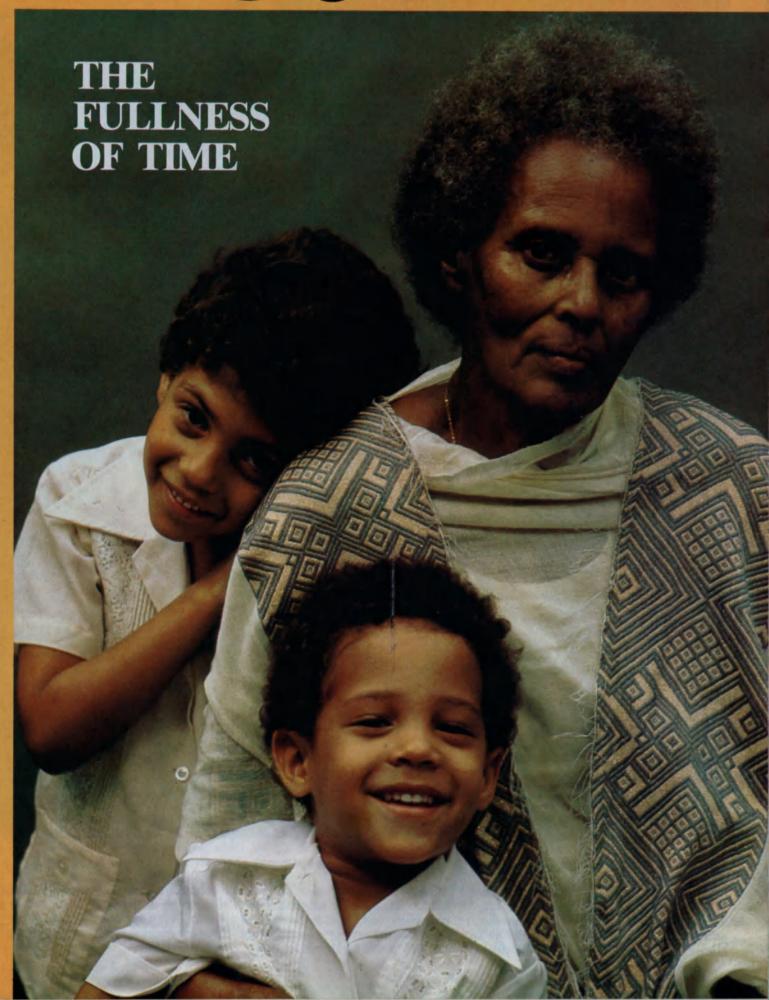
The Unesco Cottober 1982 - 5 French francs Unesco Cottobe



A time to live...



6 SOCIALIST REPUBLIC OF VIET NAM

Voting day

"The word of the Elder is the pure Word..." The respect or even veneration in which certain traditional societies, notably in Asia and Africa, hold their older members, is far from being the universal rule. The situation of the aging varies widely from one society and civilization to another, reflecting different social structures and outlooks. But it appears universally true that for older people full participation in family and community life is an important part of the recipe for a rewarding life. Above, vote-casting during the municipal elections in Ho Chi Minh city in 1981.

A window open on the world

OCTOBER 1982

35th YEAR

PUBLISHED IN 26 LANGUAGES

English French Spanish Russian German Arabic Japanese Italian

Hindi

Tamil Hebrew Persian Dutch Portuguese Turkish

Korean Swahili Croato-Serb Macedonian Serbo-Croat Slovene Chinese Bulgarian

A selection in Braille is published quarterly in English, French and Spanish

Urdu

Catalan

Malaysian

Published monthly by UNESCO The United Nations Educational, Scientific and Cultural Organization Editorial, Sales and Distribution Offices Unesco, Place de Fontenoy, 75700 Paris

Subscription rates 1 year: 48 French Francs 2 years: 84 FF

Binder for a year's issues: 36 FF

Editor-in-chief: Edouard Glissant

ISSN 0041 - 5278 No. 9 - 1982 - OPI - 82-1 - 391 A

4 THE SPLENDID COMPANY OF OLDER MEN AND WOMEN by Philip Wright Whitcomb

8 THE MYSTERY OF AGING

The mechanisms of growing old are still not fully understood by Ana Aslan

10 THE FIRES OF WINTER

A joint US-Soviet enquiry into extreme old age

by Victor Kozlov

page

14 THE ETERNAL RETURN

In Africa old age is a privileged moment in the endless circle of life by Nsang O'Khan Kabwasa

16 A FAMILY AFFAIR

How China cares for her aging millions

by Yi Shui

18 CENTENARIANS OF THE HIGH VALLEYS Photo story

20 THE AGING WORLD

Facts and figures

21 HOW THE FAMILY CAN HELP

22 THROUGH YOUTHFUL EYES

- 1. What young people think about the elderly and aging
- 2. Bridging the generation gap

28 EDUCATION AND AGING

A Unesco study

32 AN INTERNATIONAL PLAN OF ACTION

2 A TIME TO LIVE...

SOCIALIST REPUBLIC OF VIET NAM: Voting day

Oditorial

BENEATH the massive canopy of a single banyan tree as many as 20,000 people have been known to gather, and traditionally the tree has been a focal point of community life in many countries, providing shelter for markets, social and religious gatherings, and meetings of village elders.

It was under the sign of a stylized banyan tree (above) that the United Nations World Assembly on Aging gathered at Vienna, from 26 July to 6 August this year, to formulate an international plan of action to improve the quality of life of the world's fastest growing age group, the over 60s.

Longevity in the past was for the few. In our century it has become the

destiny of the majority. For this reason we have opened this issue of the Unesco Courier both to the elderly, represented by a remarkable nonagenarian, Philip Whitcomb, who opens our eyes to the enormous potential contribution of the over 60s, and to the young, who explain their relationships with and attitudes towards an age group to which they themselves will one day belong.

A long life in itself is valueless unless it is also a full life. Ana Aslan and Victor Kozlov bring us up to date with the latest research on the aging process and the prospects for improving standards of health during the later stages of life. The example of the vigorous centenarians who inhabit the high

valleys of the world is portrayed in words and pictures, and Nsang O'Khan Kabwasa and Yi Shui describe the social aspects of growing old in Africa and China.

Finally, a Unesco study on education and aging and a summary of the International Plan of Action drawn up in Vienna to guide States in handling problems brought about by the worldwide increase in the number of elderly persons make clear the need for immediate action if the transition to a world in which an extended lifespan is the norm is to be smoothly accomplished.

Cover: Ethiopian grandmother.

Photo: Gérard Dufresne, *Unesco Courier*.





The splendid company of older men and women

by Philip Wright Whitcomb

N important achievement of the World Assembly on Aging has been a clarification of the obligations of society to its older members. But an equally valuable result may prove to be an increased understanding by all older people of the value of their individual contributions to the social groups of which they are members."

This statement, made on the closing day (6 August, 1982) of the World Assembly on Aging, in Vienna, by its Secretary-General William M. Kerrigan, clearly indicates the new importance of the part to be played in society by older individuals.

In the countries of the West, the importance to society of its older members and the nature of their role had indeed become blurred over the last hundred years or more. The industrial revolution had deprived them of their millennial role of wise counsellors. Their relegation to a status of a vaguely honorary citizenship became even more evident with the technical tidal wave of the twentieth century—automobiles, planes, instant communication, stereo and video, and, most disruptive of all, battalions of computers and data banks.

Readjustment of the social position of the elderly was slow in coming, but

by the 1960s pressure from three directions had already begun a process of change the meaning of which has now become clearer.

The first of the three factors to take effect was a long-delayed emphasis on human rights. Simple logic and human decency combined to add the elderly to the others whose rights demanded reestablishment.

A second factor was the formation of a steadily increasing bloc of retired voters. In the industrialized countries new systems of retirement pensions were introduced based on outdated statistics of life expectancy. And the size of this new class of voters was fre-

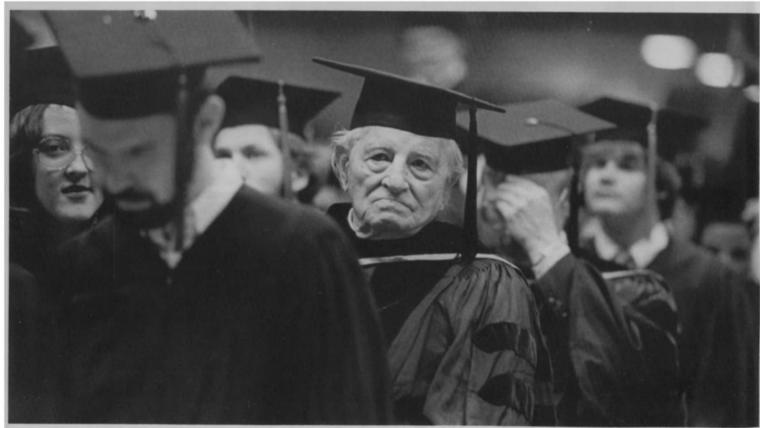


Photo © Kansas Union, Lawrence, USA

Most of the authors of the thousands of articles published during the last few years on the problems of the aging have been men and women in their pre-retirement years. Philip Whitcomb, the author of the article starting on this page is now beginning his ninety-second year. After a sixty-four-year career as an American foreign news correspondent, he entered the graduate school of the University of Kansas. He is seen above at the degree-giving ceremony at which he was awarded a Ph. D. in scholastic methaphysics, thus becoming, at eighty-nine years of age, the oldest graduate in the history of the University.

quently increased by a theory that early retirement could help to reduce unemployment. Simultaneously, shorter working hours, new standards of hygiene and a new understanding of the nature and importance of health combined not merely to increase life expectancy but also to ensure that in certain respects the new generations of retired persons were still fully efficient.

The third factor, sharply distinct from pity, respect or love for the elderly, and from cautious consideration of their political power, is the growing recognition that the world of today and tomorrow cannot afford to neglect the contributions of its growing company of older men and women.

Who exactly are the members of this steadily growing part of the world's people—the older members of society? What is meant by saying that a certain individual is "old" or "aging"? What is today's meaning of retirement? How does it change the life of the individual?

Let us consider the latter question first, the meaning of retirement and the fundamental change in the individual's life. In the final years of life the vital difference is a freedom of choice impossible in the first two parts of human life as we know it today.

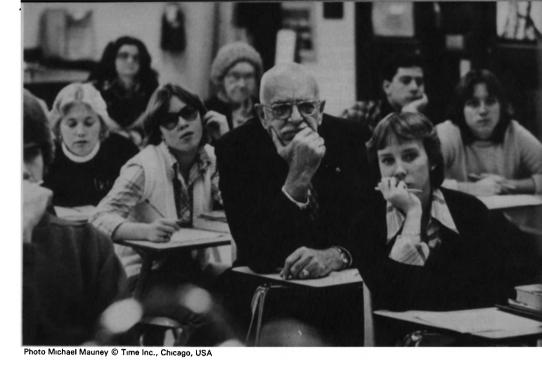
Throughout the prenatal period, through childhood and through the training and education of youth, freedom of choice is either non-existent, minimal or illusory. Heredity, the anxious guidance of the family, the jealous tutorship of community and school, of religion and politics, of nationality and of humanity itself, all combine to make predestination at least a partial reality.

In the second period of life too, with its more or less full participation in one or two of the multiple activities essential to humanity for its continuing existence, choice is again close to illusory. In the great majority of lives choice is strongly affected, often dominated, by the need to earn a living.

But in the third period of a typical life in the Western world today, some provision, probably at least minimally sufficient, is made by pension funds, governmental or private, through savings or by some family arrangement, not only for physical needs but for an activity to be chosen by the retired person.

For the first time since conception, the individual feels free to follow some desire that necessity or common sense had long repressed. Driven perhaps by an accumulated hatred for early morning alarm clocks and obnoxious timetables, a first choice may be to leave each day to chance and whim—a choice probably soon abandoned.

A second choice is usually travel. Participants in organized tours include a majority of retired persons, in all Western countries. But costs are high and ten days or a fortnight may be the limit. Time spent with children or



Above, 67 year-old retired automobile engineer Ronald Brown sits in on a chemistry class at a Michigan high school. As part of an experiment aimed at bridging the generation gap, some fifty older residents of Harbor Springs, Michigan, ranging in age from 55 to 90, are free to attend any of the school's classes they wish and to join in other out-of-class activities. Said one 15-year-old schoolgirl of the experiment: "At first it was weird. Now it's nice... well, sort of weird and nice combined".

grandchildren, especially in Western countries, except when emergency help is needed, seems to become less and less. Plato's insistence on the importance for children of visits to distant grandparents is forgotten.

Group activities occupy most of the time of most older persons, either in self organized groups or, especially among the less affluent, in activities arranged by the professionals now engaged in the care of the elderly.

Serious scholastic effort by the elderly has developed rapidly in the last fifteen years. Not only are local study groups available; university courses are increasingly available. The university section for the elderly in one of the world's oldest universities, that at Toulouse, France, is internationally famous. In Paris the Sorbonne has revived, after an interval of over ninety years, what it now calls its "inter-age" lectures. American State universities, and many others, make special arrangements for persons beyond retirement age.

The activities just mentioned, leisure, travel, clubs and continuing education, are all related to the awakened recognition of the human rights of the elderly. They ease the conscience of society rather than adding directly to its strength. They are inspired by the obligations of any group to each of its individual members.

But obligations are reciprocal. Between the individual and the different groups of which he may be a member—family, community, religious, political, national, global or simply human—a two-way relationship is inevitable. And so it is on the older person's obligations to some of the many groups to which he or she may have belonged that a new emphasis is being placed.

In many cases the individual achieves sufficient financial success in some disliked activity, forced upon him by circumstances, to be able to retire as early as forty or forty-five and undertake something long dreamed of. In other cases the change from an unhappy activity may only occur at what is regarded as a normal retirement age, but the resultant contribution to some part of the social structure can be important.

Even more obvious is the result when retirement opens the way at last for achievements in literature, music, painting, astronomy, ornithology, botany or any of the scores of specialized fields in which a passion for the subject, accumulated knowledge and skill, combined with patience and plenty of time, are essential.

The dictum "look to the middleaged for good work, to the young and the old for masterpieces" is perhaps no more than a clever exaggeration. But there is no exaggeration in the American poet Longfellow's tribute to famous men who defied old age:

"Cato learned Greek at eighty;
Sophocles
Wrote his grand Oedipus, and
Simonides
Bore off the prize for verse from his
compeers,
When each had numbered more than
fourscore years;
Chaucer at Woodstock with the
nightingales
At sixty wrote the Canterbury Tales;
Goethe at Weimar, toiling to the
last,
Completed Faust when eighty years
were past.

Turning now to the original question, who is old and what is aging, two points are obvious: first, that the health of persons entering the period

▶ of retirement is the result of the same causes that made them healthy or unhealthy when younger; and second, that physical aging and mental and spiritual aging take place at quite different speeds and different times.

No one needs to be told that statistical methods of defining old age, essential though they are for insurance and for governmental and institutional planning, fail to explain individual cases. Wide variations from a statistical mean, or from the mental and physical effectiveness that an individual's record in youth and middle age would justify, may be due not to any profound biological factor but merely to the same causes that ruin the career of a football star or a prodigy of the violin—alcohol, drugs, laziness, gross over-eating or even an explosive temper.

