditional Heritage</td>
<td></td>
<td>X</td>
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<td>1.7 Outstanding Persons and Contributions</td>
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<td>X</td>
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<tr>
<td>1.8 Current Problems and Potentials</td>
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<td>X</td>
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<tr>
<td>1.9 Common People/ Mass Experiences</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>1.10 Exploitation/ Genocide</td>
<td>X</td>
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### Program Characteristics

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<tr>
<th>ACADIAN MUSEUM</th>
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<th>THE BALCH INSTITUTE</th>
<th>HA-ARETZ MUSEUM</th>
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<tbody>
<tr>
<td>2.1 Displays/ Exhibits</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>2.11 Permanent</td>
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<td>2.12 Rotating</td>
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<tr>
<td>2.13 Traveling</td>
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<td>2.2 Multimedia Presentation</td>
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<td>2.21 At Location</td>
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<td>2.22 On Loan</td>
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<tr>
<td>2.3 Library</td>
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<tr>
<td>2.4 Archives</td>
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<tr>
<td>2.41 Calendars</td>
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<tr>
<td>2.42 Microfilm</td>
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<tr>
<td>2.43 Periodicals</td>
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<tr>
<td>2.44 Photographs</td>
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<tr>
<td>2.45 Posters</td>
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<tr>
<td>2.46 Sheet Music</td>
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<td>2.5 Live Performances</td>
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<tr>
<td>2.51 Dance</td>
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<tr>
<td>2.52 Music</td>
<td></td>
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<td></td>
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<tr>
<td>2.53 Drama</td>
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<td></td>
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<tr>
<td>2.6 School Group Services</td>
<td></td>
<td>X</td>
<td>X</td>
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</table>
1 As an ethnic archives containing over three million documents concerning Afro-Americans, American Indians, Chicano and Chinese, displays and exhibits are less stressed at the Amistad Research Center. Also, it is currently housed in a section of the Dillard University Library and will be able to expand its program only when the new facilities planned for it have been constructed.

2 The Acadian Museum began as a function of a Roman Catholic College (Lycee) and was later moved to the Library of the University of Moncton, when this public French-language institution was constructed in Moncton, New Brunswick, Canada.

3 Supported, to a large extent, by the United Church Board for Homeland Ministries, United Church of Christ, and the Board of National Missions, United Methodist Church, which continue the work of the American Missionary Association which founded many historically black institutions in the South, the Amistad Research Center was originally located on the campus of Fisk University, Nashville, Tenn., and then was moved to Dillard University, New Orleans, Louisiana.
THE ROLE OF AGRICULTURAL EDUCATION IN NATIONAL DEVELOPMENT*

William L. Thuemmel
University of Massachusetts/Amherst

Much has been written about the role of education, including agricultural education, in national development. Most leaders of the developing and the developed nations alike agree that some form of agricultural education is necessary at various levels to achieve their development goals. However, differences of opinion exist among development planners and educational agencies as to the kind of education that would best serve their nation's agricultural needs. Oftentimes plans for agricultural education are narrowly conceived and piecemeal in their approach to improving the welfare of their people, especially those living in rural areas. A more comprehensive concept of agricultural education is needed in all countries and its vital role in the developmental process must be more clearly understood by government officials, educational leaders, and consumers alike.

Agriculture, the Foundation of Civilization

Agriculture has been the basis of civilization for the past ten thousand years. Dr. Jean Mayer, president of Tufts University and renowned nutritionalist, refers to agriculture as the mother of all sciences. He reasons that one must first eat before one can philosophize. Also, that towns were created only when agriculture could provide adequate surpluses in the countryside to support life in the towns which, in turn, supported those who pursued science in its other dimensions. Both George Washington and Thomas Jefferson viewed agriculture as

the natural and most rewarding occupation of man and considered farmers as the backbone of the nation.

Fine, one may think; it is well and good to romanticize about the history of man's civilization when most people were farmers, hunters, and fishermen. However, today's world is dominated by the highly industrialized nations with relatively small proportions of their populations engaged in agriculture. One might easily conclude that an education in agriculture is really only relevant to those engaged in, or planning to engage in, agriculture. Such a narrow, vocational view of agricultural education can lead to large numbers of "educated" citizens with little or no knowledge about the production of their basic sustenance--food and fiber. The implications for agriculture and national development are serious indeed.

Agricultural Education Defined

It is difficult to divorce agriculture and food into separate taxonomies; in other words, to place the productive aspects into one category and the consumptive/nutritive aspects into another. The two are obviously interrelated. However, for purposes of this paper--and to avoid encroaching into the territory of my colleagues in Home Economics--agricultural education can best be defined as: 2

An organized instructional program involving the combination of the agricultural production and management operations and associated services, the manufacturing and distribution of agricultural equipment and supplies, the processing, storage, marketing, and distribution of food, fiber, and other agricultural commodities, the environmental protection and wise use of renewable natural resources including air, forest, water, soil, animal, marine, and plant life and outdoor recreational resources, also involving associated education and research in all these areas.

Although farming is still the core of modern agriculture, it is presently supported and serviced by a vast array of agribusiness enterprises. Contemporary instructional programs in agriculture reflect this diversity and are organized in both the formal and nonformal educational modes.
Some Contemporary Challenges

In developmental terms, a nation's economic success is measured by how far it can rise above providing the basic food and fiber needs of its people. Sir Joseph Hutchinson, a Professor Emeritus of Agriculture at Cambridge University in England has said:

Agricultural education should be regarded as an instrument of development because the progress of agriculture is the foundation of all major changes in society. In this respect it is not necessary to adopt any classification into developed and developing countries. All countries are developing in the sense that recent advances in their agricultural technology have led to advances in their social systems.

A basic goal of most nations is to improve the condition of the majority of their people with regard to food, clothing, housing, health care, education, security, and to some extent opportunity and hope. However, with a burgeoning world population, the obstacles to achieving this goal—or to even maintain living standards at their present levels—are formidable. Many countries are already facing serious food shortages or are at least concerned with the long range output from their fossil fueled agricultural sectors.

The current world population exceeds four billion. This is double the population of 1930. At the present growth rate, demographers predict eight billion people will inhabit the earth by the year 2010. The resource base for producing food (land, water, energy, fertilizer, and other nonrenewable resources) is shrinking on a per capita basis. Dwindling fresh water and petroleum reserves, environmental pollution, urban encroachment of productive farmland, and related ecological imbalances are seriously challenging the capacity of modern agriculture to feed, clothe, and house a hungry world. Still, the educational curricula experienced by most people in most countries are practically devoid of agricultural content—either of how best to grow one's own food and fiber or about the importance of a viable and productive agricultural sector to their own well being.
Agriculture as an occupation still has little status in the minds of many. It is not well understood by the educated classes and government workers and today many nations lack the trained personnel and leadership necessary for agricultural progress and development. Yet, the fact remains that most developing countries are agrarian, with from 50 to 80 percent of their people in rural areas, often far from centers of government. Since most of the so-called developed countries have attained their levels of living by first developing their agricultural infrastructure through education, it is imperative that most developing countries place a much stronger emphasis upon the agricultural and rural development content of their educational programs.

**Education and Agricultural Development**

Three countries where agricultural education has played a significant role in their national development are Japan, the United States, and Taiwan. Japan's remarkable industrial development since World War I was made possible by its very significant prior increase in agricultural productivity during the Meiji Era (1862-1912). Much of its early rise in agricultural productivity was attributed to its system of compulsory education (since 1872)-which emphasized practical and applied education-and from establishing its own experiment stations, agricultural schools, and extension services. This total government investment in social overhead facilitated the development, dissemination, and adoption of improved agricultural inputs and technology.

A parallel and even more successful model of agricultural education and national development was begun with the signing of the Morrill Act in the United States in 1862. This Act created the American land-grant colleges which became the foundation for developing a very efficient institutional infrastructure for promoting agricultural and rural development. Subsequent legislation created
additional land-grant components; namely, the Hatch Act in 1887--creating a national network of agricultural experiment stations; the Smith-Lever Cooperative Extension Act of 1914; and the Smith-Hughes Act of 1917 which, in part, supported vocational instruction in agriculture at the secondary school level.

The land-grant system--through agricultural instruction, research, and extension--has enabled the United States to become the world's largest exporter of agricultural products. The growth of American agriculture has led to the development of a massive agribusiness complex which is capital intensive and labor efficient. As a result, only 3.5 million persons, or four percent of the total U.S. labor force, are directly engaged in farming. Over the past century this system has also enabled millions of people to leave the farm and rural areas for urban employment in the nation's commercial, manufacturing, service, and related industries.

Over the years, U.S. land-grant colleges and universities have actively shared their agricultural expertise with other nations in an effort to help them achieve the production necessary to feed their own millions. This assistance was recognized by the U.S. Congress in 1975 by passing the International Development and Food Assistance Act. Title XII of this Act gives land-grant universities a much more active role in overseas agricultural assistance. Hence, international assistance has become a "fourth dimension" (after teaching, research, and extension) of the land-grant system.

Taiwan is one of the countries which has successfully adapted some of the U.S. land-grant infrastructure to meet its agricultural development needs. This island nation has received much recognition during recent years for its extraordinary agricultural, economic, and human resource development, especially since World War II.

In the case of Taiwan, two distinct stages of agricultural development are involved. The first stage, between 1895 and 1945 while under Japanese control,
witnessed the introduction and extension of modern technology. The Japanese promoted the large-scale development of water resources, transportation and communication networks, cadastral surveys, vocational education, and related infrastructural features essential for economic development. However, much of the success of the Japanese developmental efforts in Taiwan during this period was attributed to the educational levels of the Taiwanese. About 71 percent of Taiwan's school age children were in school in 1945 and approximately 80 percent of the total population were literate. Moreover, education under the Japanese colonial administration placed a heavy emphasis on vocational training, particularly in agriculture; e.g., over two-thirds of the secondary schools in Taiwan during the forties were vocational schools.

During the second stage (post-World War II) of Taiwan's impressive economic development, the incentive to agricultural development was provided by a well planned and implemented land reform program. This incentive led farmers to intensify their labor, capital, and educational investments. Again, one reason the Taiwanese farmers responded so favorably to land reform was due to their educational background which included considerable practical knowledge in the techniques of food production. This, coupled with a high degree of rural organization which was strengthened with the assistance of U.S. land-grant specialists, enabled densely populated Taiwan to implement a very successful land reform program within a five-year period (1949-1953) without a consequent decline in agricultural production.

A summative analysis of the three countries cited and a review of other successful developmental case studies indicates that a country's agricultural and/or rural area contributes to national development in several ways. It can provide:
1. A labor market of educated and dedicated manpower.
2. A built-in social security system.
3. A place to care for the aged.
4. Food for the population.
5. Raw materials for processing and industry.
6. Exports which create foreign exchange to spur other development.
7. A degree of stability and security to oftentimes remote border areas with other nations.

In addition, a sound system of agricultural education can provide rural leadership, a mechanical "literacy" as well as a verbal literacy from the lowest levels, an appreciation of work—which is sometimes dirty—and working with one's hands, a practical understanding of applied science, an understanding of entrepreneurship, and a knowledge and understanding of how to manage the environment in a productive and ecologically sound manner.

Some Cautions in Segregating Agriculture

A nation's agricultural education cannot be adequate unless it is integrated into the country's total educational system. Because development has been achieved by specialization, there is a tendency to segregate agricultural education programs into separate institutions. This trend is beginning to present a problem at the secondary and higher education levels in several developed nations—including the United States—where a relatively small percentage of the total population is actually engaged in agriculture. This situation has led educational leaders and curriculum planners in the United States to allocate resources for agricultural education on the basis of the percentage of the total population engaged in agriculture rather than on the importance of agriculture to the United States as a nation and as a world leader. The consequences are "land-grant elitism," on the one hand, where a relatively few agricultural colleges and universities are involved
primarily with high level research, and on the other hand, large numbers of secondary schools and colleges offering so-called comprehensive and/or liberal arts curricula practically devoid of agriculture and the applied sciences. Agriculture is a field of study which is too vital to be segregated from general education and relegated only to programs of vocational education or professional career preparation.

Professor Hutchinson\(^7\) notes that in both Great Britain and the United States "the need for education in applied biology and economics, the essentials of an agricultural education, is large and growing." He claims that "if agricultural education had been developed on broad educational lines, rather than as professional training for the practice of agriculture, it would have been natural to shift its emphasis to meet changing needs." The needs to which he refers are the new biological needs of predominately urban communities.

The American land-grant system evolved from a period when most of the U. S. population was in some way rooted to agriculture. During the late 1800's and the first half of this century most people in the United States were either engaged in farming, had recently migrated to urban areas from the countryside, or at least had parents who were familiar with farm life and the problems of agriculture. However, this is no longer the case. Most people in the United States today -- and in many other developed nations as well -- have little or no knowledge about, or understanding of, where their food and fiber comes from. Yet, they have a collective voice in influencing governmental policies on both domestic environmental and food production issues, as well as on foreign assistance programs to food deficit nations.

While the average American has been losing sight of his or her agricultural know-how and rural resourcefulness, the land-grant colleges and
universities have been developing their agricultural technology with increasing levels of complexity and sophistication. This has led to a serious communications gap -- with regard to the application of agricultural knowledge -- between agricultural scientists and the general public.

**Needed: An Expanded Role for Agricultural Education**

The key to bridging the chasm between agricultural research and a better informed general public with regard to agriculture and the applied sciences is a much stronger commitment on the part of agriculturalists, educators, and governmental leadership to include agriculture as an integral part of any comprehensive educational program. At the present time, the curricula of most secondary schools in the United States are devoid of agricultural content. A similar situation prevails in the nation's elementary schools and liberal arts colleges.

In contrast to curricular offerings, interest in agriculture among adolescents and college-age people has shown a significant upturn during the 1970's, as evidenced by rising enrollments in colleges of agriculture. Meanwhile, there seems to be a reluctance on the part of school officials and college administrators to offer programs in agriculture which are not vocationally or professionally career-oriented.

Agriculture is the leading industry of the United States. Food and fiber are the most important commodities required by the human race. With world food supplies in short supply, it is time to reorder the curricular priorities of the American educational system. Agricultural education should become an integral component of a comprehensive education at every educational level. Learning to read, write, and do arithmetic is of little use unless it leads to a full stomach.
BIBLIOGRAPHY


7. Hutchinson, Joseph. See entry 3 above.
ABSTRACT

It is suggested in this paper that educators give serious thought to boarding schools to help reduce the cumulative achievement deficit between most middle and lower class children in the United States. The author recalls his own experience with boarding schools in Nigeria, reviews the ineffectiveness of compensatory education in America, and summarizes the history of residential schooling in Europe and North America. It is pointed out that many of the privileged in this society have long enjoyed the alternative of boarding schools while the only residential institutions available to most of the poor are the armed forces and the public jails.

INTRODUCTION

As a teacher in the Peace Corps in the early 1960's, this writer was a witness to impressive changes in the cognitive skills of secondary boarding school pupils in rural Nigeria. Typically, when these students entered secondary schools in their early teens, they were barely literate and were even unaware that the earth is a sphere. At the conclusion of their secondary schooling some five years later, however, the majority of these Nigerian children passed the West African School Certificate Examination (W.A.S.C.), a sophisticated battery of tests from England that measured proficiency, based on British norms, in such areas as English Literature, Algebra, history, and physics. This author left Nigeria with the impression that most Nigerian pupils upon completing the W.A.S.C. had surpassed the average American high school graduate in academic achievement and with the belief that proper schooling was capable of compensating for the environmentally determined differences in the measured cognitive growth of various cultural and socio-economic groups.

Following the Nigerian experience, this writer spent several years teaching in American urban schools in compensatory education programs for children from low income families. Despite the many changes in methodology
and curriculum, it soon became obvious that these programs were having little measurable effect on increasing the mean achievement growth rate of the participants relative to the growth rate of most middle class children.

Because of these cross-cultural experiences and a recognition of the disappointing results of the evaluations of many other compensatory education programs, a question that has often come to mind is why schooling was so effective in accelerating the achievement of Nigerian children and so ineffective in producing similar results with most underachievers in the United States. Possible explanations may involve the relative absence of a "culture of poverty" and racism in West Africa, the greater tangible rewards afforded Nigerian children following secondary school graduation, the fact that Nigerian secondary schooling is not universal and the effect this situation may have on genetic selection, and the reality that the passage of the W.A.S.C. offered a long-term competency based academic goal. But perhaps the most important explanation for the superior achievement growth rate in Nigeria is that the vast majority of the Nigerian secondary school pupils lived at the schools they attended. Residential schooling permitted Nigerian educators to have substantially greater influence on the cognitive growth of children outside the classroom than teachers normally have in the United States.

In this article, the author will review some of the research on compensatory education in America followed by an historical summary of the role that boarding schools have played in many other societies. The paper will conclude by glancing at the current status of boarding schools in the United States, and suggesting that some form of residential schooling be made available for children from low-income families.

THE EVALUATION OF COMPENSATORY EDUCATION

With one exception, the major national evaluations of compensatory education and the effects of schooling on achievement published in the lat-
ter half of the 1960's suggested that neither "enrichment programs" nor more conventional approaches were doing much, if anything, to narrow the mean cumulative deficit in achievement between lower-class and middle-class children.

A glance at the findings of the one evaluation that did offer some optimism, at least initially, should give the reader a "feel" for the arduous tasks confronting educators in their efforts to compensate for the totality of a child's social milieu in a six hour school day.

Since most of the national studies attempted to measure the impact of diversified instructional methods on a large heterogeneous population, it was conceivable that significant gains produced by appropriate instruction for some children were being neutralized by the insignificant and even negative effects of inappropriate instruction for other children. Public education in the 1960's was often characterized by a rather exciting array of innovation and experimentation. Consequently, a lumping together of achievement data from compensatory enrichment programs that were beneficial to some, meaningless to most, and even detrimental for others produced what may be called a "canceling effect" that distorted the real effectiveness of some schooling. Accordingly, a logical alternative strategy employed by the Office of Education for assessing the effectiveness of Title I of the Elementary and Secondary Education Act of 1965 (E.S.E.A.) was to search the country for exemplary educational programs. Once identified, these programs would prove compensatory education could work and would serve as models.

In 1967 the Office of Education commissioned the American Institute for Research in the Behavioral Sciences (A.I.R.) in Palo Alto, California, to begin an extensive search for Title I programs that were producing greater than a month of learning for a month of instruction achievement gains. Following A.I.R.'s 1968 and 1969 publications of its findings, the Office of Education was encouraged enough by the results to release a pamphlet in
1970 entitled the It Works Series, which described each of the exemplary programs from pre-school through secondary school identified by A.I.R. Although A.I.R. had found only 31 successful programs out of over 2,000 reviewed, the Institute had been able to state what the investigators could not: Somehow, somewhere, things seemed to be working.

The optimism associated with the first two A.I.R. reports subsided considerably following its third and final published search for exemplary programs. Released in 1971, this report did identify ten additional successful programs (making a total of 41 exemplary programs in the three studies) but it also included a follow-up study of model programs selected in the earlier publications. At the elementary and secondary school level, only 6 of the original 21 had continued to produce educationally significant gains (1:1 or greater). At the pre-school level a higher percentage (3 out of 10) continued their success, but by 1971 these results were hardly impressive. Recent evaluations of Head Start and associated early childhood programs had revealed impressive initial gains in I.Q. followed by an almost complete fading out, usually by the end of the second grade.

It would be unfair to suggest that only 6 of the more than 3,000 programs reviewed by A.I.R. in the three studies were really successful for more than a single observation, for the rather rigid criteria demanded by the Institute forced A.I.R. to dismiss a majority of the programs for lack of adequate "hard" data. Indeed, only 11 of the 21 original exemplary elementary and secondary programs could provide useful data in A.I.R.'s follow-up study. It is difficult to escape the impression, however, that if a sizeable percentage of disadvantaged children in America were actually benefitting cognitively from enrichment programs, far more than 6 would have been able to provide A.I.R. with adequate data for more than a single year.

Before we give up on the public day school's ability to compensate for the exigencies of economic poverty, it should be pointed out that the very
few exemplary programs identified by A.I.R. tended to be well-structured with specific cognitive objectives and that such prescriptive programs seem to be extremely atypical of Title I projects. In the 1970's the Center for Educational Policy Research at Harvard and the RMC Research Corporation have produced some evidence suggesting that certain well-structured programs may permit disadvantaged children to keep pace with their more affluent peers for a short period. Therefore, if a significantly greater percentage of compensatory educators adopt the more structured cognitive models and deemphasize the more affective "whole child" approaches, we may find greater evidence that the schools are arresting the cumulative deficit.

At the moment, however, the disappointing final chapter of the initially encouraging A.I.R. Research Series serves to underscore our need to give some serious attention to alternatives to the present structure of American education to reduce the progressive achievement gap between most middle and low income children. It is important for educators to pay closer attention to Christopher Jencks' contention that as long as the schools in our society continue as "marginal institutions", progress toward any significant reduction in the inequality of educational achievement is likely to be "glacial". Most of the research on schooling in our pluralistic society seems to suggest that any significant reduction in the inequities in achievement which can be attributed to environmental conditions will depend upon the extent to which we reduce the inequities of these environmental conditions. Jencks' socialist remedy, suggested in Inequality, is largely a political alternative. Constructing boarding schools which have a profound influence on the social milieu of poverty-stricken children provides a greater educational alternative and should deserve our closer attention.

BOARDING SCHOOLS

Traditionally most boarding schools have been institutions for the privileged. During antiquity children of wealthy Egyptians of the New Empire
were frequently educated away from home beginning at age five in either the royal palace or a government department in preparation for careers as state officials. 17 In Sparta those children who were physically fit were taken from their families at age seven and trained in military camps until they were eighteen and ready to take up the sword. 18 During the Middle Ages in Europe, children of the well-to-do, destined to serve at court, would take up residence and be educated at the lord's household, 19 and Christian parents of means who wished their children free of the influence of a pagan world offered their children to the monastery. 20 In the later Middle Ages (12th, 13th, and 14th centuries) the castle served those prominent nobles who felt that residence at the court from the age of seven to maturity would provide superior education for their children. 21 During the Renaissance and Enlightenment, resident schools were often associated with many of the leading educators of Europe from the Vittorino da Feltre's court schools of Italy in the middle 15th century 22 to the Swiss-born Heinrich Pestalozzi's experimental boarding schools of the early 19th century which attracted scholars from all over Europe and influenced education throughout much of the Western world. 23

In England and the United States boarding schools continued to serve the well-to-do. Throughout the nineteenth century and up to and including today, the elite in Great Britain have generally been products of preparatory primary schools and the public secondary schools, both of which are largely boarding institutions. In this country the first secondary schools, the Latin Grammar Schools of the 17th century, boarded the sons of the privileged from ages 8 to 18. 24 Shortly after 1750 the Latin Grammar schools began to give way to the newly-founded academies, which by 1850 were offering a more practical curriculum to over 250,000 students in over 6,000 institutions throughout New England, the middle Atlantic states, the South, and the Upper Mississippi Valley. 25 In the early 20th century boarding school enrollments
began a dramatic decline. Still, in 1973, Porter Sargent's The Handbook of Schools listed nearly 300 independent boarding schools in the United States, most of which are rather expensive and, like most of their counterparts throughout American history, are reserved for people of considerable means. It is this author's opinion that it is extremely unfortunate in the United States that boarding schools are still available for the well-to-do, while the only residential institutions available for most of the poor are the armed forces and the public jails.

In this country we should offer many poverty-stricken people public residential educational alternatives to the ineffective day school. It would seem that in order for boarding schools to be successful in any substantial reduction of the achievement deficit, they would have to create an environment that permits children to become imbued in the cognitive processes of the dominant American culture. Inevitably, this procedure would undermine many of the social norms and habitual practices of the sub-cultures of poverty. In order to prevent cultural genocide it would be important that representatives of the various sub-cultures have control over the design of the residential environment. Accordingly, these persons could include in the boarding school atmosphere both the critical cognitive environmental variables characteristic of the dominant culture and many of the environmental processes from the children's sub-cultural background. For example, the boarding schools might want to employ staff members who can address children in both standard American English and black English vernacular. Similarly, the books, periodicals, and educational games that may be available would not have to mirror similar artifacts in typical middle class homes, but reflect much of the cultural heritage of a specific minority group. Of course, if parents for some reason did not like the environmental design of the boarding schools they would simply choose not to enroll their children.

Today in other parts of the world some governments are offering resi-
dential alternatives to segments of the population traditionally excluded from boarding schools. Boarding schools in the Soviet Union for children of "difficult character educability" have been available for some time.\textsuperscript{26} Israeli experimentation with residential education on the kibbutz is well known. In addition, boarding schools are common not only in Nigeria but throughout much of sub-Saharan Africa.

In light of the apparent success that boarding schools have had for many years in the education of the privileged and more recently in countries like Nigeria in the education of the less fortunate, it is important for educators in this country--bewildered as so many are by the apparent failure of the day schools to redress the exigencies of economic deprivation--to begin giving serious attention to boarding schools as one possible strategy to promote a greater equalization of academic achievement.

\textbf{NOTES}


3 Ibid.

4 Ibid.


7 Hawkridge, \textit{op. cit}.

8 Wargo, M.J., et. al., \textit{Further Examination of Exemplary Programs for Edu-}
A.I.R.'s criteria for a successful program was greater than 1:1. But in the 1971 follow-up report an exemplary program could also be "moderately successful" with achievement gains at but no greater than 1:1.

The six A.I.R. programs that enjoyed continual success were Intensive Reading Instructional Teams, Hartford, Conn; Programmed Tutorial Reading Program, Indianapolis, Indiana; Project R-3, San José, California; After School Study Centers, New York, N.Y.; Summer Junior High, New York, N.Y.; and College Bound Program, New York, N.Y.

It is interesting to note that the last 3 of the 6 listed programs work with pupils beyond the regular schooling period. In the case of College Bound, an 11 month program, A.I.R. judged it successful only during the summer. Conceivably, motivational effects stemming from the home are partly responsible for the success of these New York projects.

Intensive Reading Instructional Teams and Programmed Tutorial Reading are highly structured first grade programs with impressive achievement gains. There is some evidence, however, that this approach in the 1st grade is no more likely to have a lasting effect on achievement than have the numerous highly structured pre-school programs that have reported a fading out of initial gains. Through private communication with one of the founders of the Programmed Tutorial Reading, Douglas J. Ellson of Indiana University, the author obtained a copy of an unpublished four-year follow-up study of the program (D.G. Ellson, "The Effect of Programmed Tutoring in Reading on Assignment to Special Education Classes: A Follow-up of Four Years of Tutoring in the First Grade", Indiana University, July 1971). According to Ellson "...four years later the differences between children who were tutored and those who were not had disappeared." (p. 28)

10 Wargo, op. cit.


12 Wargo, op. cit.

13 Ibid.


15 Foat, C.M., Selecting Exemplary Compensatory Education Programs for Dissemination Via Project Information Package, RMC Research Corporation, Los Altos, California (Published in ERIC) (August 1974) ED 099 456.


21 Adamson, op. cit.


Although it is as large as France and contains some of the world's richest deposits of diamonds, copper, nickel, and coal, the name Botswana is hardly a household word, even in Africa. Bedeviled by many of the problems which beset today's developing countries, this seven year old landlocked nation also finds itself encircled by what is left of hostile white Africa, by Rhodesia to the north and by the Republic of South Africa to the east, south and west. Only at one point across the Zambezi River does it have access to black Africa and there only by ferry to Zambia. Its 220,000 square miles are more than ample space for its 700,000 inhabitants, but the land is parched and dry, much of it the Kalihari Desert, and its people are generally poor and undereducated. Nevertheless there is great hope for Botswana. Recently discovered mineral resources provide the possibility of a solid local economic base; the scars of colonialism, relatively light by African standards, have made black-white relations also relatively easy; and during its brief independence the country has enjoyed creative administration and domestic tranquility. Botswana has indeed made remarkable progress towards achieving its four major goals: democracy, national unity, development, and self-reliance.

The crisis will come, however, as the honeymoon period of independence expires, when expatriates leave and locals are called on to fill not only their places but newly created ones in the expanding economy, and when the current local leadership passes the reins on to younger people. One question which vexes the nation's educators and development planners is whether enough
trained manpower will be ready, and another is how committed that manpower will be to Botswana's announced goal, the creation of a unified, self-reliant, non-racial democracy which will provide economic and social justice for all. What concerns me as well as many Botswana is the degree to which the nucleus of this new leadership, the present generation of Botswana University students, actually has this commitment.