On the question of physical by senescence accompanied maintenance or even the improvement of mental and spiritual faculties, the experience of all who know a number of older people indicates that there are indeed two kinds of aging. Scholarly examination of the question in many countries confirms this conclusion. Examples quoted at random might include work done by Dr. Karl Menninger of the Menninger Foundation in Topeka, Kansas, by Dr. Walter Crockett and Professor Gary Shapiro at the University of Kansas, and by the neurologists Professor Herbert Haug, Professor Wolfgang Schlote and Professor William Meier-Ruge in the Federal Republic of Germany and Switzerland.

In the college of medicine at Lübeck, Professor Herbert Haug, head of the Department of Anatomy, has shown that the section of the brain which converts sensory impressions into conscious awareness does not change with age, or that the changes are impercepti-ble. The cerebrum, where sensory information is processed to become conscious thought, does shrink with age, but this shrinkage affects only the frontal, and not the parietal, part. In other words, some sections of the brain appear to undergo no aging process, while other sections definitely begin aging at some point near the age of thirty.

Some earlier assumptions are now seen to be erroneous. For example, the brown pigment lipofuscin, the volume of which in some tissues of the brain does increase with age, is now seen to be a deterrent rather than as was previously thought a cause of aging. Professor Wolfgang Schlote, at Tübingen, has found lipofuscin in the body cells of infants, a fact which becomes part of his proof that it has a protective function, that of absorbing dangerous by-products of metabolism and thus preventing the death of the nerve cells which it protects.

Heredity, often cited as a cause of differences in aging, is in part absolved by Professor William Meier-Ruge, at Basle, insofar as failures of the cholinergic system are concerned. It is this system that transmits impulses from the central brain and is therefore involved in those familiar failures to retrieve stored information and make it available to the conscious mind—a discouraging phenomenon familiar to students at examination time as well as to older people. Though hereditary factors do, according to Professor Meier-Ruge, account for differences in cholinergic systems, a chief cause for their failure may simply be disorders of the metabolism.

Errors and disagreements in evaluating the problems of aging are inevitable, so emotion-laden is the entire subject of withdrawal from active life

for the future regardless of emergencies and temptations, we undertake as your trustee to collect and invest your obligatory and automatic contribution, to invest it wisely and at an agreed point in your life to begin paying you an appropriate annuity." Theoretically the all-wise government invests these funds in wealth-creating activities and uses the product in the payment of the promised annuities. The national economy is strengthened and the individual protected. And the money obligatorily contributed by each worker, whatever his age, becomes, theoretically, the basis of his own future annuity... not that of someone else.

At 80, Mabel Karelse, who could see for most of her life, found it difficult at first to learn braille. But with Pattie Gregory, 17, who is also blind, coaching her for several hours a week she is making good progress, especially since it was pointed out that if she mastered braille she could nonce again play cards. "You know we both learn", says Mabel, "Now I am going to teach Pattie to cook."



Photo Michael Mauney, Life magazine © Time Inc., Chicago, USA

and the approach of death. But though some errors are made only because of insufficient scientific data, others may be due to prejudice.

The cry of alarm that "the world's population is aging faster and faster" is in fact the opposite of the truth. A century ago, young people of twenty could still expect to reach old age in thirty or forty years; now it will take them fifty or sixty years before they will admit to being really old. Aging has become a slower process, not a faster one.

Political objectives seem to be involved when disaster is predicted on the ground that the retirement pensions of the old are deducted from the hard-earned pay of the young, creating an impossible problem as the number of workers diminishes while the horde of the idle aged increases rapidly.

The problem, and it is a real problem, cannot be solved by concealing the theory underlying all obligatory retirement annuity plans. An organization—in this case a government—with the power to collect a part of all wages and salaries declares, in effect, to the recipients that "for two reasons, first because the years will come when you will no longer be paid for working but will still need money, and second because you, being human, would be unable to save and invest your money

Discussion of the problem of retirement annuities and of obligatory or voluntary withdrawal from the main productive activities of a nation may have obscured an enormous change in the social structure of many countries. The network of structured activities linked with the first part of life is rapidly being counterbalanced by a startling new structure of professions and institutions devoted to the third and final part of life.

Suddenly a score of professions are devoted only to the elderly; in France a periodical magazine has been founded to meet their needs. Gerontologists of various kinds abound and no university is complete without some kind of gerontological studies.

In the Western world there are at least a thousand dwelling centres constructed and managed solely for older people and at least one town—Sun City in Arizona—limits its citizens to persons over a certain age.

But underlying the multiple and diverse activities proposed for older people, or even imposed on them, the basic principle of human society remains determinant: obligations are reciprocal between each individual and the various groups of which he is a member.

Grandparents, for example, are members not only of a family, a com-



munity, a nation and a racial group, but probably of one or more other groups—religious, political, professional, social or nostalgic.

The obligations of each group to its older members and former members have been the subject of almost neurotic attention during the last fifty years. Today not only the obligations of older persons to the groups to which they may still belong, but also the unique value of many of the contributions they can make, are more fully understood.

The structure of human society will suffer dangerous strain if a continuously enlarging segment of its people are relieved of all obligation to the world that nurtured them. In today's confusion of what too often seems to be insoluble problems, the existence of a steadily increasing number of parasites must be unthinkable.

Few older people now think of themselves as parasites. On the contrary they consider themselves to be well equipped with good health, good judgment, some special skills and a great deal of experience. And ready though they may be when need arises to care for their children's or their neighbour's children, dogs, cats and houses, their personal preferences go much farther.

Many take part in group activities such as welfare work, advisory committees to help young business people, teaching and counselling. Others limit themselves to personal activities, often those in which they had once felt a passionate interest but with little opportunity for participation—painting, music, creative writing, historical or family records, research in astronomy, natural history or some other area linked to a secret ambition. Archaeological digs, reconstruction of abandoned villages or buildings, planning or completion of trails and roads—these and other activities imposed by the variegated experience of a lifetime can serve to fulfill the obligations that retired persons may feel towards the society that had made their lives possible.

Whatever activity may be chosen, the effort will be infinitely less than it would have been even forty or fifty years ago because of changes that are yet scarcely realized.

Every week, last-year pupils Kevin Gilhuly and Jerry Jessick play the word game "Scrabble" with 73-year-old Florence Stewart. "I was amazed when it turned out to be fun, says Kevin. "With Florence, I find that I am expanding my vocabulary". For Florence, "Those boys are terrific... When they talk, they talk about something interesting."

So fundamental has been the change in the infrastructure of all human activity that a normal output in most kinds of work could be achieved in twenty-five or thirty hours a week, leaving almost as much time available for some creative or artistic activity. Ego-extensor devices, recorders, microfilms, video tapes, data banks with instant retrieval, satellite transmission—the fast-increasing array cuts the time spent in the endless nonproductive tasks that absorbed the strength of human beings, a change of great importance to all whose physical strength is waning while mental and spiritual powers are maintained or sharpened.

The human beings of the world form three great companies. On those three companies the true wealth of the world depends. The first is the company of the young who learn. The second is that of the middle-aged who continue necessary and improve the achievements of the past. The third company are those who first learned, then made their own particular contribution to maintaining and bettering the achievements of the past, and are now free to fulfill, if they so choose, their individual obligations to some small group or to the whole of the society that nurtured them. So grave are the problems of our world today that the contributions of this third great and splendid company, steadily growing in numbers and in potential, must be sought and facilitated.

Secrets of a nonagenarian

There is a tradition that persons reaching the age of one hundred should be asked, respectfully, for the secret of their continuing existence. Persons less than a hundred years old are not usually expected to have any secrets at all, and I was therefore surprised when the editors of the Unesco Courier asked for mine.

Whatever the explanation of how I am approaching the age of ninety-two in excellent physical condition and, I hope, a fairly reasonable mental state, it seems not to be heredity. The fact that even if only the last seven generations are counted an individual must have over two hundred ancestors makes it impossible for ordinary people to say whether their ancestors lived long or not.

The points I think of as important are the following. I have never used tobacco, alcohol or what are usually referred to as "drugs". I am very suspicious of medicines of all kinds but admire the skill of today's surgeons.

When I was about twelve years old I subscribed to a magazine called Boy's Physical Culture, a publication which soon died. But I have continued daily physical exercise for the entire eighty years since then—I now do about twenty-five minutes each morning and fifteen

each afternoon. I have tried with some success to attain a sort of medium efficiency in a considerable range of sports: American football, rugby, basketball, running, rowing, heavyweight boxing.

Throughout sixty-four years of journalism I have tried never to specialize but to write continuously about the widest possible range of subjects from holiday tours, children's games and archaeological research to analyses of economic reform programmes and interviews with prime ministers.

As a war correspondent I flew with a general in an air battle, rode in a captured submarine, and was myself twice interned for a total of about two years.

Throughout my journalistic career I have written well over twelve million words, but I never failed to continue my study of philosophy of all kinds.

I firmly believe in the necessity of daily exercise, not only physical but also mental and spiritual, and I continue them regularly as I always have.

Philip Whitcomb

The mystery of aging

The mechanisms of growing old are still not fully understood

by Ana Aslan

ANA ASLAN is general director of the National Institute of Gerontology and Geriatrics, Bucharest, and a member of the Academy of the Socialist Republic of Romania. The author of over 250 papers and studies on aging, Professor Aslan is widely known for her advocacy of the use of certain chemical drugs as a means of retarding the aging process. Among the many distinctions she has received in recognition of her work are the titles of Hero of Socialist Labour (1971) and Merited Scientist (1977) of the Socialist Republic of Romania, and the World Health Organization's Leon Bernard Medal and Prize.



GING is an evolutionary process of life which is linked with heredity, environment and time, but whose precise causes have yet to be determined.

Many gerontologists regard aging as an illness, and experimental therapeutic research carried out at Romania's National Institute of Gerontology and Geriatry in Bucharest over a period of some twenty-five years indicates that with the aid of certain chemical drugs, especially hydrochloride para-amino-benzoate diethyl-amino-ethanol, the aging process can be retarded. Furthermore, it has been found that the use of cell cultures can lead to an apparent regeneration of human cells or at least to the absence of cell modification or impairment with time. These findings, supported as they are by research carried out in other countries, seem to justify the optimism of the Romanian school of gerontology.

One of the basic problems of gerontology is how to distinguish between changes caused by age and changes which are pathological in origin, for in many cases such as arthritis and the thromboses, which develop as people grow older, both kinds of change are associated.



Another difficulty lies in the fact that there is no single criterion for determining biological age. Everyone who has done research into aging has encountered this difficulty. Although criteria of aging feature in the first study programme drawn up by the Romanian National Institute of Gerontology and Geriatry in 1952, a satisfactory solution has still not been achieved. Today, specialists wishing to determine biological age, which does not always coincide

with chronological age, take into account the functional criteria of all the organs and changes occurring in all the metabolisms.

It would be extremely useful to be able to diagnose biological age, also known as functional age, both from the biological and the social point of view.

Within the limits of a given species there exist wide functional variations from one individual to another, proving



that in addition to heredity the environment exercises a preponderant influence.

It is thought that aging begins at the same time as life itself. However, from childhood until the moment when growth ceases, constructive phenomena predominate and the functions of the organism are not affected. But with the coming of maturity and old age there is a gradual functional decline caused by the loss of active cells. In short, the aging process, at least from the functional point of view, begins when growth stops, and it is quite arbitrary to suppose that old age begins at sixty.

Another difficulty stems from the fact that the question of the mechanisms of aging has not been elucidated. In this connexion, one of the theories supported by geneticians envisages the possibility that aging is "programmed".

Another theory, which has won widespread support in the world's institutes of gerontology, has been furthered by advances in the field of immunology. Immunologists have noted that humoral and cellular reactivity diminishes with age, while auto-immunity phenomena are strengthened and become dominant, in other words, immune reactions begin to attack cells of the person's own body. Another theory



Spring, Summer, Autumn and Winter (left to right) by the Flemish artist Joost de Momper (1564-1635).

stresses the gradual loss and impairment of post-mitotic cells (neurons). This explains why the study of the central nervous system from the morphological, biochemical and functional point of view has acquired such importance in research on aging. The possibility of influencing this system has even been mooted owing to its importance in maintaining homeostasis and adaptability, two phenomena which are affected by aging.

It is now known that the life of mitotic cells is limited. The cellular function undergoes changes caused by the accumulation of lipofuscin in the cytoplasm, and other factors, the outcome of which is fatal.

Some of the factors in aging have been identified, such as certain free radicals [groups of atoms which usually exist in combination with other atoms, but which may exist independently for short periods] which are responsible for major changes in the cellular membrane and for the growth of cross links between or within the molecules of collagen, a fibrous protein that gives elasticity to body tissues.

Naturally the laboratories are testing the soundness of each of these ideas. However it is possible, as we have noted, that aging is the result of several interconnected mechanisms, some of which have not yet been discovered.

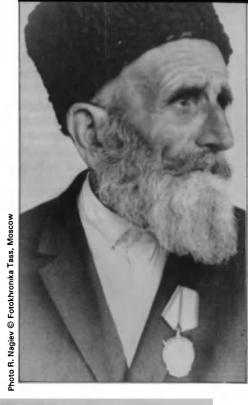
It should also be pointed out that the number of persons over sixty-five who enjoy perfect health is currently very low, and that today at least the problem of old age is above all a medical and social one. If current difficulties are to be overcome, greater importance must be attached to the prophylaxis of aging; only then will the World Health Organization's slogan "Health for all by the year 2000" have any meaning for the aging.

The fires of winter

A joint US-Soviet enquiry into extreme old age

by Victor Kozlov

VICTOR KOZLOV, of the Soviet Union, is director of the Department of Ethno-ecology of the Ethnographic Institute of the USSR Academy of Sciences. The author of more than 150 works, his writing and scientific achievements have been recognized by the award of the USSR State Prize and the N. Mikloukho Maklai Prize of the Academy of Sciences. He is at present participating in a joint USA/USSR multidisciplinary research project on peoples and ethnic groups with a high proportion of persons of great age.





HE increase in the numbers of the elderly in many countries has created the need to investigate the reasons for "the aging of the nations". Current studies are seeking to identify the economic, demographic and social consequences of this phenomenon and to help in the search for effective solutions to the problems it raises in such fields as medicine, the social services, and housing.

The first question which arises is how long is the optimal life-span of a human being? It has to be admitted that so far science has produced precious little about this matter. The biologically "normal" life-span of homo sapiens has not yet been established, and scientists have widely different opinions on the question.

tumours. Such complaints are increasingly frequent as people grow older, and it is almost as difficult to combat them as it is to combat old age. Accordingly, in some countries the average life-span is rising beyond the age of seventy much more slowly than might have been expected. In Sweden and in some other countries, it is predicted that the average life-span, which is now seventyfive years, will not reach eighty years until the end of the century. However, the average life-span for mankind as a whole could, in certain social and cultural conditions, reach ninety years. Those who cross this age threshold are called by gerontologists "persons of great age".

The study of the phenomenon of longevity is of great theoretical and

groups with a high degree of longevity are found in Yakutia, in Tajikistan, in Byelorussia and in the Baltic Republics. It has also been established that the longevity index is higher among some national groups than others. In the Caucasus this is the case notably among the Balkars, the Abkhasians, the Azerbaijanis of the Nakhichevan Autonomous Republic, and among the Armenians of the Nagorno-Karabakh Autonomous Oblast, whereas in Armenia itself the average length of life is scarcely higher than the average for the Soviet Union as a whole.

In 1977 an agreement was concluded between Soviet and U.S. scientists to carry out in parallel work on "comprehensive biological, anthropological and socio-ethnographic studies of the



The youngest member of the "Nartaa" group of dancers and singers (left) is a sprightly 70, the oldest is 120 years of age. The group, from Soviet Abkhasia, won a Golden Peacock award in an international folk arts competition in Hungary and also featured in a French TV documentary film. Abkhasia's international reputation for longevity spread even further when US ethnologist S. Benet wrote a successful book on The Long-Living People of the Caucasus after visiting the area.

Photo © Fotokhronika Tass, Moscow

Information about persons who have lived to the age of 150 and over, although not fully verified, has led some specialists to claim that this is the normal human life-span. Others, including the author of this article, believe that the average length of human life cannot be deduced from isolated and unchecked "records" of longevity and that all the factors should be assembled and analysed.

It can be said that in the economically developed countries the struggle against the external causes of death is almost over. In these countries the main killers have been for some time such internal causes as cardiovascular diseases and

practical interest because it brings a new insight into the problem of "aging nations" and suggests ways of facing up to an issue whose incidence varies greatly from one country to another. Persons of great age are to be found in almost all big cities and rural areas; nevertheless there are certain areas where their numbers are particularly great.

In the Soviet Union one of these regions is the Caucasus. According to the 1970 census, some 7 per cent of the population of the USSR lives in the Caucasus; nevertheless 16 per cent of all the country's persons of great age and 35 per cent of those over a hundred years of age live in this region. Other

peoples and ethnic groups with a higher than normal percentage of long-lived persons." In the USSR the work is carried out under the direction of the Institute of Ethnography of the USSR Academy of Sciences in Moscow, and in the United States by the New York Research Institute for the Study of Man.

This project is distinguished in two ways from previous research on the subject, notably that carried out by gerontologists. Firstly, the phenomenon of longevity is being studied at the group rather than the individual level, and is being observed over several decades. Secondly, it is not the ailments of old

▶ people and methods of treating them which are being studied, but the causes of the phenomenon of longevity, in tandem with research in ecology and the human sciences. This type of research had hitherto not been carried out scientifically.

In the USSR the first investigations concerned the rural population of Abkhasia and certain groups of Georgians living there; in the United States the first community to be studied was Robertson, Kentucky, where most of the people are of Scottish or Irish origin. Research has also been carried out as part of a slightly different programme among groups of Mennonites in the State of Kansas.

To explain the phenomenon of group longevity, Soviet scientists have put forward a series of hypotheses (genetical, bio-reproductive, ecological, demographic, psychological and socio-psychological, economic—based on work, housing, living conditions, nutrition) on which doctors, anthropologists, ecologists, demographers, ethnographers, psychologists and other specialists are working.

Today, now that the first stage of the work is virtually complete, research in the USSR is being concentrated on the Azerbaijan area, and in the United States there is a project to extend it to the State of Kentucky.

The data produced so far are still being analysed, and the final conclusions will only be drawn when they are compared with data from other regions with a high proportion of persons of great age. Nevertheless, some points can already be made in relation to the origin of longevity and the problems of the aging of the population.

The basic question is not simply that a large number of persons aged over ninety, or even a hundred, live in a given area but that many of them are in relatively good health, and continue to work and take part in social life. In a word, we are confronted with a "natural" and fully acceptable solution to the problem of the aging of the population. This is today attracting the attention of scientists and the international community.

Our research shows that group longevity is determined by a combination of factors. In the case of the Abkhasians, ecological factors have undoubtedly played a beneficial role, especially the subtropical climate to which the population has biologically (physiologically) adapted in the course of many generations. Some aspects of this adaptation have been reinforced genetically and transmitted to their



At a hundred years of age, M. Avetissian is one of the oldest inhabitants of Soviet Armenia. He lives in the village of Aknahpur, near Idzevan.

descendants. Anthropologists believe that this adaptation has also been reflected in the external morphological characteristics of the Abkhasians—in their relatively small stature and their muscular constitution. However, cases of group longevity also exist in regions where natural conditions are less favourable. Thus it seems that the essential thing is a good capacity to adapt biologically, socially and culturally.

The traditional diet of the Abkhasians plays a vital role in the process. They eat little meat and hardly any animal fats, salt or sugar, but on the other hand they consume lots of milk products (especially cheese), fruit and vegetables, precisely the diet recommended for old people. However, it

would be a mistake to subscribe to the views of those scientists who consider diet to be of pre-eminent importance. The traditional diet of very old people in Azerbaijan, for instance, includes large quantities of meat and fats. This factor thus admits of many variations. All the same, research makes it possible to deduce the existence of a certain "common denominator" in persons of great age.

In the regions we have studied, such persons have generally lived all their lives in the place where they were born, and have always done the same kind of work, in farming or in the home. The country people end their working lives gradually and many of them continue at an advanced age to be as active as their strength permits, working in the home,

and sometimes even in the fields of the kolkhozes. They still see their circle of friends, and take an active part in various social activities. The situation of those who live in the towns and cities is quite different. Old people in an urban environment often suffer from what might be called "retirement sickness", the result of a sudden break in their working life, an interruption in their former social relationships, a complete change in the pattern of their daily lives. All this provokes nervous tension, a growing sense of isolation and uselessness and a feeling that they have no more reason to live. City life does not provide them with an opportunity to replace the physical work they carried out before retirement with another kind of activity and leads to cases of hyperactivity.

Seeing their relations and friends helps old people to preserve their interest in life, and the breaking of these ties tends to reduce their mobility and to bring about a deterioration in their morale and health. Thus one solution to the problems faced by old people is to give them a chance to live near to their children and their families. This would allow them to keep up their old contacts and would ensure that they received the necessary care when they were ill.

It should also be borne in mind that the number of people living alone increases with age, especially in the case of women, who on average live longer than men. Furthermore, it is usually more difficult for widows than for widowers to remarry late in life. Another factor in the USSR is the heavy losses in men during the Second World War (1941-1945) as a result of which almost a quarter of all the women over sixty today have no family. The Soviet social security organisms and other organizations are particularly concerned with old people who are living alone and who are in many cases sick and unable to work. In this connexion, attention should be drawn to the special decision of the USSR Minister of Public Health concerning the "measures relating to the organization of the medical protection of old people."

In the rural areas we have studied, old people live with the family of one of their grown-up children (among the Abkhasians this is traditionally the family of the youngest son). They maintain regular contact with their other children, relatives and friends, who usually live in the same village. Clan and family relationships are particularly strong among the Abkhasians: several hundred people gather at weddings, funerals and annual family reunions.

The traditional strength of these family ties has a powerful effect in reducing stress, especially in extreme situations: when a person is fully supported by those around him, it is as if his burden of grief is lessened through being shared with dozens, even hundreds, of people. The traditional code of social behaviour which prescribes that each person should obey certain rules of behaviour in situations of great tension may also contribute to mental health and longevity.

In all the ethnic groups we have studied we have encountered a strongly expressed liking for old people, who enjoy a privileged position in the family and in society, high moral status and universal respect. Perhaps this tradition goes back to the once widespread institution of gerontocracy.

The influence exercised by old people on the course of events is perhaps not as strong as it was but, especially among the Abkhasians, they continue to play a leading role in family councils, clan assemblies and village meetings. In everyday life care and attention are lavished on them; at family gatherings and meals they are given a place of honour, in accordance with their age. This source of social and psychological

comfort, which strengthens the feeling that they are useful to their family, including the young generations, and to the wider circle of village people, undoubtedly helps to keep them active and prolongs their lives.

It is hard to see how all the elements of the traditional way of life of Abkhasian or Azerbaijan villagers could be transplanted to a modern urban environment in order to help solve the problems of old people. But some of them, notably the social and psychological factors, are worthy of study not only by specialists but by all who work for old people.

The results of our research should not be considered as practical recommendations on ways of living, diet, medical treatment and other aspects of the subject which must be tackled by gerontologists. All the same, these scientific observations and conclusions may be profitably used, for example, in planning vast housing complexes, organizing the public health system and the geriatric services in given geographic and ethnocultural regions, in protecting the environment, and in making young people aware of positive forms of behaviour and community spirit which may help combat stress—one of the factors which shortens human life.

■ Victor Kozlov

Happy huntress A.P. Habarova, right, is 94 years old. She lives on the Kamchatka peninsula which extends southward from eastern Siberia. Along with Tajikistan, the Soviet Baltic countries and the Caucasus, Siberia is a part of the USSR where people often live beyond the age of ninety. The same phenomenon is found in other parts of the world including Colombia, Ecuador and the United States.

Photo Y Muravin © Fotokhronika Tass, Moscow



The eternal return

In Africa old age is a privileged moment in the endless circle of life by Nsang O'Khan Kabwasa

N the African society from which I come—the Ambuun, the people indigenous to the Kwilu region in Zaire people are not regarded as being elderly at a specific age, but are recognized as such when their hair goes white or when they become grandparents, and then they are addressed with deference and honorary titles are attached to their names. They are generally called tata (father), mbuta (elder) or even nkuluntu (literally: "old head"). In this society of oral traditions, as in most African societies, old people are the foundation of village life. It is said, moreover, that a village without old people is like a hut eaten away by termites.

The respect in which they are held stems not only from their having achieved long life - a rare phenomenon in Africa but also from the African animistic view of the universe in which life is seen as a never-ending current flowing through succeeding generations of mankind. Before his birth, the African is already part of this process; he forms part of a group from which he is indissociable, he cannot be separated either from those who have preceded him or from those who will follow him, and traditional values will protect him against abandonment and

In this African view of the world, which is linked to the concept of vital force, old age constitutes a stage in human life towards which everyone aspires since the belief in an afterlife, in the continuity of life and in ancestor worship places old people in a special position, since they are the link between the living and the dead.

This unending life is seen as a circular movement going from birth to death and from death to birth (see diagram).

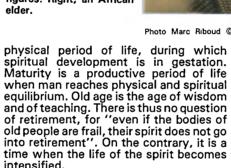
Just as the child is destined to become an adult, the adult an old man, and the old man an ancestor, the ancestor as vital force will be reborn to complete the circle of life in the universe. In the Ambuun conception of the universe, after death begins the invisible life of the spirits, that of the ancestors. This invisible world contains the supreme vital force which the ancestors communicate to old people.

To each of the three ages of man there corresponds a particular function. Thus childhood is a period of learning, a very

NSANG O'KHAN KABWASA, of Zaire, has been a programme specialist in Unesco's Division of Literacy, Adult Education and Rural Development since 1977. He was formerly a programme officer with the Manpower and Training Sections of the United Nations Economic Commission for Africa, in Addis Ababa, Ethiopia. He has won literary prizes for his short stories, written in English, and his short stories for children, written in French.

In certain countries there is strong and persistent tradition that young people should show respect and deference towards the 'elders", protecting them from solitude and neglect in the village community. At the same time there is a growing tendency for achievements in formal education to become the yardstick for determining status. This erosion of community values, linked notably to the spread of the individualistic values of urban life, heightens the risk that older people may become isolated, marginal figures. Right, an African elder.

intensified.



Old people continue to fulfil important functions in society, functions which rely on their knowledge of traditions in various fields: legal, religious, medico-magical, educational or economic. It is at the time

of initiation that, as possessors of traditional knowledge, they ritually transmit their practical experience orally to the new generation. That is why, as the African sage Hampâté Bâ of Mali has so aptly expressed it, it is a common saying in Africa that "Each time an old man dies, a whole library goes up in a flower." a whole library goes up in flames"

Moreover, old people are not only respected, they are also feared; though if it should happen that an elderly person is not on very good terms with the other members of the family, the magical force which he possesses may sometimes work against him and he runs the risk of being regarded as a Ndoki (a sorcerer, a



Photo Marc Riboud © Magnum, Paris

Right, a banyan tree in Madagascar. The banyan (Ficus Benghalensis) is a fig tree native to tropical areas of Asia although varieties are also found in Africa and Latin America. From its branches the tree drops aerial roots which form new trunks which send out aerial roots in their turn. Thus the tree can grow to cover an immense area (up to 700 metres in circumference). It can grow to a height of 30.5 metres. The symbol of longevity and the focal point of com-munity life, the banyan was chosen as the logo of the World Assembly on Aging.



caster of evil spells). He may then be sent away and banished from the village, but generally efforts are made to appease him with presents so that he will withdraw his evil spells and bless the activities of the young people.

With advancing age and the weakening of physical powers, the elderly become dependent, and it is the youngest member of the family who is responsible for looking after them. It is for this reason that every man aims to have a large family as insurance for his old age. Naturally, such systems only work effectively when the entire family lives in the same village and follows a traditional way of life.

However, nowadays there is a risk of old people being socially excluded or isolated when the young go off to the towns or to foreign countries. With the decline in traditional values, the introduction of modern Western schools and the spread of the individualistic values of ur-

Chokwe staff surmounted by a head wearing the tall headdress of a chief. Two smaller heads are set into the sides of the headdress.

ban life, the spectre of old people's homes has begun to appear in some African cities. The question is what can be done about it.

The affirmation of cultural identity and the restoration to their true value of the African traditions mentioned above could serve as a guide to young people in Africa in the construction of a modern Africa which would not be based solely on imported values unsuited to African socioeconomic conditions. This would reject

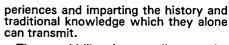
In black Africa the chief's staff is a mark of his prestige and the insignia of his authority, and in some regions plays an important role during palavers between the elders of different clans. The knobs of these "palaver staffs" are carved with representations of human or animal figures symbolizing the ancestor whose interests the chief defends. Right, copper nails are embedded in the anthropomorphic knob of this Chokwe chief's staff (length 77 cm; Cubango district, Angola).



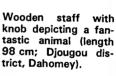
the individualistic conception of making people of a certain age go into retirement on the fringe of society because they are no longer physically productive, ignoring the spiritual contribution which old people can make to society.

The spirit of the old does not go into retirement, and it would be a good idea, in order to maintain the contacts between the young and the old, to encourage the young to take every opportunity to learn from the old, who are the possessors of wisdom and a knowledge of life, while at the same time recognizing the importance of Western science and technology.

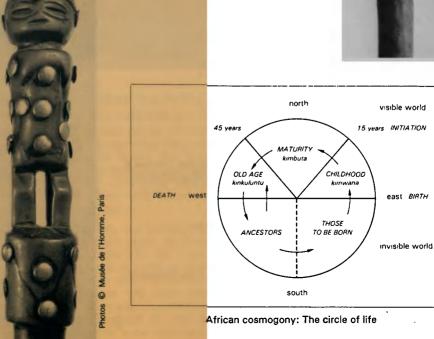
This return to the wisdom of our elders might take the form of encouraging visits by old people to schools. They would thus be called on to contribute to education by giving an account of their own ex-



They could likewise contribute to the establishment of "data banks" of traditional knowledge. An attempt should be made to develop the possibility of integrating the elderly through their active participation in the education of the young, for they have their role to play in contemporary African society and this is the only way of avoiding their isolation from the other generations. The elderly still have something to teach us, and the respect paid to them in traditional societies should not be regarded as outmoded. The system which was founded on the hierarchy of age and ancestor worship should be preserved and readapted to the circumstances of contemporary Africa, in which African and Western values exist side by side.







HILE many traditions may be falling by the wayside throughout the world, in China, the custom of the extended family living together is still followed and the elderly retain an important familial role.

Three generations residing under one roof is a usual occurrence. These traditional ties have brought about a mutual dependence among the different age groups with the grand-parents playing an active part in the family. Thus, the oldest generations in households can look after the grand-children and help with chores according to their ability and, in turn, their children will care for them.