In January 1974, while I was serving as Chairman of the Department of Education at the Botswana campus of the University of Botswana, Lesotho, and Swaziland, I administered an unsigned questionnaire to the entire local student body. Its aim was to provide some assessment of the students' values in five general areas: 1) **Elitism**: the degree to which and the dimensions in which students regard themselves as servants or beneficiaries of the country, the extent to which they see themselves now and in the future as members of a special class within the body politic. 2) **Prejudice**: the extent to which they accept or reject three major racial minorities in the country, Bushmen, Whites, and Asians (Indians). 3) **Traditionalism**: the extent to which they retain or reject selected aspects of their cultural past. 4) **Authoritarianism**: the extent to which they identify with power and approve of dichotomous, hierarchical, exploitative social relationships. 5) **Anomie**: the degree of optimism or pessimism they have about the future and their ability to influence it. The 138 Botswana nationals who completed the survey responded positively or negatively to 68 statements, making a forced choice in one of four categories: Agree Strongly, Agree, Disagree, and Disagree Strongly.

**Elitism**

In their reactions to several of the questionnaire's statements, Botswana students tend to take a personal stand in favor of the democratic, anti-elitist values espoused by their new nation. For example, an overwhelming number, 95% of those responding, agree that when a U.B.L.S. student who comes from
a rural village graduates and takes a position in town, it is not right for him/her to give up old village friends for others who have jobs and education more like his/her own. Nor do they feel (76%) that a U.B.L.S. graduate should discount as a potential marriage partner a mate who has not finished at least secondary school.

More elitist, however, are these positions which students take. Roughly half of them (48%) object to being asked to share a University hostel room with another student. Roughly the same number say they would object if on graduation they found themselves living in a lower or lower middle class area of the capital. Overwhelmingly they (78%) feel that the government has an obligation to pay all their expenses as students, and they are almost unanimous (94%) in feeling that government should provide them with paid vacation jobs. To be expected during holidays to do unpaid village development work they (75%) would regard as an imposition. Even as bursary recipients, 65% would resent during the school year being asked to do part-time clerical jobs; even more of them (78%) are opposed to doing manual work, and 71% feel no obligation after graduating to reimburse government for the cost of their education.

Prejudice

Students also affirm verbally the country's declared policy of non-racialism. However, as with their support of self-reliance and anti-elitism as general principles, their devotion to non-racialism breaks down considerably when they face concrete and personal situations. In such circumstances latent ethnic and racial antagonisms often rise to the surface, particularly when students see an immediate, personal economic stake involved. Also, the study suggests, in their attitudes to four out-groups, members of other Botswana tribes, Bushmen, Asiatics, and Whites, students harbor a different sense of affinity or alienation.

Towards tribal outgroups, it is interesting that the Botswana show none of the fierce rivalry which characterizes other African countries. 72% of them
say they would draw no distinction on tribal grounds in their choice of roommate, and 84% say they can rely on members of other tribes as much as they can rely upon members of their own. Their other responses suggest only a mild brand of tribal parochialism, no serious divisiveness that would inhibit their ability or desire to achieve national unity.

Towards Bushmen, the country's largest underprivileged ethnic subgroup, the students are generally positive. 77% deny the stereotype that Bushmen are lazy, ignorant, and without self-control, and they affirm that the time is now ripe for social, economic, and educational integration between the groups. The high degree of positive affect students express towards Bushmen, however, may call for some discounting in view of the fact that few of them have had any real contact with the country's aborigines, most of whom eke out their existence in the remote Kalihari. For some of the same reasons that U.S. young people have taken up the banner of the American Indian, it may be that Botswana students have taken up the Bushman cause.

On the other hand, with respect to Asians (Indians), students show no such positive affect. 75% of them condemn Indian residents with the sweeping epithet "Asiatics are all alike". Not only do they believe that Indians monopolize business opportunities in the country, but that Asians stick together and make a neighborhood undesirable for Africans. Such is the case in spite of the fact that the Indian presence in the country is very small, that Asians have settled throughout the land rather than in self-contained blocs, and that the students' personal contacts with them have been minimal.

Towards whites, or Europeans, as they are called, students' animosity is not quite as sharp as that they express towards Indians, but its existence is clear nonetheless. 44% of them agree that "Whites are all alike." European teachers in Botswana schools they (84%) are convinced are inferior to Africans; in fact
they (73%) regard Europeans who serve in the country as incompetent, or at least not competent enough to hold comparable jobs in their home countries. In fact, they feel that regardless of whether a non-citizen is more qualified, he should be replaced at once whenever a Botswana satisfies even minimal requirements for the job.

The survey data appear, then, to suggest that while Botswana University students are relatively unbiased towards members of tribes other than their own and are sympathetic to the Bushmen, even romanticize their plight, these same students are pre-disposed to reject white and Indian residents as highly undesirable. This mixed response to "perceived aliens" suggests that the students' (92%) resounding affirmation of their country's non-racial policy is in many respects rhetoric rather than reality.

Modern Vs. Traditional Orientations

Botswana's students, like many Africans, find themselves straddling two societies, two sets of values and customs, those of the tribal, agricultural village environment and those of a modernized, urban lifestyle which has come with the country's recent industrial development. In terms of the areas which the questionnaire taps, it appears that Botswana students generally lean toward modern or Western, values and customs when forced to choose between them and traditional ones. That choice, however, is hardly uniform.

By a small majority (56%) students voice their preference for Western cooking. When it comes to questions of sex and mating, youth, as might be expected, also show their preference for modern over traditional ways. Most of them (72%) approve of pre-marital sex, despite both tribal and Christian injunctions against it. Few of them would lose respect for an unchaste bride, and most say that the old custom of bogadi, bride price, should be abandoned. Most prefer that the medium of instruction in schools continue to be English rather than Setswana.

On the other hand, and perhaps surprisingly, while students may approve of a
non-authoritarian educational administration, at the same time they want no di-
lution in the authoritarian power structure of the family; 73% of them state that
the most important thing to teach children is unquestioning obedience to parents.
In the field of medicine, again the students' traditional-modern ambivalence mani-
fests itself unmistakably. For at least twelve years they have been exposed to
clinics, hospitals, and a modern school curriculum with its stress on rationality
and the scientific method. Nonetheless, half the students have as much faith in,
the traditional healers, the dignaka tsa Setswana, as they have in the scientific
medical practitioners.

However upwardly mobile or Western-oriented they may be, Botswana students
continue to subscribe to the strongly cohesive family unit which, as they see it,
hinges on obedience to a dominant father. The traditional healer they feel is at
least as helpful as the doctor trained in scientific medicine. While these views
may reflect a traditional orientation, at the same time students tend to reject
traditional food, their indigenous language, the use of corporal punishment, the
practice of bride price, traditional sex mores, and authoritarian leadership style.
In conflicting responses such as these they appear to demonstrate their ambivalent
position on the general modern vs. traditional issue which plagues a society in
transition.

Authoritarianism

The items on authoritarianism show a confused picture. On the one hand
students (78%) evince democratic sentiments in seeing no necessity for a good
leader to be strict, in losing no respect for a woman who has had pre-marital
sex, and in being opposed to the whipping of sex criminals. On the other hand,
they (62%) feel quite comfortable dividing people into two categories, the weak
and the strong. They also feel that parents should demand absolute obedience
from their children.
Anomie

As defined in this investigation, in the case of an individual, anomie includes a rejective orientation towards minorities and a rigid categorization of out-groups, a sense that community leaders are unconcerned with the individual's needs, that the social order is unpredictable and deteriorating, and that personal relationships are unreliable. What these components point to is a sense of detachment from society. In these terms Botswana students appear to be highly anomic. While few (35%) of them are ready to subscribe to the proposition that one must live for today and let tomorrow take care of itself, most (59%) do not see much hope in the future; in fact, they (58%) see the future so black that they would hesitate to bring children into it. Not only do they (66%) find public officials unresponsive but they (73%) feel hard pressed to find anyone in whom they can place confidence.

These attitudes may, of course, prove to be transitory, but they suggest at least seeds of a malaise among Botswana's university students, one which the country's development planners and educators should be aware of as they proceed to select Botswana's future leaders and design training programs for them.

NOTES

1 Latest figures (Report on the Population Census, 1972, p.12) report a population of 671,379, which figure includes nomads, other residents not enumerated, and absentees. It is estimated that by the year 2001, this will increase to somewhere between 1,000,000 and 1,245,000. See National Development Plan, 1973, p. 12.

2 In 1972 Botswana's gross national product of $150,000,000 left a GNP per capita of $240 cf. a GNP per capita of $380 in Zambia, $880 in Gabon, $850 in the Republic of South Africa, $1530 in the USSR, and $5,590 in the US. (World Bank Atlas, 1974, p.7). The shortage of cash work opportunities and the difficulty of making a living off the land are reflected in the fact that half the Botswana who find paid employment are forced to do so in the mines, farms, and factories of South Africa (Botswana National Development Plan, 1973, Part I, p. 85). For figures on current educational levels and needs see Tables 7.6 and 7.7 in the same document.

3 Citizenship is legally open to all residents of Botswana but is diffi-
cult to obtain, regardless of an applicant's race or nationality. Although figures are not available, there are many whites and a few Asian citizens. The holding of citizenship itself appears to have little influence on the approach "native born" Botswana have to individual "perceived aliens", white, black, or Asian.

4 The value-orientations to which I refer are similar to those often identified as "achievement", "American", or "Western". These are values and beliefs like faith in science and man's ability to shape his own destiny, future mindedness, and independence from family and traditional authority. For amplification see Kahl, 1965, Kluckhohn and Strodtbeck, 1961, pp. 24ff, and Nisbet, 1969, pp. 191, 2, and 5.

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SIGNIFICANCE OF CHINA'S DEVELOPMENT

The task of national development in China is unprecedented in scale, scope, and intensity. In scale it involves 800 million people, i.e., one fifth of the population of the entire world. In scope, development is conceived of in the broadest sense. It is not confined to economic development alone, but encompasses reconstruction in the political, social, cultural, and personal dimensions as well. The degree of intensity in carrying out the development task may be best characterized by the Chinese slogan, "going all out, aiming high and achieving greater, faster, better, and more...results in building socialism." These words are being actually practiced in the daily life of the hundreds of millions of Chinese. What is of interest to us as educators is that the key role in achieving this mammoth task has been assigned to education. Its success or failure will have implications for the policies of education for development in many Third World, as well as developed, countries.

CHINA'S NATIONAL GOALS

Like all communist states China professes its ultimate goal to be the Marxian utopia of a classless society. At present, however, she is building socialism and consolidating the "dictatorship of the proletariat" as represented by the Communist Party. In the Preamble of the new Constitution adopted in January, 1975, it is conceded that the socialist society will cover a considerably long historical period in which there are classes and, therefore, class struggles. Hence, adherence to the principles of Marxism/Leninism/ Mao Tsetung Thought is strongly emphasized. In other words, China's first goal is to attain purity in ideology, with Marxism/Leninism as the theoretical base and Mao Tsetung Thought as the practical ideology in guiding the imple-
Mentionation of national policies. Her second important goal is to achieve a broad-based and balanced economic development. The industrial sector is to bring China to the front rank among the world's industrialized nations without neglecting adequate provision of consumer goods. The agricultural sector is to achieve self-sufficiency in food supplies and increasingly improved diet for the entire population. Her third goal is the sophistication of a defense system which can assure national security and sovereignty. Finally, China wants to bring about a moral and psychological transformation in her people through socialist ethics and education.

MAO TSETUNG THOUGHT

Mao's practical ideology provides norms of behavior and guidelines for actions to attain the above national goals. There are several basic notions which need to be understood before the panorama of China can be comprehensible:

(1) Egalitarianism, which is implied in the ideal classless society, is believed to be desirable and attainable (e.g., pay differentials, hierarchy in status of occupations, gap between rural and urban development should be reduced to a minimum).

(2) Based on a Marxist dialectic principle, all concrete contradictions could be resolved by the "unity of the opposites". (e.g., the contradiction between the cost and quality in the production of bicycles could be resolved by a technical innovation which takes the two factors into consideration) Hence, this principle becomes an important motivating force to overcome the plethora of obstacles to reconstruction for the Chinese people. Of all Mao's works, "On Contradiction" is the most widely and intensively studied piece. Daily the people try to wring from it solutions to their problems.

(3) Insistence upon adherence to the "mass line" is characteristic of Mao's way to implement democratic centralism. Within the framework of a single correct ideology and central planning, governance, and evaluation (e.g.,
the Revolutionary Committee which is the administrative body of all units in society, whether in the commune, factory, or school is composed of representatives of people at the grassroots as well as of the professional personnel and Party branch cadres, with the former constituting the majority.

The mass line is no tokenism in China. Cadres are constantly exhorted to adhere to it in their education and re-education. The gravest complaints against a cadre are isolation from the masses and authoritarianism in its "style of work".

(4) Self-reliance is another important category in Mao's Thought. It stems from the necessities of the Yanan period down to the present day's material constraints on development (e.g., the Production Brigade, a subdivision of the commune, should develop its local resources to feed its small scale rural industry in support of agriculture. External aid from higher levels should be only subsidiary).

(5) The slogan of "walking with two legs" is also central in Mao's thought. It means balanced development by making use of all available and useful resources. It can be applied on all fronts (e.g., educationally, formal balanced with informal education; industrially, state-run heavy industry balanced with local light industry; medically, traditional Chinese medicine balanced with Western medicine, etc.).

(6) The need for continuous renewal and raising of consciousness in the realm of ideology is couched in Mao's familiar phrase: "continuous revolution". The battles have to be fought in the individual's mind, values, world view, human relationships, and patterns of behavior through group dynamics. Hence, there are constant study and discussion groups, criticism and self-criticism meetings, and mass demonstrations and rallies related to ideological and practical policy campaigns.

CHINESE CONCEPTS OF EDUCATION

The term "education" is given the most comprehensive interpretation.
Besides the regular school system, there is a larger alternative system of spare-time and part-time education. Moreover, informal mass education is of paramount importance. It includes all the mass media, all forms of art, all group activities and mass movements as mentioned at the end of the above section. Productive labor is an integral part of the educational process. It is inclusive of all people, old and young, men and women, the schooled and unschooled, the employed and unemployed. It is closely integrated with the official ideology and development goals. Its role is to serve the people in their socialist reconstruction. In short, education is life itself in China.