Parents usually continue to live with one of their children, after the latter has married. All the children who become wage-earners, however, will give money, according to their economic conditions, to their parents. However, many old couples who earn salaries or pensions won't accept this monetary assistance.

Pensions and retirement ages, set by the State Council (China's highest governmental organ), are stipulated for urban workers only. Payments average from 60 to 90 per cent of the working wage. Retirement ages for male and female industrial workers are 60 and 50, respectively. For office work, this minimum is raised five years for women. If a person of retirement age has a needed skill and is in good health, however, he or she may sometimes remain on the job.

Many retired persons still like to do some useful work either at home or for the community, such as volunteering for neighbourhood activities, helping children with their lessons or running small day-care services.

One retired couple living in Beijing has a story that can be heard throughout China.

Song Fengzhi, 63, and her husband, Ding Shuangyin, 69, have three sons, a daughter and tour grandchildren. They live with their eldest son and his wife.

YI SHUI, of the People's Republic of China, is a writer on the staff of China Features, Beijing.

A family affair

How China cares for her aging millions

by Yi Shui

Their second son and his wife live with the son's parents-in-law who have no other children. The daughter married an army officer and the couple live in the husband's barracks. The youngest son is single and lives with his parents.

The old couple have been living with their eldest son and his wife for fourteen years. All get along well. The daughter-in-law, Liu Muzhen, never squabbles with her parents-in-law. She knows that they had a difficult time bringing up four children.

"My parents-in-law are growing older and need the younger generation's assistance and support. I have the duty to pay reverence to them and take care of them," Liu said.

Song grew up in feudal China and had to serve her husband's parents as a maid-servant. She wants better for her family. "I suffered quite a lot when I was a daughter-in-law in my

husband's family. I don't want my miserable life repeated in my family. I treat my daughter-in-law as my own daughter and she serves me well," Song said.

The young couple try to give their pay to their parents, but the old couple refuse to take the money. "We have a regular income. We don't need our children's money. But they insist on giving us some money or gifts regularly," Song said.

Song works in the neighbourhood committee, a self-governing residents' organization. Ding is a night guard at the sewing workshop run by the committee. The family spends every evening together and, on weekends or Sundays, the rest of the clan comes to visit.

In other families, if the children live in different cities, they would probably visit their parents on traditional festivals such as New Year's Day, Spring Festival, May Day and National





1. On Shanghai's waterfront, the Bund, an elderly man teaches a teenager *Tai chi chuan*, the traditional Chinese morning gymnastic.

Photo Paolo Koch © Rapho, Paris

2. A Chinese villager hard at work in Xian commune.

Photo Martina Franck © Magnum, Paris.

3. Sexagenarians Song Fengzhi and her husband Ding Shuangyin enjoying the company of their grandchildren.

Photo NCNA, Beijing





Right, an elderly retired worker in the city of Kweilin.

Photo Eve Arnold © Magnum, Paris



visit their harvest. Base or parts of some community form of food,

Day. Parents may also visit their children who live in other parts of China.

Peasants can continue doing farmwork as long as they are able, as there is no stipulated retirement age; nor is there a pension plan for them. But some of the wealthier communes began direct payments last year for peasants who had stopped working due to old age. Under this new system, according to the Ministry of Civil Affairs, 133,000 retired peasants living in communes near Shanghai received payments from welfare funds.

Pensions vary from village to village and are dependent on the living standards of the area as well as the year's harvest. Based on these two factors, some communes give subsidies in the form of food, fuel and winter clothes to families who are supporting old people. The government hopes that this pension system will change the ingrained peasant attitude of having many children so the parents will be taken care of in their old age.

In the countryside, the unmarried grown children usually hand in their income to their parents who will eventually build two- to three-room houses for each son to live in after he marries. These new dwellings are near the parents' home. Daughters, according to tradition, are expected to stay in their husband's home after marriage.

In the one-child family, an old couple with no son will let their daughter bring home a son-in-law to live in their house.

Elderly people with no children may live in old-age homes. The State allocates relief funds for running these homes. City and country governments run about 500 of these facilities and 7,500 are managed by communes and the smaller production brigades. Residents of these homes are guaranteed food, clothing, medical care, housing and, lastly, burial services. Many childless old people, though, prefer depending on relatives whose financial situation is better than theirs.

Centenarians of the high valleys



A 92-year-old mason, José Maria Roa of Vilcabamba (Ecuador) tramples mud for his bricks.

HE medieval alchemists who quested for the philosopher's stone which would prolong life as well as transform base metals into gold might have been fascinated to meet the inhabitants of the valley of Vilcabamba in Ecuador.

Clodovea Herrera of Vilcabamba, still a dab hand with the spindle at





1. Vilcabamba (Ecuador); 2. Hunza (Pakistan); 3. Abkhasia, Georgia (USSR)

In this beautiful spot about 1,500 metres up in the Andes, a life-span of 100 years is considered unexceptional. A census taken there a year or two ago revealed that no less than nine of the 800 people living in the valley were centenarians. (The average in an industrialized country today is some three or four centenarians per 100,000 population.) The oldest Vilcabamban was Miguel Carpio, 123; one of his daughters was a sprightly 98. Micaela Quezada, born in 1870, still spun wool as she had done for over a century. Her older sister had died at age 107, and she still had twelve brothers over 90.

Most of the inhabitants of the valley are descended from Spaniards who settled there at the time of the conquest some 400 years ago. They are Roman Catholics and their claims to longevity can be checked out against baptismal certificates. A British gerontologist, David Davies, who visited Vilcabamba some years ago noted that "the area has seen little upheaval since [the Conquest] either politically or geographical-



From a cloud of wool, Vilcabamba centenarian Micaela Quezada spins threads of time.

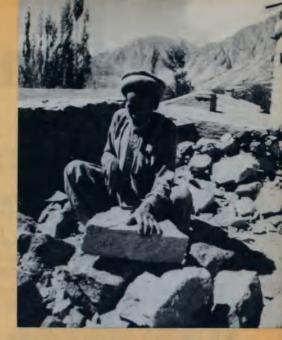
ly, for it is in the zone free of earthquakes. The entire valley is extremely tranquil, and the climate is equable, with much the same amount of sun each day, and a steady breeze always from the same direction.

"Indeed," Davies went on, "it is this tranquillity that is regarded by the Ecuadorian and foreign doctors who have visited the valley and studied the people, as the cause of their great age. Hypertension, heart disease, and cancer are comparatively uncommon. Death is

usually the result of an accident, or of catching influenza from the few outsiders who visit the place."

A particularly remarkable feature of the Vilcabambans was that some of them drank "from two to four cups of rum a day" and smoked "from forty to sixty cigarettes each day", although the rum was unrefined and the cigarettes homemade from tobacco grown in their gardens and therefore, perhaps, less harmful than the usual manufactured products. Less remarkable is the low-calorie diet: the average daily adult intake is only around 1,700 calories largely from vegetables and fruit.

Vilcabamba is one of several places scattered around the world where, for reasons not fully understood, people commonly live to a great age. Other well-known examples include the Hunza region of Pakistan, set in the



A veteran stone-breaker of Hunza in the Karakoram mountain system of central Asia.

lofty Karakoram mountain range, and Soviet Abkhasia and Azerbaijan in the Caucasus. The oldest inhabitant of the Hunza a year or two ago was said to be over 140 years old, while the 1970 census indicated that there were 5,000 centenarians in the Caucasus, or 63 per 100,000. What all these places have in common is inaccessibility and high altitude. French researchers have discovered that in France too people tend to live longer (73 years on average) in mountainous regions than they do in the country as a whole (71.6 years).



Harvesting in the Hunza.

However, the exact relationship (if any) between high altitude living and longevity remains to be established. One survey carried out by the Soviet Union's Social Gerontology Laboratory and covering over 40,000 people in the Caucasus reached the conclusion that the oldest among them had rarely changed jobs or been divorced, or followed an exclusively vegetarian diet. However a 1965 study on Hungary's 23 centenarians revealed that they had been largely vegetarian for most of their lives, although unlike the





The 40,000 people of Hunza lead a hard life in a grandiose setting.

Vilcabambans they drank little alcohol and rarely smoked. At the same time there have been reports of abnormal numbers of people living to a great age in the Siberian tundra on a diet containing great amounts of animal fats from their reindeer. Such conflicting diets and habits only emphasize the need to study the centenarian phenomenon wherever in the world it occurs with great frequency, and suggest that modern science is as far as medieval alchemy from discovering that elusive elixir of life.

The aging world

Facts and figures



- The number of people aged 60 and over is the fastest growing section of the population in the world.
- While total world population is expected to treble in the 75 years from 1950 to 2025, the United Nations predicts that the population of the over-60s will show a five-fold increase and the over-80s will increase to seven times their present number.

This means that one person in every seven will be over 60 years of age in 2025 compared with just one in every 12 in 1950.

- In 1950 there were only an estimated 214 million people over the age of 60 in the world. By 2025 that number is expected to reach 1,121 million.
- The aging of populations will be most dramatic in the developing world where the over-60s are expected to increase nearly seven times between 1950 and 2025, when they will number 800 million.
- In 1950 the developing world held only 56 per cent of the over-60s. By 2025, 72 per cent of the over-60s will live there.
- The number of over-60s in the developing world will increase fastest between 2000 and 2025, when countries like Bangladesh, Brazil, Mexico and Nigeria will see their over-60s increase by nearly 15 times.

HEALTH

- The large number of old people in 2025 will be the survivors of the population aged between 15 and 35 today. They will owe their survival largely to improvements in health, hygiene and nutrition. The World Health Organization (WHO) has estimated that two-thirds of the rise in life expectancy is due to such improvements.
- The natural process of aging need not be disabling. Healthy people can remain active and vigorous until they die. Modern research has shown that it is the cumulative effects of actual disease that cause older people to become disabled.
- In more developed regions the WHO has estimated that 75 per cent of over-60s are active and able to care for themselves. Less than five per cent are severely disabled by irreversible brain atrophy.
- But the proportion of disabled old is likely to be much larger in the developing world where many people have suffered a lifetime of poor nutrition and disease. One study of over-60s in Costa Rica revealed that 85 per cent had difficulties with their vision and 66 per cent suffered from arthritis.
- Throughout the world most disabled old people are cared for at home. Even in more developed regions, estimates reveal that fewer than five per cent of the over-60s are receiving institutional care.

WOMEN

- In almost every country women live longer than men. Most researchers believe this is because of genetic differences.
- Because they live longer, older women outnumber older men. The difference is especially pronounced in more developed regions where women in their 60s outnumbered men in their 60s by 100 to 74 in 1975. The ratio becomes even more uneven in older age groups—with only 48 men for every 100 women over 80.

• In developing countries the number of men and women in their 60s is almost equal. But, as development advances, the gap in life expectancy will widen and women over 60 will become a majority.

URBANIZATION

• Migration of younger family members to urban areas in search of employment leaves older people in the countryside.

In the expanding cities a higher standard of living will offer the young job-seekers a longer life so that, by 2025, the UN predicts that the majority of aging people in the developing world will be living in urban areas.

• In more developed regions this process of urbanization has already occurred and the majority of people now live in cities. In 1975 two-thirds of the over-60s lived in cities. By 2000 this number is expected to increase by 60 per cent until over three-quarters of the developed world's aged are living in cities.

EMPLOYMENT

● The International Labour Office (ILO) estimates that only 39 per cent of men and 12 per cent of women over 65 were in employment in 1975. This level of employment is expected to drop so that, by 2000, only 27 per cent of men and ten per cent of women over 65 will be in employment. (Here "employment" excludes those tasks involved in housework and growing food for domestic consumption.)

PENSIONS

- Most industrialized countries have a fixed retirement age at which people in formal employment stop work and receive a pension from the government. Retirement age typically ranges from 60 to 65 years for men and 55 to 60 years for women.
- For these retired people, the main problem is the size of pension they receive. ILO economists recommend that the state pension should be equivalent to at least 65 per cent of a person's earnings. Even in more developed regions few countries provide the recommended minimum pension.
- Nearly all developing countries also have some kind of government pension scheme. But coverage is usually limited to the relatively few people in formal wage employment.
- The ILO estimates that only 23 per cent of working men and 6 per cent of working women will be receiving a pension by the year 2000.

DEPENDENCE

- People are growing old faster than children are being born to support them in their old age. In 1950 there were 19 people over 60 and 45 children under the age of 15 for every 100 adults aged 15-59. By 2025 there are expected to be 40 over-60s and only 35 children for every 100 active adults.
- The ILO predicts that there will be 270 million "economically inactive" over 55-year olds in industrialized countries by 2020. That will mean 38 older dependents for every 100 workers—twice as many as in 1950.
- In Austria there is already one pensioner for every two workers.

The "dependency ratio" in East Asia is expected to double by 2025, when China will have one person over 60 for every three active adults.

How the family can help

Delegates from 43 countries, representing 159 Organizations concerned with aging and old age, attended a Forum held in Vienna from 29 March to 2 April 1982, under the auspices of the New York and Vienna Committees of Non Governmental Organizations (NGO) and the International Centre of Social Gerontology. The aim of the Forum was to prepare a report on the problems of aging and old age as a contribution to the United Nations World Assembly on Aging Held in Vienna from 26 July to 6 August 1982. An extract from the report is presented below.

HE family remains the best guarantee of the material and spiritual welfare of its older members.

Relationships within the family vary in form and meaning from one society to another, according to the cultural, social and economic background, but they are still essential for the intergenerational network of assistance, communication and

structures and practices mainly characterized by a greater geographical scattering of the family members and the change in the status and role of women make possible an adaptation of the function of community-based mutual help networks and encourage measures governments should take in order to reinforce and supplement the supporting role of the family.



Teotihuacan clay mask (300-600 AD, 28×22 cm) representing Huehueteotl, the Aztec god of fire and the regenerative force.

Photo Mario Fantin © Musée de l'Homme, Paris. Collection Dr. K. Stavenhagen, Mexico

services. These exchanges indeed work both ways: personal contact between children and the elderly are for both a source of fulfilment, learning and creativity. And the burden imposed by the aging is offset by the various forms of assistance in cash or services that they frequently render to their children and grandchildren. Because of this reciprocity, it is within the family that distinctions on the grounds of chronological age are blurred, that intergenerational conflicts subside, whereas too strong reliance on the State increases the dependence of the aging on the others.

The study of the changes in family

Assistance and unpaid care services given by the family to its elderly members represent a substantial share of the informal economy which does not appear in the gross national product. This informal economy will undoubtedly be the only way of ensuring survival for the elderly in countries without the resources to develop an institutionalized assistance.

It is therefore unanimously recognized that the mutual respect across generations, necessary to family solidarity, is based on the ethical and philosophical values of the societies and cultures of the world. This solidarity is strengthened by a transfer of knowledge and skills

and by economic links. It cannot however fully come into play, if the family has not the means necessary in order to meet basic priority needs.

Considering these principles, the Non Governmental Organizations recommend that:

A — An old age policy be developed, integrated in a three-generation family policy, and that in the continuity of the family the older members be taken into account on an equal footing with the younger ones; that the public authorities give in all fields of life their support to the setting up and development of relationships between parents and children.