PROFESSED EDUCATIONAL POLICY

Chapter 5 of the Common Program, the tentative constitution in effect until the adoption of the official constitution of 1954, delineated the educational policy in nine articles. The following are excerpts of significant points:

Article 41. The culture and education of the Chinese People's Republic are...nationalistic, scientific and popular...

Article 43. To develop rigorously the natural sciences, to serve construction in industry, agriculture, and national defense.

Article 44. To promote the application of the scientific historical point of view in the study...of history, economy, politics, culture, and international affairs...

Article 45. ...to awaken the people's political consciousness, and to encourage the people's enthusiasm for labor.

Article 46. The educational method...is the unity of theory and practice...to reform the old educational systems, educational contents and teaching methods.

Article 47. To carry out universal education...to reinforce secondary and higher education; to put stress on technical education and to strengthen spare time education for working people as well as education for cadres
in service, and to provide young as well as old intellectuals with revolutionary political education.

ACHIEVEMENTS IN EDUCATION UP TO 1966

People's China lost no time to declare war on illiteracy through a pervasive system of spare-time adult literacy programs. Prior to 1949 over 90 percent of the population was illiterate, and among the industrial personnel it was about 80 percent. By 1966 the estimated national illiteracy dropped under 60 percent, urban illiteracy under 20 percent, and among industrial personnel it was about 10 percent. The nature of the Chinese written language makes it more difficult to acquire basic literacy than phonetic languages. The leadership tried to combat it in two ways. One was by romanization, used as a tool to aid pronunciation of the Chinese characters. The other was to simplify the characters by reducing the number of strokes. A list of 2,328 simplified words was published in 1964. A citizen is considered to be basically literate if he has acquired about 1,500 to 2,000 characters, enabling him to read ideological posters, newspapers, and directives.

For the very young, nurseries and kindergartens were operated by practically all units of enterprises and neighborhoods. Group activities were emphasized, and basic socialist values such as sharing, cooperation, self-denial, love for working people, and pride in their achievements were inculcated. Visitors to China are usually impressed by the spontaneous liveliness and evident health of the children. Childhood probably has never been so happy before for the masses of Chinese children.

The length of primary education was six years. Ideological molding permeated all regular subjects. Children in the upper grades began to take a foreign language, with English being the most popular. Since 1958 productive labor was added to the curriculum. Efforts were made to familiarize pupils with agricultural and industrial life through contents, visits, and even by working briefly at production sites.
Formal and spare-time education at the primary level was greatly expanded during 1949-1966. Enrollment in regular primary education jumped from 24 million to 130 million, while 13 million adults were enrolled in spare-time primary education programs in 1960.

At the secondary level, there were general and specialized schools, supplemented by spare-time programs. Prior to 1966 the six years of secondary education was divided into three years each for the junior and senior middle schools. They offered an academic program with political education and productive labor as important components. Emphasis was more on mathematical and scientific subjects than on humanities and social sciences. The great majority of junior middle graduates had to go to work and continued their education in spare-time programs. Enrollment in general secondary education jumped from 1 million in 1949 to 23 million in 1965, not including the number enrolled in spare-time primary education programs which reached 5 million in 1958.

A major source of skilled manpower was the system of specialized secondary education. There were two basic types--vocational and normal. The vocational schools offered specialized training in hundreds of fields of concentration which were directly linked to industry, business, and agriculture. The graduates were semi-professionals or technicians manning the intermediate level jobs. The majority of them were in the technical and industrial specialties. The normal schools were engaged in training teachers, who were in great shortage. Junior normal schools took elementary graduates and prepared them to teach the lower four primary grades, while senior normal schools trained teachers of all grades of the elementary school and kindergarten. The enrollment of specialized secondary education jumped from 228 thousand in 1949 to 1.4 million in 1959, without including the number enrolled in spare-time programs which stood at 588 thousand in 1957.

Institutions of higher learning included comprehensive universities, polytechnic institutes, specialized professional and technical institutes,
and research institutes. The comprehensive universities were interdisciplinary institutions offering a general education to produce researchers, scientists, and educators of high caliber. However, they tended to be somewhat specialized and applied in nature. Polytechnic universities typically offered five to ten specialties related to different branches of industry. These institutions were an important source of manpower. The specialized professional institutes, predominately engineering schools, were the major source of manpower for industry with a higher education. Their courses were more specialized and applied, relating only to a particular branch of industry. The smaller number of economic and finance institutions provided an important but limited source of high level managerial and white collar manpower for business and industry. In the mid-1960s China was the third largest producer and consumer of engineers in the world, after the Soviet Union and the United States. The weakest link in Chinese higher education was and is the social and behavioral sciences.

Before 1949 there were altogether only 207 higher educational institutions in China. By the mid 1960s there were about 400 regular institutions which included 20 comprehensive and 15 polytechnic universities, and the rest were professional and technical institutes. There was also a spare-time program with an enrollment of 400,000 in 1960. Ninety percent of China's higher-educated engineers and scientists have been trained since 1949. In fact, there was and is greater emphasis on technological and applied scientific training in China's higher education than in almost any other country.

Graduate education was and is in its infancy conducted by leading universities and the research institutes of the Chinese Academy of Science. In 1965 only one percent of the total number of college graduates were involved. 99 percent were assigned jobs to serve the state. Selected graduates were sent abroad to study, earlier to the USSR, and later to sixteen countries, including 102 to France and 25 to England.

The highest organ responsible for research on a national scale was the
Commission on Science and Technology which coordinated all researches
oversaw the Academy of Science, and important classified projects such as
nuclear weapon development. Dr. Arne Tiselius, Nobel Prize winner for chemi-
stray and president of the Nobel Foundations for years made the following com-
ments after a visit to China in 1966: "What I saw led me to believe that in
many places the Chinese are doing excellent work in bio-chemistry and funda-
mental medical research. They are making impressive efforts to build up and
intensify scientific research in general and they are also paying great
attention to practical application of their research to agriculture, industry,
and public health."

AN ASSESSMENT

It is appropriate to stop at the juncture of 1966 on the eve of the
Cultural Revolution to review the educational achievements of China under
17 years of Communism. The record was truly impressive for a developing nation
ridden with overpopulation, devastation from wars, poverty, illiteracy, and
century-old traditions. Education was realistically planned and practically
carried out on all fronts and at all levels. It reached the broadest range of
people, something unparalleled in Chinese history, and provided the majority
of them with literacy and rudiments of skills. The great expansion of secondary
and higher education produced the vast number of intermediate level and
sophisticated personnel to meet the urgent needs of national development as
well as long term goals. It borrowed much from Soviet Russia, but selectively
adapted to Chinese conditions.

It should also be pointed out that in spite of frequent vacillations of
policies (e.g., red versus expert) caused by struggles waged between factions
within the leadership with differing strategies for development and educa-
tional change, Chinese education had basically progressed along the lines
laid down in the Common Program.
EDUCATION AND THE CULTURAL REVOLUTION

However, Mao and his supporters were dissatisfied with the performance of the pre-1966 educational system. They found many grave faults in it. First of all, it was not egalitarian enough. Most of the beneficiaries were urbanites, while illiteracy and lack of educational opportunity still plagued the vast countryside. Secondly, it was not economical enough. The input for the expansion of the formal system could have been invested more productively in the flexible and mobile alternative system reaching out into the hinterlands. Thirdly, there was the emergence of an educated elite who used their schooling for self-advancement reminiscent of traditional scholar-gentry aiming for officialdom and losing contact with the people. Fourthly, the curricular content, heavily dependent on pre-revolution and translated materials, was in many ways not only irrelevant to China's needs but also contradictory to her ideology. Fifthly, the methods and process of education was still very traditional, characterized by rote memorization, blind acceptance of the authority of the written word, separation of the mind and hands, emphasis on examinations and selections, and authoritarian relationships between the teacher and the taught. Finally, academic and professional leadership, especially in higher educational institutions, was still mostly in the hands of intellectuals trained before the revolution. Their concern for academic scholarship and theoretical studies collided with the current educational emphasis of "levelling up and down" and "to learn first what is most needed."

Hence when Mao launched the great Cultural Revolution (1966-68), education was a central issue. On May 7, 1966 Mao issued the famous Directive on Education which served as the basis for all subsequent revolutionary activities in education even to this day:

...While their (students') main task is to study, they should, in addition to their studies, learn other things, that is, industrial work, farming, military affairs, and also learn to criticize the bourgeoisie. The period of schooling should be shortened, education should be revolutionized,
and the domination of our schools by bourgeois intellectuals should by no means be allowed to continue.

The Revolution began with the attack on the president of Peking University, who represented the "bourgeois leadership". College enrollments for 1966-67 were suspended by stopping the entrance examination which allegedly discriminated against youths of peasant/worker/soldier backgrounds. This marked the beginning of a two-year period during which the Red Guard student activists of all ages took to China's streets. In early 1967, three successive calls were issued by the central leadership, exhorting activist students and teachers to return to their schools to make revolutions there. They were told to do three things, "struggle, criticize, and reform". The first was to struggle against the reactionary academic authorities in the schools and to depose them. The second task was to expose and criticize the defects of the pre-1966 system. Finally they should reform the system under the guidance of Mao's Thought and his May 7 Directive. The revolution in the schools stalled at the first two phases of "struggle and criticism". It was not until May, 1969 that a draft outline of the reformed system of rural primary and secondary schools appeared in the People's Daily as an official guideline with considerable latitude for local variation. The severe struggles among the feuding Red Guards delayed the reopening of colleges and universities until 1970, after a four year suspension of classes.

THE REFORMS

By 1972 a general pattern of the reformed system began to be reported in the official media:

(1) Within the period of the 4th Five Year Plan (1969-75) universal five year primary education and seven year education where possible, would be introduced into the rural areas as quickly as possible. Teacher shortage would be ameliorated by recruiting resettled urban secondary school graduates, and other relatively skilled people. As to school management, poor and lower
middle peasants of the commune should be actively involved. After all, it was they who took up the burden of financing. Children would attend primary school within the area of their own production team, junior middle school students would attend school in their own production brigade, and senior middle school students in their own commune. State subsidies would be available for the construction of new school buildings in some areas, while the principle of "self-reliance" would be strictly observed.

(2) In the towns universal seven-year education, and nine-year education where possible, would be introduced. The latter comprises five years of primary education, two years of junior middle and two more years of senior middle school. Hence the 5-2-2 system of primary and secondary education would be the target to be universally institutionalized.

(3) Another new development was the nation-wide recruitment of worker-peasant-soldier students for enrollment in universities. Thirty leading universities whose new body of students would come from all over the country, each province receiving a fixed quota. Students at lesser institutions would come from within the province where the school is located. Under the new selection procedure, the candidate, who must have at least two years of working experience and a junior middle school academic preparation, submits his application for consideration and recommendation by the grassroots people of his working unit. Ideological soundness and positive behavior toward labor were primary factors for consideration. The next step is the approval by the county leadership, followed by interviews with the recruiting teams sent out by the colleges. As a result, the composition of the student body in higher education has been drastically changed in favor of those who come from families of workers and peasants. The graduates are expected to return to their original working units after completion of study, or to be reassigned to jobs according to societal needs.

(4) The curricula have been revised at all levels, with an increase in
political content, extension of productive labor, and military affairs. Peking University serves as a reformed model for comprehensive universities. All departments follow a general course plan: Marxism-Leninism and Mao Tsetung Thought, social and political economy, history of the Chinese Communist Party, international studies (history and politics of the Third World), composition, productive labor, and specialized subjects. Unlike technical students who can apply their theoretical knowledge in workshops and factories, these students of liberal arts are told to take the whole society as their "factory", a truly "school without walls" concept. Tsinghua University serves as the reformed model of polytechnic universities. To integrate theory with practice, professors and students have to go through actual engineering or construction processes to get first-hand knowledge. Such knowledge will be summarized later back in the classroom and supplemented with a theoretical framework which will then be written down as instructional material produced collectively. The student's time schedule is divided as follows: 75 percent classroom and theory, 15-20 percent political education, and 5-10 percent productive labor.

(5) Management of schools will be the responsibility of a Revolutionary Committee constituted with the "3-in-one" combination principle, i.e., it consists of representatives of the Party, the professionals, and the students. Participatory planning, governance, and evaluation are practiced.

(6) The most dramatic change is in the educational process. The teacher's role now is to guide and facilitate inquiry and learning on the part of the student. There should be "reciprocal learning" between them, hence eliminating the centuries-old "feudal tradition". The teacher is also held "totally responsible" for his students and measured by their "total collective progress". Since most of the new crop of university students have inadequate academic background, teachers are expected to give them special individual attention
and remedial help (true concept of accountability). Students are now to be treated as persons of consciousness and initiative, actively engaged in their own education. Thus teaching methods emphasize providing a "lively" atmosphere in which material could be "studied thoroughly and discussed fully and freely." Lectures are limited, devoted not to disseminate information but to outlining problems and suggested methods for their solutions. It is up to students to undertake self-study, consulting written sources, and carrying out experiments and investigations outside the class in search of answers. As to evaluation of students, take-home examinations are used to identify those who are in need of help to develop analytical and problem-solving skills. This new approach to learning is probably the most liberating effect the Cultural Revolution has had on the centuries-old tradition of Chinese education.

OTHER SOCIALIST INNOVATIONS

The above-mentioned reforms are mostly connected with formal schooling, but the Cultural Revolution brought about other innovations which are educational in nature:

(1) The down-to-the-countryside program was launched in 1968 and continues to be one of the key policies of China. It is concerned with the resettlement of urban middle school graduates in the vast rural areas. From 1968 to 1975 over twelve million have been resettled. It is a solution to absorb the greatly increased number of educated youth into the reconstruction efforts in the countryside. All kinds of measures have been tried to make the resettlement program work and to make it more palatable to the urban youth and their parents. For example, a linkage is established between urban factories and rural communes, enabling parents, through the units to which they belong, to play a larger role in the resettlement of their children. Newly resettled youths are provided special subsidies for the first year or so to alleviate the burdens placed on the communes while they are
adjusting to the new environment. Better orientation programs try to re-
assure both youths and parents before departure. Urban cadres are sent down
in rotation to stay with them for a period of time to give them guidance
and support. In cases where youths are settled far away from their home
cities, the latter periodically organize "comfort delegations" to visit
the youths. They are encouraged to find local spouses in order to take roots
in the countryside; some can even bring their parents and relatives with
them. Another experiment is to set up special youth farms where educated
youths can live and work together instead of being scattered in different
communes, thus avoiding direct competition with established peasants and
their private plots. Different kinds of incentives are provided for them:
correspondence courses run by regular universities, better eligibility
for membership in the Communist Party, promotion to leadership positions,
etc. They are encouraged to make use of their education in meaningful work
such as teaching in rural schools, running political study classes, or
organizing experiments in scientific farming, etc. When they have achieved
the status of peasant with a few years' labor, they may apply to their com-
munes for recommendation to the universities. However, higher education is
not a way out of the countryside, since the university graduates are expected
to return to their communes. As long as reconstruction of the vast country-
side and development of socialist agriculture are priorities in national
policies, educated youths are needed there until expanded industrialization
in urban centers call for additional manpower.