B — The family's capacity to support older members, both within the home and in the community be strengthened:

- through a realistic assessment of the care a family can or cannot provide for its older members;
- by providing specific information to families on programmes and services available to help older persons retain their autonomy and enhance their well-being;
- through such specific means as home health care and help and through providing moral and spiritual assistance to the families with their essential responsibilities;
- offering to those who provide care to older members of the family training and guidance to assist effectively persons with chronic conditions;
- by offering to families providing continuous and often demanding care to an older member the possibility of being relieved from time to time of this burden through such programmes as day hospitals and day care centres, for respite and holidays;
- by recognizing grandparents' legal responsibilities and rights in the upbringing and care of their grandchildren;
- by providing the elderly without a family with the opportunity to be integrated into a family environment.
- C Housing be designed to accommodate older family members without unnecessarily restricting their autonomy and planning communities that facilitate the older family members' participation in the neighbourhood and the community.
- D The essential role that the family plays or should play should never prevent the public authorities from ensuring for the elderly the means for a healthy and dignified life.

Through youthful eyes

O celebrate the anniversary of the proclamation of the Universal Declaration of Human Rights by the United Nations General Assembly on 10 December 1948, Unesco, with the assistance of the French National Commission for Unesco, has organized for the last few years at Unesco House in Paris a "Youth Day for Human Rights".

A different them.

A different theme is chosen each year in response to international events. This year it was inspired by the decision of the United Nations to convene a World Assembly on Aging in Vienna from 26 July to 6 August 1982.

The 1982 Day was therefore devoted to the deliberations of young people on the problems of aging and the rights of the elderly. It was attended by more than 400 young people aged between 12 and 18, from several French and international educational establishments, members of the Unesco Clubs of several different regions of France, teachers, associations of retired people, members of senior citizens' clubs and of the Université du Troisième Age de Paris X, and various specialists in geriatrics, gerontology and psychotherapy.

On the following pages we present the findings of a questionnaire on the elderly and aging prepared by the French Federation of Unesco Clubs and a survey on the general situation of the elderly in the United States of America, Bangledesh, Japan, the United Kingdom, France, Iran, Canada, and the Republic of Korea, by the students of the American School of Paris.



Time stands still and the years fall away as this French grandpa reads to his grandchildren. A potential source of mutual enrichment, the relationship between grandparents and grandchildren is threatened in many societies today not by a barrier of age but by geographical separation.

1. WHAT YOUNG PEOPLE THINK ABOUT THE ELDERLY AND AGING

Results of the questionnaire on the elderly and aging prepared by the French Federation of Unesco Clubs and sent to young people between the ages of 12 and 18, living in France and representing more than forty different nationalities. More than 400 replies were received.

Do you have grandparents and great-grandparents?

— Four equally-divided groups, making up 90 per cent of those replying, still have 1, 2, 3 or 4 grandparents, and 25 per cent still have one great-grandparent or, in a very few cases,

Do you live with them? If not, do you see them often? Where do they live?

10 per cent live with their grandparents. One stated that he had lived for three years with his grandfather "and that they got on very well, each owing much to the other"

- 10 per cent spend one or several months with them each year (generally on holiday). One, whose grandparents are peasants, likes to see them since "they remind him of his roots and make him think about his social background, and their way of life is dear to him'

- 40 per cent see them "often, very often, as often as

possible".

40 per cent see them rarely: some a few times a year, some every six or eight years, two have not met their grandparents, one has not seen them for three years, though they live close

- The great majority of the older generation live in France, Spain, Portugal, Italy, Netherlands, Belgium, the United Kingdom and the United States, and the remainder, a very small number in Sweden, Norway, Denmark, Iran, Lebanon, Israel, Japan, Bangladesh, Peru, Algeria and Poland.

Do you know any elderly people who live near you, and if so what are your relations with them?

Two young people said that they found the term "elderly" sagreeable, "because it makes them sound like a separate disagreeable, community

30 per cent do not know any. Some regret this, as they would like to know old people's opinions of the young.

70 per cent know some. Their relations with them, whether frequent or otherwise, are for the most part friendly: "we discuss things, we help them, we do the shopping, we keep them company". One wishes "to give them even a short break in their loneliness", another has "adopted an elderly couple" to replace a grandparent who lives too far away; one ger said that she had a "grown-up" relationship with elderly people... another that one can only have a relationship "of respect, nothing else".

In villages, "they are invited to all the local celebrations".

It is clear that the relationships between the old and the young are better in the countryside that in the towns.

Some young people take no interest of any kind in the elderly; only one said the relationship was unfriendly.

Near where you live, is there an old people's home, a retirement home or a residence for elderly people?

Yes: 59 per cent. No: 36 per cent. Don't know: 6 per cent. No answer: 5 per cent.

Have you ever been inside one? Why?

- 25 per cent have been inside one: for most of them it was to visit a relative or take part in activities arranged by the school or boy scouts. Some visited them specially in connexion with the Unesco questionnaire.
- 60 per cent have not been inside a home: for the majority, this was through lack of opportunity, because they do not know anyone there and would not dare just to walk in. Many do not want to, or do not have the courage: they would find it distressing or even "horrid". Some do not want to be intrusive.
- 15 per cent did not feel concerned by this question or did not answer.

• How do you think the people in them live?

5 per cent don't know.
10 per cent think that it depends. It depends on the homes, whether they are good or bad: there are "homes for the dying", and retirement homes "like hotels". It depends on the individual's financial situation. It also depends on people's character and the extent to which they are able to adapt. Above all, it depends on whether they receive visits from their families or whether they are alone and abandoned, and also on whether or not they have been forced to go into the home. Some homes are very strict and severe, while in others the at-

mosphere is freer and more cheerful.

- 25 per cent think that the people there live comfortably because they are protected, cared for and, above all, because they are not alone. They have the calm and the tranquillity necessary for reflection since "they no longer find themselves part of the world which has changed so much..." Some no longer want any contact with the outside world... They have a great number of organized activities: games, outings, etc. They chat amongst themselves and are like schoolchildren at school; they are happy... They get on well with each other, the staff are competent, there is a good atmosphere... there is television...

N.B. - 1. Those who think this have never been inside a home themselves—"it's what they have been told".

2. The opinions of young people from the provinces on these homes are much more favourable than those of young people living in the Paris region.

- Sixty per cent think that the people there live uncomfortably or very uncomfortably, and that they are unhappy, sad ("gloomy"), lonely, abandoned by their families. They are rejected by society because they are no longer needed, because they "make no contribution to the wealth of the country", because they are embarrassing "castoffs", and these homes are an easy way of getting rid of such "millstones". They feel frustrated, they are bored and they are forced to engage in activities that are not very creative... they are deprived of their personality, dignity, and of all their belongings and memories.

They are sent to these "care centres" like children, and they are no longer regarded as human beings. They do not live, they pretend to live, they survive, they are "kept in storage", confined as in a prison or hospital. They live in a limbo outside life. They are nothing but "discarded rags". Some are ill-treated there... There is nothing left in life but the sameness of habit, monotony and loneliness, without any contact with the outside world... "Those going in and out are sad all the time"... "They sit quietly waiting for death to come..." in a state of "hibernation"... "it's infinitely sad... some have become senile... There are brief altercations, interminable silences, the sound of slow shuffling steps on the stairs... everything is bathed in a sleepy half-light"... It is a "fittingroom for trying on one's shroud"... Putting people in these homes makes them grow old... Beyond a certain age, it is bad to be separated from youth and gaiety and to put old people with other old people... "They need to be looked after and it is up to the family to help them"... "It upsets me to know that people must be looked after by an essociation as soon as they are old: it doesn't seem right"... "I find it unthinkable that, in 1982, there still exist old people's homes dating from the last century"... "It's dreadful!" "Alas, now I know how they live I can no longer indulge in make-believe...".

● Do you think that the elderly suffer the same fate in all societies as they do in Europe? Do you know of any examples?

Five per cent think that the elderly are not better integrated elsewhere in the world than they are in Europe, that the distinction to be drawn is not between different societies but between old people who are rich and those who are poor, and finally that what they have in common is the sadness of their lives.

Ten per cent do not know and have not heard of any examples "as they have not travelled very much". They think that in any case people grow old in different ways depending

▶ on their attitudes, customs, religions, political systems and ideologies. Whatever the society, an old person is happy if he lives with his family.

They "hope that they are better treated than in Europe", but add "that it is possible that things are worse...".

Eighty-five per cent think that their fates are very different. The vast majority compare the position of the elderly in Europe with that of old people in Africa, Asia, Latin America and the Arab countries.

In traditional societies, what is important is that old people continue to be looked after by their families (even if they no longer have all their mental faculties...) until their death. They are respected for having generated life. They represent knowledge and wisdom, and are sometimes venerated "as a kind of demigod". They serve as an example and are consulted for their advice and when important decisions need to be taken. They teach the young. They are listened to and feared. They are seldom rejected. The elderly patriarch heads and unites the family. "In fact, one has to be old in order to be taken seriously"... "The word of our elders is the Word itself"... "their word is gold"...

In Europe, on the other hand, elderly people receive more assistance, health care and welfare facilities from the State, but "their psychological suffering is greater", since they are not "looked after" by their families. When they are no longer useful for looking after the younger children, they are put into homes. They are rejected by the other generations and much less respected than in other societies. Their situation depends to a great extent on their former profession: a Swiss banker can afford cruises, while a farmer will work in his garden and take a rest.

Others think that in some Arab or Latin American countries, elderly people are worse off than in Europe. "They do really hard work, and are sometimes ill-treated, excluded from society, and abandoned, suffering from leprosy or crippled, in the streets... They are left to die... There are no old people's homes to take them in, and no social welfare. For these countries, the first priority is to help children to survive. Those who have no family are very wretched... In some tribes, they are considered a nuisance because they need looking after..." They must stay active and useful until they are worn out, in most cases in order to have enough to eat and not starve to death.

Certain countries were specifically mentioned:

— In Spain, Portugal and Italy, elderly people are respected. It is the children's duty to look after their parents until their death. (Same thing in Japan, USSR, Iran, China...).

- In Israel they participate fully in life until the very end...

— In the USSR they are isolated.

— In Japan they grow old more slowly, because they go in for sport.

— In China, a married man used (until recently) to accord greater importance to his mother than to his wife.

— In the United States the elderly suffer from the "youth cult", but on the other hand, they are better integrated, since they prepare for their retirement at an early age.

- Eskimos, old people leave the community to go out and die in the snow, so as not to be a burden to their tribe.

Many young people came to the conclusion that "a country increasingly abandons its old people as it develops".

• At what age does one become old?

Forty-five per cent mentioned a specific age or an age range, between 50 and 80, there being a large majority for the period between 60 and 70, though some mentioned 20, 35, 42 and 45 years. One young person "did not want to be categorical, but thought that after 80 it was no longer like being 20"... "one becomes old at 40, because at this age one can no longer find a job".

Fifty-five per cent thought that there was no particular age, in that it mainly depended on character "on being young in spirit": "You can be a wreck at 50, and in great shape at 70!" At 80, you can be "blooming with health".

"You are old when you feel old... when you don't appreciate life any more... when you feel isolated... when people say you are... when and if you want to be... when you are alone, rejected by young people... put into a home... when

you can't work any more... when your sex life comes to an end... when you have no more dreams, no more hopes... you are old all the time... you grow old from the day you were born... you are old the day you are buried... you may never be old, provided you feel young...".

• Do you feel that you are growing old?

Eight per cent answered: a little, or from time to time, physically yes, psychologically no (and vice versa).

"Does growing old consist in being a year older or in taking on responsibilities?"

Twenty per cent answered yes. "With each new experience... when I have problems... when I think about my childhood... as I grow bigger... especially since the death of my grandfather... at 15, I am at the beginning of the downward slope... I know that I have been dying since my birth..." "Yes, since I'm not as I was... because I'm developing as a person... yes, but I try not to think about it, and to adapt... as long as I stay with my parents, nothing changes... this feeling obsesses me...".

Seventy-two per cent answered no, since "they feel young, full of life... they have plenty of time... at 20 perhaps... growing old only happens to other people... they don't think about it". However, many felt that they were developing, becoming more mature...

• Can you imagine that one day you too will be among the elderly?

Ten per cent don't know, do not think about it or will think about it "in due course"... "as a 14 year-old, I just can't think about it".

Twenty-five per cent cannot imagine it or have difficulty in imagining it "since it's so good to be young"... "even when I'm an old woman, I won't be like old people"... "since society compels us to live from hand to mouth...".

Sixty-five per cent can imagine it: "It's a law of nature, it's inevitable and you might just as well accept it". For some, the thought frightens them, fills them with anguish, haunts them...

• Do you want to grow old and, if so, why?

Ten per cent said that they didn't care or that "it didn't affect them".

Thirty per cent wanted to grow old, as they wanted to live for a long time, to get the best out of their life and their family, have grandchildren, and live as their grandparents lived... "Like my grandmother, I shall have my own home, with all my bills paid by my children."

They want "to have time to discover what they never knew... to do everything they feel like doing... to pause and



The insatiable curiosity of the child who wants to know what it was all like before he was born is written into the expression of this little boy from the Republic of Korea.

Photo © Denis Stock, Magnum, Paris



Below left, a Filipino grandmother uses an abacus as a teaching aid. In the Philippines the elderly often watch over the house and pre-school children while employed adults are out at work.

Photo C.R. Villamarın, Unesco

reflect on what they managed to do when they were young... to pass on their experience, their wisdom, perhaps to uncover hitherto hidden artistic talents...".

"I think it's wonderful to stand back and see the world from a distance!" They think that old age is "a door giving on to another life", which is different, but which can be fruitful and pleasant, with leisure pursuits, travelling and many other activities. They think that they will remain active, and young at heart, will keep in contact with young people and help them with their experience. They will be loved, for they will have known how to make the best of life. They will look on the bright side of life and will not get bored because they will give their lives a meaning. "If one accepts old age, everything should work out all right".

They think that "it's nice to grow old... every age has its joys, and to stay young for ever would be monotonous...".

"I am happy to be 14, but I'll be just as happy to be 70."

Several of them expressed reservations: "As long as you're in good health... as long as you are young in spirit and live with young people... are not destitute... are not put into a home... have something to keep you occupied... and that everybody else grows old too."

"I'm not very worried about wrinkles, but I really don't want people to call me old!"... "I don't want to be one of the elderly straight away, as I am only 12, but I would like to live long enough to become elderly." In any event, they would rather be elderly than very elderly... one states that, when retired, he would rather belong to a Club for young people than for the elderly...

Sixty per cent do not want to grow old, because "they will no longer be independent", and they do not want "to bother other people... be a burden on their family... be ill... be infirm, lose their faculties, no longer be able to express themselves... to suffer... to be sad, no longer able to enjoy themselves, or run about... to lead a monotonous life, get bored, have to do without everything... to be completely useless, to have no future... perhaps to be put into a home, alone and unvisited... enclosed between four walls or behind a window all day... to be cut off from the world, abandoned by the young, ignored by everybody."

They are frightened of being very miserable, of feeling the end approach: "You feel your departure from the world gradually approaching... I would feel like a dead leaf."

Some grow angry on the subject: "Who could possibly want to grow old? I like being young, it's better, it's fun!...

▶ I'd rather die than grow old! At the age of fourteen I'm already sorry that so much time has passed... I don't want to grow old, to give up my place to others... The thought of growing old fills me with anguish.'

"It's horrible to be old, I prefer not to think about it, you become ugly, lonely, a widow (perhaps), ill, your parents are dead, you cry when you remember the past, you can't go in for sport any more, you have no end of troubles, you spend your time sitting alone with nothing to do".

• How would you best define the state of old age?

Physical infirmities are most often mentioned: loss of selfreliance, dependence, illness, disabilities, pain and suffering.

Loneliness and isolation from the outside world. When people no longer take an interest in what is happening around them, when they are no longer able to adapt to modern life, when they can no longer communicate, when they no longer understand young people, when they feel "left out of things", when their own family treats them "like a piece of furniture", when they feel that they are useless (but "as one is never useless, one ought never to be old")...

The decline of intellectual faculties: memory, creativity: "old age means the end of being creative, of doing anything individual".

The end of one's working life, retirement. "A man who is no longer active is a dead man... I would no longer have any reason to stay alive and it would be better to die at once, rather than to drag out the years in suffering...".

Old age is also boredom, the monotony of life, no longer caring about things. It is sadness, losing any taste for and enjoyment of life, melancholy, "waiting for death to creep up inch by inch", the fear of death.

"The fact that old age means loneliness, uselessness, being a burden, shows that society has no awareness whatsoever of the problem."
"Old age is a return to childhood."

"Old age is wisdom."

"Old age is only a stage in life like childhood, adolescence and maturity.'

"There is no such thing as old age, there is only life; it is like a whole day passing."

2. BRIDGING THE GENERATION GAP

The general situation of the elderly throughout the world was introduced by the American School, which had carried out a survey on the following countries: United States of America, Bangladesh, Japan, United Kingdom, France, Iran, Canada, the Republic of Korea.

The initial conclusion was that the elderly are respected much more in the non-industrialized countries, where they live in contact with the other generations and where they often exercise economic power and have great intellectual influence.

In the industrialized countries the situation of the elderly is very different in towns and in villages. In villages there are frequent and close contacts between different age groups, in the same way as in traditional societies.

In the industrialized countries the problem of retirement homes arises. In the Scandinavian countries some of them are too "perfect", too well-planned, to the detriment of the freedom of human contacts.

We visited elderly people in these homes and saw how very lonely they are. Our visits were very much appreciated. It is important that these contacts should continue and that the elderly, for their part, should seek such contacts with the

We have come to distinguish between two categories of elderly people:

the very elderly, who are often disabled and living in homes. They tend to be very lonely, and their main need is for moral support;

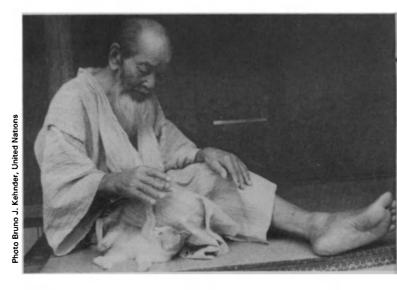
- the less elderly, who are still active, and who should get young people to share in their activities. In this way young people will also be able to prepare themselves for growing old.



Above, a deserted village in France's Cévennes hills. The drift to towns and cities has altered the "extended family" way of living in industrialized countries. It is now happening in many parts of the Third World, causing a breakdown in traditional systems of care and responsibility for the elderly who are left in the villages to fend for themselves.

In the mass media youth and beauty are often synonymous (right) and the elderly either forgotten or portrayed as lonely and decrepit has-beens. Women, if only because they usually outlive men, are particularly susceptible targets of "ageist" myths. Movements such as the Gray Panthers in the United States are doing all they can to banish myths which distort the image of older women in the media.

Below, a 114-year-old man on Shima island, Japan, delights in the antics of his playful kitten. The companionship of domestic pets can often alleviate the solitude of the elderly.



If there is an unsolved problem concerning elderly people, it is because there are obstacles in the way of contacts between the young and the old. Such obstacles are:

psychological:

- exclusion by other generations, "you are old"

- self-exclusion by the older generation, who feel rejected by other people: "I am old".

sociological:

- current attitudes are in favour of individualism and the

idea of "youth first and foremost";
— the consumer society equates productivity with usefulness, and non-productivity with uselessness;

in towns housing conditions and the anonymity of large housing estates make communications difficult, and are an obstacle to having the elderly live with their families. There are no common meeting places. The family unit has split up. Old people are afraid to go out or to invite young people into their homes (the danger of being attacked by gangs, young hooligans...)

emotional:

- people talk of the generation gap: we believe that it is more a question either of mutual fear, the fear that some elderly people have of being pitied, or else in some cases mutual indifference, a lack of interest which can lead to a lack of understanding;

- the elderly say that their contacts with the young cease when the latter reach adolescence.

Given these obstacles to the reintegration of the elderly in society there is a common desire to find solutions.

The first requirement is to become aware of the problem and of the need for change: both in oneself and in others. We,



the young, can begin with small, everyday acts of kindness: smiling, carrying parcels... We can also attempt to influence our parents, for we have noticed that our attitudes towards the old often reflect our parents' attitudes towards them.

Secondly, we should attempt, by all the means at our disposal (personally and through publicity, the mass media and organized groups) to make the elderly understand that their experience, their knowledge, their wisdom and their affection are useful to everybody; to make everybody understand the importance of the involvement of the elderly in society.

We must encourage the young and the old to meet one another.

A series of experiments has been carried out: a French secondary school has organized, with great success, an outing of its students with old people; some lycée students have been teaching English to an old lady who, in turn, has been teaching them to knit; in Sweden, classes take old people out and read the newspapers to them; in France, some young people have been restoring a mill with the advice of their elders on the way old people used to work. Senior Citizens' Clubs

have been formed which tell young people stories, relate the history of the different districts of a town, put on audio-visual displays for young people and organize joint painting activities, and the elderly have come to realize that their views have changed through their contact with young people.

Following these meetings between young and old people, we have noted that:

joint activities are easier in small groups, in which it is easier to communicate;

our relationships are often more fruitful with our grandparents than with our parents who are "in too much of a

hurry"

- all these experiences have brought benefits to both sides; - the contribution of the elderly is uniquely valuable: besides teaching skills such as cooking and knitting, they talk about their life and times, their travels, their former occupations. They are real "living archives". They also represent our roots, "the basis of our identity in a world constantly in

How can these contacts between the young and the elderly be increased?

We need:

- to put up notices to publicize Senior Citizens' Clubs in schools, town-halls, libraries, professional associations; to give wider publicity to Universités du Troisième Age, which are open to all, whatever their cultural background, and

which provide an ideal meeting place;

- to organize meetings through various associations of a professional, cultural, artistic, sporting (yoga, gymnastics) or humanitarian nature (aid, personal contacts); through Unesco Clubs, students' unions, libraries, travel agencies. The elderly would like to hold social events with young people such as showing films, singing, dancing, reciting poems, putting on plays, painting together and making music. They told 'we like enjoying ourselves with young people'

to let old people visit schools and let them take a hand in

our "workshops"

- to participate jointly in local or regional life by carrying out surveys on the environment or on the community's problems, researching into a town's history, or collecting the stories and legends of a particular region. The elderly consider that this could make us more aware of our responsibilities:

to try to counteract the image of the elderly given by the media, of State-aided pensioners, social casualties, the inhabitants of "old people's ghettos", and so on. To promote new values within our consumer society, the sharing not only of sorrows but also of joys;

The obstacles to such meetings are often of a practical nature, such as differences in the pace of life and in physical capabilities. The main thing is to create real motivation on both sides; not only to increase our own personal contacts, but also to stimulate other young people to do the same, and to encourage the elderly themselves to make corresponding efforts on their side.

Conclusion

Our role as young people in helping old people to become integrated in society is to encourage contacts in all fields: artistic, cultural, social and at the family, local and national levels.

One of our number said that: "From the cradle to the grave, we are all part of the same human society and no one should be excluded from it".

Many commented that: "You often accidentally jostle elderly people, or you just don't see them, or you forget them, but that doesn't mean that they aren't respected"

Some students also commented in writing that: "The elderly ask for neither pity nor paternalism but what is theirs by right: the right to take part in life, the right to love and happiness, and it is up to us, the young, to see that these rights are respected".

We should like to conclude by quoting a remark which was made by one elderly person about young people and which moved us very much: "Nothing is owed to them, but everything may be entrusted to them.

They can both give and receive".

Education and aging

A Unesco study

HE aging population is today more diverse than in any other period in the history of the human race. The main differences may lie in the economic situation, the social and family setting, the health or the personal and professional history of

This article consists of salient extracts from Education and Aging, a report prepared as Unesco's contribution to the United Nations World Assembly on Aging, held in Vienna from 26 July to 6 August 1982.

the individual, his past and present relationship to education and culture, and so on. There are of course vast differences among the aging with respect to temperament, some of them being active and others weak or dependent, as a result of an infinite range of formative experiences and social factors.

The consequence of this extreme diversity is that any national policy and, to an even greater extent, any international policy in this respect must be designed and implemented with great flexibility, and that the most unremitting attention must be paid to the original features of the situations, the social groups and the persons concerned.

It is well known that aging, which can legitimately be expected to open up a period of freely available time, wellbeing and infinite opportunities for intellectual and cultural enrichment, is often a source of deep disappointments



Photo Roland and Sabrina Michaud © Rapho, Paris

"And thy Lord has decreed that you serve none but Him, and do good to Parents. If either or both of them reach old age with thee, say not 'Fie' to them, nor chide them, and speak to them a generous word."

(The Qur'an, XVII: 23)

In Muslim countries the teachings of the Qur'an and strong family traditions combine to ensure that older persons are respected and cherished. This is reinforced by a notion of profound importance in the Islamic ethic summed up in Arabic in the phrase *Rida al-walidain*, an expression whose full meaning is difficult to convey but which could be approximately translated as "Parents' love and affection". For a Muslim, to enjoy *Rida al-walidain* is one of the greatest of life's blessings. One of the worst misfortunes that can befall a Muslim youth is to be *maghdouban alaihi mina al-walidain*. "Accursed of his parents". Above, reading the Qur'an, bazaar scene at Tashkurgan, Afghanistan, in 1968.



Like most other developing countries, Kenya is going through a rapid process of modernization and change which is putting considerable strain on the traditional family structure and hence on the traditional educational role, support and maintenance of the elderly. Family life is disintegrating as the young move away to the towns in search of jobs, leaving the elderly in the rural areas. Under these circumstances the time-honoured educational role of the elderly is no longer practicable. The modern formal education system offers few educational opportunities for the elderly, although they have been included in the mass literacy campaigns. Among the Masai, where the elders are often the source of considerable wealth and family ties remain strong, the valuable contributions the aging can make to society are still recognized. Above, three generations of a close-knit Masai family.

In the United States of America a number of innovative programmes are being started which enable low-income older persons to be trained in "helping roles" and then placed in part-time jobs which pay a small hourly stipend. In 1977, under the Foster Grandparents Programme, more than 15,000 older persons with low incomes received 40 hours training in providing care to disturbed children. The "grandparents" offer a service to the community and to the young people and at the same time they gain financially and emotionally from the experience. In many cases the jobs are unpaid, but the older persons still find them rewarding. Below, a Red Cross volunteer helper in a centre for disabled children.



and experiences of which deterioration of health is not always the worst. They may be due to worsening of the financial situation or even to poverty, to infrequency of family, professional and social contacts, and to loss of identity and justification for existence in the community.

Where suitable educational and cultural systems are not available and where there has been no association with such resources during youth and adulthood, the aging are likely to be condemned to solitude, emptiness and boredom. The reality of these dangers should prompt the public authorities to devise a consistent policy with respect to aging and to equip themselves with the means of carrying it out; in drafting and implementing the policy they should be able to reckon with the participation of the aging themselves and with the co-operation of the nongovernmental sector.

Without claiming that adult education should be considered a panacea, it would appear that in its various dimensions it is a prerequisite for preparation for retirement and entry into the last stage of life as well as for creation of the conditions for "a good old age". Consequently, education should be a fundamental aspect of any policy

▶ relating to aging and elderly persons, and the latter should be closely associated with specifying the educational priorities and the systems to be established in this connexion.

In countries where oral traditions prevail it would be most important for the authorities to ensure that the aging are enabled to give the community the fullest possible benefit of their knowledge, experience and moral authority, for example, by recording what they have to say disseminating it via the media. Here, more than anywhere else, education should not be conceived of as a process limited to the formal transmission of knowledge and techniques, still less as an activity confined to a particular stratum of the population or age group, but rather as a fundamental human right.

Many developing countries have yet to solve the thorny problem of the "brain drain" of which elderly people are often the indirect victims. Younger qualified people, trained at considerable cost as part of the common development effort, find it difficult to resist the lure of the high salaries they can command abroad. Deprived of this human resource, the development process stagnates and their older unqualified compatriots, who have contributed to the cost of their training are reduced, like this Haitian roadside candle-seller (right), to humble tasks to eke out their pensions. One country of the Caribbean basin, Guyana, has adopted a policy of encouraging the comparatively few qualified personnel who have reached retirement age to continue in their jobs while strategies are devised to train rapidly large numbers of young people and to motivate those who have gone abroad to return and work for the development of their own country.

Photo Flip Schulke © Rapho, Paris



In 1981, India's over-60s numbered some 37.6 million (5.5 per cent of total population) and it is estimated that by the year 2021 they will number 130.5 million. The vast majority (60 to 70 per cent) of the elderly belong to the poorer section of society and their problems are more the problems of poverty than of aging. In spite of this, the elderly in India, grandfathers, grandmothers, great-uncles and great-aunts, whether in the affluent or the poorer sectors of society, perform a very important educational function in the socialization of the children of the family, from the preschool stage to well into adolescent life.

Photo Sunil Janah, Unesco



It is well known that in the budgetary arbitration that goes on at government level, education is rarely in a privileged position relative to the other items of expenditure and, within the area of education, that for adults and even more so for the aging most often gives the impression of being a poor relation. Aggravated by the economic crisis, this state of affairs is not only contrary to the interests of the social categories and persons directly concerned but it is also in conflict with the true interest of countries, par-

ticularly developing countries, to whose progress the aging can make a strong contribution.

Of course, a prerequisite for this contribution is that the aging should be literate and that they should receive education and training suited to the tasks which they could perform. Over and above the productive and pace-setting functions that they can perform, special emphasis should be placed on their aptitude for teaching the young and also the less young; to a considerable degree, this represents

compensation for the expenditure on education for the aging.

Furthermore, it is generally recognized that proper preparation for retirement, in which education is a fundamental factor, in most cases helps avoid problems of both mental and physical health which, besides being especially poorly tolerated at this stage of existence, can be extremely expensive for social security systems—that is to say, for the nation. It may therefore be hoped that States will really want to make available the financial resources

which are indispensable for implementing their political intentions with respect to the aging and that they will consider expenditure on the education of the aging to be a particularly profitable investment, while sometimes seeking supplementary resources from the non-governmental and voluntary assistance sectors.

Men and women are usually considered together under the heading of the aging. However, given the greater longevity of women, the fact that it is often harder for them to have access to

Among the subjects for possible research special attention could be paid to teaching the aging to read and write, to the effects of prior access to educational and cultural resources on the utilization of free time for creative purposes and on the adaptation of individuals to the status of retirement, professional and technological readaptation of the aging and so forth.

Research of this kind, in which the aging should be extensively associated, would undoubtedly result in innovations which could have a considerable

represent, especially from the point of view of economic, social and cultural development.

Here, by way of illustration, are some educational aspects of the problems of aging that could be included to advantage in the priorities of the world plan of action, as regards both recommendations to States and activities to be undertaken on an international and regional level:

- Teaching all society's age groups to read and write;
- Expansion of adult education in the



Until recently, despite the fact that they constitute one of the fastest growing areas of medicine, offering vast scope for original research, gerontology and geriatrics have lacked the appeal of the more "dramatic" disciplines such as surgery or cancerology. Doctors and nurses who look after older people often find that, like their patients, they are tacitly accorded a second-class status. Geriatric wards are often tucked away in a remote corner of the hospital and funds for research in the field of aging are difficult to attract. The signs are that at last the tide is turning and that these important fields of medical care will soon receive the funds, facilities and public recognition they merit. Left, the medical centre at Briancon, France.