(2) Another innovation is the Worker and Peasant Colleges. The urban
model is the Shanghai Machine Tool Plant. Its previous spare-time middle
school has been transformed into a technical college to train advanced-
level technicians from among its own work force. New recruits are selected
from those who have at least 12 years of experience. The worker-technician
is trained specifically in terms of the needs of his factory. It is an in-
tensive in-service training to upgrade the cultural and technical level of existing personnel. In the curriculum, besides politics, productive labor, and military affairs, 80 percent of the time is devoted to technical studies. A final examination requires actual designing of one of the more complicated machines from drawing board to production line. Technicians in the plant and professors from nearby polytechnic universities serve as instructors. The length of the program is about 3 years.

The rural examples are the Socialist Labor Universities, which may specialize in agricultural training, rural technology, health care, or teacher training. They aim to upgrade a large number of local leadership of the communes. After one year of study, they return to their posts to do leavening work among their comrades. This kind of Socialist Labor Universities' model after the famous self-reliant Kang Ta (the former Anti-Japanese Military and Political College at Yenan, the basic pattern of Maoist conception of all-round education).

(3) The most refreshing innovation is in the field of medicine and public health. The slogan is "medicine to face the countryside". About 80 percent of Chinese doctors have spent some time in the rural areas. Ordinarily, 15-20 percent of all hospital professional medical staff are working away from their base hospital at any one time, on a rotating basis. A specialist will usually stay for 8-10 months in a commune, practicing his specialty and teaching his special skills to the doctors in the commune hospital. When his time is up, a specialist in another field will replace him. Many teaching hospitals will adopt a commune as an area of special interest. Great emphasis is placed on combining Chinese and Western medicine with a 40-60 split respectively between them in the medical college curriculum. The schedule of the shortened 3 year course is divided as follows: after the first four months spent in college, the whole class goes with teachers to the countryside in groups for the rest of the first year and most of the third.
The emphasis is on the study of rural diseases. The second year is spent mostly in the cities at factories and hospitals. Thus, the work of the college is integrated with the wider system of public health services, especially at the production brigade level. Medical services at this level rely greatly on the work of the celebrated "barefoot doctors." According to official definition, they are "peasants trained to give medical service locally, without leaving their farm work," thus they are very close to the peasants, knowing their ailments and health hazards. They are usually peasants with primary and middle school education who receive two or three months of elementary training at the county or commune hospital with refresher courses from time to time. They play a major role in health education against prevalent diseases, in raising level of community hygiene, and in giving minor treatment and first aid. Their contribution to the successful family planning education is inestimable. Hawkins in his most insightful study on this topic points out not only the impressive decline of birth rate and general population growth rate in China (estimated 1 percent compared with nearly 3 percent in the Third World) but also the effectiveness of using educational alternatives to achieve such a goal. China has successfully found solutions to the central, hard-core problems, i.e. overpopulation, in her national development through a network of nonformal educational efforts comprising the principles of the mass line, the raising of political consciousness, and the complementary development in the socio-economic-cultural sphere.

**IDEOLOGICAL EDUCATION AND DEVELOPMENT**

Ideological education is at the heart of all educational processes in China. Its aim is to remold people's thinking and world view, and consequently to transform their behavior pattern. For the key personnel of all fields, it takes the form of periodic rehabilitation and renewal, exemplified by the programs of the "May 7 Cadres School" established since the Cultural Revolution. It provides extensive political study combined with rigorous physi-
cal labor. As the cadres are the "transmission belts" for the translating of policies into action by the masses of people, it is tremendously important that they should grasp the correct thinking and demonstrate exemplary behavior. For the rest of the people, ideology is fed through mass movements, schooling and training, and study and discussion groups.

To weld the 800 million population into a cohesive group and channel their productive energies for socialist reconstruction, China needs a strong ideology as a means of communication. Thus ideological language is systematized to assure precision of meaning and understanding in the process of transmitting policies and directives as well as information feedback at all levels of the society. The Chinese leadership has a unique ingenuity of reducing all policies, whether political or practical, into very catchy and simple slogans. These become household words for old and young, and easily written as posters displayed everywhere, thus enhancing awareness and giving clear directions for social and political actions.

Besides being a tool of communication and integration, ideology is used to overcome many cultural restraints, vestiges of traditional value which impede progress and modernization. The following are a few examples:

(1) Fatalism used to plague the mentality of the Chinese peasants who had been victims of endless famines, droughts, and floods before the revolution. The new ideology corrected this erroneous world-view, and arouses them to epic struggles to control their natural environment and literally transforms its topography as exemplified by the agricultural model of Tachai.

(2) The traditional family clan orientation was an impediment to socialist collectivism. The new ideology extends people's loyalties beyond the family without destroying it, to the larger communities by the constant watchwords "serve the people". Self-less altruism is the new ethic.

(3) Another cultural characteristic was to emulate the past and try to wring lessons from it. The new ideology is future-oriented, and specifically
encourages innovation and experiment as exemplified by the slogan, "Dare to think, dare to speak, and dare to act."

(4) The social practice of "face-saving" and compromise left many conflicts unresolved and many issues undealt with. The new ideology, through the dynamics of criticism/self-criticism, explores contradictions, and through discussion and analysis reaches enlightened consensus for effective actions.

(5) Since the turn of the century, cultural imperialism literally "colonized" the Chinese psyche among most of the educated to the point that they instinctively denigrated everything indigenous and blindly embraced everything Western to be superior.

Mao's ideology, with its nationalistic tendency, is promoting a widespread renaissance of Chinese folk culture in the realms of art, music, drama, and even medicine, restoring respectability to them in the hearts of the people. Through the work of anthropology and archaeology, the magnificent artifacts created by the laboring masses for the consumption of a privileged minority down through the ages have been uncovered and are now shared by the millions with pride.

(6) In the classical past, the peasants ranked second after the scholar-gentry among China's four estates, but in recent past they degenerated into untold indignity and deprivation under landlordism and callous regimes. The present policy of "taking agriculture as the foundation and industry as the leading factor" restoring the status of the peasants as the backbone of the nation and gives them a new sense of worth. Empowered with genuine decision-making at the commune level, they generate unprecedented initiative and energy for the task of reconstruction.

(7) Perhaps the most important unifying force which gives the 800 million a sense of purpose and direction is the new pride they have in their "young nationhood." The modern concept of nationalism was born in China in the first two decades of the century. The awakened Chinese used to call themselves "a
tray of sand" without any cohesion. Thousands of young intellectuals went abroad to study social and political philosophies in the west in search of a viable ideology to "save China". However, the realities of the following decades only deepened their sense of helplessness and despair. Finally led by the organic synthesis of Marxism-Leninism and Mao's Thought, the Chinese people have found the direction of a national destiny which inspires them to resurrect their country from ashes with herculean efforts. With her concrete achievements, China wins a respectable place among the community of modern nations as a fully sovereign member, a status which she has never enjoyed since her encounter with the West.

In short, ideological education in China is not just for the sake of doctrinarianism, nor only for economic reasons. It aims at a much broader social-cultural-personal transformation as well.

CONCLUSION

It is undeniable that China has used education effectively for her development. Through education of all kinds she has found solutions to many common dilemmas faced by all developing countries. She has curbed her annual population growth rate below that of grain production, thus eliminating hunger, the spectre which stalks over a major part of the world. She reversed the tide of rural migration to urban centers, and channels human resources to the countryside for development, thus avoiding the common dilemma of urban crises and rural wasteland. She has opted for agriculturally supportive light industry dispersed in localities, rather than lopsided concentration on heavy industry in a few urban centers. This is a priority decision faced by all developing countries. She has chosen the policy of self-reliance internally as well as externally. Being the only developing country at present without foreign aids, she preserves full sovereignty over the directions and patterns of her development. In educational planning, she has opted for alternatives and radical innovations, breaking away from the outmoded concept of education.
as formal schooling. She practices pragmatism in its true philosophical sense, being fully aware of the necessity of constant adjustment to ever-changing conditions. Up to 1975 her educational strategies were geared to universalization of basic education and to basic manpower needs. Since then she has announced her intention of achieving "comprehensive modernization of agriculture, industry, national defense and science and technology before the end of the century." Recently studies at the graduate level in science and technology and pure research have been stepped up in the universities to accommodate the changing needs. In spite of the fact that China has often given the casual observer the impression of irrationality in her policies, which is true of some of the excesses during the Great Leap and Cultural Revolution, an objective analysis will show that in actuality she is putting into practice a dynamic synthesis of many of the development theories advocated by Western scholars. She incorporates into her development strategies not only economic considerations, but cultural, ethical, and ideological transformations of the human individual in his social group.

To put things into perspective, it should be pointed out that all the above mentioned developments were carried out under the great impact of Mao's personal leadership. However, China has just entered the threshold of a post-Mao era with the death of their leader last October. The succession problem has just been solved by the rise of Hua Kuo-feng who enjoys the support of the pragmatists of the Party, government, and military, and the purge of the "gang of four", the leading radicals who had substantial control over China's media, cultural apparatus, and education since the Cultural Revolution. What do these results portend for the future? The new leadership has inherited the enormous task to achieve comprehensive modernization of all sectors in China's development by the end of this century, a resolution adopted by the Fourth National People's Congress in 1975. Undoubtedly it will face a host of new dilemmas. Can Mao Tsetung Thought be kept intact and continue to be
the effective guide? Will there be necessary changes in educational goals, control, organization, content, and process? What kind of human resources are planned to result from the educational efforts now on? Whatever will take place, China's gigantic social experiments at difficult stages should continue to pose an intriguing challenge to comparative educators interested in development.

NOTES


2 Ibid., p. 138.

3 Ibid., p. 143.

4 Ibid., p. 147.

5 Ibid., p. 162.

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8 Ibid., p. 211.


14 Ibid.
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Upon hearing the term "Irish Nationalism", the notion most likely to come to mind is one depicting a militant patriotism pledged to the complete dissolution of British influence in the social, cultural and political life of Ireland. Even the most casual observer of the Anglo-Irish affairs is aware of the complex, often times disproportionately portrayed, relationship that has existed between Great Britain and Ireland for centuries. Many books, articles, and documentaries—indeed all too often the evening news—cause us to note and despair the seemingly insoluble political dilemma between these nations.

Yet, there exists near the core of this controversy an entity that has received relatively little attention, while playing a major role in the prolongment of the problem: the educational system of Ireland.

Until the mid-nineteenth century Irish education was surprisingly free of British influence. In the mid 1860s and 70s, however, when British education made notable advancements, particularly at the elementary school level, delayed ripple effects generated across the Irish Sea.

The work of the Newcastle Commission (1858) established the "payment-by-results" system, a scheme for determining school aid in Great Britain, is greatly reflected in the recommendations of the Powis Commission of Ireland (1870) and the subsequent payment schemes drawn up by Sir Patrick Keenan.

Further, not long after the Cross Commission (1888) strongly criticized the results system, criticism that led to the system's demise in Britain, the Belmore Commission in Ireland (1897) went beyond its mandate to provide equal criticism of the system in Ireland (although it was not abolished until 1924).

While other similarities may be found between the two systems, the rise
and fall of the results system in Britain and Ireland may serve as the most striking and far-reaching of the parallelisms to occur before 1900.

This is not to say that British and Irish education policies became any less entwined after the turn of the century. Indeed, the appointment of Augustine Birrell, a former President of the Board of Education in England, as Chief Secretary for Ireland, assured that Irish educational policies would be very much a subject of attention. In fact, in the very year he assumed office, Birrell undertook a double barrelled approach to meet Ireland's political and educational deficiencies. To accomplish this, Birrell proposed a measure that is given varying degrees of importance, depending upon the author, but which we feel should be stressed during any discussion of the history of education in Ireland.

In May of 1907, Birrell introduced into the House of Commons the Irish Devolution Bill (sometimes referred to as "Birrell's Bill" or the "Irish Council Bill"). A potential landmark in Irish history, the bill would have allowed for the formation of a one hundred and six member council (eighty-two persons popularly elected, twenty-four appointed members) plus a secretary to assume control of eight existing and newly formed government departments.

Central to our discussion is the reorganization of the previously separate educational departments that would have taken place. The Commission of Technical Instruction (previously under the Department of Agriculture), the Commission of Intermediate Schools and the Commission of National Schools (primary), would all have been merged into a single agency—the Department of Education. While it would have given the power to administer parliamentary grants, the new Department would not be given authority to tax.

Patrick Pearse, the distinguished spokesperson for Irishmen who sought independence from Great Britain, saw the bill as important simply because "it placed education wholly in the hands of our own people."
Even though the measure seemed a major step forward in the cause of the Irish control of their state, it was rejected by the United Irish League Convention that met in Dublin to specifically consider the proposal. According to Professors Akenson and McElligott, the rejection was strongly called for by the Catholic clergy in Ireland. The bishops opposed the bill for its provision establishing local control of primary and intermediate schools by popularly elected councils. Since the Church ran the village schools, the clergy felt this was an attempt to secularize Irish society by usurping the Church's power. Instead of minimizing the influence of Great Britain, the Church asserted that it lessened their influence.

What is important to understand is that the Irish Revolution Bill would have encouraged the Irish middle class to become more involved in education policies through membership on the advisory board—a phenomenon that would have meant a great deal in the social, political and economic future of Ireland. While the bill had the support of the Irish leadership in Parliament, once defeated at the convention, due to the agitation and lobbying of the clergy, the matter was dropped. Here is the first sign of opposition to the Irish cause coming not from forces in Great Britain, but from internal sources of the Irish nation. A dangerous precedent had been set.