Photo Pierre Michaud © Rapho, Paris

the benefits of literacy and education in general, and the often subordinate and laborious nature of the tasks which are their lot in the household as well as in production and in the tertiary sector, they tend to be particularly disadvantaged, handicapped and lonely in the face of aging. This situation warrants special attention on the part of the persons responsible at the various decision-making levels to ensure that the difficulties peculiar to the circumstances of aging women can be offset by specific and practical measures.

The studies on education and aging carried out for Unesco showed that there are extremely conspicuous short-comings with respect to research, innovations and exchanges of ideas and experience on this subject. This deficiency is particularly regrettable in that the matter has been ignored and neglected for such a long time.

effect on their situation and, probably, on society as a whole. It would appear to be very desirable that various developed and developing countries should engage in mutually profitable exchanges in this domain where, by analogy with the isolation to which the aging are so often exposed, the action of States nearly always takes place in solitude, ignorance, and even indifference, as compared with what happens in other areas.

Since it is understood that education should occupy a position of choice in the world plan of action on aging, it must be pointed out that the fundamental idea that the access of everybody and of all ages to education and culture is based on an inalienable human right should not lead to the classification of education among so-called "humanitarian" tasks. On the contrary, it should be considered as a means of taking full advantage of the incalculable asset which the aging

framework of lifelong education;

- Preparing the aging for the creative use of free time;
- Preparing adults for a profession ally and socially productive retirement;
- Recognizing and encouraging the important role which the aging can play in society and in the most varied areas, in particular those of teaching and group leadership;
- Integrating the aging into society and, in particular, into educational institutions alongside members of other age groups;
- Promoting research and studies on the subject of the aging, covering all fields of gerontology;
- Paying attention, as a matter of priority, to the problems of aging women;
- Financing education in respect of the aging, considered both as a humanitarian obligation and as an investment.

An international plan

of action

N International Plan of Action to guide States in dealing with problems brought about by rapidly increasing numbers of elderly persons all over the world was adopted in Vienna at the conclusion of the two-week United Nations-sponsored World Assembly on Aging.

The Plan of Action, adopted by the approximately 120 countries which attended the Assembly, emphasized the need to help the elderly "lead independent lives in their own family and community for as long as possible, instead of being excluded and cut off from all activities of society".

In the area of health and nutrition, research and practical experience have demonstrated that health maintenance in the elderly is possible and that diseases do not need to be essential components of aging. Early diagnosis and appropriate treatment are required, as well as preventive measures, to reduce disabilities and diseases of the aging.

It is important to establish a proper balance between the role of institutions and that of the family in providing health care—based on recognition that the family and the immediate community are the key elements in a well-balanced system of care.

The Plan also states that a very important question concerns the possibilities of preventing or at least postponing the negative functional consequences of aging. The health of the aging is fundamentally conditioned by their previous health and, therefore, life-long health care starting in youth is of paramount importance; this includes preventive health care, nutrition, exercise, the avoidance of health-harming habits and attention to environmental factors.

The section on health in the Action Plan also contains a number of other recommendations, which deal with the need for good nutrition, adequate community services and special attention to the very elderly. Other provisions also deal with the need and ability to prevent or deal with mental health problems among the aging, and the vulnerability of the elderly to accidents.

In the section on the housing and environment of the elderly, the Plan notes that "Housing for the elderly must be viewed as more than mere shelter".

"In addition to the physical, it has psychological and social significance, which should be taken into account." To release the aged from dependence on others, national housing policies should pursue a number of goals, which include providing for the restoration and development and, where feasible and appropriate, the remodelling and improvement of homes and their adaptation for the aged.

In the section on the elderly and their relationship to the family, the Action Plan states that the family, regardless of its form or organization, is recognized as a fundamental unit of society.

The changes in the status of women, however, have reduced their traditional role as caretakers of older family members. It is necessary to enable the family as a whole, including its male members, to take over and share the burden of help in and by the family.

Appropriate support from the wider community, available when and where it is needed, can make "a crucial difference to the willingness and ability of families to continue to care for elderly relatives", the Plan states, so that planning and provision of services should take full account of the needs of those who provide such care.

Governments and non-governmental bodies should be encouraged to establish social services to support the whole family when there are elderly people at home and to implement measures especially for low-income families who wish to keep elderly people at home. Also, children should be encouraged to support their parents.

In the area of social welfare for the elderly, according to the Plan, this should be community-based and provide a broad range of preventive, remedial and developmental services for the aging, to enable them to lead as independent a life as possible in their own home and in their community, remaining active and useful citizens.

In many countries where resources are scarce, the Plan goes on, there is a

general lack of organized social welfare services, particularly in the rural areas. In traditional societies, old people have enjoyed a privileged position based on respect, consideration, status and authority. But this is "starting to be upset under the influence of modern trends and that privileged position is now being questioned". It is therefore "time to become aware of these changes and on that basis to define national aging policies that would avoid some of the problems concerning the elderly faced by some developed countries".

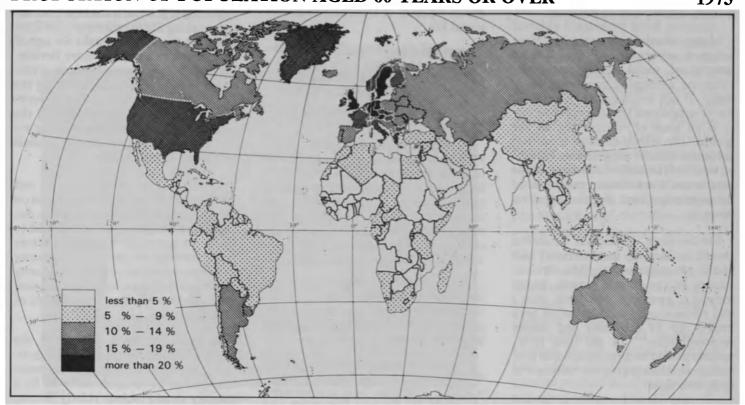
Governments should endeavour to reduce or eliminate fiscal or other constraints on informal and voluntary activities, and eliminate or soften regulations which hinder or discourage parttime work, mutual self-help and the use of volunteers alongside professional staff in providing social services or in institutions for the elderly.

Regarding the question of institutionalization, the Plan states that whenever institutionalization is necessary or inevitable for elderly persons, the utmost effort must be made to ensure a quality of institutional life corresponding to normal conditions in their communities, with full respect for their dignity, beliefs, needs, interests and privacy. States should be encouraged to define minimum standards to ensure higher quality of institutional care.

On the problems of elderly migrants, appropriate measures should be taken to provide social welfare services in accordance with their ethnic, cultural, linguistic and other characteristics.

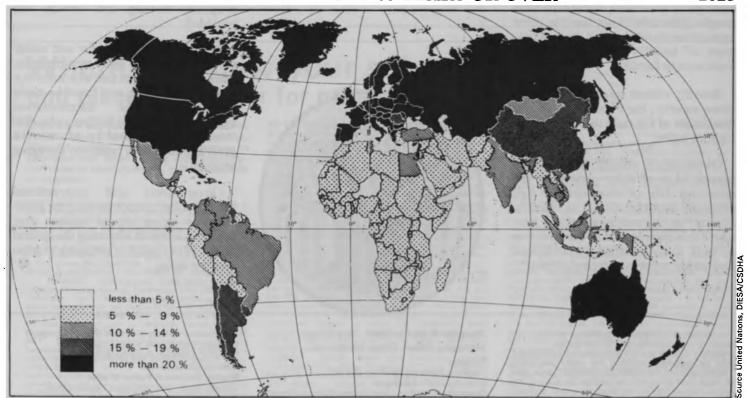
Also in the section on the social welfare of the elderly, the Plan states that in order to facilitate mutual help among the elderly and "let their voices be heard", Governments and nongovernmental bodies should encourage the establishment and free initiative of groups and movements of elderly persons and also give other age groups opportunities for training in, and information on, the support of the elderly.

With regard to the issues of income security and employment of the elderly, according to the Plan major differences exist between the developed and the developing countries—and particularly between urban, industrialized and



PROPORTION OF POPULATION AGED 60 YEARS OR OVER

2025



The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations or Unesco.

➤ agrarian economies—with regard to the achievement of policy goals related to income security and employment.

Many developed countries have achieved universal coverage through generalized social security schemes. "For the developing countries, where many, if not the majority of persons, live at subsistence levels, income security is an issue of concern for all age groups". In several of these countries, the social security programmes launched tend to offer limited coverage: in the rural areas, where in many cases most of the population lives, there is little or no coverage.

Furthermore, particular attention should be paid, in social security and social programmes to "the circumstances of the elderly women whose income is generally lower than men's and whose employment has often been broken up by maternity and family responsibilities". In the long term, policies should be directed towards providing social insurance for women "in their own right".

The Plan recommends that Governments should work to create or develop social security schemes based on the principle of universal coverage for older people. Where this is not feasible, other approaches should be tried, such as payment of benefits in kind, or direct assistance to families.

Broadly related to the issues of income security, the Plan notes, are the dual issues of the right to work and the right to retire.

Governments should facilitate the participation of older persons in the economic life of the society. Appropriate measures should be taken to ensure "to the maximum extent possible" that older workers "can continue to work under satisfactory conditions and enjoy security of employment".

Governments should eliminate discrimination in the labour market and ensure equality of treatment in professional life.

Negative stereotypes about older workers exist among some employers, and Governments should take steps to educate employers and employment counsellors about the capabilities of older workers.

Among other recommendations, the Plan states that measures should be taken to help older persons to find or return to independent employment by creating new employment possibilities and facilitating training or retraining. The right of older workers to employment should be based on ability to perform the work rather than on chronological age.

Despite the significant unemployment problems facing many nations, in particular with regard to young people, the retirement age for employees should not be lowered except on a voluntary basis.

The section also includes recommendations on the need for satisfactory working conditions and environment, measures to prevent industrial and agricultural accidents, and protection from occupational diseases.

Governments should take or encourage measures that will ensure a smooth and gradual transition from active working life to retirement, the Plan states, and in addition make the age of entitlement to a pension more flexible. Such measures would include "preretirement courses" and lightening the work load during the last years of working life for example by modifying the conditions of work and the working environment and by promoting a gradual reduction of work-time.

The section on income security and employment also contains a provision on the needs of elderly migrant workers. According to the Plan, measures should be taken to guarantee migrant workers social coverage in the receiving country as well as maintenance of social security rights acquired, especially regarding pensions, if they return to their country of origin.

Another provision deals with the needs of elderly refugees. On this question, the Plan states that as far as possible, groups of refugees accepted by a country should include elderly persons as well as adults and children, and efforts should be made to keep family groups intact and to ensure that appropriate housing and services are provided.

Regarding education for and about the elderly, among other recommendations, the Plan states that education is a basic human right, and must be made available without discrimination against the elderly. It further states that "there is also a need to educate the general public with regard to the aging process".

Governments and international organizations concerned with the problems of aging should initiate programmes aimed at educating the general public with regard to the aging process and the aging.



The UNESCO COURIER is published monthly (11 issues a year including one double issue). Individual articles and photographs not copyrighted may be reprinted providing the credit line reads "Reprinted from the UNESCO COURIER", plus date of issue, and three voucher copies are sent to the editor. Signed articles reprinted must bear author's name. Non-copyright photos will be supplied on request. Unsolicited manuscripts cannot be returned unless accompanied by an international reply coupon covering postage. Signed articles express the opinions of the authors and do not necessarily represent the opinions of UNESCO or those of the editors of the UNESCO COURIER. Photo captions and headlines are written by the Unesco Courier staff.

The Unesco Courier Is produced in microform (microfilm and/or microfiche) by: (1) University Microfilms (Xerox). Ann Arbor, Michigan 48100, U.S.A.; (2) N.C.R. Microcard Edition, Indian Head, Inc., 111 West 40th Street, New York, U.S.A.; (3) Bell and Howell Co., Old Mansfield Road, Wooster, Ohio 44691, U.S.A.

Assistant Editor-in-chief: Olga Rödel Managing Editor: Gillian Whitcomb Editors:

English: Howard Brabyn (Paris)

French: Alain Lévêque

Spanish: Francisco Fernandez-Santos (Paris)

Russian: Nikolai Kuznetsov (Paris) Arabic: Sayed Osman (Paris) German: Werner Merkli (Berne)

Japanese: Kazuo Akao (Tokyo) Italian: Mario Guidotti (Rome) Hindi: Krishna Gopal (Delhi)

Tamil: M. Mohammed Mustafa (Madras) Hebrew: Alexander Broîdo (Tel Aviv) Persian: Mohammed Reza Berenji (Teheran)

Dutch: Paul Morren (Antwerp)
Portuguese: Benedicto Silva (Rio de Janeiro)
Turkish: Mefra Ilgazer (Istambul)

Urdu: Hakim Mohammed Saïd (Karachi) Catalan: Joan Carreras i Marti (Barcelona) Malaysian: Azizah Hamzah (Kuala Lumpur) Korean: Lim Moun-Young (Seoul) Swahili: Domino Rutayebesibwa

(Dar-es-Salaam)

Braille: Frederick Potter (Paris) Croato-Serb, Macedonian, Serbo-Croat, Slovene: Punisa Pavlovic (Belgrade) Chipses: Shen Gunfen (Pekin)

Chinese: Shen Guofen (Pekin) Bulgarian: Pavel Pissarev (Sofia)

Assistant Editors: English Edition: Roy Mall

English Edition: Roy Malkin French Edition:

Spanish Edition: Jorge Enrique Adoum

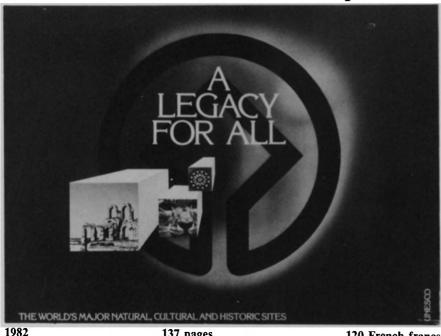
Research: Christiane Boucher Illustrations: Ariane Bailey

Layout and Design: Robert Jacquemin

Promotion: Fernando Ainsa

All correspondence should be addressed to the Editor-in-Chief in Paris.

Just published



137 pages 120 French francs This beautifully produced and lavishly illustrated book presents architectural and natural wonders of the world, ranging from the rock-hewn churches of Lalibela in Ethiopia, the giant tortoises of the Galapagos Islands, the rare natural phenomena of Yellowstone National Park to the historic centres of ancient cities such as Quito, Cracow, Antigua Guatemala, and Cairo. Each site is illustrated by a full-page colour photograph and described in an accompanying page of text.

The International Convention for the Protection of the World Cultural and Natural Heritage, adopted in 1972 by Unesco's Member States, called for the establishment of an inventory known as the World Heritage List, which identifies cultural and natural properties of outstanding universal value. The 57 sites illustrated are those inscribed on the World Heritage List in 1978 and 1979.

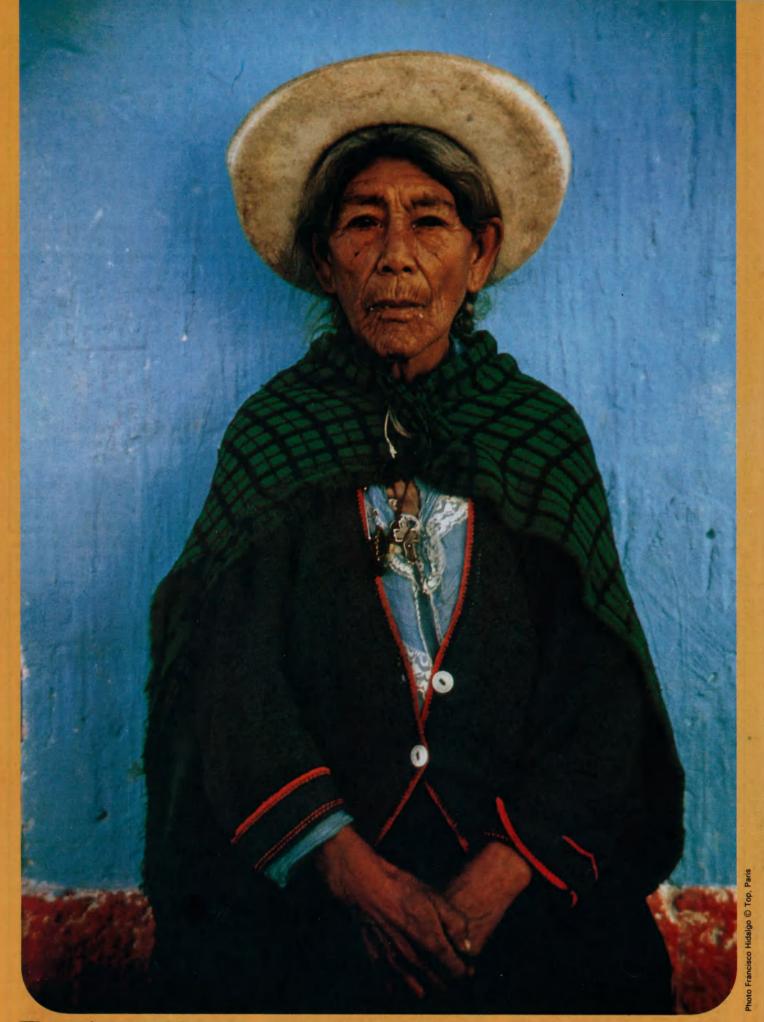
Where to renew your subscription and place your order for other Unesco publications

Order from any bookseller or write direct to the National Distributor in your country. (See list below; names of distributors in countries not listed, along with subscription rates in local currency, will be supplied on request.)

AUSTRALIA. Hunter Publications, 58A Gipps Street, Collingwood Victoria 3066; Publications: Educational Supplies Pty. Ltd. P.O. Box 33, Brookvale, 2100, NSW. Periodicals: Dominie Pty Subscriptions Dept., P.O. Box 33, Brookvale 2100, NSW. Subagent United Nations Association of Australia, P.O. Box 175, 5th floor, Ana House, 28 Elizabeth Street, Melbourne Victoria 3000. — AUSTRIA. Buchhandlung Gerold and Co., Graben 31, A-1011, Vienna, BANGLADESH. Bangladesh Books International Ltd. Historia Publicant 18 M. Marca Bell. Hebblish December 1985 (1997). A-1011, Vienna, BANGLADESH. Bangladesh Books International Ltd, Intefag Building, 1, R.K. Mission Rd, Hatkhola, Dacca
3 — BELGIUM. "Unesco Courier" Dutch edition only. N.V. Handelmaatschappij Keesing, Keesinglaan 2-18, 2100 Deurne-Antwerpen. French edition and general Unesco publications agent: Jean de Lannoy, 202, avenue du Roi, 1060 Brussels, CCP
000-0070823-13. — BURMA. Trade Corporation No. 9, 550-552
Merchant Street, Rangoon. — CANADA. Renouf Publishing
Co. Ltd., 2182 St. Catherine Street West, Montreal, Que. H3H
M7. — CHINA China National Bublisharia Propria Co. Ltd., 2182 St. Catherine Street West, Montreal, Que H3H 1M7. — CHINA. China National Publications Import and Export Corporation, P.O. Box 88, Beijing — CYPRUS. "MAM", Archbishop Makarios 3rd Avenue, P.O. Box 1722, Nicosia. — CZECHOSLOVAKIA. — S.N.T.L., Spalena 51, Prague 1 (Permanent display); Zahranicni literatura, 11 Soukenicka, Prague 1. For Slovakia only: Alfa Verlag. — Publishers, Hurbanovo nam. 6,893 31 Bratislava — CSSR. — DENMARK, Munksgaard Export and Subscription Service, 35 Norre Sogade, DK 1370, Copenhagen K. — EGYPT (ARAB REPUBLIC OF). National Centre for Unesco Publications, No 1 Talaat Harb Street, Cairo. — ETHIOPIA. National Agency for Unesco, P.O. Box 2996, Addis Ababa. — FINLAND. Akateeminen Kirjakauppa, Keskuskatu 1, SF-00100 Helsinki 10; Suomalainen Kirjakauppa Oy, Koviuvaa-Ababa. – FINLAND. Akateeminen Krijakauppa, Keskuskatu 1, SF-00100 Helsinki 10; Suomalainen Krijakauppa, Keskuskatu 1, SF-00100 Helsinki 10; Suomalainen Krijakauppa 0y, Koivuvaarankuja 2, 01640 Vantaa 64. – FRANCE. Librairie de l'Unesco, 7, place de Fontenoy, 75700 Paris, C.C.P. 12598-48 – GERMAN DEMOCRATIC REP. Buchhaus Leipzig, Postfach 140, 710 Leipzig or from Internationalen Buchhandlungen in the G D R – FED. REP. OF GERMANY. For the Unesco Courier (German, English, French and Spanish editions): Mr H. Baum, Deutscher Unesco-Kurier Vertreib, Basaltstrasse 57, D5300 Bonn 3. For other Unesco publications: Karger Verlag, Germering/Munchen. For scientific maps only Geo Center, Postfach 800830, Stuttgart 80. – GHANA. Presbytenan Bookshop Depot Ltd., P.O. Box 195, Accra; The University Bookshop of Cape Coast, The University Bookshop of Cape Coast, The University Bookshop of Legon, P.O. Box 1, Legon. – GREAT BRITAIN. See United Kingdom. – HONG RONG. Federal Publications

(HK) Ltd., 5A Evergreen Industrial Mansion, 12 Yip Fat Street, Aberdeen. Swindon Book Co., 13-15, Lock Road, Kowloon. Hong Kong Government Information Services, Publication Cen-Hong Kong Government Information Services, Publication Centre, Baskerville House, 22 Ice Street. — HUNGARY. Akadémiai Konyvesbolt, Váci u. 22, Budapest V; A.K.V. Konyvtúrosok Boltja, Népkoztársaság utja 16, Budapest VI. — ICELAND. Snaebjorn Jonsson & Co., H.F., Hafnarstraeti 9, Reykjavik. PINDIA. Orient Longman Ltd., Kamani Marg, Ballard Estate, Bombay 400038; 17 Chittaranjan Avenue, Calcutta 13; 36a, Anna Salai, Mount Road, Madras 2; B-3/7 Asaf Ali Road, New Delhi 1; 801.1 Makatros. Gardin Road, Pagragiae E60011. 3, 2, 520. Bombay 400038; 17 Chittaranjan Avenue, Calcutta 13; 36a, Anna Salai, Mount Road, Madras 2; B-37 Asaf Ali Road, New Delhi 1; 80/1 Mahatma Gandhi Road, Bangalore-560001; 3-5-820 Hyderguda, Hyderabad-500001. Sub-Depots. Oxford Book Stationery Co. 17 Park Street, Calcutta 70016, Scindia House, New Delhi; Publication Unit, Ministry of Education and Culture, Ex. AFO Hutments, Dr. Rajendra Prasad Road, New Delhi 110001 — INDONESIA. Bhratara Publishers and Booksellers, 29 JI Oto Iskandardinata III, Jakarta; Gramedia Bookshop, JI. Gadjah Mada 109, Jakarta; Indra P.T., JI Dr Sam Ratulange 37, Jakarta Pusat. — IRAN. Kharazmie Publishing and Distribution Co., 28, Vessal Shirazi Street, Enghélab Avenue, P. O. Box 314/1486, Teheran, Iranan Nat. Comm. for Unesco, Ave. Iranchahr Chomali No. 300, B P. 1533, Teheran. — IRAQ. McKenzie's Bookshop, Al-Rashid Street, Baghdad. — IRELAND. The Educational Company of Ireland Ltd., Ballymount Road, Walkinstown, Dublin 12. — ISRAEL. A.B.C. Bookstore Ltd., P.O. Box 1283, 71 Allenby Road, Tel Aviv 61000 — JAMAICA Sangster's Book Stores Ltd., P.O. Box 366, 101 Water Lane, Kingston. — JAPAN. Eastern Book Service Inc., Shuhwa Toranomon 3bldg, 23-6, Toranomon 3-Chome, Minato-ku, Tokyo 105, — KENYA. East African Publishing House, P.O. Box 30571, Nairobi. — KOREA. Korean National Commission for Toranomon 30tig, 23-b, Toranomon 3-Chome, Minato-Ru, Tokyo 105, — KENYA. East African Publishing House, P. O. Box 30571, Nairobi. — KOREA. Korean National Commission for Unesco, P.O. Box Central 64, Seoul, — KUWAIT. The Kuwait Bookshop Co., Ltd, POB 2942, Kuwait; for the Unesco Courier: Farafalla Press Agency, P.O. Box SAFA 4541, Kuwait. — LESOTHO. Mazenod Book Centre, P.O. Mazenod, Lesotho, Southern Africa. — LIBERIA. Cole and Yancy Bookshops Ltd., P.O. Box 286, Monrovia. — LIBYA. Agency for Development of Publication & Distribution, P.O. Box 34-35, Tripoli — LUXEMBOURG. Libraine Paul Bruck, 22, Grande-Rue, Luxembourg. — MALAYSIA. University of Malaya Co-operative Bookshop, Rula Lumpur 22-11. — MALTA. Sapienzas, 26 Republic Street, Valletta. — MAURITIUS. Nalanda Company Ltd., 30, Bourbon Street, Port-Louis — MONACO. British Library, 30 d. des Moulins, Monte-Carlo. — NETHERILANDS. For periodicals only: Dekker and Nordemann NV, P.O. Box 197, 1000 AD Amsterddam; for publications only: KEESING BOEKEN B V., Postbus 1118, 1000 BC Amsterdam. — NETHERILANDS ANTILLES. Van Dorp-Eddine N.V., P.O. Box 200, Willemstad, Curaçao N A — NEW ZEALAND. Government Printing Office, Government Bookshops at. Rutland Street, P.O. Box 5344, Auckland; 130, Oxford Terrace, P.O. Box 1721 Christchurch; Auckland; 130, Oxford Terrace, P.O. Box 1721 Christchurch; Alma Street, P.O. Box 857 Hamilton; Princes Street, P.O. Box 1104, Dunedin, Mulgrave Street, Private Bag, Wellington. —

NIGERIA. The University Bookshop of Ife, The University Bookshop of Ibadan, P.O. 286; The University Bookshop of Nsukka, The University Bookshop of Lagos; The Ahmadu Bello University Bookshop of Zaria. — NORWAY. All publications. Johan Grundt Tanum (Booksellers), Karl Johansgate 41/43, Oslo 1; Universitets Bokhandelen, Universitetssentret, P.O. 8 307 Blindern, Oslo 3. For Unesco Courier only: A S. Narvesens Literaturjeneste, Box 6125, Oslo 6. — PAKISTAN Mirza Book Agency, 65 Shahrah Quaid-i-azam, P.O. Box No. 729, Lahore 3. — PHILIPPINES. The Modern Book Co., 926 Rizal Avenue, P.O. Box 632, Manila D-404. — POLAND. Orpan-Import, Palac Kultury I Nauki, Warsaw, Ars Polona-Ruch, Krakowskie Przedmiescie No. 7.00-058 WARSAW. — PORTUGAL. Dias & Andrade Ltda. Livraria Portugal, rua do Carmo 70, Lisbon. — SEYCHELLES. National Bookshop, P.O. Box 48, Mahé; New Service Ltd., Kingsgate House, P.O. Box 131, Mahé — SIERRA LEONE. Fourah Bay, Njala University and Sierra Leone Diocesan Bookshops, Freetown — SINGAPORE. Federal Publications (S) Pte Ltd., No. 1 New Industrial Road, off Upper Paya Lebar Road, Singapore 19. — SOMALI DEMOCRATIC REPUBLIC. Modern Book Shop and General, P.O. Box 951, Mogadiscio. — SOUTH AFRICA. All publications: Van Schaik's Book-store (Pty.) Ltd., Libri Building, Church Street, P.O. Box 924, Pretoria. For the Unesco Courier (single copies) only: Central News agenoy, P.O. Box 1033, Johannesburg. — SRI LANKA. Lake House Bookshop, 100 Sir Chittampalam Gardiner Mawate P.O. B. 244 Colombo 2. — SUDAN. All Bashir Bookshop, P.O. Box 1118, Khartoum. — SWEDEN. All publications Son Scokholm. — SWITZERLAND. All publications: Europa tons A/B C E. Fritzes Kungl, Hovbokhandel, Regeringsgatan 12, Box 16356, 10327 Stockholm 16, For the Unesco Courier: Svenska FN-Forbundet, Skolgrånd 2, Box 150 50 S- 104 65, Stockholm. — SWITZERLAND. All publications: Europa Verlag, 5 Ramistrasse. Zurich Libraine Payot, rue Grenus 6, 1211, Geneva 11, C.C.P. 12-236. — TANZANIA. Dares Salaam Bookshop, P OB. 9030 Dar-es-Salaam. — THAILAND. Nibondh and Co_Ltd, 40-42 Charoen Krung Road, Syaeg Phaya Sri, P.O. Box 402, Bangkok: Suksapan Panit, Mansion 9, Rajdamnern Avenue, Bangkok, Sukst Siam Company, 1715 Rama IV Road, Bangkok. — TRINIDAD AND TOBAGO. National Commission for Unesco, 18 Alexandra Street, St. Clair, Trinidad, W I. — TURKEY. Haset Kitapevi A.S., Istikläl Caddesi, No. 469, Posta Kutusu 219, Beyoglu, Istanbul. — UGAN-DA. Uganda Bookshop, P.O. Box 7145, Kampala — UNITED KINGDOM. H.M. Stationery Office, P.O. Box 569, London, S.E.I., and Govt. Bookshops in London, Edinburgh, Cardiff, Belfast, Manchester, Birmingham, Bristol, for scientific maps only. McCarta Ltd, 122 King's Cross Road, London WC1X 9 DS. — UNITED STATES. Unipub, 345 Park Avenue South, New York, N.Y. 10010. — U S.S.R. Mezhdunarodnaya Kriiga, Moscow, G:200. — YUGOSLAVIA. Miadost, Ilica 30/11, Zagreb; Cankarjeva Zalozba, Zopitarjeva 2, Lubljana; Nolit, Terazije 27/11, Belgrade. — ZIMBABWE. Textbook Sales (PVT) Ltd., 67 Union Avenue, Salisbury.



The aging world

The over-sixties constitute the fastest-growing section of the world's population, and in most countries women live longer than men. Photo shows an Indian woman of Tarma in the Peruvian Andes.