In 1919 a second proposal was made, that if successful would have changed the structure of the Irish educational system. In response to separate commissions evaluating the intermediate and national schools' systems, each recommending fundamental changes in the framework of educational administration, the British government attempted to draft sweeping educational reform. A bill emerged that would have called for the creation of a single department of education to oversee the primary, secondary and technical school systems. The Department would be under the control of the Chief Secretary of Ireland, Vice President of the Department of Agriculture and Technical Instruction and an appointee of the Lord Lieutenant.
Additionally, an Advisory Board of Education would have been set up to advise the officials on all matters pertaining to education. It would have consisted of fifty-one persons representing almost every segment of Irish society and educational thought. More than half (thirty-two) would have been elected from county-borough councils or appointed by the Lord Lieutenant. Since this formula practically assured that a lay majority would be established, it did not sit well with the Catholic clergy. Further, the idea of having policy-making discussions at the county-borough level was again seen as a threat to the Church's influence in educational affairs at the local level.

Once more, the opposition that had successfully defeated Augustine Birrell's proposal in 1907, reared its head. Calling the proposal unIrish in its centralizing character, a standing committee of bishops fanned the fire of Irish independence by stating that "the only department which the vast majority of the Irish people will tolerate is one which shall be set up by its own parliament..." Catholic bishops at a conference in Maynooth (a see of the Catholic Church in Ireland) issued a declaration calling the proposed bill "the most demoralizing scheme since the Act of Union."

Given the state of affairs in Ireland at that time (the Easter Rising had taken place and the "Partition Act" establishing Northern and Southern Ireland was being negotiated), the reluctance on the part of British officials to wage a legislative battle is understandable. Hence, the education bill was ignored during the 1920 session of Commons and eventually withdrawn without receiving a second reading.

As a result, the conditions of disarray in Irish education that had troubled the government of the United Kingdom for so long, now fell under the jurisdiction of the newly formed Irish Parliament (Dail Eireann).

Given the origin of opposition to reform of the Irish system of education in the past, the question that comes to mind is: how would educational policy be formed once independence from Great Britain was gained?
The Free State is Established

The political chaos that surrounded the early days of the Irish government did not lend itself to a systematic takeover of the educational responsibilities by the new regime. Initially having no Minister of Education, then having two men serve jointly, the government provided little direction for the schools to follow.

With the establishment of the Irish Free State in 1922, one man, Eoin MacNeill, was given full control of the state's educational machinery. Yet, even then, we must question the degree of time and energy that was devoted to educational policy.

While MacNeill was an able Irish historian, undoubtedly sincerely interested in Irish education, other obligations that fell upon him as a Cabinet Member in the new government took away from the time he could spend on matters pertaining to the schools.

For example, Mr. MacNeill was asked to serve on the boundary commission that was established to study possible changes that could be made on the border between northern and southern Ireland. While this was certainly a concern that warranted the new government's attention, the men who served on the commission were unable to devote much time to other duties which, in the matter of education, did not go unnoticed by Dail members. Numerous complaints of the ministers' absence are on record.

This is not to say that the new government did not have an effect on the educational system. One thing it did accomplish was to abolish the payment-by-results system (that had been abolished in Britain thirty years earlier) replacing it with a scheme whereby the government paid a grant to the schools for each child that enrolled in a government-approved course (teacher salary increments were introduced at this time).
The Free State must also be given credit for its ability to pass a compulsory school attendance law, not the most accepted measure in a largely agrarian country. In 1926, all children between the ages of 6 and 14 (even in rural districts) were required to attend school for a minimum of 150 days. It is interesting to note the fact that money was being allocated according to the number of students enrolled, making it incumbent upon the schools to see that the law was enforced.

Yet, even with these changes (as needed as they were) the new government failed to come to grips with the main problem that troubled the Irish educational system: the decentralization of power.

The structure that allowed for the separation of control over primary, secondary, and technical education continued unchallenged. The same system that the British educational leadership had tried to change in 1907 and 1919 became more deeply entrenched by the new government's failure to examine the channels that exercised fundamental power in the system.

But this is not surprising, as we have already noted the preoccupation of the government in other matters during the 1920s. Such circumstances would have allowed the status quo to become even more rooted in its ways. Those that had vested interests in maintaining the system—the Catholic Church and the civil service bureaucracy—would certainly not initiate changes that would cause them to lose position or influence.

According to figures presented by Professor Akenson in A Mirror to Kathleen's Face, of the total number of civil servants employed by the government, all but .6% were "former functionaries of the United Kingdom." Such a holdover would hardly be conducive to revolutionary changes.

The 1930s and 40s

If the nineteen twenties would be a period in which the new government adjusted to being in power, the next two decades would provide a period of indoctrination of the Irish people to their "new" country.
During the 1930s and 40s, feelings internal to Ireland and conditions outside would allow Ireland to cut herself off from the rest of the world. Culturally, religiously and economically she would isolate herself and her people from all that did not originate in Ireland.

During these decades, an extreme national identity crisis would befall the country. Churchmen and civic leaders would preach that the time had come to build an "Irish Ireland". A de-anglicization movement would be undertaken to rid the country of foreign influence.

According to the Gaelic League, founded to promote the revival of Gaelic culture, the restoration of the Gaelic (Irish) language to primary use would be absolutely essential. The language, its leaders would argue, had not been destroyed by a natural process of decay, but rather by the policies of the British that placed the English language first. And the most vital area the British had chosen to kill the Irish language was in the schools.

It follows, then, in order to reverse the process, the Irish language would be reinstituted into the schools.

Whether this is true or not is the subject of much debate in Ireland, from the 1920s through today. An excellent collection of arguments, pro and con, may be found in Brian O'Cuir (ed.) *A View of the Irish Language* (Dublin: Stationary Office, 1969).

While a great many commentators concerned with Irish education have written about the policies that saw the Irish language grow from an optional subject in the schools' curriculum, to a compulsory one (and even the medium of instruction where possible), we should note the intensity and religious-like fervor with which this task would be undertaken during the Free State development.

Policy proposals put forth by the Gaelic League, the Irish National Teachers Organization (I.N.T.O.), educators and members of the Dail, often competing for control of implementation, indicate the importance attached to the language-school
As early as 1918 Professor Michael Tierney would write:

The primary basis of all our teaching must be our own language, our own history, our own music and our own art; and these we must impart to all future citizens to the extent of their capacities before anything else. A free Irish state must immediately put into operation terms for the extension of the Irish language, first as the most favored subject and after a term of years as the medium of instruction in all the primary classes of Irish schools. With the Irish language must go the history of Ireland, music and art.

As a result of sentiments such as this, the Irish government adopted policy recommendations formulated at I.N.T.O. program conferences. The recommendations proposed: 1) that Irish would be taught to all school children at least one hour per day, as an ordinary part of the curriculum; singing would be taught solely through the medium of Irish and that all songs would be in the Irish language; 2) history and geography, subjects taught in the third standard and upwards, would be taught through the medium of Irish; and 3) to allow time for the work in Irish, drawing, elementary science, hygiene, nature study and most domestic studies would become optional subjects in the schools' curriculum. To further enhance the learning of Irish by the young, the conference also proposed that the two grades of infant classes that many schools operated be conducted entirely in Irish.

It was obvious that in order for the children to gain proficiency in Irish, a loss of proficiency in other subjects must take place. But would anyone be willing to acknowledge this? Would anyone be willing to admit that while the revival of the language through the schools may foster nationalistic feelings among the population, it may be retarding to the educational development of Irish children?

I.N.T.O.'s Feedback

While they were active in introducing Irish into the schools, the teachers in Ireland were also among the first who would realize its failure and would admit it. According to sources quoted by Professor Akenson, in 1936 I.N.T.O. conducted its own investigation to assess how the teaching of Irish was affecting
other subjects. Not having the resources to do an experimental study, it surveyed its membership who had experience teaching in both English and Irish by asking the following (summarized):

Do children taught through Irish learn as much as if they were taught through English?\(^{12}\)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Arithmetic</td>
<td>87</td>
<td>554</td>
</tr>
<tr>
<td>Senior</td>
<td>58</td>
<td>271</td>
</tr>
<tr>
<td>Geometry</td>
<td>21</td>
<td>71</td>
</tr>
<tr>
<td>Algebra</td>
<td>27</td>
<td>73</td>
</tr>
<tr>
<td>History</td>
<td>55</td>
<td>382</td>
</tr>
<tr>
<td>Geography</td>
<td>51</td>
<td>403</td>
</tr>
<tr>
<td>Singing</td>
<td>308</td>
<td>86</td>
</tr>
</tbody>
</table>

What values should be placed upon the acquisition of a competency in Irish? Should it be worth a deficiency in other subjects such as arithmetic or English? Professor Akenson reports according to the I.N.T.O. Study:

There is a constant theme running through all the replies which points to the fact that parents generally are opposed to a method for the revival which would tend to lower the educational standard of their children according to their values. Infant teachers have stated that it is a common practice for parents to ask that infant children be provided with English primers so that they may be given in the home instruction in English reading denied to them in school. Many examples are cited of parents who endeavored to teach their children at home through English subjects that the same children were being taught in school through Irish...\(^{13}\)

Yet, this attitude expressed by parents would not be effective in influencing government officials. Thomas Derrig's (the Minister of Education) comment on the findings contained in the teachers' report provides an official observation: \(^{14}\)

"I can not see that parents as a body can decide this matter."

Now, it is the Irish government who would oppose the idea of civic involvement (through parents) in the educational process. Just as the bishops opposed Birrell's county-borough councils, officials of the Irish government would now exhibit disdain for parents being involved in the policy-making.
Does the government's position spurning parental influence compare with the Catholic clergy's earlier rejection of popularly elected advisory boards?

The answer is yes...and no.

Certainly, it must be conceded that the policies that instituted the teaching of Irish in the schools were accomplished through little or no consultation with the polity.

When the Free State was established, the job of running the educational system was largely left to the Church. When the government decided that it would use the schools as instruments to foster nationalism, an idea that the Church agreed with wholeheartedly, it is not surprising that the government adopted "methods" that had long been practiced by the clergy, for the movement would, in many ways, be similar to indoctrinating a people to a religious belief.

If we look to areas of education other than those in which the clergy had an entrenched position, we see a different line of thinking entirely.

In the area of technical, later called vocational, education in Ireland, we find a tradition of lay involvement in the running of the schools—and a great deal of consultation with the community outside the school. While community involvement is vital to a sound vocational education program, the Irish government has demonstrated a willingness to seek involvement beyond what would be the minimum required.

Further, the development of the comprehensive and the development of community schools in Ireland serve as perfect examples of the government acting with greater independence of the Church hierarchy. In these instances the government sought to open the doors of the schools as widely as possible to the community that it served.

Where did such "radical" ideas originate?

The cultural implosion that occurred in Ireland during the 1920s, 30s and 40s began to wane during the 1950s. With the aid of such organizations as the O.E.C.D., the Irish government realized that its most prosperous future would not be reached by maintaining a heavy wrapping on the Irish society, but by removing isolating
barriers and allowing the fresh air of internationalism to flow into Ireland. That realization in itself is a major transformation in Ireland's thinking.

Ireland's outward-looking approach would be most aptly symbolized by the undertaking of two massive studies of its educational system.

The first sign appeared in 1965. Entitled Investment in Education, and prepared by a special survey team appointed by the Minister of Education, it would be the first government document in the history of Irish education to treat education as a social and economic activity, and not as a moral training ground, a religious preserve or a linguistic exercise in developing nationalism. Clearly, it showed that if Ireland wanted to compete on the international scene, particularly as a member of the E.E.C., it would have to operate its educational system more efficiently and more effectively. The report provides extensive data dealing with the percentage of Ireland's G.N.P. spent on education, the distribution of what is expended and how government spending is accomplished in relation to demographic factors.

In 1973 a second study on Adult Education in Ireland was published. While the findings of this report are still only being discussed, it is significant to note that among the various recommendations proposed to expand the educational facilities in Ireland, the development of the community schools concept was greatly encouraged.

The community school concept seeks to meet the educational, cultural and...social needs of a particular community...Its success depends to a large degree on the sensitivity of its democratic form of government and its professional staff.¹⁵

More than any other type of school, the community schools require the greatest degree of civic involvement in their operation and are subject to the lowest degree of denominational influence.

Augustine Birrell must be smiling.
FOOTNOTES

1 T.J. McElligot, Education in Ireland (Dublin Institute of Public Administration, 1966) pp. 8-9, 11, 54.

2 Ibid., p. 11.

3 The Belmore Commission was established in 1897 to "enquire and report with a view of determining how far and in what form manual and practical instruction should be included in the educational system of primary schools under the Board of National Education in Ireland."

4 McElligot (p. 63) refers to comments made by T.J. O'Connell, a former secretary of the Irish National Teacher's Organization in the Voice of Ireland, p. 8. Government reflection on the bill can be found in the Dail Debates for 13 June 1944.


6 Pronouncement of the Irish Hierarchy at a general meeting held at Maynooth on Tuesday, January 27th, Irish Ecclesiastical Record, 5 ser. vol. XV; no. 2 (February 1920) pp. 150-52; see reference in Akenson, op. cit., p. 20.

7 While many examples may be given, a "summary" of complaints may be found in Thomas Johnson's statement, 13 Dail Eireann, 27-28, 3 November 1925.


9 M. Tierney, Education in a Free Ireland (Dublin: Martin Lester, 1918) pp. 45-6.

10 Akenson, op. cit., p. 44 makes reference to the National Programme Conference, National Programme of Primary Instruction (Dublin: Educational Company of Ireland Ltd., 1922) pp. 4, 6-8, 13-4.

11 Ibid., pp. 15-16.

12 This is a reference to a very rare report which Akenson claims to have obtained from a private source. It is an I.N.T.O. document, Report of Committee of Inquiry into the Use of Irish as a Teaching Medium for Children Whose Home Language is English (Dublin: I.N.T.O., 1941) pp. 28, 34-35, 39-40, 42, 47, 53, 54.

13 Akenson, op. cit., p. 60 quoting the I.N.T.O. report on teaching Irish to primarily English-speaking children.

14 59 Dail Eireann: 2197 10 December 1935; see also Akenson, op. cit., p. 60.

15 Report of a Committee appointed by the Minister of Education: Adult Education

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This report is to supplement the brief description and slide presentation during the conference, Comparative International Education Society, April 29, 1977.

Among all the features of the Saudi Arabian project, the most innovative was, I believe, its approach. Our staff engaged in a pioneering sports effort this past summer and, in the following pages, I am pleased to outline its varied and novel details.

Special needs, planning and preparation:

* Organization
* Cosmopolitan Staff
* Program Location
* Training Considerations
* Cultural Scope

The uniqueness of this project demanded careful consideration of all the above areas. How these respective items were managed and interfaced is described below.

* Organization

A brief survey of the Saudi project's genesis illustrates its unique structure. Donald Boucher of the Whittaker Corporation Sports Program suggested at a meeting, that Springfield College undertake a project proposed by them for the Youth Welfare Organization of Saudi Arabia. This proposal ultimately involved six sports committed to an intensive training schedule for Saudi athletes and coaches. The Whittaker Corporation would act as agent for the YWO.

As Project Director, I was given full authority and responsibility for Springfield College and proceeded to draw up contract specifications and a final budget. Cost considerations included:

  tuition and fees
board and room
equipment for a total program
test/measurement study
health services
program cost including cross-cultural activities
recreation and touring expenses
executive secretary
office supplies
program handbook
staff
transportation
security
insurance
audio-visual supplies
athletic trainer's cost
a summative souvenir brochure

These and like considerations resulted in a final contract and budget of $606,229. This was subsequently approved by the Saudi Youth Welfare Organization. An additional budget of $21,966.00 was later developed to accommodate the Saudi National Swimming Team, August 15-28, 1976.

This was the most extensive International Sports Program of its nature the college has undertaken to date, both in terms of on-campus participants and budgets. The program's administrative and structural organization were many and varied but did not prove unduly cumbersome. The final budget was a good one, and we were fortunate in having ample funds which solved many difficulties as they arose and hopefully prevented others.

* Cosmopolitan Staff

A look at the project staff indicates its multi-national and ethnic character:

Springfield College faculty and staff
Springfield College students
Other professional personnel
Arabic interpreters
Saudi Arabian coaches

As Project Director, forming a coherent, meaningful program from these varied elements was my biggest task and challenge, and it proved to be most exciting.

Each member was chosen for his/her professional competence and ability to
work 24 hrs/day with the participants. Dr. Ted Kidess, Director of the International Center and Coordinator of International Matters, chose his interpreters with care and discernment. Crucial to this was the fact that the Saudi coaches were understood as integral members of the coaching staff. As such, they shared in planning sessions and the skill development and instruction of the athletes.

The fact that all these variables did work in a spirit of cooperation and harmony can be attributed to two binding factors: the love of sports and the pursuit of excellence. Each coach shared a common interest in his sport and in his athletes. Such a mutual trust and respect grew from this that Mike Cavanaugh, Team Handball Coach, wrote of his Saudi counterpart: "Shafee Bakr...shows all the demeanor one would expect from an excellent coach. I hope he gets an American education in physical education as he wishes."

* Program Locations

The Montreal experience unquestionably can be singled out as a high point of the total program. The world's best performers offered a tremendous incentive to our young athletes. Such superior demonstration of skill and technique gave the coaching staff an excellent teaching model and aid. Many of these events were filmed and the coaches in turn took these tapes and films back to Saudi Arabia for further use and study. In short, few other experiences could have introduced participants (many for the first time) into the international community in such a positive manner.

The dual location of the program--Montreal/Springfield--proved no difficulty although it did require detailed logistic planning. Sports equipment and personal uniforms were purchased in Springfield. Extensive bills of making facilitated entry and, later, exit from Canada. A 10 van motor pool was formed to provide transportation in Canada and passage to Springfield.

In short, planning had to be done in duplicate. With 63 participants and 61 staff, not only did size contribute to complexity, but also the program's
Food arrangements were made to conform with Islamic prescription; 
In deference to participant's modesty curtained shower stalls replaced gang showers; 
Holy Friday and the Ramadan holy days were observed.

The staff performed superbly. Frequent staff meetings and consultations solved some very delicate problems before they became pronounced. The distance of communications between Whittaker in Riyadh and APAPQ project facilities in Ste. Thérèse, however, did raise some problems, but were eventually always resolved.

The number of Olympic tickets which the Whittaker Corporation bought and distributed freely was staggering. We had good seats (and many of them) to finals and semi-finals for each of the Saudi team's sport as well as the impressive opening and closing Olympic ceremonies. The Corporation was very generous in providing funds for cultural events which were used for entrance to Expo/Man and his World, Montreal restaurants and cinemas.

* Training Considerations

The Saudi program was a new idea from any previous Springfield College international endeavor. We trained national teams for international competition. Equipment considerations for top flight competition are, of course, different from the standard college intramurals or the instruction program. In addition to regular equipment issue, we responded with flexibility to meet team needs as they arose. Special handball, table tennis, gymnastics, cycling, volleyball, and fencing uniforms were purchased. Additional equipment was procured for the Saudi national swim team for their arrival on campus.

International competition demands rigorous game experience. When we discovered the prime focus for the project was to prepare teams for the Arab games at Damascus, we intensified our extra-Springfield meet scheduling. Matches with high caliber cyclists in the Tour of Massachusetts, fencing meets at Salles d'Armes Richards, and
competition with the U.S. Junior Table Tennis Team insured a thorough competitive experience in preparation for Damascus.

With the Saudi program, we were also dealing with some new sports for Springfield College. While fencing is being developed, team handball, table tennis, and cycling are essentially new at the College. The United States Cycling Federation and U.S. Table Tennis Association proved invaluable in helping secure technical information and qualified coaches.

* Cultural Scope

Contract specifications called for cross-cultural experiences as well as sport skill development. This was to be no ordinary coaching assignment, and the programs developed were indeed ambitious. A concerted effort was made to tailor activities to be enjoyed both by host and visitor.

All participants went to Cape Cod and saw the Saudi volleyball team tie for first place in the Cape Cod Tournament. "Before when we see only Springfield," commented a fencer, "we think Massachusetts is no good. Now that we come here, we like Massachusetts very much. The beach is very beautiful." The sand beaches, of course, were reminiscent of his home and the carefree, unscheduled atmosphere of a more accustomed pace. On the other hand, Americans enjoyed the day off and the opportunity to body surf (which the Saudis caught onto without coaching). "The emphasis was on having a good time," remarked one coach, and fun is not a complicated thing.

A cadre of intelligent, dedicated interpreters provided linguistic skills and an enthusiasm that bridged the technical difficulties of translation. While participants generally had some rudimentary acquaintance with English and lessons were provided, our interpreters were engaged to act as full-time, 24 hour hosts to serve coaches' and athletes' communication needs. Each lived with one team unit and participated in all activities.

The basic activity unit among the Saudis remained the team. In many cases, athletes had known and trained with each other prior to departure for Montreal. It was natural for these ties to remain. Therefore our general policy provided
for teams to eat and live together as a unit. It was felt that, given the limited program time, this was the only way for coaches, interpreters, Saudi officials and athletes to become acquainted with each other and gain mutual trust and respect. Activities, of course, were planned for all participants as a whole, and here too, team units dovetailed nicely, one with another. This proved to be a good policy and worked well in most instances.

The scope of the Saudi summer program included six sports and 63 participants: cycling (11), team handball (15), table tennis (7), fencing (8), gymnastics (12), and volleyball (10). The 35 member Saudi National Swimming Team also joined the program for the last two weeks of August.

Purchasing procedures, the final budget, contracts with Security, Public Relations, Director of Physical Plant, and other organizational priorities were established. Ms. Harriet Chaiken was appointed executive secretary.

The program's final staff consisted of 61 including 10 Saudi coaches and officials. Each person realized this would be a 24 hour commitment and were highly competent. Of the Americans, 18 were college graduates, 17 undergrads, 2 graduate students, and 6 faculty members. The staff-participant ratio for the program was a remarkable one-to-one. While Saudi members were chosen in Saudia Arabia, they worked closely with their American counterparts.

To prepare the American staff, an intensive eight day orientation session was scheduled at the College during the first week of July. This was designed both to impart information and to allow the staff an opportunity to meet one another before leaving for Montreal and the reception of the Saudis. Some of the topics covered included:

- health and safety policies
- security concerns and regulations
- dormitory rules, regulations, facilities
- communication through an interpreter
- Saudi life (two documentary films)
- equipment issue
- AVA services
- Staff specialty area presentations
- National Safety Council defensive driving review
- test/measurement orientation
A 39-page Staff Handbook was written to acquaint staff with cultural differences between Saudi and American life (available on request at the main desk: Babson Library). A similar handbook for athletes was written for Saudi orientation.

In Montreal, housing and food services were supplied by the APAPQ (L'Association des Professionnels de L'Activité Physique) at their village in Ste. Thérèse. Ethnic evenings with Portuguese, Polish, Italian, German and Greek food and music were planned by the APAPQ and gave the stay an international flavor. Although concentration was centered primarily on viewing Olympic events, team training was begun including competitions with such outside units as the U.S. national handball team.

All Saudi teams participated in a visit to the 1967 Expo site (Man and His World) and each team received a cash allotment to have a special night-on-the-town supper. Hikes up Mount Royal, excursions into Old Montreal, and shopping trips were also planned.

* Community Life

All staff and participants lived in Reed Hall where the Project Center was also maintained. The Assistant Project Director kept logs both for teams and for motor pool equipment. Each dormitory floor had its own color television set. Linen exchange was arranged on a weekly basis, and each participant was asked to make his own bed and keep his room (doubles) in a neat and clean condition.

Food services at Cheney Hall provided dining facilities. The staff was very helpful in providing flexible meal schedules. During the Islamic Ramadan day-long fasting periods, he provided special box lunches for participants to eat at 11 P.M. Special diets of lamb, rice, and fruit were also served.

An English/Arabic bilingual newsletter "The Crescent" supplied the program news. The editor for this mimeographed paper and periodic issues supplied schedule information as well as personal motivation: "Nasser was promoted to A team due to some brilliant performances in the track." Attractively arranged bulletin boards
announced program news at Project Center. Each staff member and participant was also included in a large photo directory posted at the center. Names and positions served as quick reference to identify names and faces.

Recreation for the program included special matches as well as informal activities such as lawn darts for between training period times. Free swim was available when the Linkletter Natatorium was open as well as the use of boating and canoeing facilities at the East Campus. A learn to swim program found several of the young gymnasts enrolled.

Identification cards were designed for the program using a colored picture. These were made up for all staff and participants. In addition to security and meal entrance purposes, the Saudi I.D.'s contained the Springfield College address and Project Center phone number for reference should participants become lost at off-campus events.

Language practicums were held daily and conducted by the interpreters. These sessions provided English instruction to Saudi athletes and officials. The primary emphasis was on sports vocabulary which could be put into practical use. During the staff orientation period, Arabic vocabulary and phrases were presented and methods for dealing with interpreter translation were explained by Dr. Kidess.

A motor pool of 10 vans and 1 car was available in Montreal. In Springfield 6 vans insured adequate transportation. Special staff drivers provided downtown shuttle service both at Montreal and Springfield giving easy access for coach's training and cultural programs.

* Cross-Cultural Experiences

Special cross-cultural events were organized and different kinds provided maximum exposure.

Informal activities such as shopping at Eastfield/Springfield Malls and trips to MacDonalds were undertaken spontaneously. More formal trips, such as tours of the Basketball Hall of Fame; Riverside Amusement Park, Agawam; Springfield Armory;
and Laughing Brook varied participants' leisure hours. These were organized on the team unit basis, and provided relief from the training routine without unduly interrupting the schedule.

Finally, all-project trips were planned such as the New York City weekend. The Biltmore Hotel was site for these two days and the United Nations, Radio City, and genuine Arab cuisine were highlights. The trip to Cape Cod, where the Saudi volleyball team tied for first place in the Cape's Volleyball Tournament, was very popular. A trip to Fenway Park, Boston, was also made, and even more interesting than the Red Sox/Angels game itself was, perhaps, the chance to participate in spectator cheering.

Concluding the program, a final banquet and recognition ceremony joined all participants, Saudi and American, together. Slides from the Olympics and training at the College elicited fond memories. Plaques and certificates were given to each participant, and trophies were given to the athletes with greatest skill improvement.

* Special Resources

Dr. Wayne Sinning of the Springfield faculty, directed a program to measure levels of physical and motor fitness. Various tests such as cardio-vascular-respiratory function, body composition, strength, and selected motor performance were made.

Ken Wildes, Director of Public Relations, provided extensive media coverage. Newspaper articles appeared in The New York Times, Wall Street Journal, and Springfield Union. Special news releases were sent to local media in coaches' home towns for publication.

In Montreal, an interview between CBS correspondent Peter Jennings and Don Boucher and Barry King of Whittaker provided national television coverage.

Ken Wildes has designed a summative color brochure of the Saudi program which promises to be an attractive souvenir.

Charles Redmond of the College was head trainer of a three-man staff for the program. This was a full-time service with Dr. Tom Waddel functioning as Medical
Director while in Montreal. Athletes were advised on athletic injury prevention, health care, nutrition and diet. Athletic trainers were available during the day and evening to aid athletes. The town Health Center provided services on campus and Dr. William E. Coons was engaged as project physician.

Audio-visual services were available for all. These extensive services included 8mm and 16mm motion picture filming and 35mm photography for color slides. Video taping was available as were audio-taping transparency projection and prepared sports films.

Full round-the-clock security services were provided by campus security and coordinated with the program.

* Athletic Facilities

Cyclists used the Blake Field Running Track for initial training, then proceeded to Springfield streets and surrounding environs for tour experience. Use of the track was particularly valuable since it provided opportunity to develop technique without the nuisance of traffic, road conditions, etc.

Team Handball used A.I.C.'s Butova Gymnasium for morning and afternoon practices. The Volleyball team practiced at North Gymnasium and the Springfield Metro Y.M.C.A. when the Springfield Basketball Sport School was on campus. Fencers used East Gymnasium, gymnasts the Judd gym, and table tennis, Moses Hall. Coaches found these facilities entirely satisfactory.

The overall impact of the S.C.I.P. Saudi Arabia project was, in my estimation, positive and unquestionably worthwhile. It was worthwhile from the standpoint of the Saudi officials and athletes and certainly from the view of Springfield College in demonstrating its international and athletic traditions.
With the widening gap of the economic conditions between the developed and the developing nations institutions of both affluent and less affluent societies have felt the need to search out the means of closing this gap. Community development is the utilization of the potential of people so that they can reorganize and implement available resources for community improvement. Community education is essential for community development as community development is necessary to combat the widening chasm between the rich nations and the poor nations. Educational systems in many of the developing nations in Latin America have, in recent times, launched extensive programs to improve the delivery of education to their peoples beyond even alphabetization or the traditional "3 R's".

The "Campesinos" or peasant farmers of Latin America have not been immune to these national educational efforts. Indeed, with the rise of immigration to the urban centers rural educational inadequacies are becoming concentrated within city environs. Urban school systems are faced with ever-increasing enrollments and limited means to accommodate this growing flood of urban campesinos. However, efforts to increase educational opportunities for city dwelling campesinos cannot be divorced from educational programs in the rural areas. Nevertheless rural schooling has been said by some to foster unfulfilling promises by educating campesinos without relation to agricultural employment opportunities, therefore encouraging more urban migration for job-seeking campesinos. Such a cycle has caused some educators, notably in Central America, to reappraise rural education in the hope of retarding urban migration and enhancing the need to preserve rural living. Rural training institutes in the agricultural sciences have received much attention. Schooling by radio, and rural schooling by extension groups from national universities and international organizations have been functioning for decades but their quantitative effect upon campesinos has seemed ineffectual in stemming
their flight from rural areas. It seems now that education of the campesinos must go beyond literacy programs and even specialized agricultural schools. Education must become developmental for the campesinos. This is nothing less than an education that reinforces the value and necessity of farm life both to the campesino, his family, his community and his nation. If we accept the premise that education increases man's potentiality for a better life "non schola sed vita." Then a rural educational system needs to be developed that improves the campesinos' lives and does not raise false expectations.

Rural education, to be meaningful to the campesino, must affect both children and adults simultaneously. The teachings of Paolo Freire have had no small impact in the "re-education" of the campesinos.

Campesino development also means development of his milieu. In other words, rural education that enables campesinos to directly better not only their reading and farming skills but enhances and maintains the fabric of rural living through community building, socially, economically and politically.

In a nutshell, campesino education is education for community development. Such a rural educational system that is geared specifically for the campesino life-style may demand a team-teaching approach of varied educators with varied skills from social work, through nutrition, reading, cooperatives, intermediate technology, domestic health, etc.

Certainly the education of the campesinos should be done in accord with their present life-style. This demands an understanding of "campesino mentality", a process often overlooked and not commonly understood by educators. In fact, not understanding farm life has produced not a few myths and stereotypes about the so-called educability of campesinos.

This essay does not purport to offer a solution to campesino education deprivation but rather calls for a total approach to enhancing the lives of cam-
pesinos through total education of the whole man/woman, the whole campesino—as he/she relates to the land, home, neighbor, and community. The essay is a call for rural education through "whole life" education programs indigenous and sensitive to campesino needs.

Of course, in those campesino lands where latifundias, minifundias, haciendas and patron systems are prevalent, such a developmental approach to rural education is immediately supremely difficult or ultimately revolutionary. However, when one considers the glutted cities, increasing population and lowering farm production, then campesino development education becomes an imperative.
There is a saying in Brazil to the effect that "Brazil is the land of the future--and it always will be!" This saying reflects the fine sense of humor of the Brazilian people. It also reflects a deep sense of national insecurity. With a land area larger than the continental United States and a population of about 100 million, Brazil is potentially one of the most powerful nations on earth. Yet it remains tragically underdeveloped. Its educational system is one of the least effective in Latin America. Perhaps only Haiti is educationally worse off than Brazil.

Enrollment Structure

Anision Texeira, one-time head of the National Institute of Pedagogical Studies, and severe critic of Brazilian education was fond of comparing completion rates of schooling between the United States and Brazil. Some 91 per cent of Americans who enter the first grade reach the sixth grade six years later, while in Brazil the figure is only 12 per cent. Some 32 per cent of Americans and only 1 per cent of Brazilians enter college. Using data from the 1964 School Census the Joint US-Brazilian Team for Technical Assistance to Primary Education confirmed this assertion. At that time there were approximately 10 million students in primary education (grades 1-4), 2 million students in secondary education (grades 5-11), and a mere 150,000 students in higher education. Primary education was offered in some 124,946 schools (34,667 urban and 90,279 rural). There were some 9,196 secondary institutions, located mainly in urban areas. Higher education was offered in some 136 institutions located mainly in urban areas.

Perhaps one of the most fascinating characteristics of Brazilian school enrollment is the fact that over half of primary school enrollment is in the
first grade (that is, some 5 million of the total 10 million enrollment). Another way to put it is to say that first grade enrollment is over twice as large as the combined enrollment of secondary and higher education.

TABLE I

<table>
<thead>
<tr>
<th>SCHOOL ENROLLMENT BY LEVEL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Secondary</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Higher</td>
<td>150,000</td>
</tr>
<tr>
<td>Total</td>
<td>12,150,000</td>
</tr>
</tbody>
</table>

Equally fascinating is the distribution by grade level within primary education. Fifty two per cent of the total are in the first grade, 22 per cent in the second grade, 15 per cent in the third grade, and 9 per cent in the fourth grade.

TABLE II

<table>
<thead>
<tr>
<th>PERCENTAGE DISTRIBUTION OF PRIMARY ENROLLMENT</th>
<th>% OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADE</td>
<td>% OF TOTAL</td>
</tr>
<tr>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>98*</td>
</tr>
</tbody>
</table>

*Some states have a fifth grade.

Naturally, an advisory team containing Americans would be curious as to why such a large percentage of total primary enrollment would be found in the very first grade of school. One of our approaches to this problem was to visit a sample of first grade classes. To our amazement we found, in every first grade class, children of all sizes and ages, from 7 to 14. This was physically apparent at first glance since many children were sitting in chairs too small for
them! Sure enough, the statistical evidence confirmed this observation.

### TABLE THREE

**AGE-GRADE DISTRIBUTION OF PRIMARY ENROLLMENT**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19</td>
<td>23</td>
<td>17</td>
<td>15</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>13</td>
<td>20</td>
<td>21</td>
<td>16</td>
<td>4</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>2</td>
<td>11</td>
<td>22</td>
<td>21</td>
<td>20</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>--</td>
<td>2</td>
<td>14</td>
<td>23</td>
<td>26</td>
<td>21</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Percentages do not always total 100 due to the exclusion of children beyond those age limits and possible doubt counting due to uncertainty of children's ages in rural areas.

How, we asked ourselves, did this come about? As best we could gather it came about because children enter and leave the school system at any time! The 1946 Brazilian Constitution says that everyone has the right to an education (Art. 166), that primary education is compulsory (Art. 168 I), and that government primary education is free (Art. 168, II). However, in all my time in Brazil, I could find no evidence that there is any substantial effort to enforce compulsory education. In fact, there seems to be no equivalent in the Portuguese language for the concept of truancy. Certainly there are no truancy officers in the various State Departments of Education. What all of this means is that Brazilian parents simply send their children to school when they can—or when they want to! Likewise, it is common for a child to drop out of school for a few weeks (say at harvest time in rural areas). Of course, as you would expect, middle- and upper-class parents make sure their children attend regularly.

**Dropout and Repetition Rates**

A curious characteristic of this type of enrollment pattern (apparently typical in Latin America) is a very high dropout and repetition rate. In the first grade about 18 per cent leave before ending the term. Of those who com-
plete the term about 34 per cent fail the end-of-term examinations. Thus the combined dropout and failure rate is over half the class. Some of those who fail will return the following year as repeaters. We found cases in which a child was repeating the first grade as many as five times!

TABLE FOUR

<table>
<thead>
<tr>
<th>Dropout and Failure Rates in Primary Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Dropout</td>
</tr>
<tr>
<td>Failure</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Social Classes

Our best evidence confirms the reported dual class structure of Brazil. According to these estimates only about 20 per cent of the Brazilian population could be considered middle- or upper-class. This group attends private primary and secondary schools. Their attendance is regular, their promotion rates high, and the quality of instruction and standards of achievement high. Basically, this sector achieves European (Portuguese) standards. It is the remaining 80 per cent of lower class individuals who are forced to attend public primary education. In spite of the low efficiency of these schools there seems to be little public outcry. Part of the explanation for this seems to be a very real belief among lower class Brazilians that educational achievement is purely an individual matter—and partly a matter of fate (or luck): either you are academically talented or you are not. It is as simple as that! Thus the poor Brazilian parent sends her child to school to see if he has this mysterious ability. If, after a brief trial, he does not "hit the jackpot", the parent cheerfully withdraws him.

The irony of this procedure is that middle- and upper-class parents spend considerable time and money priming their children for school, thus "taking out insurance" on their child's chances. Another irony or contradiction is that,
even if a public school child were to do very well indeed he still may not be able to pass the examinations to get into secondary school. The reason for this, apparently, is that the secondary school entrance examinations are not necessarily based upon the public school curriculum. Thus there appears to be little way in which a poor public school student could enter a secondary school and thus qualify himself for the university (which are largely free and public).

The Secondary School

While I was in Brazil, secondary education was identified by the Ministry of Education as the "bottleneck" in Brazilian education. A curious fact is that, although the Constitution guarantees to all Brazilian citizens a free and compulsory education between the years 7 and 14 (8 years), public primary schools generally only go up to the fourth grade level (and this only in urban areas)! To receive the additional four years to which one is presumably entitled one must pass a rather difficult entrance examination. 4

Secondary schooling lasts seven years and has two "cycles": ginasio (the first three years), and colegio (the last four years). It is rigidly academic in nature. The curriculum is almost encyclopedic. American secondary school students would undoubtedly have a most difficult time meeting its standards. A recent development is the ginasio polivalente, a comprehensive junior high school program, which attempts to give a vocational focus to Brazilian secondary education and to attract a broader range of social classes. 5 However, there has to be a nation-wide campaign to sell this program. The Brazilian tradition is strictly humanistic rather than vocational. Rooted in the slavery past of Brazil is the ingrained tendency to avoid anything connected with work or industry. The general feeling regarding the ginasio polivalente is that it is good for Brazil, but not for my son!

Higher Education

The humanistic tradition carries over into higher education. A disproportionate number of students in higher education seek out the Faculties of Letters, Arts, Philosophy, and Law. Medicine and Engineering are popular choices but often
only the degree is sought. The degree receiver does not intend to actually practice the indicated profession. This attitude is often hard for Americans to understand—until we remind ourselves of the social class from which Latin American university students originate.

**Possible Solutions to Brazil's Educational Dilemma**

It is easy to say that Brazil's educational system is not serving well the needs of a modern industrial society. On the other hand it might be argued that this type of restricted system is uniquely designed to meet the needs of a nation having the type of economy which Brazil does indeed have; that is, a region of high industrial development (the south), regions of extensive agricultural development (the Southwest and Northeast), and an almost completely undeveloped region (the Amazon Basin).

Certainly, there are powerful elements within the population which would be perfectly satisfied to leave Brazil's educational system as it is (the landed oligarchy chiefly in the Northeast). However, increasingly the industrialists (largely from the South) are urging modernization in terms of the traditional European school structure. This involves regularizing the school system by age and grade. This, in turn, calls for compulsory education. Unfortunately, the implementation of such a plan is probably beyond the resources of contemporary Brazil.

**A Non-Conventional System**

For this reason, it may be more appropriate for Brazil to attempt a non-conventional system. Such a non-conventional system, based on technology not available to Europeans at the time they developed their age/grade stratified systems, might achieve substantially the same results as traditional systems without the same costs. I have in mind individualized instructional techniques (such as programmed instruction) which would permit a student to drop out of the program at any time but to return and take up where he left off without having
to repeat a grade.

At the higher level Brazil could profit from the accumulating experience being gained through "external degree" programs. The main obstacle in Brazilian higher education seems to be the number of places available to candidates passing the vestibular examination. These external degree programs are, in Europe and North America, beginning to demonstrate that limited physical facilities can be extended, or used more effectively, through this innovation.

Experience has indicated a high correlation between indices of economic development and indices of educational development. Many commentators have marveled that Brazil seems to have reached a rather high plateau of economic development given her relatively low level of educational development. It may well be, in fact, Brazil may already have reached the limit of the economic development possible without additional development (which tends to develop internal markets). Now she must turn to educational development. Applying to education some of the remarkable energy which built a whole city in a decade (Brazilia), perhaps Brazil could yet be the land of the future! I hope so. No people could be more good-natured or long-suffering!

NOTES


2 It provides perspective to point out that the State University of New York alone enrolls (in all its campuses) some 250,000 students.

3 See, for example, Solon T. Kimball, "Primary Education in Brazil", Comparative Education Review, June 1960, pp. 49-54.

4 Recent legislation is attempting to rectify this by adding additional years to primary schooling. An entrance examination would not be required to enter these additional years.

5 An American team of advisors from the California State College system (San Diego) is assisting with this praiseworthy project.

6 The Joint Brazilian-American Team for Technical Assistance to Primary Education did, indeed, advocate and elaborate such a plan. This plan was received by a standing ovation when presented at the 3rd National Education Conference, Salvador, Bahia, 1967. It was later incorporated into a national program, Operation
School (Operação Escola).

7 Martin Carnoy in his *Education as Cultural Imperialism* (David McKay, NY, 1974) has an interesting chapter providing an economic interpretation of Brazil's educational characteristics.
THOSE IN ATTENDANCE AT THE COMPARATIVE AND INTERNATIONAL EDUCATION SOCIETY (NEW ENGLAND REGIONAL MEETING) AT SPRINGFIELD COLLEGE ON APRIL 29, 1977, WERE:

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Cecco, Josephine
Chen, Kuan-Yu*
Clark, Leon*
Cobun, Frank
Comings, John
Evans, David
Fleming, Kevin*
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Lacava, Richard
Lau, Helen
Locklin, Wilbert
Mackertich, Alex*
Mangan, James*
Martin, Carol
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Neumann, John
O'Connor, Sean
Osgood, John*
Page, William
Parker, Sandra
Phelps, Vernon
Rhie, Young
Roe, Jacqueline
Stickney, Benjamin*
Stone, Barbara
Stone, Frank*
Sullivan, Edmund
Thomas, Ann
Thomas, Thomas*  
*Speaker

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Northeastern University
Northeastern University
Springfield College
Central Connecticut State College
University of Massachusetts
State Univ. College, New Paltz (NY)
University of Massachusetts
University of Massachusetts
Tufts University
Eastern Connecticut State College
Northeastern University
Northeastern University
School for International Training
Worcester State College
Springfield College
University of Connecticut
Springfield College
Westfield State College
University of Massachusetts
University of Massachusetts
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